

Voluntary Investigation and
Remediation Plan
Former Duluth Dry Cleaner
3146 Main Street
Duluth, GA
HSI # 10892

Prepared for:

City of Duluth

3167 Main Street
Duluth, Georgia



Responsive partner.
Exceptional outcomes.

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1.0 Introduction and Background

This Voluntary Investigation and Remediation Plan (VIRP) is being submitted to the Georgia Environmental Protection Division (EPD) on behalf of the City of Duluth to enroll the property located at 3146 Main Street, Duluth, Georgia (the Site or the Property), in EPD's Voluntary Remediation Program (VRP). The property is referred to as Gwinnett County tax parcel 6293.402 and is listed on the Georgia Hazardous Site Inventory (HSI) as HSI Number 10892.

A VRP Application and Checklist are included as Appendix A.

1.1 SITE LOCATION AND DESCRIPTION

The Site is currently owned by the City of Duluth. The Site consists of one parcel located at the intersection of Main Street and Knox Drive in Duluth, Georgia. The legal description, warranty deeds, and tax plat associated tax parcel identification number is provided in Appendix B. The location and topography features of the Site are presented on Figures 1 and 2, respectively. A Site Plan is presented as Figure 3.

A dry cleaning business operated at the Site from 1975 to 1993. The dry cleaner closed in 1993, and the existing building was used to operate a woodworking shop from 1993 to 1998. In 1998, the building was demolished and converted into a parking lot. In 2000, the City of Duluth purchased the property. The property was sold to EJT Downtown, LLC in 2007.

As a result of the historic operation of a dry cleaner at the Site, a release of the dry cleaning solvent chlorinated volatile organic compounds (cVOCs), namely tetrachloroethene (PCE) and its daughter products, have impacted soil and groundwater. The cVOCs have impacted onsite soil and groundwater and is likely migrating down-gradient of the Site to the west toward City Hall. The original discovery of the release occurred in 2008 during a Phase II Environmental Site Assessment (ESA) performed by Ahlberg Engineering, Inc. (AEI), which reported PCE and other compounds in soil and groundwater at the Site in the vicinity of the former dry cleaning building.

The EPD determined on August 22, 2008 that a release exceeding a reportable quantity had occurred at the Site based upon information provided in the release notification dated April 4, 2008. The City of Duluth re-acquired the property in 2014 and is now the current owner of the Site. Following the listing on the HSI, limited sub-surface investigations were conducted in 2010 by the US Army Corps of Engineers (USACE) and in 2015 by Wenck Associates, Inc. (Wenck). These activities, along with the 2008 Phase II, are summarized in Section 2.0.

1.2 PROPERTY ELIGIBILITY

The Site meets the eligibility criteria for the VRP. A release of regulated substances has occurred at the Site. The Site is not required to have a permit under Code Section 12-8-66, is not listed on the National Priorities List, and is not currently under response activities required by an order of the United States Environmental Protection Agency (USEPA). There are no outstanding liens filed against the Site.

1.3 PARTICIPANT ELIGIBILITY

The VRP Applicant, the City of Duluth, is the owner of the Site. The City of Duluth is in compliance with all orders, judgements, rules, regulations and statutes subject to the enforcement authority of the Director with regard to the Site.

2.0 Summary of Investigations

Environmental investigation activities have been performed at the Site between 2008 and 2015. The following provides an overview of past and ongoing investigation activities at the Site.

2.1 LIMITED PHASE II ESA, DATED APRIL 1, 2008

The Limited Phase II ESA prepared for Mathis Corporation by AEI (2008 Limited Phase II ESA) included the collection of four soil samples identified as DC-1 through DC-4 and one temporary groundwater sample identified as GW-1. A copy of the 2008 Limited Phase II ESA is included in Appendix C.

Soil samples were analyzed for semi-volatile organics (SVOCs) (EPA Method 8270C) and volatile organic compounds (VOCs) (EPA Method 8260B). PCE was detected in soil at concentrations of 26 micrograms per kilogram (ug/kg) at 6-12 feet below ground surface (bgs) in DC-1 and at 1,600 ug/kg at 6-12 feet bgs in DC-2. No soil analytical samples were collected at locations DC-3 or DC-4, as no elevated field screening readings were observed. The approximate soil sample locations and analytical results are presented on Figure 4. Detections in soil are summarized on Table 1.

Groundwater samples were analyzed for SVOCs (EPA Method 8270C) and VOCs (EPA Method 8260B). Groundwater collected at location GW-1 (43 feet deep) detected PCE at 12,000 ug/L. Various PCE breakdown compounds from the natural degradation of PCE were also detected in groundwater collected at GW-1, including cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE), and vinyl chloride (VC). The approximate location of the groundwater sample and analytical results are presented on Figure 5.

The detections identified during the Phase II ESA exceeded the EPD's notification concentrations for both soil and groundwater, and a Release Notification was submitted to EPD resulting in the listing of the Site on the Georgia HSI in 2008.

2.2 TARGETED BROWNFIELDS ASSESSMENT, JUNE 2010

The Targeted Brownfields Assessment prepared for EPA Region 4 by USACE (2010 Brownfield Assessment) was completed to further evaluate the vertical and horizontal extent of soil and groundwater contamination at the Site to determine if the cVOCs present at the Site could pose a threat to human health and the environment. The 2010 Brownfields Assessment included the collection of five samples at locations identified as SB/DP-1 through SB/DP-5. A copy of the 2010 Brownfields Assessment is included in Appendix D.

Soil sampling included sampling at depths ranging from 10 feet to 43 feet with four of the eight samples collected in the saturated zone below 30 feet and four in the vadose zone. Soil samples in the vadose zone had relatively low-concentrations not indicative of the presence of DNAPL along the perimeter of the Site.

Soil samples were analyzed for VOCs (EPA Method 8260B). PCE was detected in soil at SB/DP-1 at concentrations of 13 ug/kg (18 feet bgs) and 35 ug/kg (43 feet bgs), at SB/DP-2 at 70 ug/kg (15 feet bgs) and 12 ug/kg (41 feet bgs), and at SB/DP-4 at 3.3 ug/kg (19 feet bgs) and 3,500 ug/kg (43 feet bgs). It should be noted that the maximum PCE



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concentration of 3,500 ug/kg at 43 feet was a saturated soil sample collected below the water table. Soil sample locations and analytical results are presented on Figure 4. Detections in soil samples are summarized on Table 1.

Groundwater sampling included 4 shallow aquifer sample intervals at SB/DP-1 through SB/DP-4 and one deep sample interval at DP-5. The deep groundwater sample location was collected just down-gradient of the suspected source area.

Groundwater samples were analyzed for VOCs (EPA Method 8260B). Five groundwater samples were collected at the boundaries of the Site. Temporary well screens were installed at 41-45 feet bgs for SB/DP-1, SB/DP-2, and SB/DP-4; at 35-39 feet bgs at SB/DP-3; and at 62-66 feet bgs at SB/DP-5. In SB/DP-1, PCE and TCE were detected at concentrations of 350 ug/L and 0.78 ug/L, respectively. In SB/DP-2, PCE, TCE and cis-1,2-DCE were detected at concentrations of 360 ug/L, 1 ug/L and 0.32 ug/L, respectively. In SB/DP-3, PCE was detected at a concentration of 0.94 ug/L. In SB/DP-4, PCE, TCE and cis-1,2-DCE were detected at concentrations of 2,700 ug/L, 9 ug/L and 40 ug/L, respectively. Groundwater samples show the highest concentrations of PCE at SB/DP-4 between 41-45 feet. The PCE distribution vertically indicates contaminant mass in the upper portions of the aquifer. Groundwater sample locations and analytical results are presented on Figure 5.

Groundwater results are summarized on Table 2.

As part of the Brownfields Assessment, vapor intrusion screening was performed using the soil and groundwater data in the Johnson and Ettinger Model. The vapor intrusion screening and modeling performed utilized conservative input factors and concluded that PCE and TCE in groundwater and PCE in soil could pose an exposure risk via the vapor intrusion pathway in buildings constructed on the property.

2.3 ADDITIONAL SITE INVESTIGATION, JANUARY 2015 AND ONGOING

On January 1, 2015, the City of Duluth retained Wenck to conduct a site investigation (SI). The investigation consisted of the advancement of nine soil borings, SB-1 through SB-9, at the Site (Figure 3). Additionally, four monitoring wells, MW-1 through MW-4, were installed at the Site on June 22, 2015 and September 28, 2015. Soil boring and well installation logs are presented in Appendix E. Analytical Laboratory reports are presented in Appendix F.

In May 2015, SI activities included the advancement of nine direct push technology (DPT) soil borings to depths ranging from 12 to 43 feet bgs. Soil intervals were screened using a photoionization detector to indicate potential impact. Soil samples were collected in general accordance with the USEPA Region 4 FBQSTP Soil Sampling procedure SESDPROC-300-R3. Soil samples were analyzed for VOCs (EPA Method 8260B).

A total of 20 soil samples were collected with at least one soil sample from each boring being from the highest PID reading. PCE was detected in four of the ten soil samples at concentrations that ranged from 5.2 ug/kg to 42 ug/kg. Two of the three soil samples were collected in the vadose zone with impacts at SB-7 (4-6') at 42 ug/kg, SB-8 (14-16') at 6.6 ug/kg, SB-8 (28-30') at 24 ug/kg, and SB-9 (4-6') at 5.2 ug/kg. SB-7 and SB-8 were completed south of the former dry cleaning building where the source area is suspected. Figure 4 presents the soil locations and results. VOC detections in soil are summarized on Table 1.

Six grab groundwater samples were collected; PCE was detected at all locations in temporary groundwater samples SB-1, SB-4, SB-5, SB-7, SB-8, and SB-9. SB-2, SB-3, and SB-6 were dry and were not sampled for groundwater. Concentrations at SB-7 and SB-8



exhibited the highest PCE and PCE daughter products. PCE was detected at the highest concentration at SB-7 at 4,300 ug/L and SB-8 at 4,000 ug/L. The remaining sample concentrations ranged from 33 ug/L at SB-4 to 450 ug/L at SB-9. The temporary groundwater sampling along with the historical sampling from the 2008 Limited Phase II ESA and 2010 Brownfields Assessment indicate that groundwater is likely flowing to the north/northwest. Temporary sampling indicates that the extent of magnitude is relatively stable to the south and west of the former dry cleaner; additional delineation and monitoring is needed to the northwest, north, and east. Groundwater results are summarized on Table 2.

The historical results and 2015 soil boring results were used to guide the placement of permanent monitoring wells at the site. Four permanent groundwater monitoring wells (MW-1 through MW-4) were installed at the Site in June and September 2015. Groundwater sampling took place on October 6, 2015. Groundwater samples were analyzed for VOCs (EPA Method 8260B). Well installation and groundwater sampling was performed in general accordance with the USEPA Region 4 FBQSTP procedures for well installation and groundwater sampling. PCE was detected in all four monitoring wells. PCE was detected at a concentration of 15,000 ug/L in MW-1 (suspected source area). PCE was detected downgradient of the suspected source area in MW-3 and MW-4 at concentrations of 1,500 ug/L and 600 ug/L, respectively. PCE was detected at a concentration of 1,100 ug/L in MW-2 (upgradient of the suspected source area). Daughter products were also detected in groundwater at MW-1 indicating that natural attenuation is occurring in the suspected source area. Daughter products detected at MW-1 included: TCE (120 ug/L), cis-1,2-DCE (540 ug/L), and VC (10 ug/L). MW-2 also reported TCE (7.6 ug/L) and cis-1,2-DCE (8 ug/L). Figure 6 presents VOC (PCE and daughter products) detections in groundwater. Table 2 presents a summary of VOC detections in groundwater.

The wells were surveyed by a licensed surveyor, and static groundwater elevations were recorded. A summary of water levels and elevations are presented on Table 3. Groundwater was measured to be towards the west across the City green and toward City Hall (Figure 7).

All investigation derived waste (soil cuttings, development and purge water) was drummed for off-site disposal. Eight drums of soil cuttings and one drum of decontamination water were disposed off-site by EQ Industrial Services on July 28, 2015. A second disposal of two drums of soil cuttings and one drum of development and purge water was disposed of off-site by EQ Industrial Services on November 11, 2015. Waste manifests documenting disposal are presented in Appendix G.

3.0 Discussion of Investigation Results

3.1 SOIL

Since 2008, approximately 30 soil samples have been collected at the Site. Based on the results of the soil investigations conducted at the Site, the source area is suspected to the south of the former dry cleaning site. The highest soil impacts detected in the vadose zone are located in this vicinity between boring locations DC-2, SB-7, and SB-8. The determination of this suspected source area is related to the vadose zone soil impacts of relatively shallow soils and the proximity of the former dry cleaning building. This suspected source area appears to be a former 'top-down' release area. Since the release occurred in the era of the 1950's through 1980's, the source area has degraded, and much of the remaining soil impacts are relatively low-level on site with the exception of location DC-2 (0-1 feet bgs) collected in 2008, which Wenck has not been able to replicate.

Saturated soil samples collected below the water table generally exhibited low concentrations of PCE with the exception of SB-4, which reported PCE at 3,500 ug/kg from 42.5 to 43 feet bgs.

The lowest concentrations or samples that did not identify PCE above laboratory reporting limits were located on the southeast boundary of the Site in presumed upgradient and cross gradient locations with respect to the assumed direction of groundwater flow direction.

3.2 GROUNDWATER

During the previous subsurface investigations, 13 groundwater samples were collected from the temporary monitoring wells; additionally, four permanent monitoring wells were installed at the Site in 2015. All groundwater samples collected at the Site were analyzed for VOCs. The VOCs detected were cis-1,2-DCE, ethylbenzene, isopropyl benzene (cumene), methyl ethyl ketone (MEK), m- and p-xylene, 4-isopropyltoluene, TCE, PCE, and toluene. PCE has been detected in all of the groundwater samples collected at the Site with the exception of SB/DP-3 (2010 Brownfields Assessment).

PCE concentrations have ranged from 33 ug/L to 15,000 ug/L from 2008 to 2015. The results of the most recent groundwater monitoring event, conducted in October 2015, indicate the highest concentration of PCE is in the south central portion of the Site (MW-1). PCE was detected at 1,100 ug/L in MW-2 and at 1,500 ug/L in MW-3, which are located south and north of MW-1 respectively. The lowest concentration of PCE was identified in MW-4, which is located on the northeast corner of the Site.

Based on the laboratory analytical results from the October 2015 groundwater monitoring event, concentrations of five VOC constituents (cis-1,2-DCE, TCE, PCE, VC, and benzene) exceed applicable risk reduction standard (RRS) values in at least one monitoring well installed at the Site.

Depth to groundwater at each well was measured using a water level indicator. All measurements were recorded to the nearest 0.01 foot. A summary of the depth to water and groundwater elevations are provided in Table 3. Based on the current data, groundwater appears to be flowing to the west. The gradient is 0.007 feet/foot. The potentiometric surface map is illustrated on Figure 7.



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4.0 Delineation Criteria

4.1 DELINEATION CRITERIA

In accordance with Section 12-8-108 of the Georgia VRP Act, soil and groundwater will be delineated to the Type 1 RRS. Soil has been delineated to the Type 1 RRS; however, additional groundwater delineation efforts are required.

4.1.1 Soil

HSRA regulated substances detected in soil at the Site are as follows:

- ▲ PCE; and
- ▲ Acetone.

Type 1 soil RRS for these VOCs are summarized below.

Compounds	Soil RRS (ug/kg)
	Type 1 RRS
Tetrachloroethene	500
Acetone	400,000

4.1.2 Groundwater

HSRA regulated substances detected in groundwater at the Site are as follows:

- ▲ PCE;
- ▲ TCE;
- ▲ cis-1,2-DCE;
- ▲ VC; and
- ▲ Benzene.

The Type 1 groundwater RRS for VOCs detected in groundwater are as follows:

Compounds	Groundwater RRS (ug/L)
	Type 1 RRS
Tetrachloroethene	5
Trichloroethene	5
Cis-1,2-DCE	70
VC	2
Benzene	5

4.2 REMEDIATION CRITERIA

The properties adjacent to the Site are currently used for commercial purposes. The current and planned future use of the Site is use as an asphalt parking lot. Therefore, the City intends to certify compliance to a Type 5 RRS at the Site and install institutional controls. For comparison purposes, Type 3 RRS were calculated based on the commercial use of the Site and surrounding sites. If off-site adjacent impacted properties refuse to enter the VRP, then these properties will need to meet non-residential RRS values (Type 3 or Type 4 RRS). The Type 3 RRS were calculated in accordance with Rule 391-3-19.07 of the Hazardous Site Response Rules. Standard parameters and assumptions for use in calculating RRS were those provided in Table 4 of Appendix III of Rule 391-3-19. Input parameters, references for input parameters, and RRS calculations are provided in tables in Appendix H. Type 3 RRS for COCs are summarized on Tables 1 and 2 for reference.

5.0 Conceptual Site Model

5.1 INTRODUCTION

A Conceptual Site Model (CSM) describes a property and the release and is used to identify data gaps, evaluate risk, and develop appropriate remedial actions. A preliminary CSM for the Site has been developed based on published literature and Site data from previous and recent investigations. The preliminary CSM provides a summary of the understanding of the Site's surface and subsurface conditions, known or suspected sources of contamination, potential contamination transport mechanisms, the known extent of contamination, and exposure pathways for potential receptors. As additional data is gathered, the CSM will be updated.

The source area of the PCE contamination is from a former drycleaner that operated at the Site. Based on soil and groundwater data collected at the Site, the source was likely from drum and chemical storage on the south side of the former building at the Site. Shallow soil and groundwater data support the suspected source area on the south side of the former building.

5.2 TOPOGRAPHY

The topography of the Site has been improved through construction of the parking lot and drive surface. Drive surfaces to the south accommodate surface parking and access to the commercial site to the west. The Site is tiered with a landscaped slope that divides the north and south portions of the Site. The northern portion of the Site is flat at a general elevation of 1094 feet National Geodetic Vertical Datum (NGVD). The north portion of the Site consists of the upper parking lot. The southern portion of the Site is a lower parking lot and drives and is at a general elevation of 1086 feet NGVD. A landscaped slope retaining system separates the north and south lots with an elevation difference of approximately 8 feet. The general land topography slopes to the north and west along Main Street, and to the south toward the railroad adjoining the Site to the south. Figure 2 shows the Site relative to the United States Geological Society (USGS) topographic map.

5.3 LOCAL AND REGIONAL GEOLOGY

Gwinnett County is located within the Piedmont Physiographic Province (Piedmont) of Georgia. The Piedmont trends northeast and is bordered by the Valley and Ridge and Blue Ridge Provinces to the north and the Coast Plain to the south. The Piedmont is characterized by narrow valleys and low hills. The bedrock of the Piedmont consists of metamorphosed sedimentary rock from the late Precambrian to early Paleozoic periods with magma intrusions (granite) that developed during volcanic activity. The bedrock of the Piedmont is overlain by residual soils and saprolite. Saprolite is formed by the in-place weathering of rock that contains relict structure from the parent rock (foliation). Saprolite typically becomes coarser with depth and gradually grades into partially weathered rock just above the top of rock.

Overburden residual soil is unsaturated to depths of approximately 10 feet below grade. The silty sandy vadose zone is hard/stiff red orange with little sand. Around 5 to 10 feet bgs, saprolite is present with relict foliation and increase mica content. Saturated soils were typically encountered at between 24-33 feet below grade. Saturated soils extend to depths



of approximately 65 to 70 feet below grade where the saprolite transitions into partially weathered rock. The exact depth to bedrock is unknown, but expected to be present between 65 and 70 feet below grade.

5.4 LOCAL AND REGIONAL HYDROGEOLOGY

According to the 2010 Brownfields Assessment, the uppermost hydrologic unit in the area of the Site is an unconfined surficial aquifer which is comprised of a saprolite-bedrock aquifer. The saprolite-bedrock aquifer is recharged by rainfall and discharges into streams in valley bottoms. The saprolite stores and transmits water in the pore spaces between the soils (clays, silts, and sands) that comprise the saprolite. The saprolite has a much higher storage capacity but lower transmissivity than the underlying bedrock. The bedrock stores and transmits water through secondary porosity features (fractures, joints, and faults). The bedrock can be capable of transmitting very large volumes of water; the transmissivity depends on the density and orientation of the secondary porosity features. Based on the local topography in the area of the Site, shallow groundwater is expected to flow in a western direction.

Figures 8 and 9 are hydrogeological cross-sections oriented north-south and east-west across the Site. The cross-sections illustrate the screened intervals, water table, and cVOCs detections at the Site.

5.5 HYDRAULIC CONDUCTIVITY

Specific hydraulic characteristics of the Subject Property have not been evaluated as part of this VIRP; however, slug testing will be performed in the first year of the VRP to determine the hydraulic conductivity of the site. Based on the soil type at the site, the hydraulic conductivity is expected to be between 10^{-3} to 10^{-5} cm/s.

5.6 HYDRAULIC GRADIENT AND GROUNDWATER DIRECTION

Based on water levels measured in the four monitoring wells at the Site and previous groundwater data collected at the Site, groundwater flows to the west with a hydraulic gradient of 0.007 ft. /ft.

5.7 PCE FATE AND TRANSPORT

The dry cleaning solvent, PCE, was historically used during dry cleaning operations at the Site and is the source material that was released at the Site. The age of the release is estimated to have occurred during active dry cleaning operations at the Site between 1975 and 1993. The quantity of PCE release at the Site is unknown; however, many dry cleaning operations during this era resulted in improper management of the dry cleaning waste chemicals and waste product. The releases often included surface dumping near the back of the operations buildings or through sanitary sewer systems. Based on the limited size of the Site and relatively small former dry cleaning building, the suspected source areas are limited. Soil and groundwater sampling have identified the source area, from a top-down surface discharge or shallow sanitary release, to be near the south east portion of the former dry cleaning building. Surface soil samples collected between DC-2, SB-7, and SB-8 indicated the vicinity of the source area.

The release at the Site is aged. The source area impacts have degraded and are currently beneath the asphalt parking lot. Although historical data from 2008 indicates the presence

of a shallow source beneath the parking lot, this has not been replicated through three additional sampling events at the site.

PCE solvent has migrated vertically through the vadose zone soil into groundwater. Once PCE encountered groundwater, the PCE underwent degradation or reductive dechlorination based on the presence of daughter products including TCE, cis-1,2-DCE, and VC in groundwater. PCE and daughter products have migrated in groundwater through advection, dispersion, and dilution. The limit of the groundwater plume is unknown.

5.8 POTENTIAL RECEPTORS AND EXPOSURE PATHWAYS

There are potential exposure pathways to receptors at the Site including exposure to soils, vapor, and groundwater.

Currently the entire Site is covered in asphalt, providing no direct exposure to underlying soils. The presence of the asphalt parking lot, throughout the time that the dry cleaner operated to present day, has acted as a cap eliminating a potential direct exposure pathway. The asphalt cover also improves storm water management, erosion protection, and sediment control.

5.8.1 Land Use

Current land use is asphalt parking and drive surfaces that support nearby commercial business use. The land use and asphalt parking surfaces provide adequate protection for the underlying soil impacts.

5.8.2 Exposure Pathway Evaluation Process

The Site is currently developed as an asphalt parking lot with landscaped areas. The City intends the future use of the property to be maintained as asphalt parking lot for the foreseeable future. North and northwest of the property is a developed City greenspace. To the immediate east and west are retail strip malls.

An exposure pathway is considered complete when a contaminant source, release/transport mechanism, an exposure medium, an exposure route, and a receptor are defined. To date, the extent and magnitude of the release is not fully known. Further evaluation of groundwater, vapor, and soil requires additional evaluation to fully evaluate the exposure pathways. As part of the VRP process, the City will ensure proper measures are employed, consistent with those to be implemented under the Uniform Environmental Covenant (UEC). There are no known ecological receptors. Based on a review of the available information, the following has been defined:

Contaminant Source

- ▲ Contaminant source areas include the past suspected storage and possible disposal of dry cleaning chemical at the Site.

Release/Transport Mechanism

- ▲ Leaks/spills caused chemicals to be released to soil on the Site
- ▲ Potential leaching to groundwater
- ▲ Potential volatilization to soil gas
- ▲ Utilities

Exposure Medium

- ▲ Soil
- ▲ Groundwater
- ▲ Air

Exposure Route

Based on the current and likely future use of the site, the potentially complete exposure pathways are summarized below:

- ▲ Inhalation of vapors
- ▲ Ingestion of groundwater
- ▲ Human ingestion or absorption of soil by a utility or construction worker.

Receptors

To date, no completed receptor pathways have been identified; however, additional investigation and receptor evaluation is ongoing. Below is a summary of the current receptor risk evaluation:

- ▲ Human health dermal - Soil impacts are limited to an area beneath the asphalt parking lot. There is currently no contact with soil at the Site by construction or utility workers; therefore, this is considered an incomplete pathway. The City of Duluth will ensure this exposure pathway remains incomplete with the execution of a UEC. If future use requires utility or construction workers to work in the impacted soil, engineering controls can be put in place to prevent unacceptable exposure.
- ▲ Groundwater discharges – Topographic review of the Site and the hydrogeologic conditions do not indicate groundwater seeps, springs, or discharge to creeks or rivers are occurring within the suspected contaminant plume. Further evaluation of the plume extent is ongoing.
- ▲ Human ingestion of groundwater. - Groundwater ingestion is considered incomplete because there are no drinking water withdrawal points for groundwater at the Site. There are also no drinking water wells within 1,000 feet downgradient of the Site. Additional off-site delineation is required to determine the downgradient limit of the groundwater plume. Based on a well survey conducted by EPD in 2008, there are no drinking water wells located within one-mile downgradient of the site. The City of Duluth will ensure that the groundwater exposure pathway remains incomplete through the execution of a UEC. The nearest known drinking water wells are located between $\frac{1}{2}$ and 1-mile of the property. The drinking water well used to list the property in 2008 was located at 3443 Pittard Road, as shown in Figure 2. Based on groundwater flow data, this well is located upgradient of the Site. Other wells were identified northwest of the Site at distances beyond a one-mile radius. The proposed UEC will prohibit the use or extraction of groundwater beneath the subject properties for drinking water. Once sufficient data are available, EPA's solute transport model, BIOCHLOR, will be used to simulate sequential first-order decay of PCE and daughter products at the site, as well as transport process such as advection, dispersion, and adsorption using a Microsoft Excel program based on the Domenico analytical solute transport model. Once the groundwater plume is delineated, BIOCHLOR will be used to predict the concentrations of PCE and daughter products at a theoretical Point of Exposure ("POE") located 1,000 feet downgradient of the plume edge.
- ▲ Human inhalation of vapors - Inhalation of cVOCs introduced by vapor intrusion by onsite workers is not currently thought to be a concern due to the presence of the asphalt parking and absence of any construction or utility work on the property.



Inhalation of cVOCs introduced by vapor intrusion into nearby buildings (located within 200 feet of the groundwater plume) is not currently thought to present unacceptable exposure due to the depth to groundwater (30 feet) and the presence of building ventilation systems. However, the City of Duluth will ensure that the vapor intrusion exposure pathway is incomplete through the collection of soil gas and/or shallow groundwater data adjacent to the buildings. The soil gas and/or groundwater data will be screened against USEPA's Vapor Intrusion Screening Levels (VISLs) to evaluate this potentially complete exposure pathway.

6.0 Proposed Voluntary Investigation Plan

6.1 PROPOSED INVESTIGATION ACTIVITIES

The City of Duluth's ultimate objective for the Site is to install institutional controls that would restrict groundwater use and prohibit land disturbance activities in soil below the asphalt parking lot in areas where soil is impacted (Type 5 RRS), and remove the Site from the HSI.

To meet this objective, the City of Duluth needs to fill in data gaps and is proposing additional monitoring wells to complete the delineation of PCE and daughter products. In addition to delineation of the groundwater plume, the City will perform fate and transport modeling as part of the VIRP. If fate and transport modeling indicates that active remediation is necessary, then a remedial plan will be submitted and implemented prior to a Type 5 RRS being applied to the Site. This section outlines the proposed actions for groundwater anticipated to satisfy the requirements set forth in the Act.

6.1.1 Proposed Investigation Activities

The City of Duluth intends to perform onsite and off-site investigations during the first two years of the VRP. The investigations will consist of multi-phased assessments of soil, groundwater, and vapors. Once the full extent of the groundwater plume is established, fate and transport modeling will be performed.

6.1.2 Vadose/ Source Area

Most recent groundwater results indicate PCE concentrations up to 15,000 ug/L in the suspected source area. Source material above the water table has not been identified in soil, with the exception of one shallow soil sample in 2008 that has not been replicated. In year 1 of the VRP, additional evaluation of the vadose zone within the suspected source area is proposed. The evaluation will delineate the horizontal and vertical extent of soils at the source area (MW-1 and SB-8). The evaluation will be used to determine if source area soil removal is an effective remedial approach for the Site and to fully assess potential exposure scenarios.

- ▲ Advance three geoprobe soil borings to assess vertical and horizontal extent of the vadose zone soils within the suspected source area.
- ▲ Collect soil samples from grade to a depth of 12 feet bgs.
- ▲ Screen soils using a PID equipped with a 11.7 e.V lamp.
- ▲ Collect up to three soil samples from each boring to complete vertical profiling. In the absence of field evidence of contamination, sample depths will be collected for laboratory analysis at 0-2', 4-6', and 8-10'.

6.1.3 Groundwater Horizontal Delineation

The installations of up to nine monitoring wells are proposed for horizontal delineation on and off site. Prior to the installation of the wells, the vertical distribution of cVOCs in the shallow aquifer will be assessed. This information will be used to better assess the off-site groundwater evaluation as well as provide assessment of the underlying bedrock.

The vertical distribution of cVOCs is proposed through the completion of three vertical delineation borings at the proposed locations:

- ▲ The proposed boring northwest of the site,
- ▲ The source area near MW-1, and
- ▲ The proposed boring northeast of the site.

The vertical delineation borings will be completed using the following methods:

- ▲ The groundwater samples will be collected at various depths starting at the top of the water table, anticipated to be approximately 30 feet below grade. Groundwater samples will be collected at screen intervals 40-44', 50-54', and 60-64'. Proposed vertical on-site delineation locations are shown on Figure 10.
 - All groundwater samples will be collected by driving a Geoprobe Screen Point 15 screen to the desired sampling depth. The Screen Point 15 sampler is a 43", 1" diameter stainless steel, discrete groundwater sampling screen. This sampler is threaded onto the leading end of a Geoprobe probe rod and advanced into the subsurface as probe rods are added incrementally and advanced until the desired sampling interval is reached. While the sampler is advanced to depth, O-ring seals and Teflon tape are installed at each rod joint (below the water table), the drive head, and the expendable drive point to provide a watertight system. This system eliminates formation fluids from entering the screen before deployment and assures sample integrity at the desired screen interval.
 - Once the desired sampling interval is reached, extension rods are sent downhole until the leading rod contacts the bottom of the sampler screen. The tool string is then retracted approximately 44 inches while the screen is held in place with the extension rods. As the tool string is retracted, the expendable point is released from the sampler sheath, and the screen is exposed to the formation.
 - At each well screen sampling depth, a minimum of three screen volumes will be purged prior to sample collection using a check ball and dedicated polyethylene tubing. Groundwater samples will be collected from each well screen directly into laboratory-provided sample containers using the check ball and dedicated polyethylene tubing. After each screened interval, the groundwater sampler will be retracted, and the screen and all rod equipment will be decontaminated. A new drive point will be installed to allow the screen to be re-driven through the borehole to the next progressive depth for sampling.
- ▲ All reusable sampling equipment will be cleaned with Alconox or equivalent detergent and rinsed with deionized water prior to use and between temporary well screen intervals. The borehole will be sealed by the drilling contractor as the drive rods are retracted from the final well interval depth in accordance with state and local regulations.

The results of the cVOCs groundwater samples will be used to select the screened interval of the off-site monitoring wells and to gain a better understanding of the distribution of source material beneath the water table on site.

6.1.4 Groundwater Vertical Delineation

The installation of one bedrock or top of rock monitoring well is proposed. The deep well will be placed adjacent to MW-1. The well will be installed as a double-cased well to ensure shallow impacted groundwater is isolated from the deep/bedrock aquifer. Based on analytical results from DP-5 (USACE deep groundwater sample), it is anticipated that the well will be screened between 60 and 70 feet bgs. Additional deep wells may be proposed if determined necessary based on the laboratory results from groundwater sampling.

6.1.5 Slug Testing

Assessment of the hydraulic conductivity of the aquifer is proposed by performing slug testing at three wells. Both slug-in and slug-out tests will be performed, and the data will be analyzed using the Bouwer and Rice Method. The hydraulic conductivity will be used to calculate seepage velocity of the aquifer and will be used during fate and transport modeling.

6.2 GROUNDWATER MODELING

A monitoring natural attenuation (MNA) approach may be a viable option at the Site if the City is able to demonstrate, through monitoring and predictive groundwater modeling, that Site conditions are favorable for PCE degradation. The extent of attenuation must be sufficient to reduce cVOC concentrations to RRS at a to be determined Point of Exposure.

6.3 VAPOR INTRUSION EVALUATION

Once sufficient data exists adjacent to structures located within 200 feet of the groundwater plume, the vapor intrusion pathway will be evaluated. VOCs detected in groundwater at the water table will be evaluated using the VISL Calculator, which is a Microsoft Excel-based screening-level tool that can be used to calculate carcinogenic risks and non-carcinogenic hazards and/or target screening concentrations for various media through the application of conservative default exposure assumptions.

7.0 Proposed Remediation and Monitoring Plan

The limits of the groundwater plume are currently unknown; however, based on preliminary groundwater flow direction, it is possible the majority of the groundwater plume is contained on property owned by the City of Duluth. Groundwater investigations proposed are intended to determine the limits of the groundwater plume and allow for fate and transport model and groundwater monitoring to determine the plume size, stability, and whether environmental covenants to restrict groundwater use are appropriate.

Corrective action is not planned for sub-surface soil. It is anticipated that environmental covenants will be implemented so that the Site will remain capped with the asphalt parking lot and maintained.

The City of Duluth intends to collect appropriate data to allow for monitored natural attenuation to be appropriate as the corrective remedy for the VRP Property. However, in the event that fate and transport modeling indicates active remediation is required, then an appropriate technology will be proposed. Remedial options that may be appropriate include enhanced bioremediation or in-situ chemical oxidation.

7.1 INSTITUTIONAL CONTROLS

The City of Duluth intends to manage soil and groundwater contamination above the Type 3 RRS using site covenants and engineering controls to prevent exposure to soil, soil vapor, and groundwater. Once a risk evaluation for potential exposure to soil, groundwater, and/or vapor is complete, the City will execute a UEC for soil and groundwater at the Site in areas where the risk evaluation indicates it is necessary for institutional restrictions. Once source investigation and groundwater delineation are complete, and the stability of the groundwater plume is established, the City will perform the following:

1. Execute an environmental covenant pursuant to the Georgia Uniform Environmental Covenant Action in accordance with Chapter 16 of Title 44 of the Uniform Environmental Covenants Act that will prohibit excavation, construction, utility installation or maintenance, and similar land disturbance activities in soil below the asphalt parking lot in areas where soil is impacted, unless such work is performed by informed, properly trained contractors such that human exposure to potentially hazardous materials does not occur.
2. Execute a UEC that will prohibit the use or extraction of groundwater beneath the subject properties for drinking water purpose for those portions of the Site.

7.2 MONITORED NATURAL ATTENUATION

Semi-annual groundwater sampling will be performed until the Site is compliant with applicable groundwater cleanup standards. Semi-annual groundwater monitoring will be performed to monitor groundwater concentration trends and plume stability, and to ensure that no exposure pathways develop. The groundwater monitoring program will consist of gauging water levels and sampling for cVOCs at all monitoring wells. Additionally, geochemical parameters [dissolved oxygen (DO), oxidation reduction potential (ORP), ethane, ethane, methane, manganese, chloride, nitrate, sulfate, and total organic carbon (TOC)] will be monitored at all existing wells. Samples will be collected in accordance with EPA Science and Ecosystem Support Division (SESD) procedures. After two years of MNA as



the remedial program, fate and transport modeling will be performed to evaluate the effectiveness of the MNA. At this time, the City will begin to make determinations, based on the observed trends, as to whether natural attenuation will be sufficient or if active remediation will be required. Active remediation could include enhancing bioremediation at the site or in-situ chemical oxidation. The City intends to implement active remediation in year 3 of the VRP if determined necessary to reach remedial goals within a period of five years.

7.3 SOIL

Extensive soil data exists around the former dry cleaner building with only one shallow soil sample indicating potential source material is present at the Site. Based on the data collected to date, the City does not propose any active remediation for soil at the site. In the event that source material is identified in shallow soils above the water table indicating that active remediation is necessary, then we will consider and/or implement the following: soil excavation, in-situ chemical oxidation, or soil vapor extraction.

8.0 Schedule

A Projected Milestone Schedule, showing timelines for the following items, is included in Appendix I.

- ▲ Semi-Annual Progress Report Submittal;
- ▲ Source Area Investigation/Delineation;
- ▲ On and Off-Site Horizontal Groundwater Delineation;
- ▲ Vertical Groundwater Delineation;
- ▲ Updated CSM, Final Remediation Plan, and Cost Estimate Submittal;
- ▲ MNA; and
- ▲ Compliance Status Report Submittal.

The Projected Milestone Schedule may be revised as necessary and will commence on the effective date of the VRP approval.

9.0 References

Ahlberg Engineering Inc, Limited Phase II Environmental Site Assessment, Former Duluth Dry Cleaning Site, 2008.

U.S. Army Corps of Engineers, Targeted Brownfields Assessment Report, Former Duluth Drycleaner Site, Duluth, Georgia, 2010.



Responsive partner. Exceptional outcomes.

Table 1 - Summary of Soil Analytical Results

3146 Main Street

Duluth, GA

Wenck File #B5365-001

Wenck Associates, Inc.
1080 Holcomb Bridge Road
Bldg. 100, Ste 190
Roswell, Georgia 30076
(678) 987-5840

Sample Location		SB-1	SB-1	SB-2	SB-2	SB-3	SB-3	SB-3	SB-4	SB-4	SB-5		
Client Sample ID		S-SB1-18-20	S-SB1-28-30	S-SB2-18-20	S-SB2-30-32	S-SB3-8-10	S-SB3-16-18	S-SB3-22-24	S-SB4-4-6	S-SB4-28-30	S-SB5-12-14		
Sample Depth (feet below ground surface)		18-20	28-30	18-20	30-32	8-10	16-18	22-24	4-6	28-30	12-14		
Collect Date		5/3/2015	5/3/2015	5/3/2015	5/3/2015	5/4/2015	5/4/2015	5/4/2015	5/3/2015	5/3/2015	5/3/2015		
Method	Parameter	Units	Type 3 RRS										
SW8260B	Tetrachloroethene	ug/kg	0.5	<4.7	<5.2	<4.3	<3.9	<4.1	<5.2	<4.8	39	<3.8	<3.6
SW8260B	Trichloroethene	ug/kg	NE	<4.7	<5.2	<4.3	<3.9	<4.1	<5.2	<4.8	<4.0	<3.8	<3.6
SW8260B	cis-1,2-Dichloroethene	ug/kg	7	<4.7	<5.2	<4.3	<3.9	<4.1	<5.2	<4.8	<4.0	<3.8	<3.6
SW8260B	trans-1,2-Dichloroethene	ug/kg	10	<4.7	<5.2	<4.3	<3.9	<4.1	<5.2	<4.8	<4.0	<3.8	<3.6
SW8260B	Vinyl chloride	ug/kg	0.2	<9.3	<10	<8.60	<7.8	<8.1	<10	<9.6	<8.0	<7.7	<7.2
SW8260B	Acetone	ug/kg	400	<93	<100	<86	<78	<81	<100	<96	<80	<77	<72

Notes

<1.0	= Analyte not detected above the laboratory detection limit
39	= Analyte detected above the laboratory detection limit
600	= Exceeds Georgia Type 3 Risk Reduction Standards



Responsive partner. Exceptional outcomes.

Table 1 - Summary of Soil Analytical Results

3146 Main Street

Duluth, GA

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Roswell, Georgia 30076
(678) 987-5840

Sample Location		SB-5	SB-6	SB-6	SB-7	SB-7	SB-7	SB-8	SB-8	SB-9	SB-9		
Client Sample ID		S-SB5-28-30	S-SB4-4-6	S-SB4-18-20	S-SB7-2-4	S-SB7-4-6	S-SB7-14-16	S-SB8-14-16	S-SB8-28-30	S-SB9-4-6	S-SB9-16-18		
Sample Depth (feet below ground surface)		28-30	4-6	18-20	2-4	4-6	14-16	14-16	28-30	4-6	16-18		
Collect Date		5/3/2015	5/4/2015	5/4/2015	5/4/2015	5/4/2015	5/4/2015	5/4/2015	5/4/2015	5/5/2015	5/5/2015		
Method	Parameter	Units	Type 3 RRS	<4.8	<4.0	<3.9	<4.1	42	<4.4	6.6	24	5.2	<3.6
SW8260B	Tetrachloroethene	ug/kg	0.5	<4.8	<4.0	<3.9	<4.1	42	<4.4	6.6	24	5.2	<3.6
SW8260B	Trichloroethene	ug/kg	NE	<4.8	<4.0	<3.9	<4.1	<5.3	<4.4	<4.1	<4.4	<4.7	<3.6
SW8260B	cis-1,2-Dichloroethene	ug/kg	7	<4.8	<4.0	<3.9	<4.1	<5.3	<4.4	<4.1	<4.4	<4.7	<3.6
SW8260B	trans-1,2-Dichloroethene	ug/kg	10	<4.8	<4.0	<3.9	<4.1	<5.3	<4.4	<4.1	<4.4	<4.7	<3.6
SW8260B	Vinyl chloride	ug/kg	0.2	<9.2	<8.1	<7.8	<8.2	<11	<8.7	<8.2	<8.8	<9.4	<7.1
SW8260B	Acetone	ug/kg	400	<97	<81	<78	<82	130	<87	<82	<88	<94	<71

Notes

<1.0
39
600

- = Analyte not detected above the laboratory detection limit
- = Analyte detected above the laboratory detection limit
- = Exceeds Georgia Type 3 Risk Reduction Standards



Responsive partner. Exceptional outcomes.

Table 1 - Summary of Soil Analytical Results

3146 Main Street

Duluth, GA

Wenck File #B5365-001

Wenck Associates, Inc.
1080 Holcomb Bridge Road
Bldg. 100, Ste 190
Roswell, Georgia 30076
(678) 987-5840

Sample Location			SB-1-18	SB-1-43	SB-2-15	SB-2-42	SB-3-10	SB-3-35	SB-4-19	SB-4-43	DC-1	DC-2
Client Sample ID			SB-1-18	SB-1-43	SB-2-15	SB-2-42	SB-3-10	SB-3-35	SB-4-19	SB-4-43	DC-1	DC-2
Sample Depth (feet below ground surface)			18-18.5	42.5-43	15-15.5	40.5-41	9.5-10	34.5-35	18.5-19.5	42.5-43	0.5-1	0.5-1
Collect Date			3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	1/31/2008	1/31/2008
Method	Parameter	Units	Type 3 RRS									
SW8260B	Tetrachloroethene	ug/kg	0.5	13	35	70	12	<1.3	<0.99	3.3	3500	26
SW8260B	Trichloroethene	ug/kg	NE	NS	<3.5							
SW8260B	cis-1,2-Dichloroethene	ug/kg	7	<1.7	<0.78	4	<0.88	<0.94	<0.73	<0.89	<37	<3.5
SW8260B	trans-1,2-Dichloroethene	ug/kg	10	NS	<3.5							
SW8260B	Vinyl chloride	ug/kg	0.2	NS	<7.0							
SW8260B	Acetone	ug/kg	400	30 J	13 J	7.7 J	8.1 J	27 J	18 J	7.7 J	<290	<70

Notes

<1.0
39
600

- = Analyte not detected above the laboratory detection limit
- = Analyte detected above the laboratory detection limit
- = Exceeds Georgia Type 3 Risk Reduction Standards



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Table 2 - Summary of Groundwater Analytical Results

3146 Main Street

Duluth, GA

Wenck File #B5365-001

Wenck Associates, Inc.
1080 Holcomb Bridge Road
Bldg. 100, Ste 190
Roswell, Georgia 30076
(678) 987-5840

Sample Location			MW-1	MW-2	MW-3	MW-4	SB-1	SB-1	SB-4	SB-5	SB-7	SB-8	SB-9	DP-1	DP-2	DP-3	DP-4	DP-5	GW-1
Client Sample ID			GW-MW 1	GW-MW 2	GW-MW 3	GW-MW 4	GW-SB1-01	GW-050315	GW-SB4-03	GW-SB5-04	GW-SB7-06	GW-SB8-05	GW-SB9-07	SB-1/DP-1	SB-2/DP-2	SB-3/DP-3	SB-4/DP-4	DP-5	GW-1
Type			Parent	Parent	Parent	Parent	Parent	Duplicate	Parent										
Collect Date			10/6/2015	10/6/2015	10/6/2015	10/6/2015	5/3/2015	5/3/2015	5/3/2015	5/3/2015	5/4/2015	5/4/2015	5/5/2015	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	2/26/2008
Parameter	Units	Type 3 RRS																	
Volatile Organic Compounds (VOCs) - Detected Compounds Only																			
Tetrachloroethene	ug/L	5	15000	1100	1500	600	190	110	33	190	4300	4000	450	350	360	0.94 J	2700	160	12,000
Trichloroethene	ug/L	5	120	7.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	24	48	12	0.78 J	1	<0.13	9 J	1.6 J	41
cis-1,2-Dichloroethene	ug/L	70	540	8.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	170	410	5.7	<0.75	0.32 J	<0.15	40 J	1.5 J	21
trans-1,2-Dichloroethene	ug/L	100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	
Vinyl Chloride	ug/L	2	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	13	<2.0	NA	NA	NA	NA	14.0	
Benzene	ug/L	5	10.0	7.8	<5.0	12.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	
Chloroform	ug/L	80	13.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	
Toluene	ug/L	1000	16.0	15.0	<5.0	23.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	

Notes:

All results are micrograms per kilogram (ug/L).

<1.0 = Analyte not detected above the laboratory detection limit

5.7 = Analyte detected above the laboratory detection limit

190 = Exceeds Georgia Type 3 Risk Reduction Standards

NA = Not Analyzed

J = Estimated value.



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Table 3 - Summary of Groundwater Elevations

3146 Main Street

Duluth, GA

Wenck File #B5365-001

Wenck Associates, Inc.

1080 Holcomb Bridge Road

Bldg. 100, Ste 190

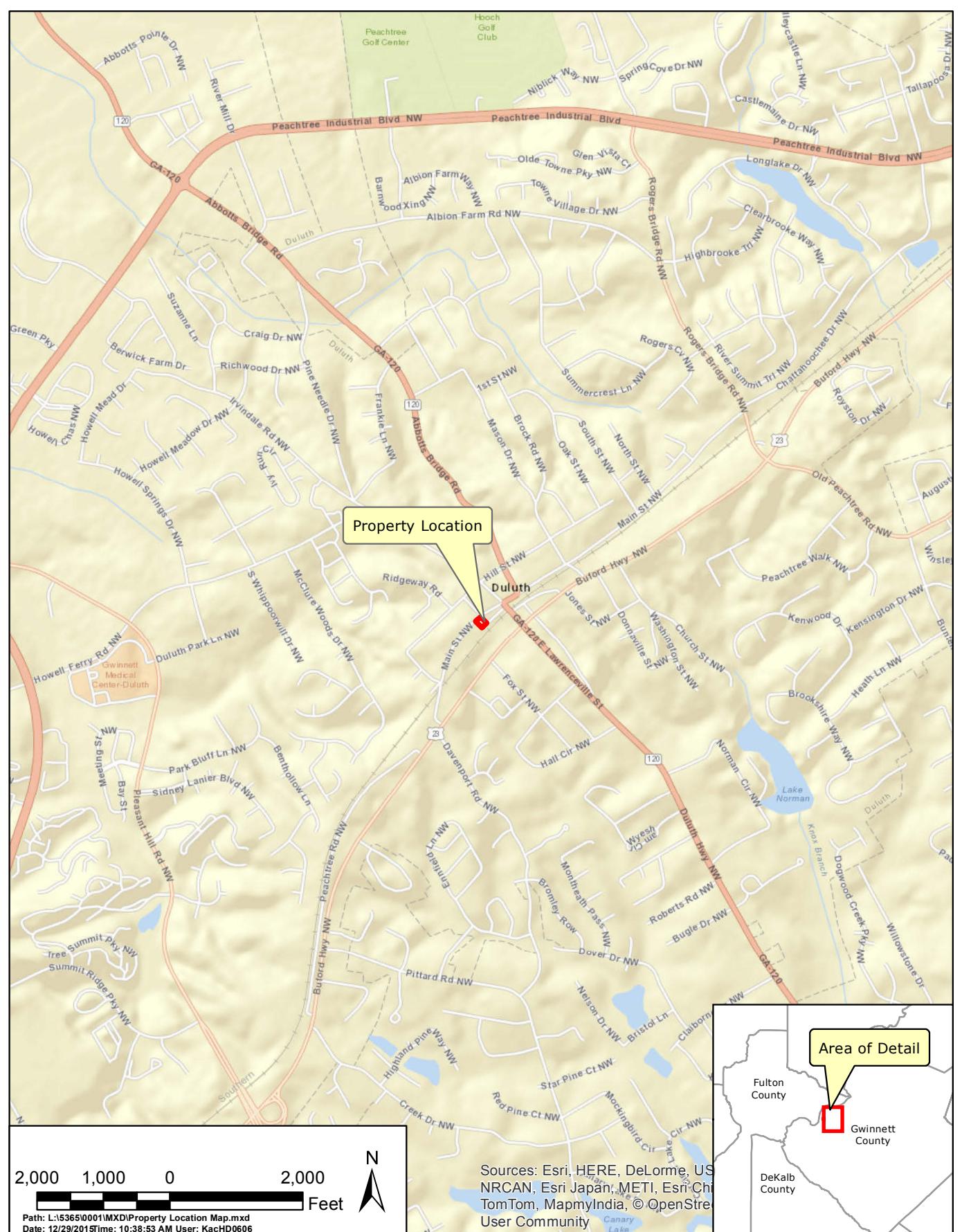
Roswell, Georgia 30076

(678) 987-5840

Well I.D	Date	Top of Casing Elevation (feet)	Screen Interval (feet)	Screen Interval Elevation (feet)	Depth to Groundwater (feet)	Water Level Elevation (feet)
MW -1	10/6/2015	1093.41	40.18-30.18	1053.23-1063.23	31.75	1061.66
MW-2	10/6/2015	1086.41	29.55-19.55	1056.86-1066.86	24.38	1062.03
MW-3	10/6/2015	1094.13	45.52-30.52	1048.61-1063.61	33.57	1060.56
MW-4	10/6/2015	1093.49	39.64-29.64	1053.85-1043.85	33.78	1059.71

Figures

1. Property Location
2. USGS Topographic Map
3. Site Plan
4. VOCs Detections in Soil (2015, 2010 and 2008)
5. VOCs Detections in Groundwater (2010 and 2008)
6. VOCs Detections in Groundwater (2015)
7. Potentiometric Surface, October 5, 2015
8. North – South Cross Section
9. East - West Cross Section
10. Proposed Offsite Groundwater Investigation



CITY OF DULUTH - FORMER DRYCLEANER

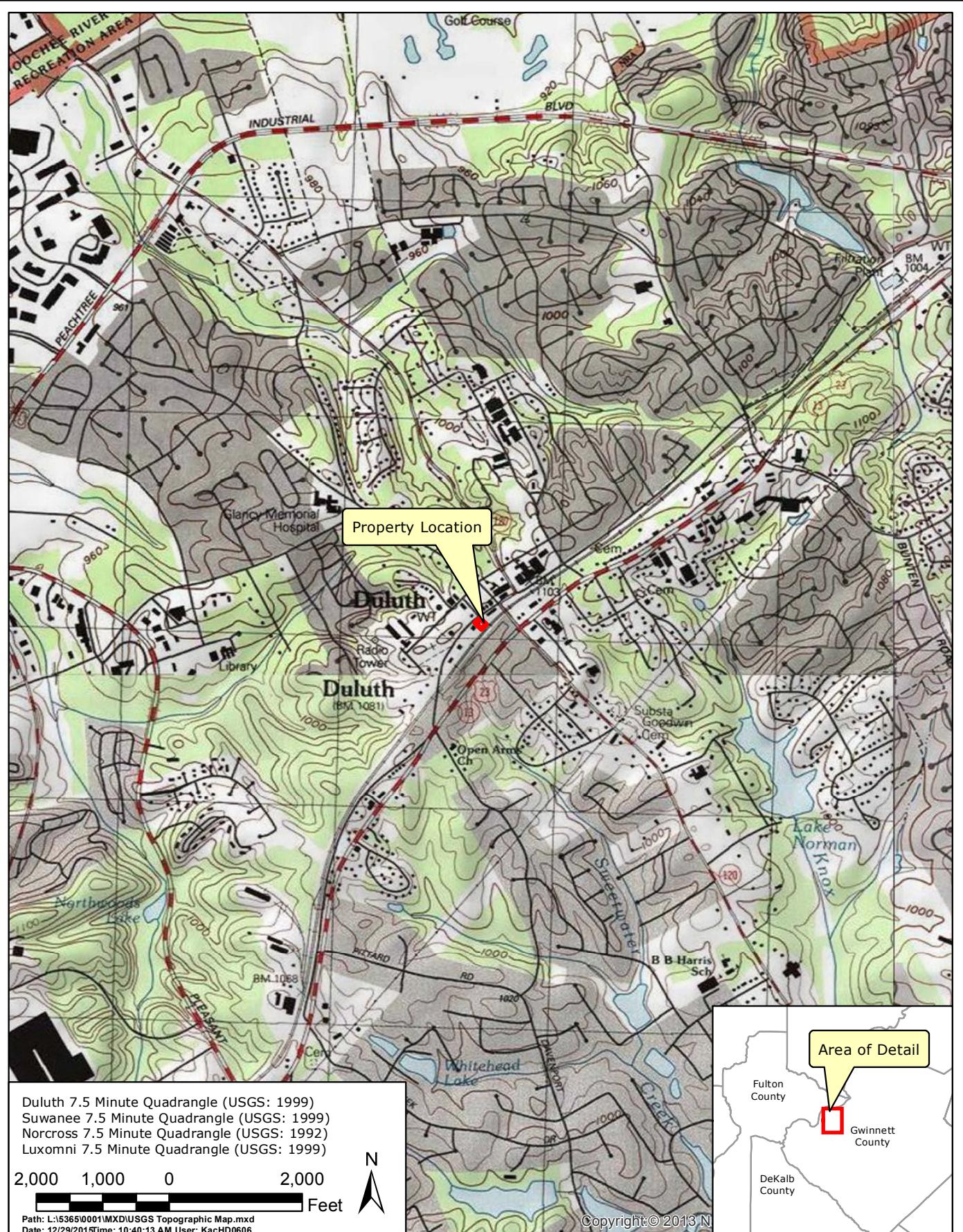
Property Location Map



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DEC 2015

Figure 1



CITY OF DULUTH - FORMER DRYCLEANER

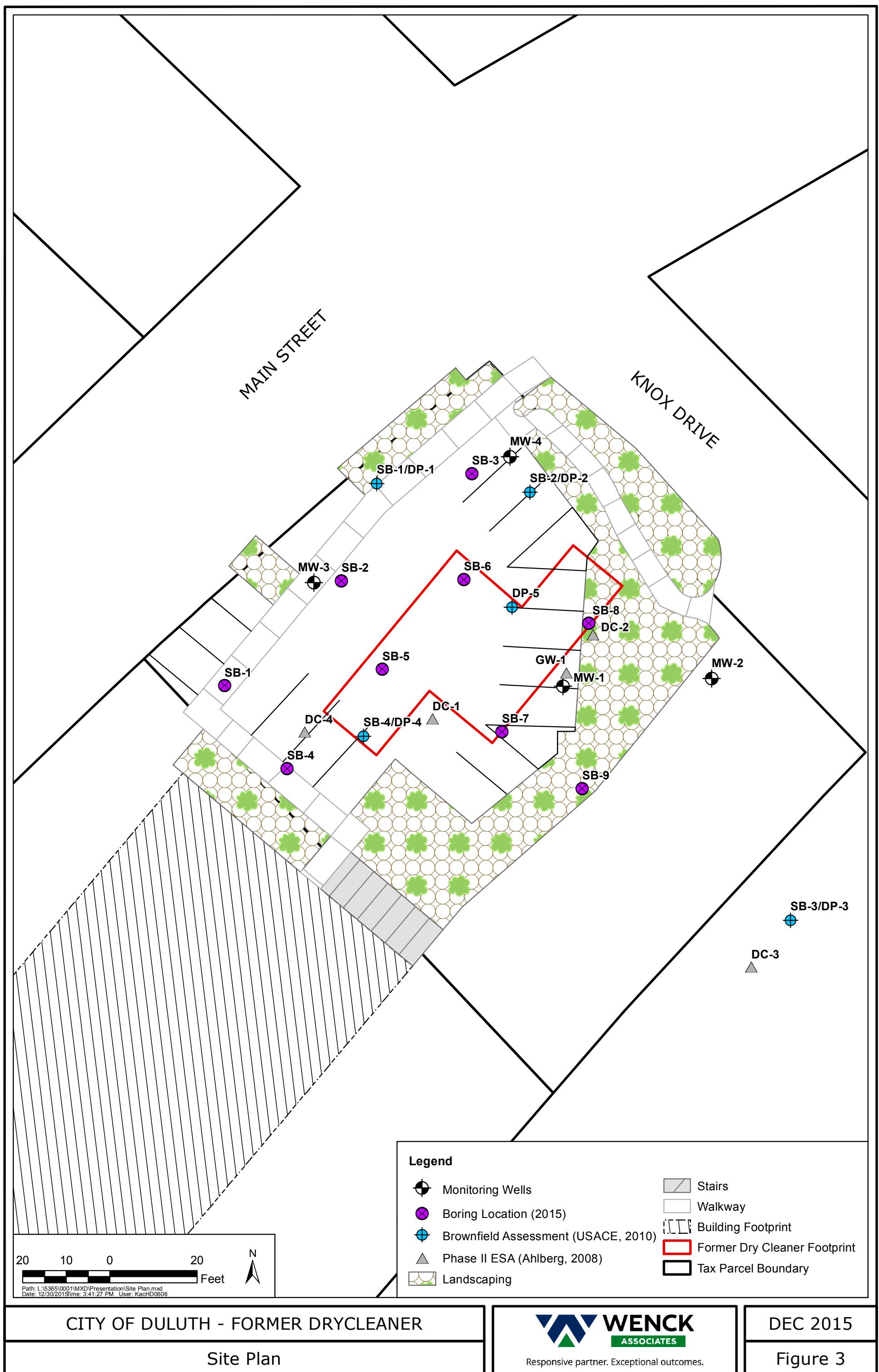
USGS Topographic Map

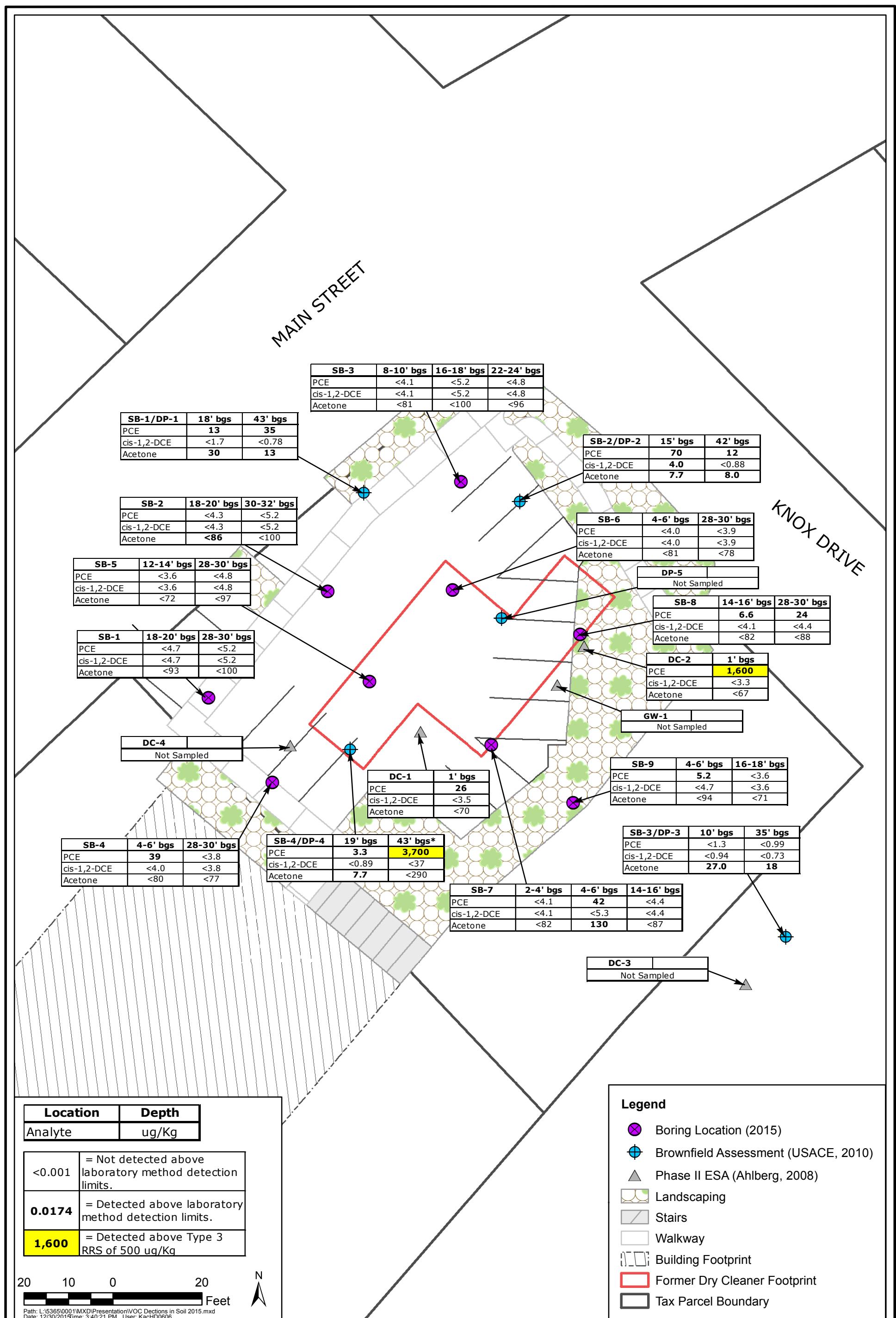


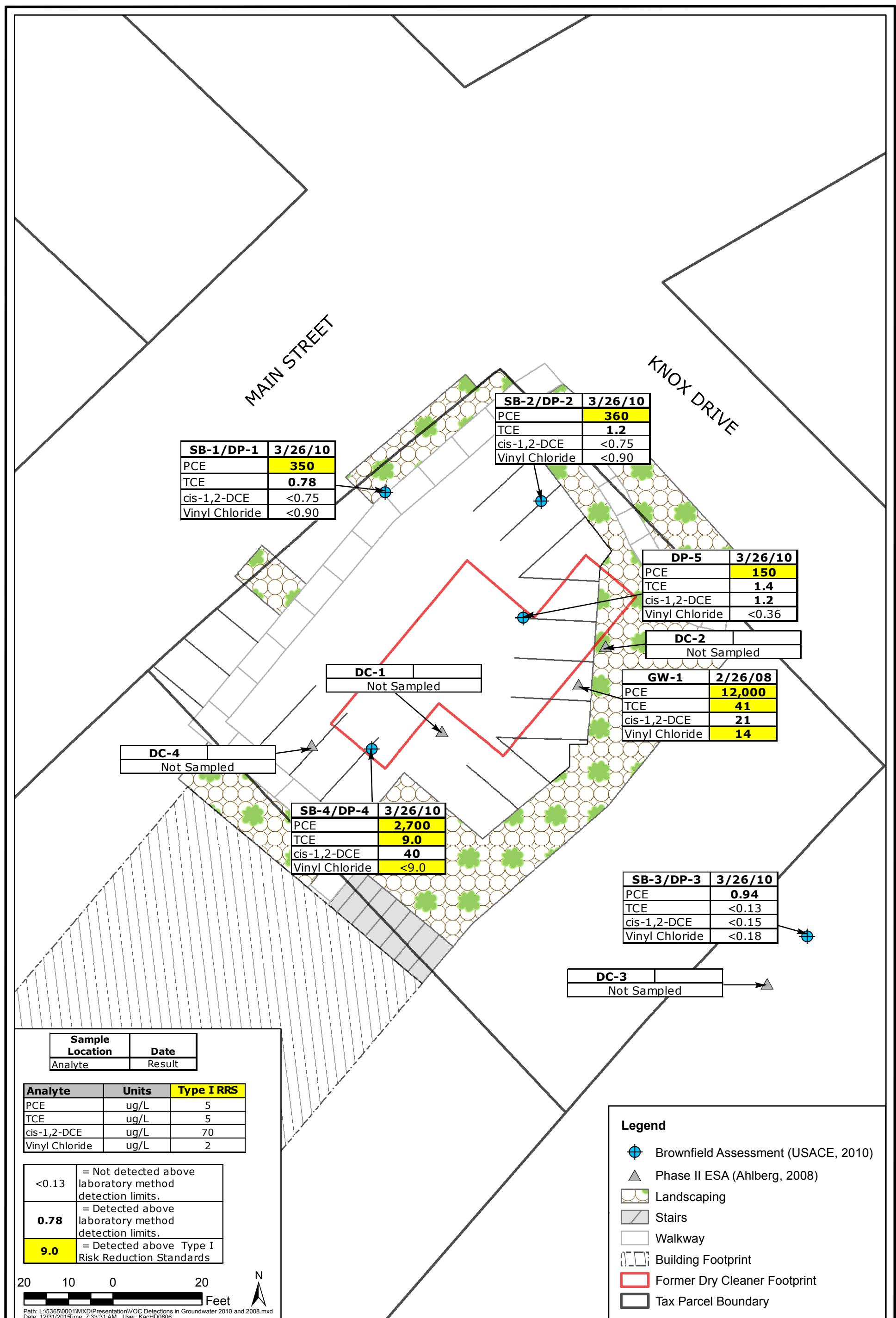
Responsive partner. Exceptional outcomes.

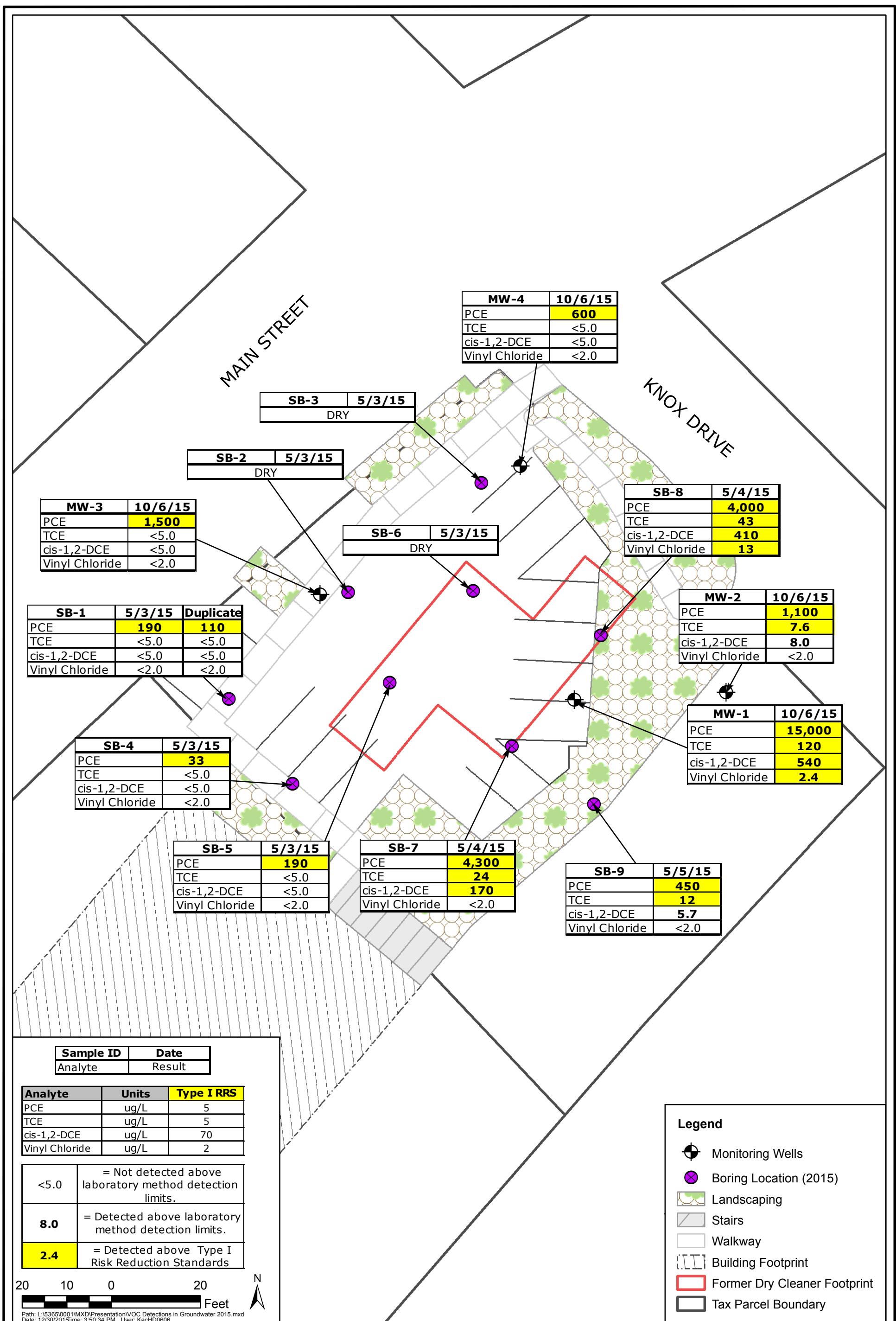
DEC 2015

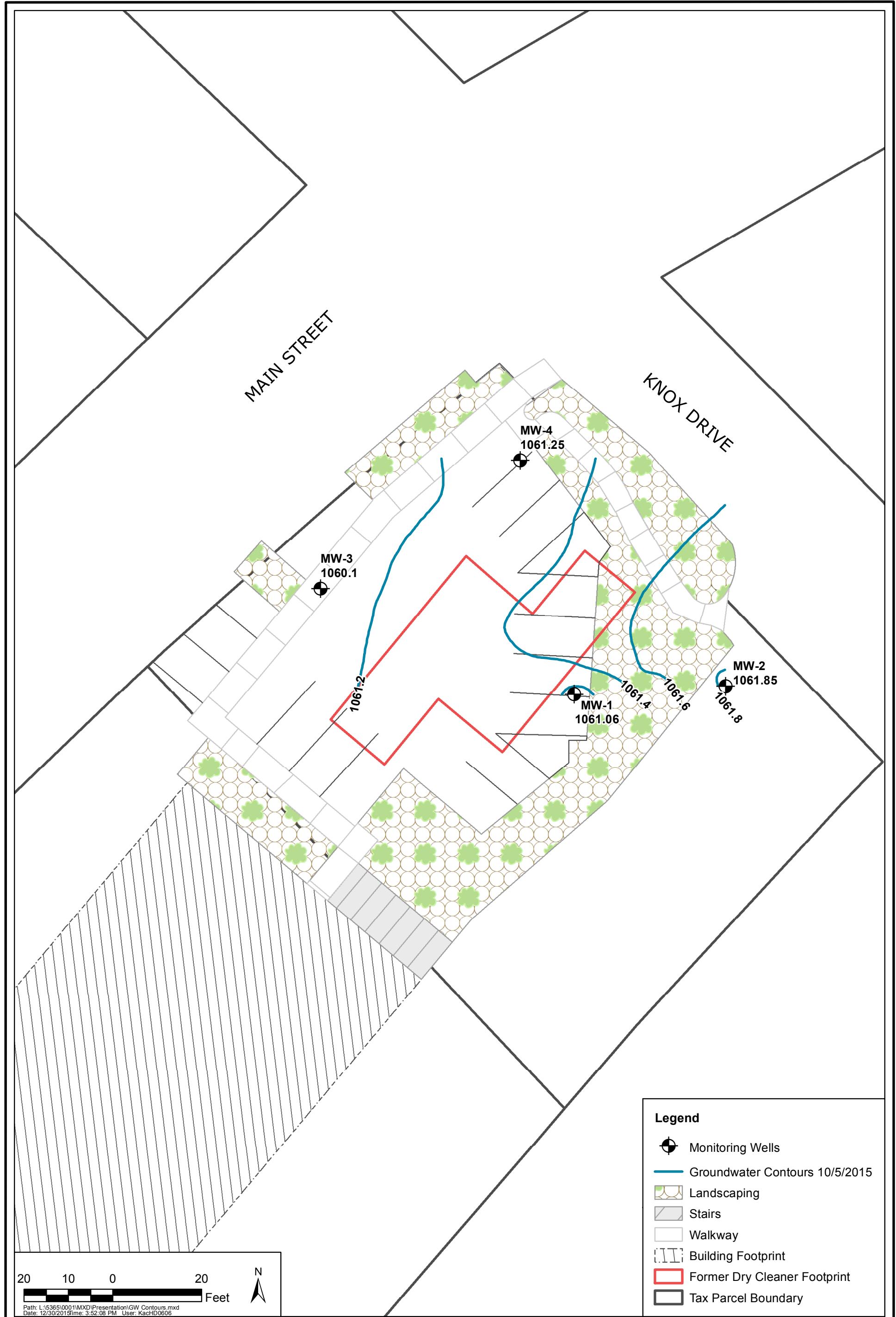
Figure 2











CITY OF DULUTH - FORMER DRYCLEANER

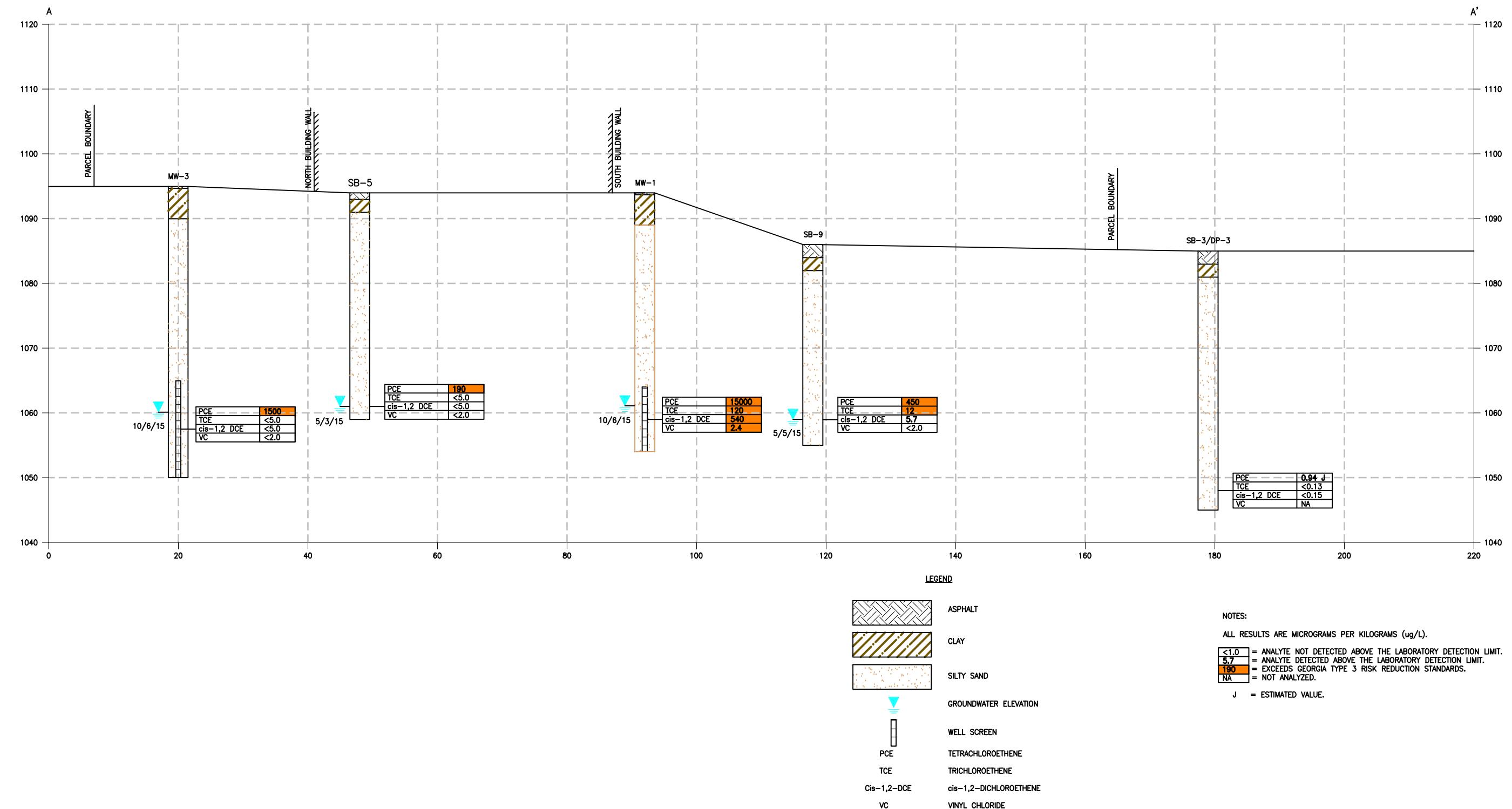
Potentiometric Surface - October 5th, 2015

 **WENCK**
ASSOCIATES

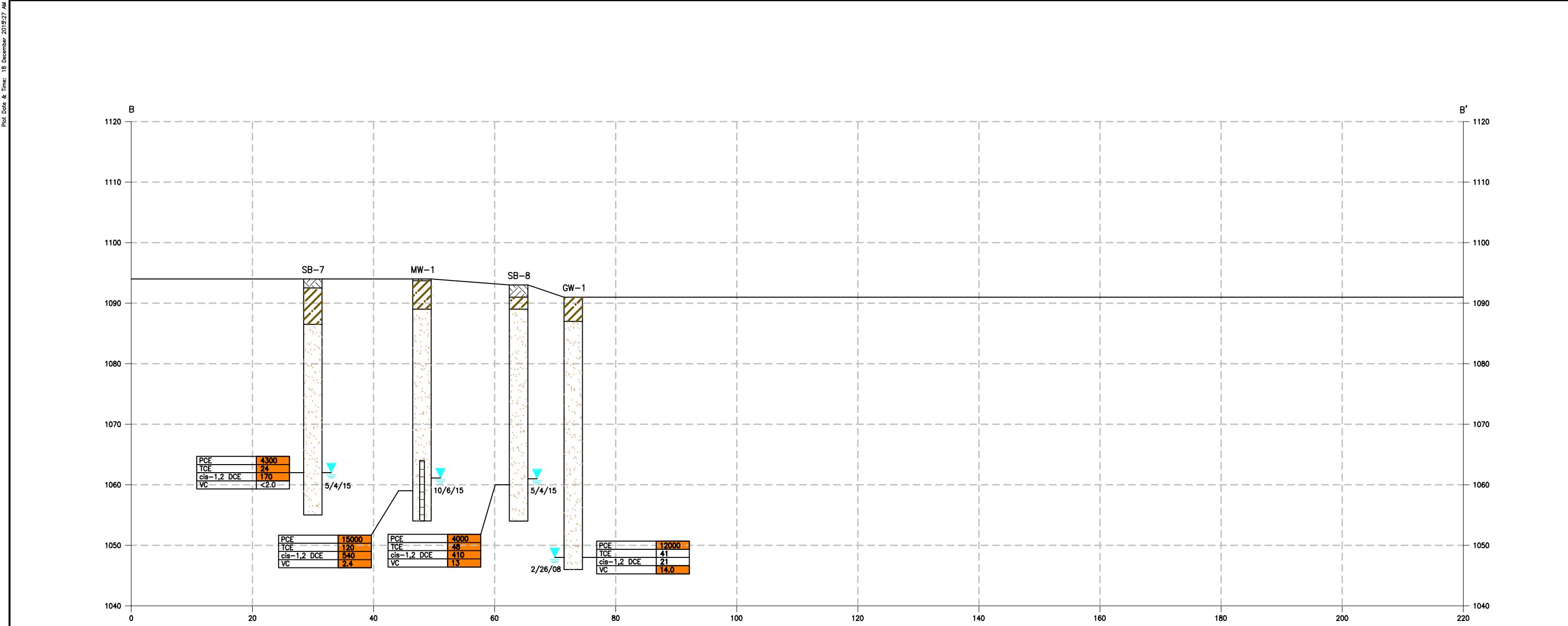
Responsive partner. Exceptional outcomes.

DEC 2015

Figure 7



				SEAL	SUB CONSULTANT	PRIME CONSULTANT  Responsive partner. Exceptional outcomes.	PROJECT TITLE SUBSURFACE INVESTIGATION MAIN STREET PROJECT # 5365	SHEET TITLE NORTH - SOUTH CROSS SECTION				
								DWN BY DNO	CHK'D DL	APP'D DL	DWG DATE SCALE	DEC. 2015 AS NOTED
REV	REVISION DESCRIPTION			DWN	APP	REV DATE	CITY OF DULUTH	PROJECT NO.	SHEET NO.	REV NO	5365-??	??

LEGEND

ASPHALT



CLAY



SILTY SAND



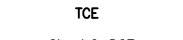
GROUNDWATER ELEVATION



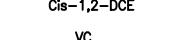
WELL SCREEN



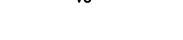
PCE



TCE



Cis-1,2-DCE



VC

NOTES:

ALL RESULTS ARE MICROGRAMS PER KILOGRAMS (ug/L).

<1.0 = ANALYTE NOT DETECTED ABOVE THE LABORATORY DETECTION LIMIT.
 5.7 = ANALYTE DETECTED ABOVE THE LABORATORY DETECTION LIMIT.
 190 = EXCEEDS GEORGIA TYPE 3 RISK REDUCTION STANDARDS.
 NA = NOT ANALYZED.

J = ESTIMATED VALUE.

					SEAL	SUB CONSULTANT	PRIME CONSULTANT	PROJECT TITLE	SHEET TITLE		
							 Responsive partner. Exceptional outcomes.	SUBSURFACE INVESTIGATION	EAST - WEST CROSS SECTION		
								MAIN STREET	PROJECT # 5365		
REV	REVISION DESCRIPTION		DWN	APP	REV DATE			CITY OF DULUTH	DWN BY	CHK'D	APP'D
									DNO	DL	DL
									SCALE	AS NOTED	
								PROJECT NO.	SHEET NO.	REV NO.	
								5365-??	??	??	

Legend

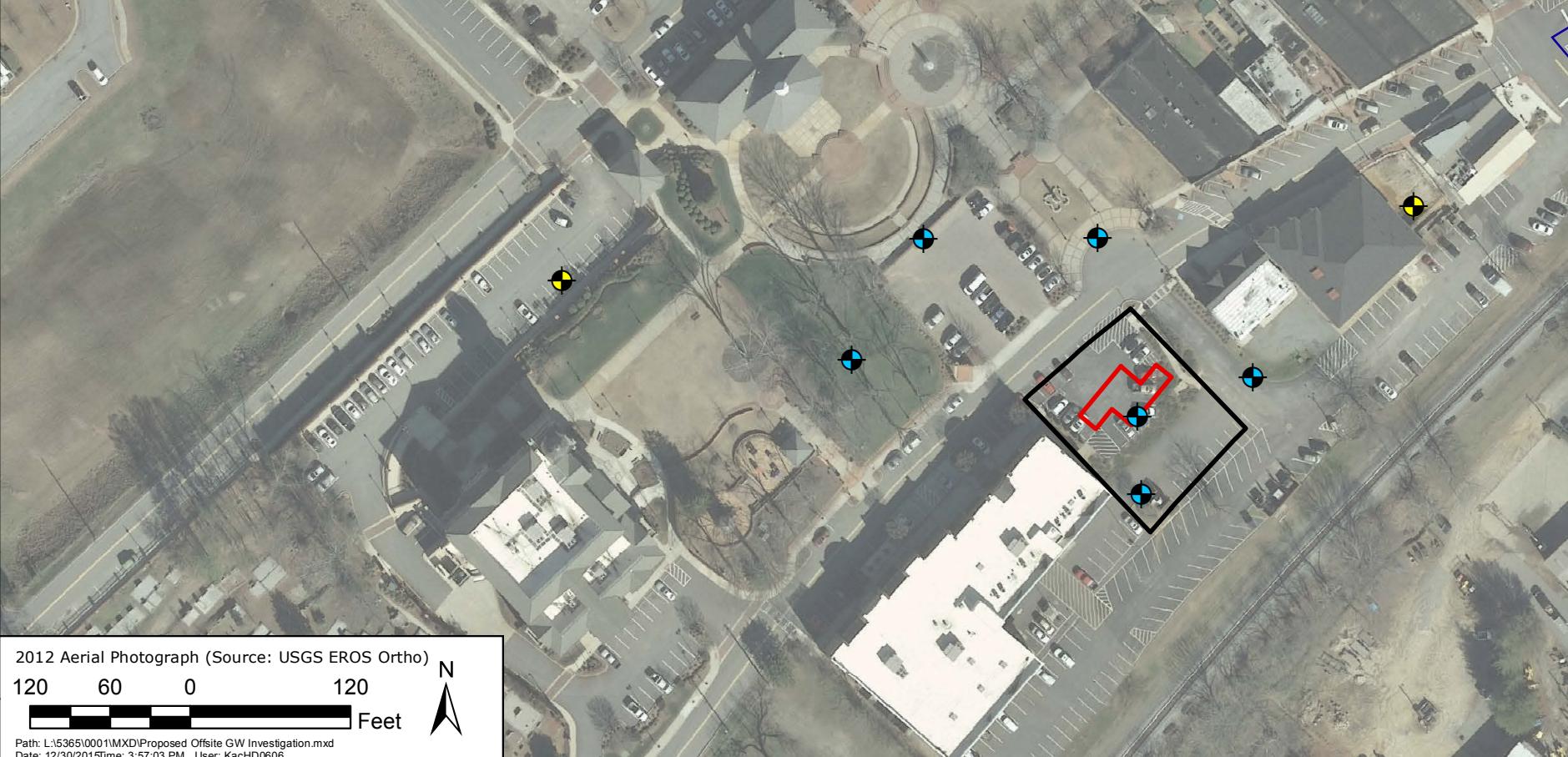
Site Boundary

Approximate Building Footprint

Groundwater Monitoring Wells

● Year 1 Monitoring Well

● Year 2 Monitoring Well



CITY OF DULUTH - FORMER DRYCLEANER

Proposed Offsite Groundwater Investigation



Responsive partner. Exceptional outcomes.

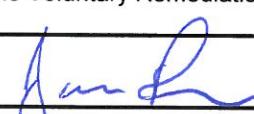
DEC 2015

Figure 10

Appendix A

VRP Application and Checklist

Voluntary Investigation and Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	City of Duluth				
CONTACT PERSON/TITLE	Mr. James Riker				
ADDRESS	3167 Main Street, Duluth, Georgia 30096				
PHONE	770-497-5321	FAX	770-623-2765	E-MAIL	jriker@duluthga.net
GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	Katie Ross			GA PE/PG NUMBER	1776
COMPANY	Wenck Associates, Inc.				
ADDRESS	1080 Holcomb Bridge Road, Building 100, Suite 190, Roswell, GA 30076				
PHONE	678-987-5840	FAX	678-987-5877	E-MAIL	kross@wenck.com
APPLICANT'S CERTIFICATION					
<p>In order to be considered a qualifying property for the VRP:</p> <p>(1) The property must have a release of regulated substances into the environment;</p> <p>(2) The property shall not be:</p> <ul style="list-style-type: none"> (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601. (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or (C) A facility required to have a permit under Code Section 12-8-66. <p>(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.</p> <p>(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.</p>					
<p>In order to be considered a participant under the VRP:</p> <p>(1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.</p> <p>(2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.</p>					
<p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>					
<p>I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.</p>					
APPLICANT'S SIGNATURE					
APPLICANT'S NAME/TITLE (PRINT)	James Riker, City Manager, City of Duluth			DATE	1/14/16

QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form)			
HAZARDOUS SITE INVENTORY INFORMATION (if applicable)			
HSI Number	10892	Date HSI Site listed	August 22, 2008
HSI Facility Name	Former Duluth Dry Cleaners Site	NAICS CODE	
PROPERTY INFORMATION			
TAX PARCEL ID	6293402	PROPERTY SIZE (ACRES)	0.2900
PROPERTY ADDRESS	3146 Main Street		
CITY	Duluth	COUNTY	Gwinnett
STATE	Georgia	ZIPCODE	30096
LATITUDE (decimal format)	34.002121	LONGITUDE (decimal format)	84.14588
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)	City of Duluth	PHONE #	770-497-5321
MAILING ADDRESS	3167 Main Street		
CITY	Duluth	STATE/ZIPCODE	Georgia, 30096
ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (Leave Blank)
1.	\$5,000 APPLICATION FEE IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES. (PLEASE LIST CHECK DATE AND CHECK NUMBER IN COLUMN TITLED "LOCATION IN VRP." PLEASE DO NOT INCLUDE A SCANNED COPY OF CHECK IN ELECTRONIC COPY OF APPLICATION.)	Check Date: Check Num:	01/12/14 87635
2.	WARRANTY DEED(S) FOR QUALIFYING PROPERTY.	Appendix A	
3.	TAX PLAT OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBER(S).	Appendix A	
4.	ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	Attached	
5.	The VRP participant's initial plan and application must include, using all reasonably available current information to the extent known at the time of application, a graphic three-dimensional preliminary conceptual site model (CSM) including a preliminary remediation plan with a table of delineation standards, brief supporting text, charts, and figures (no more than 10 pages, total) that illustrates the site's surface and subsurface setting, the known or suspected source(s) of contamination, how contamination might move within the environment, the potential human health and ecological receptors, and the complete or incomplete exposure pathways that may exist at the site; the preliminary CSM must be updated as the investigation and remediation progresses and an up-to-date CSM must be included in each semi-annual status report submitted to the director by the participant; a PROJECTED MILESTONE SCHEDULE for investigation and remediation of the site, and after enrollment as a participant, must update the schedule in each semi-annual status report to the director describing implementation of the plan	Preliminary Remediation Plan Milestone Schedule in Appendix I	

	<p>during the preceding period. A Gantt chart format is preferred for the milestone schedule.</p> <p>The following four (4) generic milestones are required in all initial plans with the results reported in the participant's next applicable semi-annual reports to the director. The director may extend the time for or waive these or other milestones in the participant's plan where the director determines, based on a showing by the participant, that a longer time period is reasonably necessary:</p>		
5.a.	Within the first 12 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern on property where access is available at the time of enrollment;	Milestone Schedule Appendix I	
5.b.	Within the first 24 months after enrollment, the participant must complete horizontal delineation of the release and associated constituents of concern extending onto property for which access was not available at the time of enrollment;	Milestone Schedule Appendix I	
5.c.	Within 30 months after enrollment, the participant must update the site CSM to include vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions; and	Milestone Schedule Appendix I	
5.d.	Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications.	Milestone Schedule Appendix I	
6.	<p>SIGNED AND SEALED PE/PG CERTIFICATION AND SUPPORTING DOCUMENTATION:</p> <p>"I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, <i>et seq.</i>). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.</p> <p>Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.</p> <p>The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."</p> <p>Katie Ross 1716 Printed Name and GA PE/PG Number Katie Ross Signature and Stamp</p>		



ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)

PROPERTY INFORMATION			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

PROPERTY INFORMATION			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

PROPERTY INFORMATION			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
STATE		ZIPCODE	
LATITUDE (decimal format)		LONGITUDE (decimal format)	
PROPERTY OWNER INFORMATION			
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIPCODE	

Appendix B

Legal Description, Warranty Deed and Tax Plat



Gwinnett County GIS
75 Langley Dr.
Lawrenceville, GA 30046



Details of " Land Parcels "

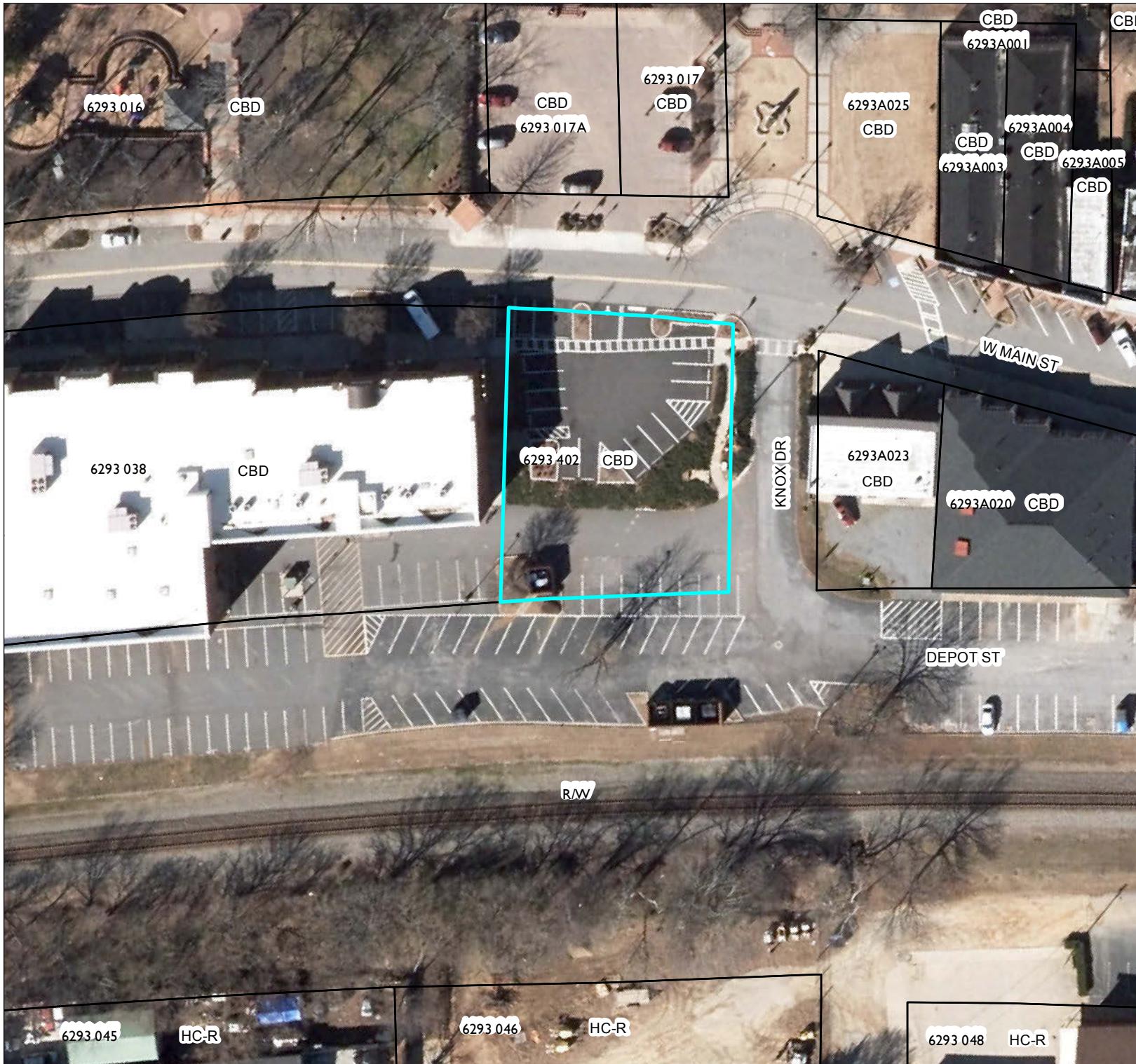
Attribute	Value
Parcel ID (PIN)	6293 402
Lot	
Assessor Information (sdewh1)	
Assessor Information	
PIN	6293 402
Address	OLD PEACHTREE RD
City, ZIP code	DULUTH
Owner / Property Information	
Property Information	
PIN	R6293 402
Owner Name 1	CITY OF DULUTH
Owner Name 2	
Owner Address	3167 MAIN ST
Owner Address 2	
Owner City	DULUTH

Owner Country	
Tax District Tag	04
Assessment Neighborhood	9045
Property Class Description	City of Duluth
Legal acres	0.2900
Dwelling Value (appraised)	15900
Land Value (appraised)	17100
Total Value (appraised)	33000
Dwelling Value (assessed)	6360
Land Value (assessed)	6840
Total Value (assessed)	13200
Address	OLD PEACHTREE RD
City	DULUTH
Zip Code	
Sales Information	
Sales Information	
1 - Sale Date	12/15/2014
Sale Amount	100000
Deed Book Page	53305 639
2 - Sale Date	
Sale Amount	
Deed Book Page	
3 - Sale Date	
Sale Amount	
Deed Book Page	
Building Information	
Building Information	
Use description	
Improvement type	OTHER
Building type	
Year built	
Stories	
Attic	
Main Floor(s) finished area	
Attic finished area	
Basement finished area	
Total Basement area	



City of Duluth

Department of
Community Development
GIS
12/18/2015



LEGEND

- Subject Property
- Property Lines



STATE OF GEORGIA
COUNTY OF GWINNETT

LIMITED WARRANTY DEED

THIS INDENTURE, made as of the 15th day of December in the year two thousand fourteen (2014), between

**ETJ DOWNTOWN, LLC,
a Georgia limited liability company**

of the County of Gwinnett, and State of Georgia, as party or parties of the first part, hereinafter called Grantor, and

**CITY OF DULUTH, GEORGIA,
a Georgia Municipal Corporation**

as party or parties of the second part, hereinafter called Grantee (the words "Grantor" and "Grantee" to include their respective heirs, successors and assigns where the context requires or permits).

WITNESSETH that: Grantor, for and in consideration of the sum of TEN DOLLARS the benefit to Grantor's property from the construction of the public improvements, AND OTHER GOOD AND VALUABLE CONSIDERATIONS (\$10.00) in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the said Grantee,

ALL THAT TRACT OR PARCEL OF LAND lying and being in Land Lot 293 of the 6th District of the City of Duluth, Gwinnett County, Georgia and being more particularly described as follows:

BEGINNING at an iron pin found at the intersection of the southeasterly margin of the right-of-way of Main Street (a/k/a Old Peachtree Road) (right of way varies) and the southwesterly margin of the right-of-way of Main Street, and running southeasterly along the southwesterly margin of the right-of-way of Knott Street (a/k/a Knox Street) (30 foot right-of-way); thence leaving the southeasterly margin of the right-of-way of Main Street, and running southeasterly along the southwesterly margin of the right-of-way of Knott Street, South 43°19'14" East, a distance of 113.16 feet to an iron pin set on the northwesterly margin of the right-of-way of Georgia Airline Railway and Power Company (Norfolk-Southern Railroad) (200 foot right-of-way); thence leaving the southwesterly margin of the right-of-way of Knott Street, and running southwesterly along the northwesterly margin of the right-of-way of Norfolk-Southern Railroad, along the arc of a curve to the left (said arc having a radius of 3716.59 feet), an arc distance of 102.98 feet to a point on the southeasterly margin of the right-of-way of Main Street; thence running northeasterly along the southeasterly margin of the right-of-way of Main Street, North 51°41'23" East, a distance of 23.93 feet to an iron pin set; thence continuing along the southeasterly margin of the right-of-way of Main Street, North 52°12'33" East, a distance of 86.80 feet to an iron pin found, which is the POINT OF BEGINNING, said property containing 0.2937 acres, and being shown as Tract Two, on that certain ALTA/ACSM Survey for ETJ Downtown Duluth, LLC, Duluth Downtown I, LLC Gwinnett Community Bank, and Lawyers Title Insurance Corporation, dated November 6, 2008, last revised December 4, 2008, prepared by Gresham Planning & Development, Inc. and bearing the seal of William P. Gresham, GRLS No. 2880.

THIS CONVEYANCE is made subject to those certain matters as set forth on Exhibit A attached hereto and by reference made a part hereof.

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereof, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the said Grantee forever in FEE SIMPLE.

AND THE SAID Grantor and its successors, will warrant and forever defend the right and title to the above described property unto the said Grantee against the claims of all persons owning, holding, or claiming by, through or under the Grantor, but not otherwise.

[SIGNATURES BEGIN ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Grantor has signed and sealed this deed, the day and year above written.

Signed, sealed and delivered on
the 11th day of December, 2014
in the presence of:

ETJ DOWNTOWN, LLC

Elizabeth East
Unofficial Witness

By: D. Heydinger (SEAL)
David Heydinger, Manager

John De
Notary Public

My commission expires

(Notary Seal)



EXHIBIT A

PERMITTED TITLE EXCEPTIONS

1. General or special taxes and assessments required to be paid in the year 2015, and subsequent years not yet due and payable.
2. Easement from E.A. Jones and H.I. Jones to Georgia Power Company, dated April 5, 1946, and recorded in Deed Book 77, Page 396, Gwinnett County, Georgia Records.
3. Easement from C.N. McGee to Georgia Power Company, dated February 21, 1947, and recorded in Deed Book 83, Page 525, aforesaid records
4. Right of Way Easement from Carl N. McGee to Georgia Power Company, dated February 5, 1948, and recorded in Deed Book 84, Page 225, aforesaid records.
5. Right of Way Easement from C. N. McGee to Georgia Power Company, dated September 1, 1961, and recorded in Deed Book 171, Page 537, aforesaid records.
6. Easement from City of Duluth to Georgia Power Company, dated February 9, 2005, and recorded in Deed Book 41760, Page 272, aforesaid records.
7. Water Metering Device Easement from Duluth Downtown I, LLC to Gwinnett County Water and Sewerage Authority, dated November 14, 2007, and recorded in Deed Book 49127, Page 752, aforesaid records.
8. Easement from ETJ Downtown, LLC to Georgia Power Company, dated December 17, 2007, and recorded in Deed Book 48927, Page 256, aforesaid records.
9. Reciprocal Easement Agreement between ETJ Downtown, LLC, a Georgia limited liability company, and Duluth Downtown I, LLC, Georgia limited liability company, dated as of December 18, 2007, and recorded in Deed Book 48510, Page 792, aforesaid records, as modified by First Amendment to Reciprocal Easement Agreement, dated December 31, 2008, and recorded in Deed Book 49220, Page 142, aforesaid records.
10. Easement from Duluth Downtown I, LLC, Gwinnett County Water & Sewage Authority, dated December 18, 2007, and recorded in Deed Book 49186, Page 889, aforesaid records, as amended by that certain Corrective Easement dated December 18, 2007, and recorded in Deed Book 49334, Page 552, aforesaid records.
11. Matters shown on that certain ALTA/ACSM Survey for ETJ Downtown, LLC, Duluth Downtown I, LLC, Gwinnett Community Bank, and Old Republic National Title Insurance Company dated November 6, 2008, last revised December 4, 2008, prepared by Gresham Planning & Development, Inc., and bearing the seal of William P. Gresham, GRLS No 2880.

12. Easement Deed by Court Order in Settlement of Landowner Action, dated March 21, 2012, and recorded in Deed Book 52734, Page 614, Gwinnett County, Georgia records.
 13. Any environmental lien(s) or claim(s) of lien, or any violation of any environmental laws, as determined by the Georgia Environmental Protection Division, or any other governmental authority having jurisdiction over the property.
-

EXHIBIT "A"

LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND lying and being in Land Lot 293 of the 6th District of the City of Duluth, Gwinnett County, Georgia and being more particularly described as follows:

BEGINNING at an iron pin found at the intersection of the southeasterly margin of the right-of-way of Main Street (a/k/a Old Peachtree Road) (right of way varies) and the southwesterly margin of the right-of-way of Main Street, and running southeasterly along the southwesterly margin of the right-of-way of Knott Street (a/k/a Knox Street) (30 foot right-of-way); thence leaving the southcasterly margin of the right-of-way of Main Street, and running southeasterly along the southwesterly margin of the right-of-way of Knott Street, South 43°19'14" East, a distance of 113.16 feet to an iron pin set on the northwesterly margin of the right-of-way of Georgia Airline Railway and Power Company (Norfolk-Southern Railroad) (200 foot right-of-way); thence leaving the southwesterly margin of the right-of-way of Knott Street, and running southwesterly along the northwesterly margin of the right-of-way of Norfolk-Southern Railroad, along the arc of a curve to the left (said arc having a radius of 3716.59 feet), an arc distance of 102.98 feet to a point on the southeasterly margin of the right-of-way of Main Street; thence running northeasterly along the southeasterly margin of the right-of-way of Main Street, North 51°41'23" East, a distance of 23.93 feet to an iron pin set; thence continuing along the southeasterly margin of the right-of-way of Main Street, North 52° 12' 33" East, a distance of 86.80 feet to an iron pin found, which is the POINT OF BEGINNING, said property containing 0.2937 acres, and being shown as Tract Two, on that certain ALTA/ACSM Survey for ETJ Downtown Duluth, LLC, Duluth Downtown I, LLC Gwinnett Community Bank, and Lawyers Title Insurance Corporation, dated November 6, 2008, last revised December 4, 2008, prepared by Gresham Planning & Development, Inc. and bearing the seal of William P. Gresham, GRLS No. 2880.

Appendix C

2008 Limited Phase II ESA

AEI

Ahlberg
Engineering Inc. 525 Webb Industrial Drive
Suite A Telephone (770) 919-9968
Marietta, GA 30062 Fax (770) 919-9964

April 1, 2008

Mr. Dave Heydinger
Mathias Corporation
2805 Peachtree Industrial Boulevard
Suite 112
Duluth, GA 30097

**RE: Limited Phase II Environmental Site Assessment
Former Duluth Dry Cleaning Site – 3146 Main Street
Duluth, Georgia
Project No: 01-75048**

Dear Mr. Heydinger:

In compliance with your instructions, we have conducted a Limited Phase II Environmental Site Assessment on the former dry cleaner property. The results and our conclusions are to be found in the accompanying report.

The reporting process may be broken down into several steps:

- 1) An officer of ETJ Downtown, LLC will need to sign the Release Notification and send it to the Georgia Hazardous Site Response Program.
- 2) The Georgia Hazardous Site Response Program will review the data and determine whether to list the site on the Georgia Hazardous Site Inventory (HSI) list. If the site is listed on the HSI list, the State will likely require additional vertical and horizontal delineation of the contamination. A risk based analysis or remediation could then be required. Alternatively, if the Site Ranking is low enough, the site may be listed on the Georgia non-HSI list and no further action may be required.

If you have any questions concerning this report or if we can be of further service, please contact us at your convenience.

Very truly yours,
AHLBERG ENGINEERING, INC.

Michael S. Wagner, P.E.
Project Engineer

**LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT**

PROJECT

**Former Duluth Dry Cleaning Site
3146 Main Street
Duluth, Georgia
Project No. 01-75048**

PREPARED FOR

ETJ Downtown, LLC

BY

**Ahlberg Engineering, Inc.
525 Webb Industrial Drive
Suite A
Marietta, GA 30062
770-919-9968**

April 1, 2008

LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT

INTRODUCTION

Previous Assessments/Environmental Information

ETJ Downtown, LLC acquired the Duluth Dry Cleaners site in December, 2007 from the City of Duluth. ETJ Downtown, LLC understood that an environmental site assessment had been performed on that property and that the previous dry cleaners had the EPA Hazardous Waste Generator Registration Number deactivated in 2001 and was not a recognized environmental concern.

However after further review of the May, 2007 report prepared by Matrix Engineering Group, it was determined that only the Calleo Garage Site had been assessed. After it was learned that the Duluth Dry Cleaners site was not included in the assessment, Matrix Engineering Group performed an updated Environmental Site Assessment of three additional parcels that included the Duluth Dry Cleaners site and issued a new report dated January 4, 2008. That ESA report identified possible concerns because of the use or possible generation or storage of regulated substances and concluded that:

“The Subject Site was occupied by structures that generated or stored regulated materials. It was also reported that above and underground storage tanks were present. Furthermore, storage of chemicals in 55-gallon drums was evident.

Based on the previous land use of the site and the information obtained from this study, it is our opinion that contamination at the subject site is possible due to accidents, misuse of hazardous materials, and/or illegal dumping. The presence and extent of contamination can only be determined by sampling and testing. In order to investigate the presence of contamination we recommend the following:

Soil sampling and chemical analysis should be performed at various locations, especially parcel numbers 6293-35, 6293-35A, and 6293-37. We recommend that soil samples be taken at various depths (a minimum depth of 5 feet should be investigated). If contamination was found at 5 feet, then deeper samples should be collected and tested in order to vertically delineate the contamination.

AHLBERG ENGINEERING, INC.

Additionally, the depth of the groundwater should be determined. If contamination is encountered near the groundwater elevations or within the fluctuation levels (typically 4 to 8 feet) above the stabilized groundwater elevation, then groundwater samples should be collected and tested.

Soil and/or groundwater samples should be tested for oil products as well as volatile and semi-volatile organics. Contamination levels, if encountered, should be compared to the thresholds levels allowed by the Georgia Department of Natural Resources in order to determine if notification and remedial actions are required in accordance with the State regulations."

Purpose

The purpose of this assessment was to confirm, to the extent feasible, possible environmental concerns at the subject site. This assessment is also to provide information for the client's use in determining the need for further testing or contamination assessment.

Scope

The scope of the Limited Phase II study included initial surface soil sampling, the subsequent installation of one (1) groundwater monitoring well, and laboratory analysis of soil and groundwater for Volatile Organic Compounds (VOC's) and Semi-Volatile Organic Compounds (SVOC's).

Authorization

This report presents the results of a Limited Phase II Environmental Site Assessment (ESA) of the former Duluth Dry Cleaners site in Duluth, Georgia. The work for this project was performed for ETJ Downtown, LLC. Verbal authorization was provided to perform this assessment.

General

AEI warrants that the findings, recommendations, or professional advice contained herein represent good commercial and customary practice for conducting Environmental Site Assessments. The methodologies are not intended to be all-conclusive, but rather to provide information on recognized environmental conditions. No other warranties are implied or expressed.

This report has been prepared for the use of ETJ Downtown, LLC, for the specific application to the former Duluth Dry Cleaning property at 3146 Main Street in Duluth, Georgia. Use of this report by any other party is not intended and, without explicit authorization, will be at the risk of that party. No warranties or representations, expressed or implied, are made to any other party.

FIELD EXPLORATION

Soil Sampling Procedure

Surficial soil sampling was performed on January 31, 2008. The site was covered with asphalt pavement, however, the outline of the old building foundations was visible. A high speed diamond tipped core bit was used to core through the asphalt pavement at four locations behind the original building. A decontaminated hand auger was then used to remove approximately six (6) inches of subgrade soils from immediately below the pavement. The soils samples were then placed in sealed polyethylene bags for screening. The four samples were screened with a mini-RAE photoionization detector (PID) to identify potential contamination. The PID results are as follows:

Location	PID Reading (ppm)
DC-1	3.2
DC-2	25.1
DC-3	1.9
DC-4	0.0

The highest PID readings were identified at locations DC-1 and DC-2. Additional soil samples were then obtained from borings DC-1 and DC-2 using a decontaminated hand auger from a depth of approximately six (6) to twelve (12) inches. A sample of the soil in the hand auger bucket was obtained using a soil syringe. The samples were immediately placed in sample vials, labeled and sealed in plastic bags. The samples were then placed in a refrigerated cooler for delivery to the laboratory.

Monitoring Well Installation and Groundwater Sampling Procedures

One (1) temporary monitoring well was installed near boring DC-2 on February 25, 2008 based upon the results of the soil testing. The well consisted of 2-inch diameter PVC pipe fitted with a ten (10) foot section of slotted PVC screen. The screened section was backfilled with select filter sand to above the top of screen and a soil seal was then installed. AEI developed the well upon completion of the installation.

A groundwater sample was collected from the well on February 26, 2008. The groundwater elevation in the well was encountered at forty-three (43) feet below the ground surface. The collected groundwater sample was immediately placed into the appropriate sample vials. The vials were labeled, wrapped in air-bubble wrappers, placed in plastic bags and immediately stored on ice in a securely sealed clean cooler for transport to the laboratory for testing. A chain of custody documentation was completed and accompanied the samples to the analytical laboratory. The samples were delivered by AEI personnel to the laboratory.

LABORATORY TESTING

The soil and groundwater samples were analyzed for chemical constituents commonly associated with solvents typically used in the dry cleaning industry. The samples were tested using Environmental Protection Agency Approved Methods 8260B and 8270C. Copies of the soil and groundwater analytical reports and chain of custody documentation are provided in the Appendix.

FINDINGS AND OPINION

The soil samples identified the following concentrations of contaminants:

Contaminant	Sample DC-1 (ug/kg)	Sample DC-2 (ug/kg)	Notification Concentration (ug/kg)
Tetrachloroethene	26	1600	180
Benzo(b)fluoranthene	BRL*	480	5000
Fluoranthene	BRL*	460	500,000
Pyrene	BRL*	430	500,000

*BRL = Below Reportable Limits

Reportable quantities of Tetrachloroethene were identified in the soil sample at location DC-2. This location was selected for the installation of a temporary groundwater well based upon the presence of reportable quantities of soil contamination.

The groundwater sampling identified the following concentrations of contaminants:

Contaminant	Sample GW-1 (ug/l)	Notification Concentration (ug/l)
cis-1,2-Dichloroethene	21	100
Tetrachloroethene	12000	5
Trichloroethene	41	5
Vinyl Chloride	14	2

The groundwater sample identified reportable quantities of tetrachloroethene, trichloroethene, and vinyl chloride. The concentrations of trichloroethene and vinyl chloride were only slightly above the notification limits; however, the concentration of tetrachloroethene was relatively high.

A Release Notification to the Georgia Hazardous Sites Response Program should be submitted by the property owner. The release notification requires the site information and contamination data be submitted, along with data regarding the origin of the contamination and nearby receptors (i.e., wells, residences, schools, and day-care centers).

AHLBERG ENGINEERING, INC.

CONCLUSIONS

Soil and groundwater contamination was identified on the former Duluth Dry Cleaning site. The determination of the source and extent of the contamination was beyond the scope of this limited assessment. The source is likely due to past spills at the Duluth Dry Cleaners facility or other nearby facilities.

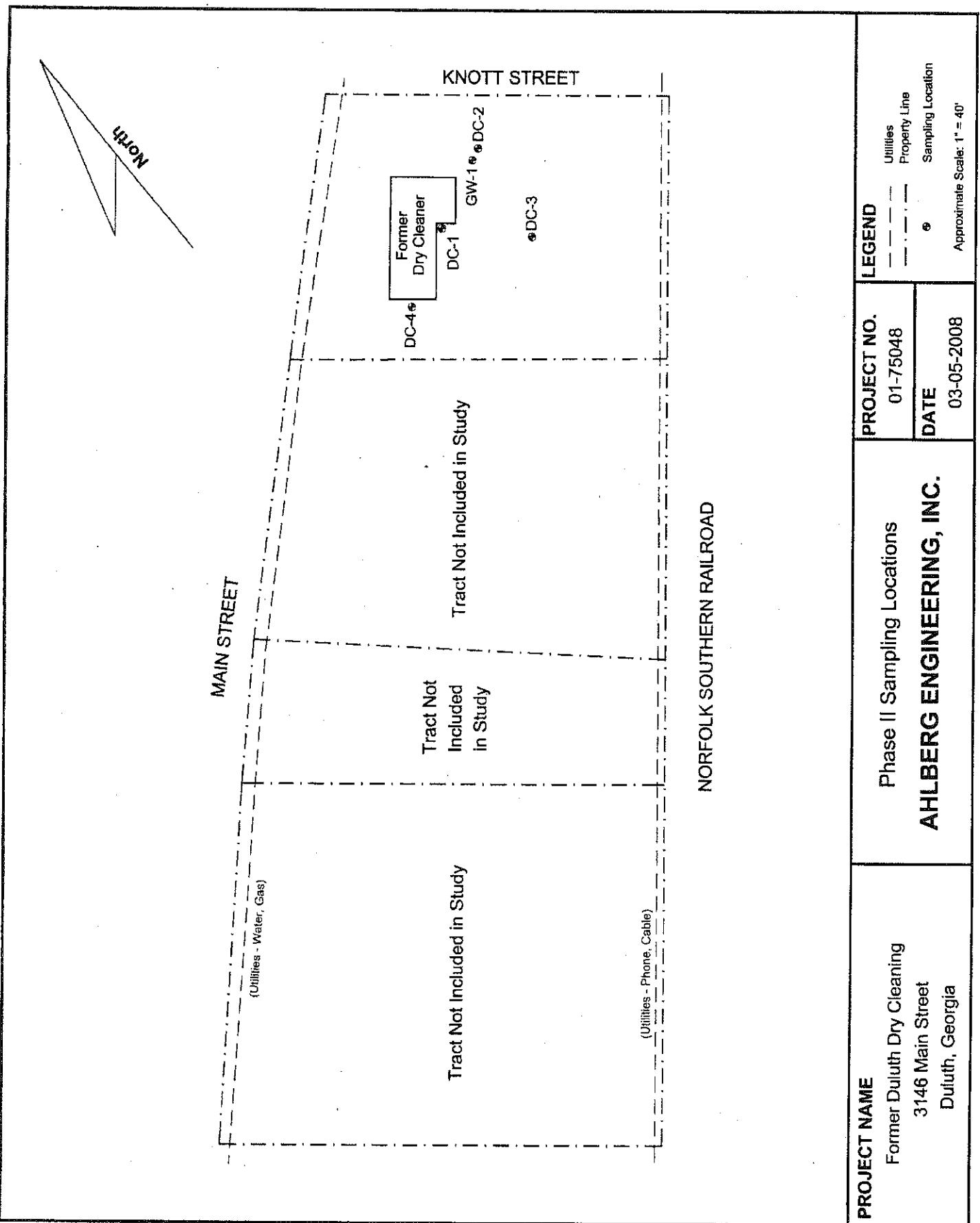
The owner of the Duluth Dry Cleaning property is required to report the release to the Georgia EPD Hazardous Sites Response Program office. The EPD will determine if any additional assessment, groundwater monitoring or remediation is required.

Respectfully submitted,
AHLBERG ENGINEERING, INC.

Michael S. Wagner, P.E.
Project Engineer

James E. Ahlberg, PE
Principal Engineer

APPENDIX



Soil Analytical Results

Analytical Environmental Services, Inc.

Date: 08-Feb-08

CLIENT:	Ahlberg Engineering	Client Sample ID: DC-1					
Project:	Duluth Downtown - Dry cleaners	Collection Date: 1/31/2008					
Lab ID:	0801104-001	Matrix: SOIL					
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL-SEMOVOLATILE ORGANICS							
		SW8270C		(SW3550A)			Analyst: YH
1,1'-Biphenyl	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,4,5-Trichlorophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,4,6-Trichlorophenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,4-Dichlorophenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,4-Dimethylphenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,4-Dinitrophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,4-Dinitrotoluene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2,6-Dinitrotoluene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2-Chloronaphthalene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2-Chlorophenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2-Methylnaphthalene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2-Methylphenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2-Nitroaniline	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
2-Nitrophenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
3,3'-Dichlorobenzidine	BRL	820		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
3-Nitroaniline	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4,6-Dinitro-2-methylphenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Bromophenyl phenyl ether	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Chloro-3-methylphenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Chloroaniline	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Chlorophenyl phenyl ether	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Methylphenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Nitroaniline	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
4-Nitrophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Acenaphthene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Acenaphthylene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Acetophenone	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Anthracene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Atrazine	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Benz(a)anthracene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Benzaldehyde	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Benzo(a)pyrene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Benzo(b)fluoranthene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Benzo(g,h,i)perylene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Benzo(k)fluoranthene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Bis(2-chloroethoxy)methane	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Bis(2-chloroethyl)ether	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Bis(2-chloroisopropyl)ether	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Bis(2-ethylhexyl)phthalate	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Butyl benzyl phthalate	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Caprolactam	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank

- E Estimated (Value above quantitation range)
- S Surrogate Recovery outside accepted recovery limits
- Narr See Case Narrative
- NC Not Confirmed

Analytical Environmental Services, Inc.

Date: 08-Feb-08

CLIENT:	Ahlberg Engineering	Client Sample ID: DC-1					
Project:	Duluth Downtown - Dry cleaners	Collection Date: 1/31/2008					
Lab ID:	0801104-001	Matrix: SOIL					
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL-SEMOVOLATILE ORGANICS							
				SW8270C	(SW3550A)		Analyst: YH
Carbazole	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Chrysene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Dibenz(a,h)anthracene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Dibenzofuran	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Diethyl phthalate	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Dimethyl phthalate	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Di-n-butyl phthalate	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Di-n-octyl phthalate	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Fluoranthene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Fluorene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Hexachlorobenzene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Hexachlorobutadiene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Hexachlorocyclopentadiene	BRL	810		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Hexachloroethane	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Indeno(1,2,3-cd)pyrene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Isophorone	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Naphthalene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Nitrobenzene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
N-Nitrosodi-n-propylamine	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
N-Nitrosodiphenylamine	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Pentachlorophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Phenanthrene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Phenol	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Pyrene	BRL	400		µg/Kg-dry	96018	1	2/4/2008 5:22 PM
Surr: 2,4,6-Tribromophenol	90.4	46.8-133		%REC	96018	1	2/4/2008 5:22 PM
Surr: 2-Fluorobiphenyl	76.7	51.5-120		%REC	96018	1	2/4/2008 5:22 PM
Surr: 2-Fluorophenol	70.9	34.7-120		%REC	96018	1	2/4/2008 5:22 PM
Surr: 4-Terphenyl-d14	82.8	46.6-121		%REC	96018	1	2/4/2008 5:22 PM
Surr: Nitrobenzene-d5	72.2	39.2-120		%REC	96018	1	2/4/2008 5:22 PM
Surr: Phenol-d5	76.7	41.9-120		%REC	96018	1	2/4/2008 5:22 PM
TCL VOLATILE ORGANICS							
				SW8260B	(SW5035)		Analyst: PV
1,1,1-Trichloroethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,1,2,2-Tetrachloroethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,1,2-Trichloroethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,1-Dichloroethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,1-Dichloroethene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,2,4-Trichlorobenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,2-Dibromo-3-chloropropane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,2-Dibromoethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,2-Dichlorobenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,2-Dichloroethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Qualifiers:				E	Estimated (Value above quantitation range)		
BRL				S	Surrogate Recovery outside accepted recovery limits		
H				Narr	See Case Narrative		
N				NC	Not Confirmed		
B							

Analytical Environmental Services, Inc.

Date: 08-Feb-08

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS							
1,2-Dichloropropane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,3-Dichlorobenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
1,4-Dichlorobenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
2-Butanone	BRL	35		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
2-Hexanone	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
4-Methyl-2-pentanone	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Acetone	BRL	70		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Benzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Bromodichloromethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Bromoform	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Bromomethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Carbon disulfide	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Carbon tetrachloride	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Chlorobenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Chloroethane	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Chloroform	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Chloromethane	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
cis-1,2-Dichloroethene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
cis-1,3-Dichloropropene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Cyclohexane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Dibromochloromethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Dichlorodifluoromethane	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Ethylbenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Freon-113	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Isopropylbenzene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
m,p-Xylene	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Methyl acetate	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Methyl tert-butyl ether	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Methylcyclohexane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Methylene chloride	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
o-Xylene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Styrene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Tetrachloroethene		26		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Toluene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
trans-1,2-Dichloroethene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
trans-1,3-Dichloropropene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Trichloroethene	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Trichlorofluoromethane	BRL	3.5		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Vinyl chloride	BRL	7.0		µg/Kg-dry	96176	1	2/6/2008 4:15 PM
Surr: 4-Bromofluorobenzene		73.3	57.7-127	%REC	96176	1	2/6/2008 4:15 PM
Surr: Dibromofluoromethane		68.6	61.7-143	%REC	96176	1	2/6/2008 4:15 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank

E Estimated (Value above quantitation range)
S Surrogate Recovery outside accepted recovery limits
Narr See Case Narrative
NC Not Confirmed

Analytical Environmental Services, Inc.

Date: 08-Feb-08

CLIENT:	Ahlberg Engineering	Client Sample ID: DC-1					
Project:	Duluth Downtown - Dry cleaners	Collection Date: 1/31/2008					
Lab ID:	0801104-001	Matrix: SOIL					
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS Sur: Toluene-d8	76.0	73-127	%REC	SW8260B (SW5035)	96176	1	Analyst: PV 2/6/2008 4:15 PM
PERCENT MOISTURE Percent Moisture	18.7	0	wt%	D2216		1	Analyst: VRA 2/7/2008 5:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
	BRL	Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
	H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
	N	Analyte not NELAC certified	NC	Not Confirmed
	B	Analyte detected in the associated Method Blank		

Analytical Environmental Services, Inc.

Date: 08-Feb-08

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL-SEMITOTAL ORGANICS							
1,1'-Biphenyl	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,4,5-Trichlorophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,4,6-Trichlorophenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,4-Dichlorophenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,4-Dimethylphenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,4-Dinitrophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,4-Dinitrotoluene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2,6-Dinitrotoluene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2-Chloronaphthalene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2-Chlorophenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2-Methylnaphthalene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2-Methylphenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2-Nitroaniline	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
2-Nitrophenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
3,3'-Dichlorobenzidine	BRL	840		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
3-Nitroaniline	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4,6-Dinitro-2-methylphenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Bromophenyl phenyl ether	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Chloro-3-methylphenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Chloroaniline	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Chlorophenyl phenyl ether	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Methylphenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Nitroaniline	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
4-Nitrophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Acenaphthene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Acenaphthylene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Acetophenone	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Anthracene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Atrazine	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Benz(a)anthracene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Benzaldehyde	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Benzo(a)pyrene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Benzo(b)fluoranthene		480		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Benzo(g,h,i)perylene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Benzo(k)fluoranthene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Bis(2-chloroethoxy)methane	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Bis(2-chloroethyl)ether	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Bis(2-chloroisopropyl)ether	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Bis(2-ethylhexyl)phthalate	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Butyl benzyl phthalate	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Caprolactam	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM

Qualifiers: * Value exceeds Maximum Contaminant Level

BRL Below Reporting Limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated Method Blank

E Estimated (Value above quantitation range)

S Surrogate Recovery outside accepted recovery limits

Narr See Case Narrative

NC Not Confirmed

Analytical Environmental Services, Inc.

Date: 08-Feb-08

CLIENT: Ahlberg Engineering

Client Sample ID: DC-2

Project: Duluth Downtown - Dry cleaners

Collection Date: 1/31/2008

Lab ID: 0801I04-002

Matrix: SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL-SEMICVOLATILE ORGANICS							
Carbazole	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Chrysene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Dibenz(a,h)anthracene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Dibenzofuran	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Diethyl phthalate	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Dimethyl phthalate	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Di-n-butyl phthalate	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Di-n-octyl phthalate	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Fluoranthene	460	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Fluorene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Hexachlorobenzene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Hexachlorobutadiene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Hexachlorocyclopentadiene	BRL	830		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Hexachloroethane	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Indeno(1,2,3-cd)pyrene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Isophorone	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Naphthalene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Nitrobenzene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
N-Nitrosodi-n-propylamine	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
N-Nitrosodiphenylamine	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Pentachlorophenol	BRL	2100		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Phenanthrene	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Phenol	BRL	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Pyrene	430	420		µg/Kg-dry	96018	1	2/4/2008 5:50 PM
Sum: 2,4,6-Tribromophenol	89.3	46.8-133		%REC	96018	1	2/4/2008 5:50 PM
Sum: 2-Fluorobiphenyl	78.8	51.5-120		%REC	96018	1	2/4/2008 5:50 PM
Sum: 2-Fluorophenol	76.0	34.7-120		%REC	96018	1	2/4/2008 5:50 PM
Sum: 4-Terphenyl-d14	84.8	46.6-121		%REC	96018	1	2/4/2008 5:50 PM
Sum: Nitrobenzene-d5	73.7	39.2-120		%REC	96018	1	2/4/2008 5:50 PM
Sum: Phenol-d5	81.0	41.9-120		%REC	96018	1	2/4/2008 5:50 PM
TCL VOLATILE ORGANICS							
1,1,1-Trichloroethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,1,2,2-Tetrachloroethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,1,2-Trichloroethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,1-Dichloroethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,1-Dichloroethene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,2,4-Trichlorobenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,2-Dibromo-3-chloropropane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,2-Dibromoethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,2-Dichlorobenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,2-Dichloroethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM

Qualifiers: * Value exceeds Maximum Contaminant Level

E Estimated (Value above quantitation range)

BRL Below Reporting Limit

S Surrogate Recovery outside accepted recovery limits

H Holding times for preparation or analysis exceeded

Narr See Case Narrative

N Analyte not NELAC certified

NC Not Confirmed

B Analyte detected in the associated Method Blank

Analytical Environmental Services, Inc.

Date: 08-Feb-08

CLIENT:	Ahlberg Engineering	Client Sample ID: DC-2					
Project:	Duluth Downtown - Dry cleaners	Collection Date: 1/31/2008					
Lab ID:	0801104-002	Matrix: SOIL					
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS							
				SW8260B	(SW5035)		Analyst: PV
1,2-Dichloropropane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,3-Dichlorobenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
1,4-Dichlorobenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
2-Butanone	BRL	33		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
2-Hexanone	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
4-Methyl-2-pentanone	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Acetone	BRL	67		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Benzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Bromodichloromethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Bromoform	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Bromomethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Carbon disulfide	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Carbon tetrachloride	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Chlorobenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Chloroethane	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Chloroform	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Chloromethane	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
cis-1,2-Dichloroethene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
cis-1,3-Dichloropropene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Cyclohexane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Dibromochloromethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Dichlorodifluoromethane	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Ethylbenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Freon-113	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Isopropylbenzene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
m,p-Xylene	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Methyl acetate	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Methyl tert-butyl ether	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Methylcyclohexane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Methylene chloride	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
o-Xylene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Styrene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Tetrachloroethene		1600	430		96121	100	2/7/2008 4:18 PM
Toluene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
trans-1,2-Dichloroethene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
trans-1,3-Dichloropropene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Trichloroethene	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Trichlorofluoromethane	BRL	3.3		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Vinyl chloride	BRL	6.7		µg/Kg-dry	96176	1	2/6/2008 5:06 PM
Surr: 4-Bromofluorobenzene		70.9	57.7-127	%REC	96176	1	2/6/2008 5:06 PM
Surr: 4-Bromofluorobenzene		97.5	57.7-127	%REC	96121	100	2/7/2008 4:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank

- E Estimated (Value above quantitation range)
- S Surrogate Recovery outside accepted recovery limits
- Narr See Case Narrative
- NC Not Confirmed

Analytical Environmental Services, Inc.

Date: 08-Feb-08

CLIENT: Ahlberg Engineering **Client Sample ID:** DC-2
Project: Duluth Downtown - Dry cleaners **Collection Date:** 1/31/2008
Lab ID: 0801I04-002 **Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS							
Surr: Dibromofluoromethane	69.0	61.7-143	%REC	96176	1	2/6/2008 5:08 PM	Analyst: PV
Surr: Dibromofluoromethane	91.2	61.7-143	%REC	96121	100	2/7/2008 4:18 PM	
Surr: Toluene-d8	77.6	73-127	%REC	96176	1	2/6/2008 5:08 PM	
Surr: Toluene-d8	113	73-127	%REC	96121	100	2/7/2008 4:18 PM	
PERCENT MOISTURE							
Percent Moisture	20.7	0	wt%		1	2/6/2008 3:30 PM	Analyst: ZA

Qualifiers:	*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL		Below Reporting Limit	S	Surrogate Recovery outside accepted recovery limits
H		Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N		Analyte not NELAC certified	NC	Not Confirmed
B		Analyte detected in the associated Method Blank		

Groundwater Analytical Results

Analytical Environmental Services, Inc.

Date: 05-Mar-08

CLIENT: Ahlberg Engineering
Lab Order: 0802E99
Project: Downtown Duluth
Lab ID: 0802E99-001A

Client Sample ID: GW-1
Tag Number:
Collection Date: 2/26/2008 11:40:00 AM
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS							
1,1,1-Trichloroethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,1,2-Trichloroethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,1-Dichloroethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,1-Dichloroethene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,2,4-Trichlorobenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,2-Dibromoethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,2-Dichlorobenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,2-Dichloroethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,2-Dichloropropane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,3-Dichlorobenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
1,4-Dichlorobenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
2-Butanone	BRL	50		µg/L	96719	1	2/27/2008 8:01:00 PM
2-Hexanone	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
4-Methyl-2-pentanone	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
Acetone	BRL	50		µg/L	96719	1	2/27/2008 8:01:00 PM
Benzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Bromodichloromethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Bromoform	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Bromomethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Carbon disulfide	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Carbon tetrachloride	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Chlorobenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Chloroethane	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
Chloroform	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Chloromethane	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
cis-1,2-Dichloroethene	21	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
cis-1,3-Dichloropropene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Cyclohexane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Dibromochloromethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Dichlorodifluoromethane	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
Ethylbenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Freon-113	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
Isopropylbenzene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
m,p-Xylene	BRL	10		µg/L	96719	1	2/27/2008 8:01:00 PM
Methyl acetate	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Methyl tert-butyl ether	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Methylcyclohexane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Methylene chloride	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Estimated value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
	N	Analyte not NELAC certified	Rpt Lim	Reporting Limit
	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc.

Date: 05-Mar-08

CLIENT: Ahlberg Engineering
Lab Order: 0802E99
Project: Downtown Duluth
Lab ID: 0802E99-001A

Client Sample ID: GW-1
Tag Number:
Collection Date: 2/26/2008 11:40:00 AM
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	BatchID	DF	Date Analyzed
TCL VOLATILE ORGANICS							
o-Xylene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Styrene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Tetrachloroethene	12000	2500		µg/L	96719	500	2/28/2008 11:24:00 AM
Toluene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
trans-1,2-Dichloroethene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
trans-1,3-Dichloropropene	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Trichloroethene	41	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Trichlorofluoromethane	BRL	5.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Vinyl chloride	14	2.0		µg/L	96719	1	2/27/2008 8:01:00 PM
Surr: 4-Bromofluorobenzene	96.7	60.4-132		%REC	96719	1	2/27/2008 8:01:00 PM
Surr: 4-Bromofluorobenzene	98.4	60.4-132		%REC	96719	500	2/28/2008 11:24:00 AM
Surr: Dibromofluoromethane	93.1	76.2-120		%REC	96719	500	2/28/2008 11:24:00 AM
Surr: Dibromofluoromethane	103	76.2-120		%REC	96719	1	2/27/2008 8:01:00 PM
Surr: Toluene-d8	102	73.3-124		%REC	96719	500	2/28/2008 11:24:00 AM
Surr: Toluene-d8	103	73.3-124		%REC	96719	1	2/27/2008 8:01:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
BRL		Below Reporting Limit	E	Estimated value above quantitation range
H		Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N		Analyte not NELAC certified	Rpt Lim	Reporting Limit
S		Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc.

Date: 05-Mar-08

CLIENT: Ahlberg Engineering
Lab Order: 0802E99
Project: Downtown Duluth
Lab ID: 0802E99-001B

Client Sample ID: GW-1
Tag Number:
Collection Date: 2/26/2008 11:40:00 AM
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	BatchID	DF	Date Analyzed
TCL-SEMOVOLATILE ORGANICS							
1,1'-Biphenyl	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2,4,5-Trichlorophenol	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
2,4,6-Trichlorophenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2,4-Dichlorophenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2,4-Dimethylphenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2,4-Dinitrophenol	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
2,4-Dinitrotoluene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2,6-Dinitrotoluene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2-Chloronaphthalene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2-Chlorophenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2-Methylnaphthalene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2-Methylphenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
2-Nitroaniline	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
2-Nitrophenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
3,3'-Dichlorobenzidine	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
3-Nitroaniline	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
4,6-Dinitro-2-methylphenol	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Bromophenyl phenyl ether	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Chloro-3-methylphenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Chloroaniline	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Chlorophenyl phenyl ether	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Methylphenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Nitroaniline	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
4-Nitrophenol	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
Acenaphthene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Acenaphthylene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Acetophenone	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Anthracene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Atrazine	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Benz(a)anthracene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Benzaldehyde	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Benzo(a)pyrene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Benzo(b)fluoranthene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Benzo(g,h,i)perylene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Benzo(k)fluoranthene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Bis(2-chloroethoxy)methane	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Bis(2-chloroethyl)ether	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Bis(2-chloroisopropyl)ether	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Bis(2-ethylhexyl)phthalate	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Butyl benzyl phthalate	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level

BRL Below Reporting Limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated Method Blank

E Estimated value above quantitation range

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

Analytical Environmental Services, Inc.

Date: 05-Mar-08

CLIENT:	Ahlberg Engineering	Client Sample ID:	GW-1
Lab Order:	0802E99	Tag Number:	
Project:	Downtown Duluth	Collection Date:	2/26/2008 11:40:00 AM
Lab ID:	0802E99-001B	Matrix:	AQUEOUS

Analyses	Result	Limit	Qual	Units	BatchID	DF	Date Analyzed
TCL-SEMOVOLATILE ORGANICS							
Caprolactam	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Carbazole	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Chrysene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Dibenz(a,h)anthracene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Dibenzofuran	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Diethyl phthalate	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Dimethyl phthalate	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Di-n-butyl phthalate	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Di-n-octyl phthalate	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Fluoranthene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Fluorene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Hexachlorobenzene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Hexachlorobutadiene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Hexachlorocyclopentadiene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Hexachloroethane	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Indeno(1,2,3-cd)pyrene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Isophorone	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Naphthalene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Nitrobenzene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
N-Nitrosodi-n-propylamine	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
N-Nitrosodiphenylamine	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Pentachlorophenol	BRL	25		µg/L	96890	1	3/3/2008 1:51:00 PM
Phenanthrene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Phenol	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Pyrene	BRL	10		µg/L	96890	1	3/3/2008 1:51:00 PM
Sur: 2,4,6-Tribromophenol	110	55-144		%REC	96890	1	3/3/2008 1:51:00 PM
Sur: 2-Fluorobiphenyl	88.2	53.6-118		%REC	96890	1	3/3/2008 1:51:00 PM
Sur: 2-Fluorophenol	58.1	25-115		%REC	96890	1	3/3/2008 1:51:00 PM
Sur: 4-Terphenyl-d14	87.8	35.5-134		%REC	96890	1	3/3/2008 1:51:00 PM
Sur: Nitrobenzene-d5	82.3	48.1-121		%REC	96890	1	3/3/2008 1:51:00 PM
Sur: Phenol-d5	43.8	10-115		%REC	96890	1	3/3/2008 1:51:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	BRL	Below Reporting Limit	E	Estimated value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
	N	Analyte not NELAC certified	Rpt Lim	Reporting Limit
	S	Spike Recovery outside limits due to matrix		



RELEASE NOTIFICATION FORM

HAZARDOUS SITES RESPONSE PROGRAM
GEORGIA ENVIRONMENTAL PROTECTION DIVISION
(Please type or print legibly)

1. The information provided in this form is for:

Initial Release Notification
 Supplemental Notification

PART I -- PROPERTY INFORMATION

2	EPA ID NUMBER (if applicable)	GAD981251952 (Delisted 9/28/2001)				
3	Tax Map and Parcel ID Number:	RG293 038				
4	Site or Facility Name	Former Duluth Dry Cleaning				
5	Site Street Address	3146 Main Street				
6	Site City	Duluth	County	Gwinnett	Zip	30096
7	Property Owner	ETJ Downtown, LLC				
8	Property Owner Mailing Address	2805 Peachtree Industrial Boulevard, Suite 112				
9	Property Owner City	Duluth	State	GA	Zip	30097
10	Property Owner Telephone No.	770-476-8100				
11	Site Contact Person	David Heydinger	Title			
12	Company Name	Mathias Corporation				
13	Site Contact Mailing Address	2805 Peachtree Industrial Boulevard, Suite 112				
14	Site Contact City	Duluth	State	GA	Zip	30097
15	Site Contact Telephone No.	770-476-8100				
16	Facility Operator	N/A	Title			
17	Company Name					
18	Facility Operator Mailing Address					
19	Facility Operator City		State		Zip	
20	Facility Operator Telephone No.					

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

NAME (Please type or print)

TITLE

SIGNATURE

DATE

PART II -- RELEASE INFORMATION

Page 2 of 10

Please provide the following information for EACH release at the site. If additional space is needed to answer any of the following questions, attach additional pages, as necessary.

1. Source of this release (i.e., drums, tanks, spills, wastepile etc.). Provide specific information on the suspected or known source of the release, including the source of this information:

The source of the contamination appears to be from the operation of the former Duluth Dry Cleaners that once operated on the site. The site was purchased by the City of Duluth, Georgia in February, 2000. Any release would have occurred prior to this date. The information was provided by a Phase I ESA performed by Matrix Engineering.

2. Release dates(s) and any known information about the history of the release, including the physical state of the material (solid, powder/ash, liquid/gas, sludge) and the quantity of material released (lbs, cubic yards, etc.):

The release would pre-date the February, 2000 purchase of the site by the City of Duluth, Georgia. After this date, the site was asphalt paved and used for parking. The material would have been liquid and the quantity of the spill is unknown.

3. Describe those actions that have been taken to investigate, clean up or otherwise remediate this release (e.g., removal of source of contamination; soil or water sampling performed; and monitoring wells installed and sampled).

A Phase I ESA, dated January 4, 2008, indicated the potential presence of a former dry cleaning facility. The asphalt was cored in several locations and shallow soil samples indicated contamination of up to 1600 ug/kg. A temporary well was installed and indicated groundwater contamination at levels of up to 12,000 ug/liter of tetrachloroethene.

4. Access to the area affected by the release. Check the appropriate box:

Inaccessible: A 24-hour surveillance system, or a completely closed barrier or fence to prevent entry.

Limited Access: Less than 24-hour surveillance system, and/or a barrier or fence that is partially open.

Unlimited Access: No surveillance, and no barrier or fence.

If the site is inaccessible or has limited access, then describe site surveillance systems, fences, security personnel or other barriers that would restrict access to the release.

5. For soil releases, indicate the type of material covering this release, by checking the appropriate box below.

- A permanent or otherwise maintained, essentially impenetrable non-earthen material such as concrete or asphalt
 An engineered and maintained earthen material or compacted fill or a high density synthetic material
 Loose earthen fill or native soil
 No cover
 Other

Describe the type and thickness of the material covering the contaminated soil or wastes.

The site is covered with a pavement consisting of 2 inches of asphalt over a 3 inch thick concrete slab.

PART II -- RELEASE INFORMATION

(Continued)

Page 3 of 10

6. Indicate the approximate distance from the edge of the area affected by the release to the nearest residence, playground, day care, school or nursing home.

Less than 300 feet 1001 to 3000 feet Greater than 1 mile
 301 to 1000 feet 3001 to 5280 feet

Provide the name and address of the nearest residence, playground, day care, school or nursing home.

Name: Monarch School

Address: 3057 Main Street, Duluth, Georgia 30097 (About 900 feet)

7. Indicate the distance between the area affected by the release and the nearest drinking water well (including wells located on the site).

Less than 0.5 miles 1 to 2 miles Greater than 3 miles
 0.5 to 1 mile 2 to 3 miles

Provide the name of the property owner and address of the location of the closest drinking water well.

Name: City of Duluth

Address: 3578 West Lawrenceville Street, Duluth, Georgia 30096

8. Is there any evidence to suspect that a person or a sensitive environment has been exposed to this release?

Yes No

If yes, provide details on the potentially affected humans or sensitive environments.

REQUIRED ATTACHMENTS

9. SITE SUMMARY

A. Attach a summary (no longer than one page) that gives a general description of the property, the areas affected by the release both within and beyond the property boundaries, and any actions taken to investigate, clean up or otherwise remediate the property. The summary shall include a description of the property boundaries of the site and adjacent properties as well as a detailed description of the nature and known or estimated extent of the area of contamination. Describe any additional relevant information concerning the nature of the release. In addition to the one page summary, other information concerning the property may also be attached.

B. Attach a site map that shows known or suspected sources as well as the locations of all samples collected at the site. The site map should include outlines of buildings as well as covered ground areas (e.g., parking lots or other paved areas). A legend should be provided to explain any symbols used on the map.

10. U.S.G.S. Topographic Map

Along with this form, you MUST submit an original U.S.G.S. topographical map (1:24000) with the geographic center of the site clearly marked. See instructions for information on how to obtain an original of the map on which your site is located.

INFORMATION

PART III - SOIL RELEASE INFORMATION
Please provide the following information for all samples analyzed from the site. Use additional sheets if necessary.

PART III - SOIL RELEASE INFORMATION
Please provide the following information for all samples analyzed from the site. Use additional sheets if necessary.

Highest Concentration
Detected Greater Than
24 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Highest Concentration Between
6-24 inches

Highest Concentration Between
0-6 inches

Regulated Substance

CAS Number

Specify Units for Concentrations

Hazardous Sites Response Program Release Notification Summary

Former Duluth Dry Cleaning
3146 Main Street
Duluth, GA 30096

EPA ID #: GAD981251952 (Deactivated 9/28/01)

The former Duluth Dry Cleaning site is located on the south side of the intersection of Main Street and Knott Street in Duluth, Georgia. The site is generally flat from front to rear, falling approximately ten (10) feet along a slope at the rear property line. The site was formerly occupied with a small building. This building was demolished prior to 2000, and the site was paved with asphalt. The former building foundation outline is reflected through the asphalt paving. The site is bordered to the south by new construction of an office building. The site is bordered to the east by the Norfolk Southern Rail tracks. Commercial offices and the Red Clay Theater border the site to the north across Knott Street. The new Duluth City Hall adjoins the site to the west across Main Street.

A Phase I Environmental Site Assessment dated January 4, 2008 identified a former dry cleaning establishment at the site. On January 31, 2008, the parking lot was cored in four (4) locations and shallow soil samples were collected and analyzed with a Photoionization detector (PID). The two samples with the highest PID readings were analyzed for VOC's and SVOC's. One of the two samples had reportable concentrations of tetrachloroethene at 1600 ug/kg. The other sample was significantly below any reportable limit for soils. Based upon this information, a temporary monitoring well was drilled in the location of the highest test results on February 25, 2008. The boring encountered groundwater at an approximate depth of forty-three (43) feet below the ground surface. A groundwater sample was obtained and analyzed for VOC's and SVOC's. The groundwater had reportable concentrations of tetrachloroethene at 12,000 ug/l, trichloroethene at 41 ug/l, and vinyl chloride at 14 ug/l.

The current extent of the release is not currently known. The quantity of the release is not known, however, the release apparently happened prior to February, 2000 when the City of Duluth purchased the property. The City of Duluth removed one (1) underground storage tank and one (1) above ground storage tank from the property in 2000. The City of Duluth had the EPA ID number deactivated in September, 2001. The current owner acquired the property from the City of Duluth in December, 2007.

Sensitive receptors in the area include the Monarch School, which is approximately 900 feet northeast of the site, the Duluth Montessori School which is approximately 1500 feet northeast of the site, and the Duluth High School which is approximately 2500 feet north of the site. The nearest residence is approximately 1000 feet northwest of the site. There is an abandoned City of Duluth well (12GG03) located approximately 2700 feet northwest of the site. A private well (12GG04) is located approximately 5500 feet east of the site. There are two streams which are each located approximately 2600 feet northwest and southeast of the site. Drainage from the site appears to follow a ridge southward and then flows either east or west toward these streams.

Hazardous Sites Response Program Release Notification Summary

Former Duluth Dry Cleaning
3146 Main Street
Duluth, GA 30096

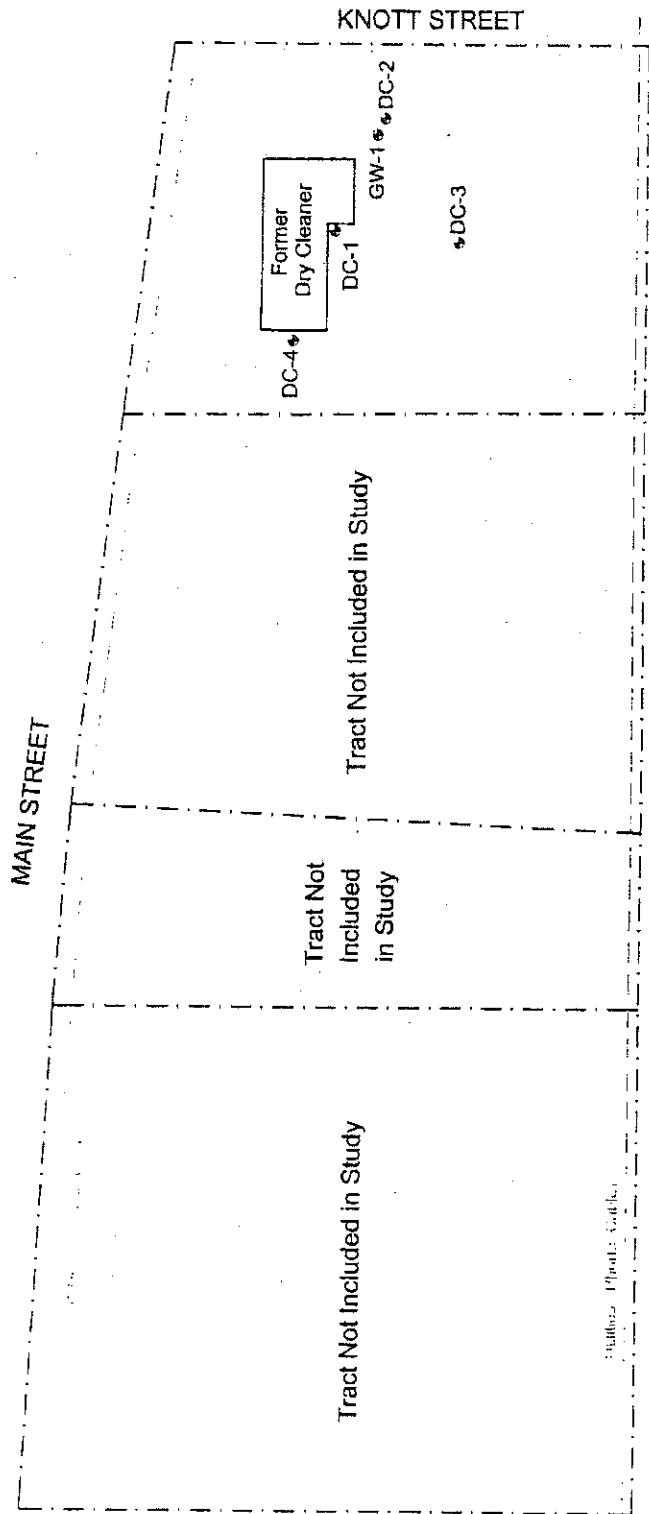
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NORFOLK SOUTHERN RAILROAD

PROJECT NAME	PROJECT NO.	LEGEND
Former Duluth Dry Cleaning	01-75048	— Utilities
3146 Main Street	DATE	- - - Property Line
Duluth, Georgia	03-05-2008	*

ProVal Plus

File View Property Records Administration Utilities Value Reports Help

R6293 038 9045 Active Browse 875 City or Duluth

Parcel	Land	Values	Sketch	Improv	Buildings	Images	Compt	Records																																																																																
Parcel Information <table> <tr> <td>ParcelID:</td> <td>R6293 038</td> <td>Alt PIN:</td> <td>1142822</td> </tr> <tr> <td>Parent Parcel:</td> <td></td> <td>City:</td> <td>DULUTH</td> </tr> <tr> <td>Jurisdiction:</td> <td>Gwi</td> <td>Section/Plot:</td> <td></td> </tr> <tr> <td>Area:</td> <td>001</td> <td>Routing Number:</td> <td></td> </tr> <tr> <td>District:</td> <td>04</td> <td>Assm. Parcel:</td> <td></td> </tr> </table> Owner Information <table> <tr> <td>DULUTH DOWNTOWN I LLC</td> <td>Parcel Address</td> </tr> <tr> <td>2805 PEACHTREE INDUSTRIAL...</td> <td>OLD PEACHTREE RD</td> </tr> <tr> <td>DULUTH, GA 30097-8170</td> <td>DULUTH</td> </tr> </table> Certified Values <table> <tr> <td>Valuation Method:</td> <td>Cost</td> <td>Land:</td> <td>\$448,700</td> </tr> <tr> <td>Posted Date:</td> <td>3/18/2008</td> <td>Building:</td> <td>\$264,900</td> </tr> <tr> <td>Change Reason:</td> <td>Bld Added, Updated or Raz'd</td> <td>Total:</td> <td>\$713,600</td> </tr> <tr> <td>Effective Date:</td> <td>01/01/2008</td> <td>Land Assessed:</td> <td>\$179,480</td> </tr> <tr> <td>Notice Printed:</td> <td>CLEARED</td> <td>Building Assessed:</td> <td>\$105,960</td> </tr> <tr> <td></td> <td></td> <td>Total Assessed:</td> <td>\$285,440</td> </tr> </table> Current Transfer Info <table> <tr> <td>Grantor:</td> <td>Date:</td> <td>12/18/2007</td> <td>Book:</td> <td>48510</td> <td>Page:</td> <td>788</td> <td>Value:</td> <td>0</td> </tr> <tr> <td>ETJ DOWNTOWN LLC</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> Current Land Info <table> <tr> <td>Acreage:</td> <td>1.03</td> <td>Legal Sq. Feet:</td> <td>44865</td> </tr> <tr> <td colspan="4">Legal Description:</td> </tr> <tr> <td colspan="4">T011 D1314 L15 DULUTH SURVEY</td> </tr> </table>									ParcelID:	R6293 038	Alt PIN:	1142822	Parent Parcel:		City:	DULUTH	Jurisdiction:	Gwi	Section/Plot:		Area:	001	Routing Number:		District:	04	Assm. Parcel:		DULUTH DOWNTOWN I LLC	Parcel Address	2805 PEACHTREE INDUSTRIAL...	OLD PEACHTREE RD	DULUTH, GA 30097-8170	DULUTH	Valuation Method:	Cost	Land:	\$448,700	Posted Date:	3/18/2008	Building:	\$264,900	Change Reason:	Bld Added, Updated or Raz'd	Total:	\$713,600	Effective Date:	01/01/2008	Land Assessed:	\$179,480	Notice Printed:	CLEARED	Building Assessed:	\$105,960			Total Assessed:	\$285,440	Grantor:	Date:	12/18/2007	Book:	48510	Page:	788	Value:	0	ETJ DOWNTOWN LLC									Acreage:	1.03	Legal Sq. Feet:	44865	Legal Description:				T011 D1314 L15 DULUTH SURVEY			
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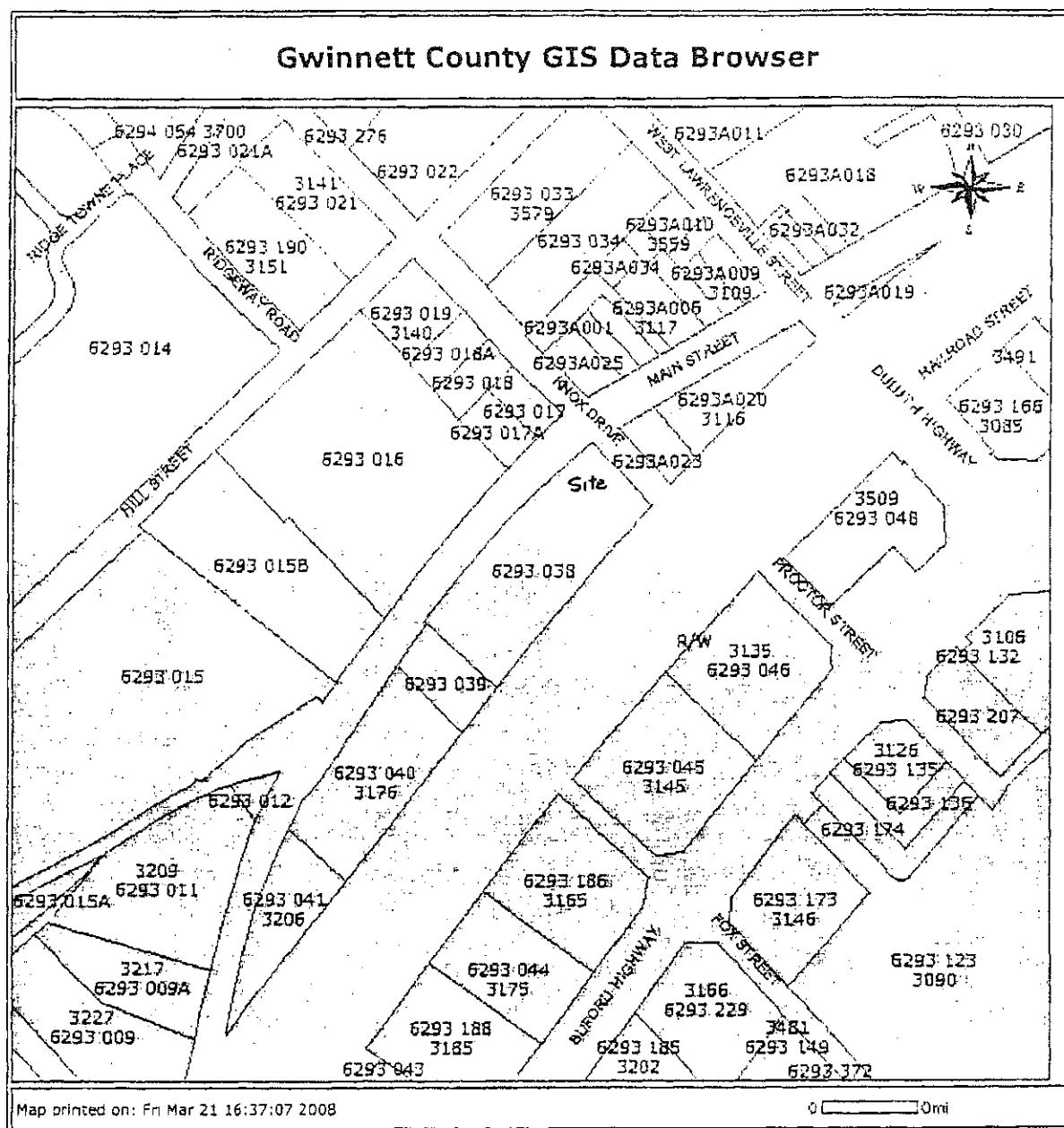
PIN | Owner | Alt-PIN | Address |

OLD PEACHTREE RD

- C01: Commercial record #01
- C02: Commercial record #02
- C03: Commercial record #03

Parcel 0 of 1

Start | Inbox - Micros... | ProVal Plus | Map Viewer | Microsoft GR... | Solitaire | More Informat... | 4:36 PM



Disclaimer: This map is a graphical representation of data obtained from aerial photography, recorded deeds, plats and engineering drawings and other public records and data. Gwinnett County does not warrant the accuracy or currency of the data it has provided and does not guarantee the suitability of the data for any purpose, expressed or implied. ALL DATA IS PROVIDED AS IS, WITH ALL FAULTS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This map is the proprietary product of Gwinnett County and in no event will Gwinnett County be liable for damages, including any loss of profits, lost savings, or other incidental or consequential damages arising out of the use of or inability to use this map.

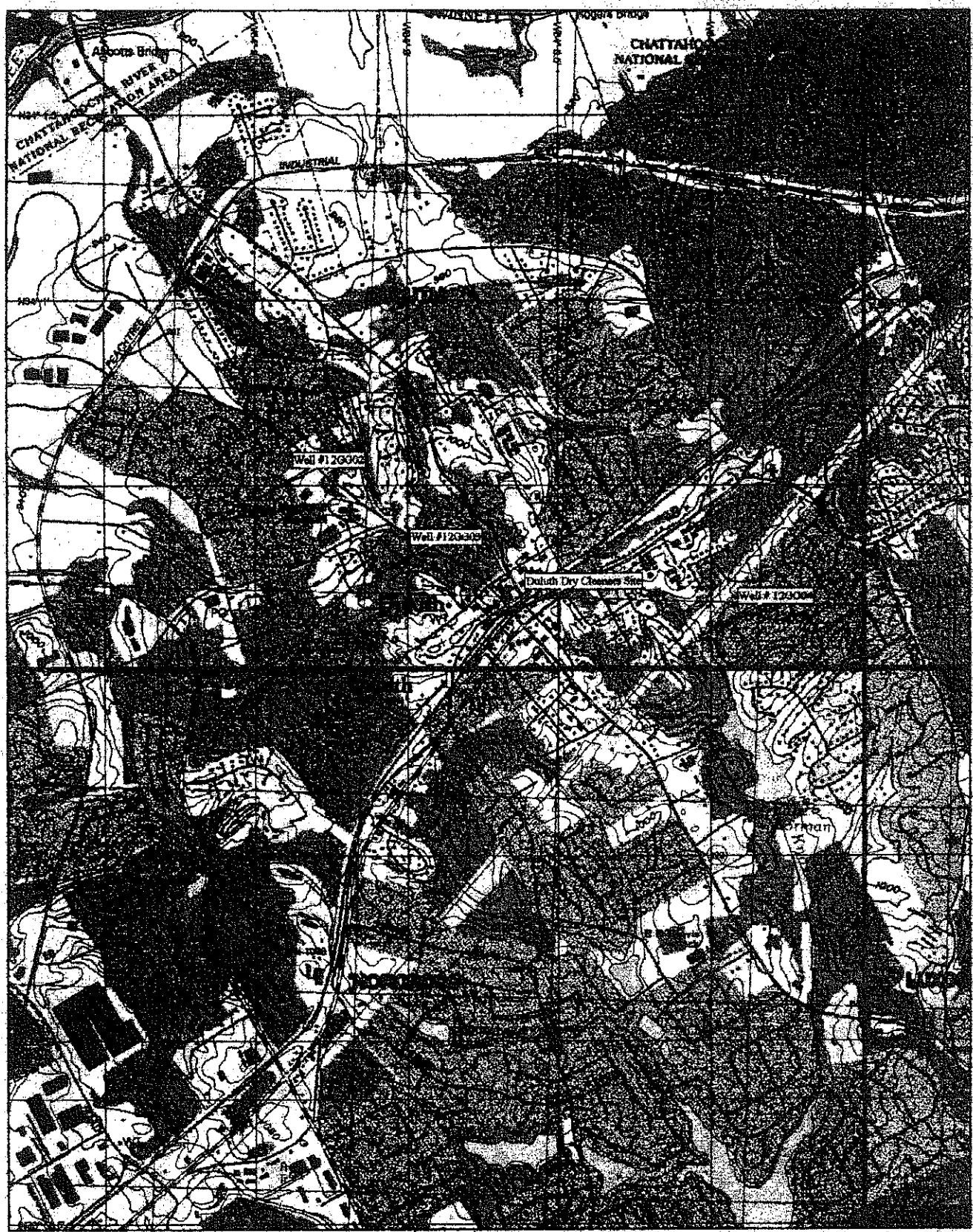
Comments:

Map Produced by Gwinnett County GIS, Department of Support Services.

Contact

Name **GIS Data Viewer Administrator**

Phone **770.822.8036**Email **gisoffice@gwinnettcounty.com**



2-3 Topographic Copyright © 1993 Defense Mapping Agency, Falls Church, VA 22046 Source Data: AFSPC

1000 ft Scale: 1 : 25,000 Detail: 13-8 Datum: WGS84

**GEORGIA STATE BOARD OF WORKERS' COMPENSATION
CHANGE OF PHYSICIAN /ADDITIONAL TREATMENT BY CONSENT- (FORM
WC-200A)**

Claim No. : 2008-018409	Claimant : LINK, MICHELE
SSN : 256-57-4714	Date of Injury : 04/28/2006
County Of Injury : GWINNETT	Claim Status : Open
ALJ : None	Catastrophic : No

Parties to Claim / Identifying Information				
Employer	Insurer	Claims Office	Employer Attorney	Insurer Attorney
GWINNETT COUNTY PUBLIC SCHOOLS			STEPHEN D PEREIRA (Both)	
GWINNETT COUNTY PUBLIC SCHOOLS (Self-Insurer)	GWINNETT COUNTY PUBLIC SCHOOLS	BRENTWOOD SERVICES ADMINISTRATOR S INC		
GWINNETT COUNTY BOARD OF EDUCATION				
Claimant Attorney (s)	Rehabilitation Supplier Name		Other Parties	Other Parties Attorney
TODD K MAZIAR				

Change of Physician/ Additional Treatment by Consent – (Form WC-200A)	
B. Physicians/ Treatment:	
1. Current Authorized Treating :	Dr. Peter Michael Skaliy
Physician Name :	
Address 1 :	12425 Morris Road
Address 2 :	Suite A
City :	Alpharetta
State :	GEORGIA
Zip :	30005-
Phone :	770-844-3242 Extn:223
2. [X] Requested Authorized Physician Name:	Dr. Eric Shaw
Address 1 :	Sheperd Spine Center
Address 2 :	2020 Peachtree Road NW
City :	Atlanta
State :	GEORGIA
Zip :	30309-
Phone :	404-603-4277 Extn:
3. [] Authorized Additional Treatment :	
C. Agreement:	
1. [X] Change in Treating Physician	
New Physician Name :	Dr. Eric Shaw
Effective Date :	03/15/2011
2. [] Additional Medical Treatment	

Name of Physician :	
Effective Date :	
Primary Treating Physician :	
Agreement Made By	
Claimant/Representative Name :	TODD K MAZIAR
Address 1 :	191 Peachtree Street, N.E.
Address 2 :	Suite 4200
City :	ATLANTA
State :	
Zip :	30303-
Employer/Representative Name :	STEPHEN D PEREIRA
Address 1:	P.O. DRAWER 1250
Address 2 :	
City :	LAWRENCEVILLE
State :	
Zip :	30046-
D. Certification	
[X] I hereby certify that I have sent a copy of this information to all parties, counsel and the above-named medical providers, and to the State Board of Worker's Compensation, 270 Peachtree Street, N. W., Atlanta, Georgia 30303-1299.	
Submitter Details	
Filing Party :	STEPHEN D PEREIRA
Submitter Name :	Pereira Stephen
Signature Indicator :	Yes
Phone :	770-963-1997 Extn :
Date :	03/15/2011
IF YOU HAVE QUESTIONS PLEASE CONTACT THE STATE BOARD OF WORKER'S COMPENSATION AT 404-656-3818 OR 1-800-533-0682 OR VISIT http://www.sbcc.georgia.gov Willfully making a false statement for the purpose of obtaining or denying benefits is a crime subject to penalties of up to \$10,000.00 per violation (O.C.G.A. §34-9-18 and 34-9-19). This form was electronically submitted via ICMS.	



EQ - The Environmental Quality Company

Waste Characterization Report

I authorize EQ - The Environmental Quality Company to choose the appropriate method of waste management, from the technologies offered, at the EQ facilities identified below.

<input type="checkbox"/> Michigan Disposal Waste Treatment Plant (Stabilization and Treatment)	49350 North I-94 Service Drive, Belleville, Michigan 48111	EPA ID #MID000724831
<input type="checkbox"/> Wayne Disposal, Inc. (Hazardous & PCB Waste Landfill)	49350 North I-94 Service Drive, Belleville, Michigan 48111	EPA ID #MID048090633
<input type="checkbox"/> EQ Detroit, Inc. (Stabilization, Wastewater Treatment)	1923 Frederick, Detroit, MI 48211	EPA ID #MID980991566
<input type="checkbox"/> EQ Resource Recovery, Inc. (Solvent Recycling, Fuel Blending, WW Treatment)	36345 Van Born Road, Romulus, Michigan 48174	EPA ID #MID060975844
<input checked="" type="checkbox"/> EQ Florida, Inc. (Drum Consolidation, Labpack Decommissioning)	7202 East Eighth Ave., Tampa, FL 33619	EPA ID #FLD981932494
<input type="checkbox"/> EQ Detroit Transfer and Processing (Drum Transfer/Universal Waste Handling)	2000 Ferry Street, Detroit, MI 48211	EPA ID #MIK939928313
<input type="checkbox"/> EQIS Indianapolis Transfer and Processing (Drum Transfer/Non-Hazardous Waste Processing)	2650 N. Shadeland Avenue, Indianapolis, IN 46219	EPA ID #INR000125641
<input type="checkbox"/> EQIS Atlanta Transfer and Processing (Drum Transfer/Non-Hazardous Waste Processing)	5600 Fulton Industrial Blvd., Atlanta, Georgia 30336	EPA ID #GAR000039776
<input type="checkbox"/> EQ Augusta, Inc. (Wastewater Treatment)	3920 Goshen Industrial Blvd., Augusta, GA 30906	EPA ID #GAR000011817
<input type="checkbox"/> EQ Ohio (Envirite of Ohio) (Stabilization and Treatment)	2050 Central Avenue, SE, Canton, OH 44707	EPA ID #OHD980568992
<input type="checkbox"/> EQ Pennsylvania (Envirite of Pennsylvania) (Stabilization and Treatment)	730 Vogelsong Road, York, PA 17404	EPA ID #PAD010154045
	Phone: 717-846-1900	Fax: 717-854-6757

Please note, this profile should not be used for wastes destined to EQ Illinois (Envirite of Illinois). For more information, please contact our National Service Center at (800)592-5489.

Waste Common Name: IDW PURGE WATER (TCE)

Section 1 - Generator & Customer Info

SIC/NAICS*:

Generator EPA ID: GAC-ESQ-G-

Generator: CITY OF DULUTH
Address: 3146 SOUTH PEACHTREE STREET
City: DULUTH
State: GA Zip: 30095
County:

Mailing Address

Address: 3146 SOUTH PEACHTREE STREET
City: DULUTH
State: GA Zip: 30095

Generator Contact

Name:
Title:
Phone: () -
Fax: () -

*For a list of NAICS codes, please refer to Section 9 of the EQ Resource Guide.

EQ Customer No.: 4506

Invoicing Company

Company: EQIS-ATLANTA
Address: 5600 FULTON INDUSTRIAL BLVD S W
City: ATLANTA
State: GA Zip: 30336
Country: USA

Invoicing Contact

Name:
Phone: () -
Fax: () -

Technical Contact

Name:
Phone: () -
Fax: () -
Mobile: () -
E-mail:
Pager: () -

Section 2 - Shipping & Packaging Info

2.1) Shipping Volume & Unit: 1 X 55

Frequency: One Time Only

2.2) DOT Shipping Name: Hazardous waste, liquid, n.o.s.

2.3) Is this waste surcharge exempt? Yes No (If you answered "Yes" to question 2.3, select the Surcharge Exemption reason.)

2.4) Packaging (check all that apply)

- Bulk Solid (yd³< 2000 lbs/yd³)
 Totes, Size
 Other (palletized, 5 gal. Pail, etc.)

- Bulk Solid (Ton > 2000 lbs./yd³)
 Cubic Yard Boxes/Bags

- Bulk Liquids (Gallon)
 Drums, Size 55

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

Section 3 - Physical Characteristics

3.1) Color: BROWN/CLEAR

3.2) Odor: MILD

3.3) Does this waste contain any "Potentially Odorous Constituents" as defined in the EQ Resource Guide? (Section 3) Yes No

3.4) Physical State at 70 ° F: Solid Dust/Powder Liquid Sludge

3.5) What is the pH of this waste? ≤ 2 2.1-4.9 5-10 10.1-12.4 ≥ 12.5

3.6) What is the flash point of this waste? <90 ° F 90-139 ° F 140-199 ° F ≥ 200 ° F

3.7) Does this waste contain? (check all that apply) None
 Biodegradable Sorbants Amines Ammonia Free Liquids Oily Residue Metal Fines
 Shock Sensitive Waste Reactive Waste Radioactive Waste Water Reactive Biohazard Aluminum
 Asbestos - non-friable Asbestos - friable Dioxins Explosives Pyrophoric Waste Isocyanates
 Furans

Section 4 - Composition / Generating Process

4.1) Describe the physical composition of the waste (i.e., soil, water, PPE, debris, key chemical compounds, etc.)

IDW PURGE WATER (TCE) from _____ 100. to _____ 100. %

4.2) Provide a detailed description of the process generating this waste. (attach flow diagram if available).

PURGE WATER FROM MONITORING WELL INSTALLATION. TCE CONTAMINATED.

Section 5 - Is This Hazardous Waste?

Please refer to Section 5 of the EQ Resource Guide for a list of waste codes.

As determined by 40 CFR, Part 261 and Michigan Act 451 Rules:

Please list applicable waste code(s):

5.1) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? Yes No

Comments:

5.2) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? Yes No

Comments:

D039

5.3) Do any State Hazardous Waste Codes apply? Yes No

Comments:

5.4) Is this waste intended for wastewater treatment? Yes* No

If you answered "No" to questions 5.1, 5.2, and 5.3, please skip to Section 7.

*If you answered "Yes" to question 5.4, please complete the WCR Addendum.

Section 6 - Hazardous Wastes

6.1) Does this waste exceed Land Disposal Restriction Levels?

6.1a) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49?

6.1b) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.)

6.2) Is the waste an oxidizer (D001)?

6.3) Does this waste contain reactive cyanide \geq 250 ppm (D003)?

6.4) Does this waste contain reactive sulfide \geq 500 ppm (D003)?

6.5) Please indicate which constituent concentrations are below or above the regulatory level. Please indicate the basis used in the determination. Either 'Below' or 'Above' **MUST** be checked for each constituent.

Based On: Generator Knowledge Analysis*

MSDS*

*Please forward a copy. Analysis or MSDS are required for EQ Florida Non-hazardous wastes.

Code	Regulatory Level	TCLP (mg/l)	Concentration (if above)	Code	Regulatory Level	TCLP (mg/l)	Concentration (if above)
D004	Arsenic	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D024	m-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D005	Barium	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	D025	p-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D006	Cadmium	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D026	Cresols	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D007	Chromium	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D027	1,4-Dichlorobenzene	7.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D008	Lead	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D028	1,2-Dichloroethane	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D009	Mercury	0.2	<input checked="" type="radio"/> Below <input type="radio"/> Above	D029	1,1-Dichloroethylene	0.7	<input checked="" type="radio"/> Below <input type="radio"/> Above
D010	Selenium	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D030	2,4-Dinitrotoluene	0.13	<input checked="" type="radio"/> Below <input type="radio"/> Above
D011	Silver	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D031	Heptachlor	0.008	<input checked="" type="radio"/> Below <input type="radio"/> Above
D012	Endrin	0.02	<input checked="" type="radio"/> Below <input type="radio"/> Above	D032	Hexachlorobenzene	0.13	<input checked="" type="radio"/> Below <input type="radio"/> Above
D013	Lindane	0.4	<input checked="" type="radio"/> Below <input type="radio"/> Above	D033	Hexachlorobutadiene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D014	Methoxychlor	10	<input checked="" type="radio"/> Below <input type="radio"/> Above	D034	Hexachloroethane	3.0	<input checked="" type="radio"/> Below <input type="radio"/> Above
D015	Toxaphene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D035	Methyl Ethyl Ketone	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D016	2,4-D	10	<input checked="" type="radio"/> Below <input type="radio"/> Above	D036	Nitrobenzene	2	<input checked="" type="radio"/> Below <input type="radio"/> Above
D017	2,4,5-TP (Silvex)	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D037	Pentachlorophenol	100	<input checked="" type="radio"/> Below <input type="radio"/> Above
D018	Benzene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D038	Pyridine	5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D019	Carbon Tetrachloride	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D039	Tetrachloroethylene	0.7	<input type="radio"/> Below <input checked="" type="radio"/> Above
D020	Chlordane	0.03	<input checked="" type="radio"/> Below <input type="radio"/> Above	D040	Trichloroethylene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D021	Chlorobenzene	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	D041	2,4,5-Trichlorophenol	400	<input checked="" type="radio"/> Below <input type="radio"/> Above
D022	Chloroform	6.0	<input checked="" type="radio"/> Below <input type="radio"/> Above	D042	2,4,6-Trichlorophenol	2	<input checked="" type="radio"/> Below <input type="radio"/> Above
D023	o-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	D043	Vinyl Chloride	0.2	<input checked="" type="radio"/> Below <input type="radio"/> Above

6.6) If this is a characteristic hazardous waste, does it contain underlying hazardous constituents?

Yes No

If you answered 'Yes', please list the constituents in Section 11.

Section 7 - Non-Hazardous Wastes

For a complete list of non-hazardous waste codes, please refer to Section 7 of the EQ Resource Guide.

Applicable waste code(s):

7.1) Is this a Michigan non-hazardous liquid industrial waste?

Yes No

Comments:

7.2) Is this a Universal waste?

Yes No

7.3) Is this a Recyclable Commodity? (e.g.: computer monitors, free mercury, etc.)

Yes No

7.4) Is this waste a recoverable petroleum product?

Yes No

7.5) Is this waste used oil as defined by 40 CFR Part 279?

Yes No

Section 8 - TSCA Information

- 8.1) What is the concentration of PCBs in the waste? None 0-5 ppm 6-49 ppm
 50-499 ppm 500+ ppm
- 8.2) Does the waste contain PCB contamination from a source with a concentration \geq 50 ppm? Yes No
If you answered 'None' to 8.1 and 'No' to 8.2, please skip to Section 9.
- 8.3) Has this waste been processed into a non-liquid form?
 If yes, what was the concentration of PCBs prior to processing? (ppm) N/A 0-499 500+
- 8.4) Is the non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? Yes No
- 8.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? Yes No
- 8.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? N/A Yes No
-

Section 9 - Clean Air Act Information

- 9.1) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD or 40 CFR, Part 264, Subpart CC (RCRA)? Yes No
 (Does the waste contain >500 ppm Volatile Organic Hazardous Air Pollutants - VOHAP's or Volatile Organic Compounds - VOC's?)
For a complete list of VOHAPs, please see Section 11 of the EQ Resource Guide.
- 9.2) Is this site, or waste, subject to any other MACT or NESHAP? Yes No
If yes, please specify:
- 9.3) Does this waste stream contain Benzene? Yes No
If you answered "No" to question 9.2, please skip to section 10.
- 9.4) Does the waste stream come from a facility with one of the SIC/NAICS codes listed under the Benzene NESHAP identified in 40 CFR 61, Subpart FF? Yes No
- 9.5) Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) \geq 10 Mg/year? Yes No
 For assistance in calculating the TAB, please see the TAB Worksheet in Section 9 of the EQ Resource Guide.
If you answered "No" to question 9.3 and 9.4, please skip to Section 10.
- 9.6) Does the waste contain > 10% water? Yes No
- 9.7) What is the TAB quantity for your facility? Mg/year
- 9.8) Does the waste contain >1.0 mg/kg total Benzene? Yes No
- 9.9) What is the total Benzene concentration in your waste? (concentration) (unit)
- (Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.)*

*For a list of NAICS codes, please refer to section 9 of the EQ Resource Guide.

Section 10 - Fuel Blending Information

- 10.1) Is this waste intended for fuel blending? Yes* No
If you answered 'Yes' to question 10.1, please enter the following:

Heat value (BTU/lb.) _____
 Chlorine (%) _____
 Water (%) _____
 Solids (%) _____

- 10.2) Is this waste intended for reclamation? Yes No (5-Gallon Sample required for all reclaim waste streams)
-

Section 11 - Constituent Information

Please identify your waste constituents from these four categories: Underlying Hazardous Constituents (UHC's), Volatile Organic Hazardous Air Pollutants (VOHAP's), Volatile Organic Compounds (VOC's) and Toxic Release Inventory Constituents (TRI)

Constituent	Concentration	UHC?
-------------	---------------	------

Please see Section 11 of the EQ Resource Guide for a list of UHC's, VOHAP's and VOC's. For a complete list of TRI constituents, please refer to 40 CFR 372.65.

Section 12 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's Resource Team to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's Resource Team to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

Comments:

Generator:

Chris Collins

Authorized Generator Signature

Printed Generator Name

Company: City of Duluth

Title: Director of Planning

Date: 06.30.2010

*The generator's signature **MUST** appear on the EQ Waste Characterization Report. If the generator has authorized a third party to certify this document, a written notice (on generator letterhead) must accompany this submittal. Although the EQ Resource Team is authorized to make certain modifications to the information provided on this form, the addition or removal of waste codes and waste constituents must be documented by the generator.*

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Characterization Report, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions.

The following definitions shall apply for purposes of this Agreement:

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Characterization Report and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Characterization Report (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter,

"Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Characterization Report containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Characterization Report, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Characterization Report.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Characterization Report. The information set forth in the Waste Characterization Report or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Characterization Report, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws.

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.



EQ - The Environmental Quality Company

Waste Characterization Report

I authorize EQ - The Environmental Quality Company to choose the appropriate method of waste management, from the technologies offered, at the EQ facilities identified below.

<input type="checkbox"/> Michigan Disposal Waste Treatment Plant (Stabilization and Treatment)	49350 North I-94 Service Drive, Belleville, Michigan 48111	EPA ID #MID000724831
<input type="checkbox"/> Wayne Disposal, Inc. (Hazardous & PCB Waste Landfill)	49350 North I-94 Service Drive, Belleville, Michigan 48111	EPA ID #MID048090633
<input type="checkbox"/> EQ Detroit, Inc. (Stabilization, Wastewater Treatment)	1923 Frederick, Detroit, MI 48211	EPA ID #MID980991566
<input type="checkbox"/> EQ Resource Recovery, Inc. (Solvent Recycling, Fuel Blending, WW Treatment)	36345 Van Born Road, Romulus, Michigan 48174	EPA ID #MID060975844
<input checked="" type="checkbox"/> EQ Florida, Inc. (Drum Consolidation, Labpack Decommissioning)	7202 East Eighth Ave., Tampa, FL 33619	EPA ID #FLD981932494
<input type="checkbox"/> EQ Detroit Transfer and Processing (Drum Transfer/Universal Waste Handling)	2000 Ferry Street, Detroit, MI 48211	EPA ID #MIK939928313
<input type="checkbox"/> EQIS Indianapolis Transfer and Processing (Drum Transfer/Non-Hazardous Waste Processing)	2650 N. Shadeland Avenue, Indianapolis, IN 46219	EPA ID #INR000125641
<input type="checkbox"/> EQIS Atlanta Transfer and Processing (Drum Transfer/Non-Hazardous Waste Processing)	5600 Fulton Industrial Blvd., Atlanta, Georgia 30336	EPA ID #GAR000039776
<input type="checkbox"/> EQ Augusta, Inc. (Wastewater Treatment)	3920 Goshen Industrial Blvd., Augusta, GA 30906	EPA ID #GAR000011817
<input type="checkbox"/> EQ Ohio (Envirite of Ohio) (Stabilization and Treatment)	2050 Central Avenue, SE, Canton, OH 44707	EPA ID #OHD980568992
<input type="checkbox"/> EQ Pennsylvania (Envirite of Pennsylvania) (Stabilization and Treatment)	730 Vogelsong Road, York, PA 17404	EPA ID #PAD010154045
	Phone: 1-800-592-5489	Fax: 1-800-592-5329
	Phone: (734) 727-5500	Fax: (734) 326-4033
	Phone: 1-800-624-5302	Fax: 1-813-628-0842
	Phone: (313) 923-0080	Fax: (313) 922-8419
	Phone: (317) 247-7160	Fax: (317) 247-7170
	Phone: (404) 494-3520	Fax: (404) 494-3560
	Phone: 706-771-9100	Fax: 706-771-9124
	Phone: 330-456-6238	Fax: 330-456-2801
	Phone: 717-846-1900	Fax: 717-854-6757

Please note, this profile should not be used for wastes destined to EQ Illinois (Envirite of Illinois). For more information, please contact our National Service Center at (800)592-5489.

Waste Common Name: IDW SOIL CUTTINGS (TCE)

Section 1 - Generator & Customer Info

SIC/NAICS*:

Generator EPA ID: GAC-ESQ-G-

EQ Customer No.: 4506

Generator: CITY OF DULUTH

Address: 3146 SOUTH PEACHTREE STREET

City: DULUTH

State: GA Zip: 30095

County:

Mailing Address

Address: 3146 SOUTH PEACHTREE STREET

City: DULUTH

State: GA Zip: 30095

Generator Contact

Name:

Title:

Phone: () -

Fax: () -

Invoicing Company

Company: EQIS-ATLANTA

Address: 5600 FULTON INDUSTRIAL BLVD S W

City: ATLANTA

State: GA Zip: 30336

Country: USA

Invoicing Contact

Name:

Phone: () -

Fax: () -

Technical Contact

Name:

Phone: () -

Fax: () -

Mobile: () -

Pager: () -

E-mail:

*For a list of NAICS codes, please refer to Section 9 of the EQ Resource Guide.

Section 2 - Shipping & Packaging Info

2.1) Shipping Volume & Unit: 1 x 55

Frequency: One Time Only

2.2) DOT Shipping Name: Hazardous waste, solid, n.o.s.

2.3) Is this waste surcharge exempt? Yes No (If you answered "Yes" to question 2.3, select the Surcharge Exemption reason.)

2.4) Packaging (check all that apply)

Bulk Solid (yd³< 2000 lbs/yd³)
 Totes, Size
 Other (palletized, 5 gal. Pail, etc.)

Bulk Solid (Ton > 2000 lbs./yd³)
 Cubic Yard Boxes/Bags
 Drums, Size 55

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

Section 3 - Physical Characteristics

3.1) Color: brown

3.2) Odor: MILD

3.3) Does this waste contain any "Potentially Odorous Constituents" as defined in the EQ Resource Guide? (Section 3) Yes No

3.4) Physical State at 70 °F: Solid Dust/Powder Liquid Sludge

3.5) What is the pH of this waste?

≤ 2 2.1-4.9 5-10 10.1-12.4 ≥ 12.5

3.6) What is the flash point of this waste?

<90 °F 90-139 °F 140-199 °F ≥ 200 °F

3.7) Does this waste contain? (check all that apply) None Free Liquids Oily Residue Metal Fines

Biodegradable Sorbants Amines Ammonia Water Reactive Biohazard Aluminum

Shock Sensitive Waste Reactive Waste Radioactive Waste Explosives Pyrophoric Waste Isocyanates

Asbestos - non-friable Asbestos - friable Dioxins Furans

Section 4 - Composition / Generating Process

4.1) Describe the physical composition of the waste (i.e., soil, water, PPE, debris, key chemical compounds, etc.)

SOIL CUTTINGS from _____ 100. to _____ 100. %

4.2) Provide a detailed description of the process generating this waste. (attach flow diagram if available).

SOIL FROM MONITORING WELL INSTALLATION, CONTAMINATED WITH TCE

Section 5 - Is This Hazardous Waste?

Please refer to Section 5 of the EQ Resource Guide for a list of waste codes.

As determined by 40 CFR, Part 261 and Michigan Act 451 Rules:

Please list applicable waste code(s):

5.1) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? Yes No

Comments:

5.2) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? Yes No

Comments:

D039

5.3) Do any State Hazardous Waste Codes apply? Yes No

Comments:

5.4) Is this waste intended for wastewater treatment? Yes* No

If you answered "No" to questions 5.1, 5.2, and 5.3, please skip to Section 7.

*If you answered "Yes" to question 5.4, please complete the WCR Addendum.

Section 6 - Hazardous Wastes

6.1) Does this waste exceed Land Disposal Restriction Levels?

6.1a) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49?

6.1b) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.)

6.2) Is the waste an oxidizer (D001)?

6.3) Does this waste contain reactive cyanide \geq 250 ppm (D003)?

6.4) Does this waste contain reactive sulfide \geq 500 ppm (D003)?

6.5) Please indicate which constituent concentrations are below or above the regulatory level. Please indicate the basis used in the determination. Either 'Below' or 'Above' **MUST** be checked for each constituent.

Based On: Generator Knowledge Analysis*

MSDS*

*Please forward a copy. Analysis or MSDS are required for EQ Florida Non-hazardous wastes.

Code	Regulatory Level TCLP (mg/l)	Concentration (if above)	Code	Regulatory Level TCLP (mg/l)	Concentration (if above)			
D004	Arsenic	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D024	m-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D005	Barium	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	D025	p-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D006	Cadmium	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D026	Cresols	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D007	Chromium	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D027	1,4-Dichlorobenzene	7.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D008	Lead	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D028	1,2-Dichloroethane	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D009	Mercury	0.2	<input checked="" type="radio"/> Below <input type="radio"/> Above	D029	1,1-Dichloroethylene	0.7	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D010	Selenium	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D030	2,4-Dinitrotoluene	0.13	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D011	Silver	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D031	Heptachlor	0.008	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D012	Endrin	0.02	<input checked="" type="radio"/> Below <input type="radio"/> Above	D032	Hexachlorobenzene	0.13	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D013	Lindane	0.4	<input checked="" type="radio"/> Below <input type="radio"/> Above	D033	Hexachlorobutadiene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D014	Methoxychlor	10	<input checked="" type="radio"/> Below <input type="radio"/> Above	D034	Hexachloroethane	3.0	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D015	Toxaphene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D035	Methyl Ethyl Ketone	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D016	2,4-D	10	<input checked="" type="radio"/> Below <input type="radio"/> Above	D036	Nitrobenzene	2	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D017	2,4,5-TP (Silvex)	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D037	Pentachlorophenol	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D018	Benzene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D038	Pyridine	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D019	Carbon Tetrachloride	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D039	Tetrachloroethylene	0.7	<input type="radio"/> Below <input checked="" type="radio"/> Above	
D020	Chlordane	0.03	<input checked="" type="radio"/> Below <input type="radio"/> Above	D040	Trichloroethylene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D021	Chlorobenzene	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	D041	2,4,5-Trichlorophenol	400	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D022	Chloroform	6.0	<input checked="" type="radio"/> Below <input type="radio"/> Above	D042	2,4,6-Trichlorophenol	2	<input checked="" type="radio"/> Below <input type="radio"/> Above	
D023	o-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	D043	Vinyl Chloride	0.2	<input checked="" type="radio"/> Below <input type="radio"/> Above	

6.6) If this is a characteristic hazardous waste, does it contain underlying hazardous constituents?

Yes No

If you answered 'Yes', please list the constituents in Section 11.

Section 7 - Non-Hazardous Wastes

For a complete list of non-hazardous waste codes, please refer to Section 7 of the EQ Resource Guide.

Applicable waste code(s):

7.1) Is this a Michigan non-hazardous liquid industrial waste?

Yes No

Comments:

7.2) Is this a Universal waste?

Yes No

7.3) Is this a Recyclable Commodity? (e.g.: computer monitors, free mercury, etc.)

Yes No

7.4) Is this waste a recoverable petroleum product?

Yes No

7.5) Is this waste used oil as defined by 40 CFR Part 279?

Yes No

Section 8 - TSCA Information

- 8.1) What is the concentration of PCBs in the waste? None 0-5 ppm 6-49 ppm
 50-499 ppm 500+ ppm
- 8.2) Does the waste contain PCB contamination from a source with a concentration \geq 50 ppm? Yes No
If you answered 'None' to 8.1 and 'No' to 8.2, please skip to Section 9.
- 8.3) Has this waste been processed into a non-liquid form?
If yes, what was the concentration of PCBs prior to processing? (ppm) N/A 0-499 500+
- 8.4) Is the non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? Yes No
- 8.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? Yes No
- 8.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? N/A Yes No

Section 9 - Clean Air Act Information

- 9.1) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD or 40 CFR, Part 264, Subpart CC (RCRA)? Yes No
(Does the waste contain >500 ppm Volatile Organic Hazardous Air Pollutants - VOHAP's or Volatile Organic Compounds - VOC's?)
For a complete list of VOHAPs, please see Section 11 of the EQ Resource Guide.
- 9.2) Is this site, or waste, subject to any other MACT or NESHAP? Yes No
If yes, please specify:
- 9.3) Does this waste stream contain Benzene? Yes No
If you answered "No" to question 9.2, please skip to section 10.
- 9.4) Does the waste stream come from a facility with one of the SIC/NAICS codes listed under the Benzene NESHAP identified in 40 CFR 61, Subpart FF? Yes No
- 9.5) Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) \geq 10 Mg/year? Yes No
For assistance in calculating the TAB, please see the TAB Worksheet in Section 9 of the EQ Resource Guide.
If you answered "No" to question 9.3 and 9.4, please skip to Section 10.
- 9.6) Does the waste contain > 10% water? Yes No
- 9.7) What is the TAB quantity for your facility? Mg/year
- 9.8) Does the waste contain >1.0 mg/kg total Benzene? Yes No
- 9.9) What is the total Benzene concentration in your waste? (concentration) (unit)

(Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.)

**For a list of NAICS codes, please refer to section 9 of the EQ Resource Guide.*

Section 10 - Fuel Blending Information

- 10.1) Is this waste intended for fuel blending? Yes* No
If you answered 'Yes' to question 10.1, please enter the following:

Heat value (BTU/lb.) _____
Chlorine (%) _____
Water (%) _____
Solids (%) _____

- 10.2) Is this waste intended for reclamation? Yes No (5-Gallon Sample required for all reclaim waste streams)

Section 11 - Constituent Information

Please identify your waste constituents from these four categories: Underlying Hazardous Constituents (UHC's), Volatile Organic Hazardous Air Pollutants (VOHAP's), Volatile Organic Compounds (VOC's) and Toxic Release Inventory Constituents (TRI)

Constituent	Concentration	UHC?

Please see Section 11 of the EQ Resource Guide for a list of UHC's, VOHAP's and VOC's. For a complete list of TRI constituents, please refer to 40 CFR 372.65.

Section 12 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's Resource Team to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's Resource Team to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

Comments:

Generator: Chris Collins
Authorized Generator Signature _____ *Printed Generator Name*

Company: City of Duluth Title: Director of Planning Date: 06.30.2010

*The generator's signature **MUST** appear on the EQ Waste Characterization Report. If the generator has authorized a third party to certify this document, a written notice (on generator letterhead) must accompany this submittal. Although the EQ Resource Team is authorized to make certain modifications to the information provided on this form, the addition or removal of waste codes and waste constituents must be documented by the generator.*

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Characterization Report, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions.

The following definitions shall apply for purposes of this Agreement:

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Characterization Report and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Characterization Report (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Characterization Report containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Characterization Report, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Characterization Report.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Characterization Report. The information set forth in the Waste Characterization Report or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Characterization Report, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statues, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

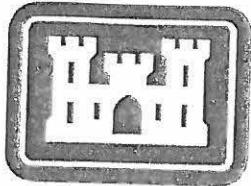
Governing Laws.

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.



Appendix D

2010 Brownfields Assessment



**U.S. ARMY
CORPS OF ENGINEERS**

TARGETED BROWNFIELD ASSESSMENT REPORT

**Former Duluth Drycleaner Site
Duluth, Georgia**

Revision 00

*Prepared By:
U.S. Army Corps of Engineers
June 2010*

TARGETED BROWNFIELD ASSESSMENT REPORT

Former Duluth Drycleaner Site Duluth, Georgia

(Revision 00)

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1 INTRODUCTION

1.1 Background

The United States Environmental Protection Agency (EPA), Region 4 selected the former Duluth Drycleaner Site (Site) for a Targeted Brownfield Site Assessment. A brownfield is a site or portion thereof that has actual or perceived contamination and an active potential for redevelopment or reuse. EPA's Brownfield Economic Redevelopment Initiative is designed to empower states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields

EPA Region 4 tasked the Savannah District of the U.S. Army Corps of Engineers with accomplishing the project objectives for the Site. The Former Duluth Drycleaner Site Brownfield Site Investigation Quality Assurance Project Plan (QAPP) was prepared by Savannah District. Savannah District field crews mobilized to the Site and began field investigation activities on 25 March 2010. A survey of the sampling locations, the final field activity, was completed 30 March 2010.

ETJ Downtown, LLC has shown interest in redeveloping the Site. They have already made a significant investment in the area by developing their office space on the adjoining parcel.

The objective of this investigation includes further delineating (vertically and horizontally) the impacts in soil and groundwater and providing a determination of whether contamination is moving onto or off of the subject Site. The objective also includes determining if contamination is present that could pose a threat to human health either through direct exposure to soil and groundwater or via the vapor intrusion pathway. Data Quality Objectives (DQOs) were developed in the QAPP in order to meet these objectives. The DQOs and the project specific action are presented in Table 1.

1.2 Site Location

The Site is located on the corner of Maplewood Drive (aka Knott Street) and South Peachtree Street (aka Main Street). The Site is approximately 9,900 square feet and historically contained a drycleaner facility.

The Site is currently a parking lot. The topography of the Site is flat and the elevation is approximately 1,090 feet above mean sea level (ft msl). The location of the project is shown on Figure 1. The surrounding properties are all commercial. To the south of the Site are various commercial properties. The northern portion is bordered by Knott Street with commercial properties further to the north. The eastern portion is bordered by a right-of-way for Norfolk Southern Railroad with commercial properties further to the east. The western portion of the Site is bordered by Main Street with commercial properties further to the West.

1.3 Site History

From 1975 to 1993 the Site operated as a dry cleaner. The dry cleaners closed in 1993 and the existing building was used to operate a woodworking shop from 1993 to 1998. In 1998 the woodworking operation ceased to operate and the building was demolished and converted into a parking lot. In 2000 the City of Duluth purchased the property.

The City of Duluth found one above ground storage tank (AST) and one underground storage tank (UST) on the Site. A lab analysis of the contents classified the residual liquids as a mineral spirits based compound. The City of Duluth hired AES Environmental to dispose of the liquids. QORE Physical Sciences performed an assessment of the adjacent parcels in 2001. In 2007 the property was to be sold to ETJ Downtown, LLC. Matrix Engineering performed a Phase I Environmental Site Assessment on the property and reported the findings in a May 2007 report. After purchasing the property the developer discovered that the 9,900 square foot (ft^2) parcel that housed the dry cleaning operation was not included in the assessment.

After the discovery, Matrix Engineering Group performed an updated assessment. The assessment concluded that possible contamination existed on the parcel that had formerly housed the dry-cleaning operation. The developer then hired Ahlberg Engineering Group to perform a Limited Phase II assessment of the parcel that housed the former drycleaner. The assessment was completed and the results were presented in an April 2008 report. The results indicated that both soil and groundwater volatile organic compound (VOC) contamination existed at the Site. The assessment was limited in scope (soil screening in four borings using a photoionization detector [PID], two shallow soil samples, and one shallow groundwater sample) so no conclusion was drawn as to the nature and extent of the contamination.

2 PHYSICAL SETTING

2.1 Regional Geology

The Site is located within the Piedmont Physiographic province (Piedmont). The Piedmont runs in a northeast-to-southwest direction and is bordered by the Valley and Ridge and Blue Ridge provinces to the northwest and by the Atlantic Coastal Plain Province to the southeast. The Piedmont is comprised of low hills and narrow valleys. The bedrock is composed of variably metamorphosed sedimentary rocks from the late Precambrian to early Paleozoic Periods that have been intruded by magma during several periods of volcanism. The intrusions formed dikes and plutons of granitic rocks. The bedrock is typically overlain by a layer of residuum that is called saprolite. The saprolite was formed by the weathering of the rocks in place and is typified by soils that become coarser with depth. A layer of partially weathered rock that ranges from a few inches to a few feet usually found just above the bedrock.

2.2 Local Hydrogeology

The uppermost hydrologic unit is the unconfined surficial aquifer, which is comprised of a saprolite-bedrock aquifer. The saprolite-bedrock aquifer is recharged by rainfall and discharges into streams in valley bottoms. The saprolite stores and transmits water in the pore spaces between the soils (clays, silts, and sands) that comprise the saprolite. The saprolite has a much higher storage capacity but lower transmissivity than the underlying bedrock. The bedrock stores and transmits water through secondary porosity features (fractures, joints, and faults). The bedrock can be capable of transmitting very large volumes of water, the transmissivity depends on the density and orientation of the secondary porosity features. Based on the local topography in the area of the Site (Figure 2) groundwater is expected to flow in a northwest direction.

3 SITE INVESTIGATION METHODS

3.1 Sampling Design

The sample designs, soil and groundwater, were selected based on information obtained during document reviews of previous investigations at the Site. Other factors that were considered include limiting the time frame for the assessment and the project budget. A limited vapor intrusion screening was also conducted to determine the potential for vapor intrusion to affect future construction. The sampling design was developed in the QAPP.

3.1.1 Subsurface Soil

Eight subsurface soil samples (and associated Quality Assurance/Quality Control [QA/QC] samples) were obtained from the Site. The selected sample design is a non-probability-based sampling method. This was done in an effort to produce the most resource-effective design to develop data representative of the Site. Previous soil and groundwater sampling has been performed at the Site. The locations and depths of the proposed sample locations were chosen to help fill in the data gaps from previous soil and groundwater sampling.

Non-probability-based design is a design in which the probability of selecting any particular population is not the same as for selecting any other population. Collecting a soil sample from the interval exhibiting the highest photoionization detector (PID) reading is a judgment sampling method. These sampling locations were selected based on engineering judgment as being places where contamination is most likely to exist.

3.1.2 Groundwater

Five grab samples were collected across the Site. The groundwater sampling design is an authoritative sample design. One deep groundwater sample was collected from the area adjacent to the previously collected shallow groundwater sample. The remaining four samples were collected on opposite sides of the property. This layout was chosen to intercept any possible contaminant plumes migrating off of the Site in the surficial aquifer or moving onto the Site from other sources.

3.2 Sample Collection

The procedures for sampling, preservation, handling, custody, and decontamination were performed using guidance from the *USEPA Region IV SESD Field Branches Quality System and Technical Procedures*, November 2007, and any subsequent revisions and the site specific QAPP.

3.2.1 Soil Sampling

A Geoprobe® direct push rig was used to advance a Macro-Core® assembly to the water table. The soils were screened using a PID during the advancement of each boring. A sample was collected from the 0.5-ft interval that exhibits the highest PID reading and another was collected from the 0.5-ft interval just above the water table (i.e., the interval just above where the soil cuttings retrieved from the boring were wet). The soil cuttings

from SB-3 did not exhibit PID readings above zero, so the interval from 9.5-10 feet below ground surface (ft bgs) was chosen as the sampling interval. Soil samples were collected by using a clear polyvinyl chloride (PVC) Macro-Core® liner and PVC syringes to collect a properly sized aliquot of soil. Collected aliquots of the soil were placed in the appropriate precleaned and prepreserved sample containers, properly labeled, and packed in coolers for transfer to TestAmerica in Savannah, Georgia (a DoD ELAP certified laboratory). The soil samples were sent to the laboratory within 48 hours of sample collection. Soil sampling data was recorded in the field logbook in indelible ink and transferred to the field data sheet on a daily basis. A sampling summary is presented in Table 2. Copies of the Field Logbook and Sample Data Sheets are included in Appendix A. The soil sampling locations are shown on Figure 3.

3.2.2 Temporary Monitoring Well Sampling

A Geoprobe® direct push rig was used to advance a hydropunch® assembly to the installation depth for the temporary monitoring wells. The rods were then backed out to expose a stainless steel screened section. The water was allowed to equilibrate within the borehole and then the water level was gauged prior to sampling. A mini-bailer was used to collect the samples and the associated QA/QC samples (when necessary) due to the depth to water at the Site. The temperature, pH, conductivity, and turbidity of the water were not recorded prior to sampling because enough water could not be purged from the screen-points.

Care was taken to minimize agitation and aeration of the groundwater samples during collection. Samples were properly preserved, labeled, logged onto a chain-of-custody form, placed into an iced cooler for shipment, and sent to the TestAmerica for analysis. The groundwater samples were sent to the laboratory within 48 hours of sample collection. All of the pertinent groundwater sampling information was recorded on a Groundwater Sample Data Collection Form. These Forms are included in Appendix A.

The shallow temporary wells DP-1, DP-2, and DP-4 were installed to an approximate depth of 45 bgs, shallow temporary well DP-3 was installed to an approximate depth of 40 ft bgs, and the deep temporary well (DP-5) was installed to a depth of 66 ft bgs. The target depth for DP-5 was 70 ft bgs, but bedrock was encountered before the target depth could be reached. The borings were backfilled with 3/8-inch bentonite pellets after the groundwater samples have been collected. The coordinates of each temporary monitoring well were determined using a kinematic GPS. The elevations of the wells relative to each other were determined using a measuring point obtained from Duluth City Planning GIS and standard surveying techniques. The sampling summary is presented in Table 2. The survey information for each temporary monitoring well location is included in Table 3. The locations of the temporary monitoring wells are presented on Figure 3.

3.3 Quality Control

In addition to the primary soil and groundwater samples collected in the field, QA/QC samples (including trip blanks, blind field duplicates, matrix spikes, matrix spike

duplicates, and equipment blanks) were collected during the sampling event at the rate indicated in the QAPP. These QA/QC samples were used to monitor for any changes that occurred to the samples during and after sample collection. The matrix spikes, equipment blanks, and trip blanks enabled evaluation of bias (systematic errors) that could have occurred due to decontamination, handling, storage, preparation, and transport of the samples. Blind field duplicates were used to evaluate the precision of the laboratory. Table 4 details the QA/QC samples collected as a part of the investigation. Table 2, the sampling summary, identifies the associated parent sample.

3.4 Field Measurements

All field equipment needed for sampling as well as safety concerns was properly maintained and calibrated prior to and during continued use to assure that all measurements were as accurate as possible. Each device was calibrated according to the manufacturer's operating instructions to ensure the instruments functioned within their established operation ranges. The calibration data was recorded in the field logbook.

3.5 Equipment Decontamination

Equipment decontamination procedures were implemented to avoid cross contamination of subsurface strata and samples. A decontamination (decon) station was set up at the Site. The decon station was used to decontaminate the personnel, drill rig, and small sampling equipment.

The larger equipment, including drill rig rods and the rig itself, was cleaned with a high-pressure, hot water steam cleaner. The equipment was rinsed once with the steam cleaner then scrubbed to remove any remaining loose debris, followed by another wash with the steam cleaner, and then air-dried.

Prior to use and after each sampling event, all small sampling equipment was properly decontaminated and cleaned to prevent cross-contamination. The equipment decontamination procedure consisted of a potable water rinse to remove visible dirt and debris followed by an alconox wash, another potable water rinse, a deionized water rinse, an isopropyl alcohol wash, and final deionized water rinse followed by air drying of the equipment. Decon buckets containing the various rinses of decon water and decon soaps were laid out on a 10-mil thick plastic sheeting. Phthalate-free, nitrile gloves were worn by sampling personnel during all equipment handling activities. After decontamination, all of the soil sampling equipment were wrapped and stored in aluminum foil (shiny side out) until the next use.

4 ANALYTICAL RESULTS

4.1 Data Validation

Several of the target analytes were detected in several of the wells at tentatively identified levels that were above the method detection limit (MDL) but below the reporting limit (RL). These results were flagged as estimated (J) by TestAmerica and these flags were carried through in the data validation process.

Acetone and chloroform were detected at estimated levels in a rinsate blank and n-butylbenzene and 1,2,4-trichlorobenzene were detected at estimated levels in a method blank. These analytes were also detected at estimated levels in one or more associated samples. Since the reported estimated concentrations were not five times greater than that observed in the blank and since the reported estimated values were less than the RL, the analytes were flagged as non-detect (U) at the RL.

Duplicate samples were collected for both soil and groundwater analyses. The parent and replicate samples are DP-5/DUP1 and SB-4-43/DUP2. The relative percent recoveries for the analytes detected in these sample pairs were within the guidelines established in the QAPP.

The data flags resulting from the data validation are included in the analytical summary tables (Tables 5 and 6). A more detailed summary of the data validation is included in Appendix B.

4.2 Soil Analytical Summary

Eight surface soil samples were collected from four borings areas across the Site. The eight soil samples were analyzed for VOCs (8260B). A summary of the detected constituents is presented in Table 5 and on Figure 4, the data validation report is included as Appendix B, and the complete laboratory analytical reports are included as Appendix C.

4.2.1 Analytical Results

VOCs were detected in all of the soil samples. The VOCs detected were acetone, cis-1,2-dichloroethene (DCE), 2-butanone (methyl ethyl ketone [MEK]), and tetrachloroethene (PCE). Acetone was detected in all of the samples at estimated levels except for SB-4-43, this sample was diluted by a factor of 40 for analysis due to the concentration of PCE in the sample. MEK was detected in three samples at estimated levels. Acetone and MEK are accepted laboratory artifacts and it is possible that the presence of these analytes at estimated levels in the soil samples is the result of vial contamination. DCE was detected in one sample, SB-2-15 (4.5 J micrograms per kilogram [ug/kg]). PCE was detected in six of the eight samples at values ranging from 3.3 ug/kg to 3,500 ug/kg.

4.2.2 Extent of Soil Contamination

Based on the results of the soil investigation conducted at the Site, it is apparent that PCE contamination is present across the Site. Only the samples from boring SB-3 did not

contain PCE. This boring is located on the southeast boundary of the Site and is upgradient with respect to the assumed direction of groundwater flow based on the topography of the Site. The highest concentration of PCE was detected in the deep sample collected from boring SB-4. The boring is located on the southwest boundary of the Site and is cross-gradient from the suspected source area based on the assumed direction of groundwater flow.

The average concentration for each detected analyte was calculated using the reported concentrations for each boring or $\frac{1}{2}$ the method detection limit for borings that were non-detect. The average concentration of each detected analyte was compared to USEPA Regional Screening Levels (RSLs) for industrial soil (as stated in the decision rule in the DQOs) to determine if the Site should be considered contaminated. None of the average concentrations exceed the respective RSL. Therefore, the levels of contamination detected in the soils during this assessment are not considered to present a threat to human health if the Site is developed for industrial use.

The contaminant concentrations presented in this assessment are representative of the concentrations present on the Site. It is possible that isolated locations may contain lower or higher concentrations than those detected in this study. Health and safety precautions to limit worker exposure to contamination should be taken when working in any excavations on Site.

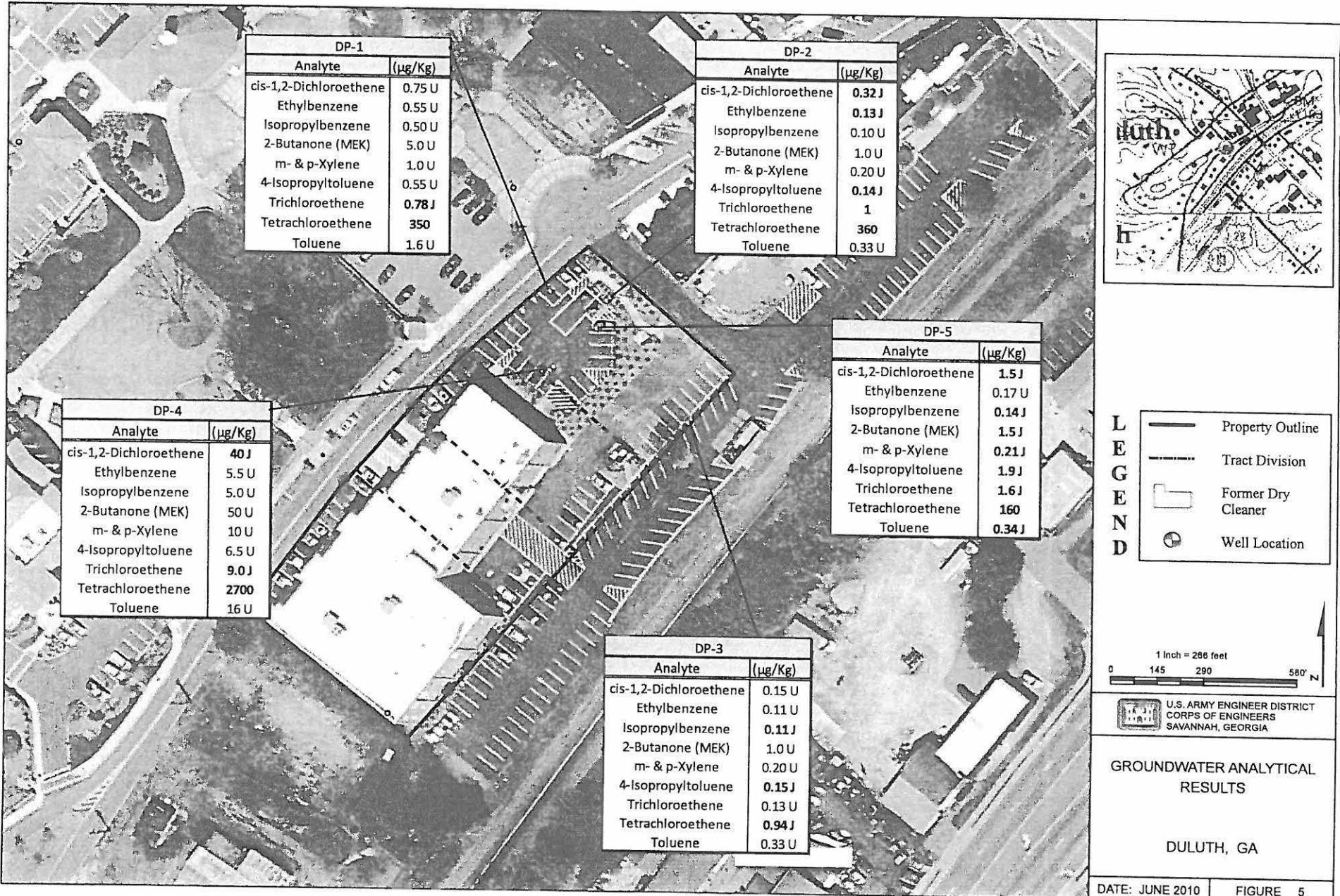
4.3 Groundwater Analytical Summary

Groundwater samples were collected from the five temporary monitoring wells, identified DP-1 through DP-5. The locations of the temporary wells were chosen based on the assumed direction of groundwater flow (inferred from a topographic map of the area) and were placed on the Site boundaries to determine what contamination is moving onto or off of the Site. A summary of the detected constituents is presented in Table 6 and on Figure 5, the data validation report is included as Appendix B, and the complete laboratory analytical reports are included as Appendix C.

4.3.1 Analytical Results

Laboratory analysis of the groundwater samples indicates the presence of the VOCs in each of the temporary monitoring wells. The VOCs detected were DCE, ethylbenzene, isopropylbenzene (cumene), MEK, m- and p-xylene, 4-isopropyltoluene, trichloroethene (TCE), PCE, and toluene. Most of the detections were at estimated levels, the exceptions are TCE in DP-2 and PCE in all wells.

PCE was detected in all of the wells and ranged in concentration from 0.94 J micrograms per liter (ug/L) to 2,700 ug/L. TCE was detected in each well except DP-3, the concentrations ranged from 0.78 J ug/L to 9 J ug/L. DCE was detected in three wells at estimated concentrations ranging from 0.32 J ug/L to 40 J ug/L. The high concentrations of PCE, TCE, and DCE were detected in DP-5, the values for TCE and DCE were estimated due to elevated detection limits resulting from sample dilution. The sample was diluted due to the concentration of PCE.



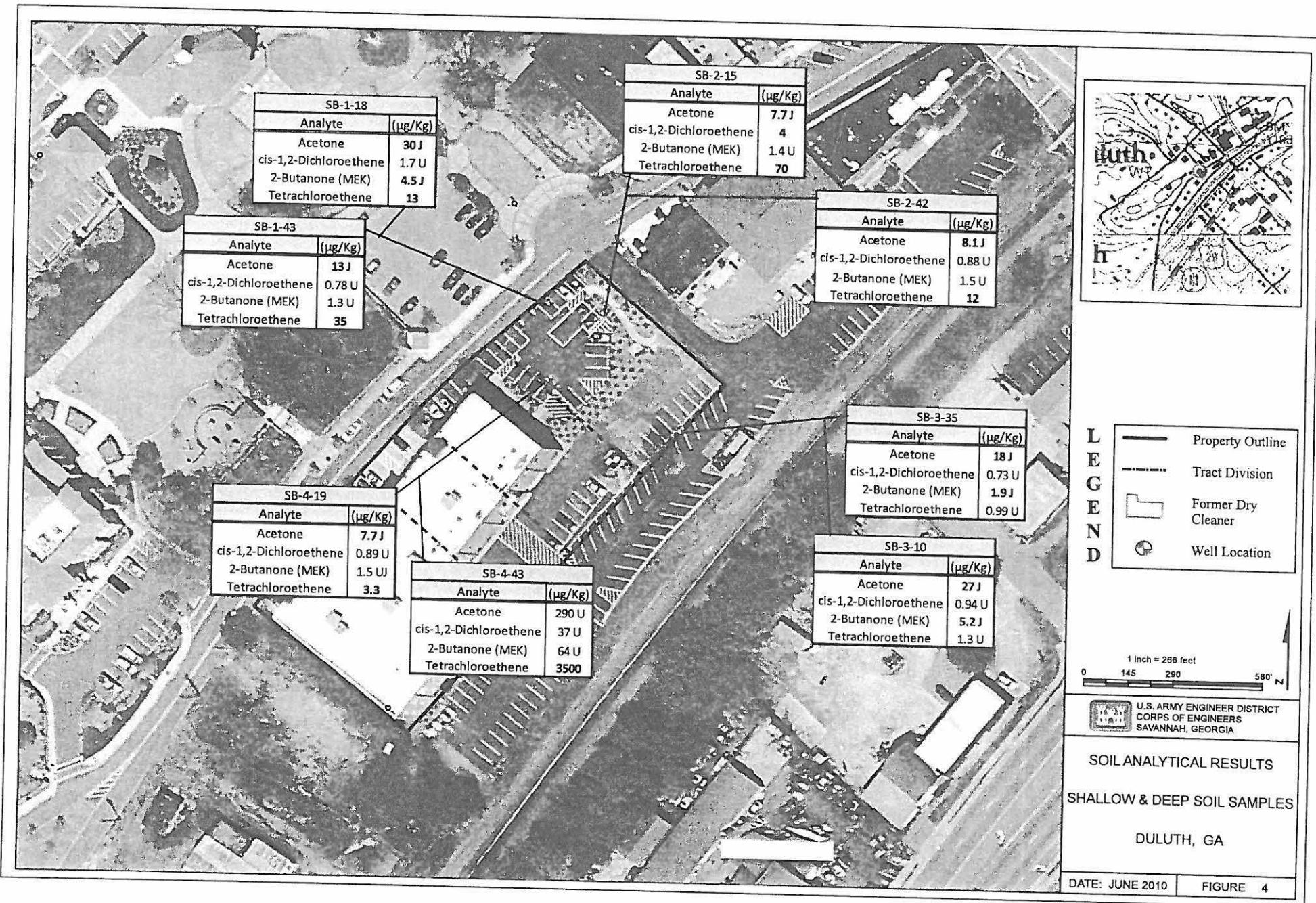


TABLE 1
DATA QUALITY OBJECTIVES

Data Quality Objective	Project Specific Action
Problem Statement	Is the Site property safe for reuse as a commercial development?
Identify the Decision	What is the extent of the contamination? Does the site soil or groundwater contain VOCs at levels that pose a threat to the environment or to human health either through direct exposure or vapor intrusion if the site is developed for commercial use?
Identify Inputs to the Decision	Five groundwater samples will be analyzed for VOCs (8260B). The maximum contaminant levels (MCLs) established for drinking water will be used for comparison to ground water. Eight Soil samples will be analyzed for VOCs (8260B). The arithmetic average of each constituent concentration will be compared to USEPA Residential Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites (USEPA December, 2009). The arithmetic average of constituent concentrations in groundwater and soils will also be used to perform a limited (i.e., conservative estimates of unknown site specific data) screening tool for possible vapor intrusion at levels that could pose a threat to human health.
Define the Boundaries of the Study	Five temporary shallow groundwater monitoring wells will be installed and sampled. Eight soil samples will be collected from the interval exhibiting the highest PID values and from just above the water table in each of the four shallow borings. The USEPA's web based Johnson and Ettinger model will be used for vapor intrusion modeling.
Develop a Decision Rule	If analytes are detected in ground water at concentrations above the MCLs, further delineation and/or remediation of the ground water may be required. If the average levels of any analytes detected in soils as VOCs are less than the RSLs, then the development of the property can proceed. If these analytes exceed RSLs, further investigation and remediation may be required before development of the property. If the average constituent concentrations in soil or groundwater are at levels such that the vapor intrusion modeling indicates possible health risks, then further evaluation of the health risks or corrective actions (such as vapor barriers) may be required before or as a part of the redevelopment.
Specify Limits on Decision Errors	Since variance of the data cannot be accurately estimated at this time and the number of samples is restricted by financial considerations, a confidence limit for the data cannot be established. Comparing average levels of analytes to Residential RSLs and using the average levels in the vapor intrusion modeling will reduce decision errors.

TABLE 2
SAMPLING SUMMARY

Sample ID	Date	Time	Screen Point Interval	Soil Sample Interval	Soil Type	PID (PPM)	Comments
SB-1-18	03/25/2010	1305	N/A	18.0 - 18.5	ML	10.4	
SB-1-43	03/25/2010	1505	N/A	42.5 - 43.0	ML	0.8	BLK1 @ 1515
DP-1	03/26/2010	1240	40.9 - 44.9	N/A	N/A	N/A	
SB-2-15	03/26/2010	1040	N/A	15.0 - 15.5	ML	10.4	
SB-2-42	03/26/2010	1105	N/A	40.5 - 41.0	ML	20.9	
DP-2	03/26/2010	1255	40.9 - 44.9	N/A	N/A	N/A	
SB-3-10	03/26/2010	1520	N/A	9.5 - 10.0	ML	0	
SB-3-35	03/26/2010	1545	N/A	34.5 - 35.0	ML	0	
DP-3	03/26/2010	1615	34.9 - 38.9	N/A	N/A	N/A	BLK2 @ 1630; MS/MSD Taken
SB-4-19	03/26/2010	1340	N/A	18.5 - 19.5	ML	3.5	MS/MSD Taken
SB-4-43	03/26/2010	1420	N/A	42.5 - 43.0	ML	15.4	DUP1 @ 1300
DP-4	03/26/2010	1440	40.9 - 44.9	N/A	N/A	N/A	
DP-5	03/26/2010	945	61.7 - 65.7	N/A	N/A	N/A	DUP2 @ 1100

Notes:

Sample intervals are reported in feet below ground surface.

Soil type given is the Unified Soil Classification System Soil Type.

BLK1/BLK2 = Rinsate blanks.

MS/MSD = Matrix spike/matrix spike duplicate.

DUP1/DUP2 = Field duplicate samples.

PID = Photoioization detector.

PPM = Parts per million.

N/A = Not applicable.

Site Name: Former Duluth Drycleaner
Site Location: Duluth, Georgia

Revision Number:00
Revision Date: 07/07/10

TABLE 3
SURVEY DATA

Boring/Screen Point Location Name	Coordinates*		Elevation**
	Northing	Easting	
SB-1/DP-1	1455887.95	2302971.41	1093.86
SB-2/DP-2	1455885.98	2303006.50	1093.52
SB-3/DP-3	1455787.87	2303066.31	1085.78
SB-4/DP-4	1455830.08	2302968.39	1093.88
DP-5	1455859.64	2303002.44	1093.73

Notes:

* Coordinates are given in Georgia State Plane West 1002.

** The elevation at the Measuring Point was estimated at 1094.00 feet mean sea level (MSL). The estimate was obtained from Duluth CityPlanning GIS and is within 2 feet of actual elevation.

Site Name: Former Duluth Drycleaner
 Site Location: Duluth, Georgia

Revision Number:00
 Revision Date: 07/07/10

TABLE 4
 QA/QC SAMPLE SUMMARY

Matrix	Field	Duplicate	Rinsate	Trip	MS	MSD	Total	Analytical	DQO	Holding	Sample	Total		
	Samples	Sample	Blanks ¹	Blanks ²	Samples	Samples	Number of Samples	Protocol	Procedure	Level	Time	Preservation	Cntnrs	Cntnrs
Former Duluth Drycleaning Site														
SOIL	8	1			1	1	11	VOCs	SW-846	EPA	Definitive	14 days	NaHSO ₄	2 x 40-mL ³
									8260/5035		Data		CH ₃ OH	1 x 40-mL
AQUEOUS	5	1	2	1	1	1	11	VOCs	SW-846	EPA	Low Level	14 days	HCl to pH < 2	VOC vials
									8260B		Data		Ice to 4° C	3 x 40-mL
													VOC vials	33

Notes:

¹Rinsate blanks for soil samples are aqueous samples and the containers needed are included in the aqueous field blank column.

²The trip blanks for the soil field blanks are included in the ground-water trip blank totals.

³A 4-oz jar is also required per sample to perform percent moisture.

TABLE 5
 SOIL ANALYTICAL SUMMARY

Analyte	SB-1-18	SB-1-43	SB-2-15	SB-2-42	SB-3-10	SB-3-35	SB-4-19	SB-4-43*	Average **	RSL
Acetone	30 J	13 J	7.7 J	8.1 J	27 J	18 J	7.7 J	290 U	32	6.3E+08
cis-1,2-Dichloroethene	1.7 U	0.78 U	4.0	0.88 U	0.94 U	0.73 U	0.89 U	37 U	3.2	1.0E+07
2-Butanone	4.5 J	1.3 U	1.4 U	1.5 U	5.2 J	1.9 J	1.5 UJ	64 U	5.8	2.0E+08
Tetrachloroethene	13	35	70	12	1.3 U	0.99 U	3.3	3500	450	2.6E+03

Notes:

All results are micrograms per kilogram (ug/kg).

Only two significant figures are shown.

Detections are highlighted with bold font.

* = The result is the average of the parent and the duplicate sample. If the analyte was detected in only one of the samples, then 1/2 the method detection limit was used in the calculation. If both samples were non-detect then the lower detection limit is reported.

** = The average includes using 1/2 the method detection limit in the calculation for samples that were non-detect for the target analyte.

J = Estimated value.

U = Non-detect at the stated level.

UJ = Non-detect at the estimated level.

RSL = the United States Environmental Protection Agency Region Screening Level for industrial soil.

TABLE 6
 GROUNDWATER ANALYTICAL SUMMARY

Analyte	DP-1	DP-2	DP-3	DP-4	DP-5*	Average **	MCL
cis-1,2-Dichloroethene	0.75 U	0.32 J	0.15 U	40 J	1.5 J	8.5	7.0E+01
Ethylbenzene	0.55 U	0.13 J	0.11 U	5.5 U	0.17 U	0.66	7.0E+02
Isopropylbenzene	0.50 U	0.10 U	0.11 J	5.0 U	0.14 J	0.6	6.8E+02 ^
2-Butanone (MEK)	5.0 U	1.0 U	1.0 U	50 U	1.5 J	6.0	7.1E+03 ^
m- & p-Xylene	1.0 U	0.20 U	0.20 U	10 U	0.21 J	1.2	1.0E+04
4-Isopropyltoluene	0.55 U	0.14 J	0.15 J	6.5 U	1.9 J	1.1	NE
Trichloroethene	0.78 J	1.0	0.13 U	9.0 J	1.6 J	2.5	5.0E+00
Tetrachloroethene	<u>350</u>	<u>360</u>	0.94 J	<u>2700</u>	<u>160</u>	710	5.0E+00
Toluene	1.6 U	0.33 U	0.33 U	16 U	0.34 J	1.9	1.0E+03

Notes:

All results are micrograms per kilogram (ug/L).

Only two significant figures are shown.

Detections are highlighted with bold font.

MCL = United States Environmental Protection Agency (USEPA) Maximum Contaminant Level for tapwater.
 Exceedances of the MCL are underlined.

* = The result is the average of the parent and the duplicate sample. If the analyte was detected in only one of the samples, then 1/2 the method detection limit was used in the calculation.

** = The average includes using 1/2 the method detection limit in the calculation for samples that were non-detect for the target analyte.

^ = value given is the USEPA Regional Screening Level for tapwater because no MCL is established.

J = Estimated value.

U = Non-detect at the stated level.

NE = No MCL or RSL is established.

TABLE 7
 VAPOR INTRUSION SCREENING RESULTS FOR GROUNDWATER

Analyte	Model Estimate Type			Average Concentration *
	Less Conservative	Best Estimate	More Conservative	
cis-1,2-Dichloroethene	9.3E+03	3.7E+03	2.8E+03	8.5E+00
ethylbenzene	3.5E+02	1.5E+02	1.1E+02	6.6E-01
Isopropylbenzene	5.7E+02	2.5E+02	2.0E+02	6.1E-01
2-Butanone (MEK)	1.1E+07	2.8E+06	1.1E+06	6.0E+00
m- & p-Xylene	solubility	solubility	solubility	1.2E+00
4-Isopropyltoluene	NC	NC	NC	1.1E+00
Trichloroethene	2.4E+00	9.9E-01	7.8E-01	2.5E+00
Tetrachloroethene	5.6E+01	2.4E+01	1.9E+01	7.1E+02
Toluene	6.1E+04	2.6E+04	2.0E+04	1.9E+00

Notes:

All values are micrograms per kilogram (ug/L).

Only two significant figures are shown.

Modeled values that are exceeded by the average concentration
 are highlighted with bold font.

* = The average includes using 1/2 the method detection limit in the
 calculation for samples that were non-detect for the target analyte.

solubility = the calculated value exceeds the solubility limit for the analyte.

NC = Not calculated.

The more conservative estimates (more protective) are produced by using the highest
 assumed moisture content and the shallowest depth to contamination.

The less conservative estimates (less protective) are produced by using the lowest
 assumed moisture content and the deepest depth to contamination.

TABLE 8
VAPOR INTRUSION SCREENING RESULTS FOR SOIL

Analyte	Modeled Depth to Contamination		Average Concentration *
	305 cm	857 cm	
Acetone	3.3E+04	8.1E+04	3.2E+01
cis-1,2-Dichloroethene	9.4E+01	2.4E+02	3.2E+00
2-Butanone (MEK)	5.2E+05	1.3E+06	5.8E+00
Tetrachloroethene	7.2E-01	1.9E+00	4.5E+02

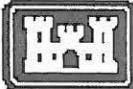
Notes:

All values are micrograms per kilogram (ug/kg).

Only two significant figures are shown.

Modeled values that are exceeded by the average concentration
are highlighted with bold font.

* = The average includes using 1/2 the method detection limit in the
calculation for samples that were non-detect for the target analyte.



U.S. ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT
GEOLOGY and HYDROGEOLOGY

SOIL SAMPLE LOG
DATA SHEET

Client: Duluth, Georgia

Sampled By: Tracey Tapley

Sample Analysis (Preservative): 8260B (MeOH, NaHSO4, & Ice) for soil samples; 8260B (HCl) for screen point samples

Number of Jars per Analysis: 4-8260B (Rinsate Blank consists of 3-8260B (HCl))

Sample ID	Date	Time	Total Sample Jars	Sample Depth (Feet)	Soil Classification	PID (PPM)	Duplicate	Field Blank	Comments
SB-1-18	03/25/2010	1305	4	18.0 - 18.5	ML	10.4	No	No	
SB-1-43	03/25/2010	1505	4	42.5 - 43.0	ML	0.8	No	Yes	BLK1 @ 1515
DP-1	03/26/2010	1240	3	40.9 - 44.9	N/A	N/A	No	No	
SB-2-15	03/26/2010	1040	4	15.0 - 15.5	ML	10.4	No	No	
SB-2-42	03/26/2010	1105	4	40.5 - 41.0	ML	20.9	No	No	
DP-2	03/26/2010	1255	3	40.9 - 44.9	N/A	N/A	No	No	
SB-3-10	03/26/2010	1520	4	9.5 - 10.0	ML	0	No	No	
SB-3-35	03/26/2010	1545	4	34.5 - 35.0	ML	0	No	No	
DP-3	03/26/2010	1615	9	34.9 - 38.9	N/A	N/A	No	Yes	BLK2 @ 1630; MS/MSD Taken
SB-4-19	03/26/2010	1340	12	18.5 - 19.5	ML	3.5	No	No	MS/MSD Taken
SB-4-43	03/26/2010	1420	4	42.5 - 43.0	ML	15.4	Yes	No	DUP1 @ 1300
DP-4	03/26/2010	1440	3	40.9 - 44.9	N/A	N/A	No	No	
DP-5	03/26/2010	945	3	61.7 - 65.7	N/A	N/A	Yes	No	DUP2 @ 1100

Notes:

1. The notation "DP" indicates screen point samples.

2. N/A: Not applicable

1.0 Narrative

Eleven soil and eleven aqueous samples were submitted to TestAmerica (TA) for analysis. The samples submitted and the analyses performed are summarized below. The report generated by the TA for these samples is report number 680-56230-1. The following sections present a brief summary of the non-conformances found utilizing the data validation checklist and the laboratory and field quality assurance / quality control (QA/QC) measures and details what qualifications, if any, are necessary for the data.

1.1 Chain of Custody (COC) and Field Documentation Review

The screen points did not make enough water to measure the field parameters. This result is not unexpected, the protocols identified in the Quality Assurance Project Plan (QAPP) were followed.

No qualifications are necessary.

The names were interchanged for the soil and water filed duplicates (DUP1 and DUP2) on the COC. Sample SB-2-41 was listed as SB-2-42 on the COC. The laboratory logged the samples using the name on the COC and not the names on the sample bottles. This action was confirmed with the US Army Corps of Engineers (USACE) QA/QC manager.

No qualifications are necessary.

2.0 Laboratory QA/QC

2.1 Surrogates

The surrogate recovery for 4-bromofluorobenzene in sample B-4-43 was biased high. The sample was diluted by a factor of 40. According to the laboratory narrative, the sample was re-extracted or re-analyzed with concurring results so the original results were reported. This sample is also the parent sample for field replicate sample DUP2. The relative percent differences (RPDs) for the detected analytes in the parent and replicate samples were within established guidelines (See Section 3.1).

No qualifications are necessary.

2.2 Laboratory Control Samples (LCS) and Duplicates (LCSD)

The LCSD for batch 680-164913 had percent recoveries (PRs) that were outside of established control limits biased low. The PRs for the LCS and the RPDs for the LCS/LCSD pair were within established control limits. The analytes, LCSD PRs, and control limits are:

<u>Analyte</u>	<u>LCSD PR</u>	<u>Control limits</u>
Chlorobenzene	75	77-120
Chloroform	68	65-127
o-xylene	75	76-122

The associated samples were non-detect for the analytes. The quantitation limits should be flagged as estimated (UJ).

2.3 Matrix Spikes (MS) and Duplicates (MSD)

The MS and MSD (680-56230-11) PRs were biased high for 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, 1,2-dibromo-3-chloropropane, 2-butanone (MEK), and 4-methyl-2-pentanone (MIBK). The RPDs were within established control limits. The associated LCS was within established guidelines. The associated sample is SB-4-19. The method detection limit (MDL) was flagged as estimated (UJ) by the lab, the reporting limit (RL) was not qualified. Since the recoveries were biased high and the associated sample was non-detect the reporting limit does not need to be qualified.

No qualifications are necessary.

The MS and MSD (680-56230-11) PRs were biased low for naphthalene. The RPD was also outside of established control limits. The associated LCS was within established guidelines. The associated sample is SB-4-19. The method detection limit (MDL) was flagged as estimated (UJ) by the lab, the reporting limit (RL) was not qualified. Since the recoveries were biased low and the associated sample was non-detect the RL should be flagged as estimated.

The RL for naphthalene in sample SB-4-19 should be flagged as estimated (UJ).

The MSD (680-56230-16) PRs were biased low for 1,1,1,2-tetrachloroethane, chlorodibromomethane, and ethylene dibromide. The PR for the MS and the RPD for the MS/MSD pair were within established control limits. The associated LCS was within established guidelines. The associated parent sample is DP-3.

No qualifications are necessary.

2.4 Blanks

2.4.1 Method Blanks

The method blank for batch 680-165125 contained 1,2,4-trichlorobenzene at a tentatively identified level (above the MDL but below the RL). Associated sample DP-5 also contained 1,2,4-trichlorobenzene at a tentatively identified level. The concentration was not greater than 5 times the concentration observed in the blank. The analyte should be reported as non-detect at the reporting limit (U).

The method blank for batch 680-164873 contained n-butylbenzene at a tentatively identified level. Associated samples DP-1 and DP-2 also contained n-butylbenzene at tentatively identified levels, the concentrations of these analytes were flagged as estimated (J). Neither concentration was greater than 5 times the concentration observed in the blank. The analytes should be reported as non-detect at the reporting limit (U).

The estimated levels of 1,2,4-trichlorobenzene in DP-5 and n-butylbenzene in DP-1 and DP-2 should be flagged as non-detect at the reporting limit (U).

2.4.2 Trip Blanks

The Trip Blank contained Bromobenzene and styrene at estimated (tentatively identified) levels. Sample DUP1 also contained Bromobenzene at an estimated level that was less than 5 times the concentration observed in the blank. The analyte should be reported as non-detect at the reporting limit (U).

The estimated level of styrene in DUP1 should be flagged as non-detect at the reporting limit (U).

2.5 Laboratory Qualifications

Several of the analytes were detected at levels that were above the method detection limit (MDL) but below the reporting limit (RL). These results were flagged with the quantitation limit as estimated (J). Several analyte recoveries in the soil MS/MSD were biased high (see Section 2.3). The associated sample had low level detections of these analytes and the laboratory qualified the detection limits as estimated (UJ).

No further qualifications are necessary.

3.0 Field QA/QC

3.1 Replicate Samples

Sample DUP1 was a replicate sample of DP-5; sample DUP2 was a replicate of sample SB-4-43. The below tables present the results of the duplicate comparison.

Field Duplicate Pair	Parameter	Original Result ppb	Duplicate Result ppb	RPD	RPD Limits
DP-5	1,2,4-trichlorobenzene	0.57 J	< 1.0	NA	<30%
DUP1	acetone	< 50	12 J	NA	<30%
	cis-1,2 Dichlororethane	0.32 J	1	NA	<30%
	isopropylbenzene	< 2.0	0.17 J	NA	<30%
	2-butanone	< 20	1.9 J	NA	<30%
	m- & p-xylene	< 4.0	0.22 J	NA	<30%
	4-isopropyltoluene	3.2	0.55 J	NA	<30%
	styrene	< 2.0	0.12 J	NA	<30%
	trichloroethene	1.4	1.8	25%	<30%
	tetrachloroethene	150	170	12.5%	<30%
	toluene	< 2.0	0.35 J	NA	<30%

Eleven analytes were detected in either the parent sample DP-5 or the replicate sample DUP1, nine of the analytes were present at estimated levels below the RL in at least one of the samples. Only two of the analytes were detected at levels above the reporting limit in both the parent and replicate sample. These analytes include trichloroethene and tetrachloroethene. The RPD for both analytes is within the control limit of 30%. It should be noted that sample DP-5 was diluted by a factor of 2.

No qualifications are necessary.

Field Duplicate Pair	Parameter	Original Result ppb	Duplicate Result ppb	RPD	RPD Limits
SB-4-43	tetrachloroethene	3700	3300	11%	<30%
DUP2					

Only tetrachloroethene was detected in either the parent sample SB-4-43 or the replicate sample DUP2. The RPD for the analyte was within the established control limit of 30%.

No qualifications are necessary.

3.2 Rinsate Blanks

Both the rinsate blanks associated with the soil sampling (BLK1) and the rinsate blank associated with the water sampling (BLK2) contained hits for dichlorobromomethane, chloroform, and chlorodibromomethane. Sample BLK2 also contained a hit for acetone at a tentatively identified level.

The soil samples were non-detect for the target analytes that were detected in rinsate blank BLK1. Samples DP-2, DP-3, and DUP1 (the replicate of DP-5) contained detections for acetone at tentatively identified levels that were less than 5 times that observed in the blank. Acetone should be flagged non-detect (U) at the detection limit in these samples. DUP1 also contained a detection for chloroform at a tentatively identified level. Chloroform should be flagged non-detect (U) at the detection limit in DUP1.

Chloroform in sample DUP1 and acetone in samples DP-2, DP-3, and DUP1 should be flagged non-detect (U) at the detection limit.

4.0 Conclusions and Recommendations

These data are acceptable and can be considered as representative of the samples collected in the field. However, the data should be flagged as indicated above.

QA LEVEL II - DATA EVALUATION CHECKLIST

Company Name: USAIC
 Project Name: OnEarth Brownfield
 Reviewer: Kevin Habenak

Project Manager: Tracey Epperly
 Project Number: 111
 Validation Date: 05/20/10

Laboratory: TestAmerica

Analytical Method (type and no.): 8200B - 11 soil, 11 water

Matrix: Air Soil/Sed. Water Waste

Sample Names
 Soil = SB-1-18, SB-1-13, SB-2-15, SB-2-42, SB-3-10, SB-3-35
 SB-4-19 (includes MS/MSO), SB-4-13, Pupa 2
 Water = DP-1, DP-2, DP-3, DP-4, DP-5, MS/MSO (DP-3),
 BIK1, BIK2, TRIP BLANK, Pupa 1

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information

	YES	NO	NA	COMMENTS
a) Sampling dates noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Sampling team indicated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Sample location noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Sample depth indicated (Soils)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) Sample type indicated (grab/composite)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f) Field QC noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g) Field parameters collected (note types)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Screen points did not make enough water to take measurements
h) Field Calibration within control limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
j) Does the laboratory narrative indicate deficiencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Note Deficiencies:

Chain-of-Custody (COC)

	YES	NO	NA	COMMENTS
k) Was the COC properly completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
l) Was the COC signed by both field and laboratory personnel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m) Were samples received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The names were interchanged for the soil + water field duplicates. SB-2-42 labeled as SB-2-41.

General (Reference QAPP or Method)

	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Were hold times met for sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Were the correct preservatives used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Was the correct method used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) Were appropriate reporting limits achieved?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f) Were any sample dilutions noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g) Were any matrix problems noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Acetone expected for soil+water DP-1=SB, DP-2=SF, DP-4=SD+, DP-5=dx MS/MSO for SB-4-19 outside control limits, LCS w/in limits See MS/MSO discussion

Blanks

- a) Were analytes detected in the method blank(s)?
- b) Were analytes detected in the field blank(s)?
- c) Were analytes detected in the equipment blank(s)?
- d) Were analytes detected in the trip blank(s)?

YES	NO	NA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS

*n-butylbenzene(S) batch 161873**BK2/BK1 = ② dichlorobromomethane, chlorobromo
Bromo benzene (S), Styrene (S)
chlorodibromo methane***Laboratory Control Sample (LCS)**

- a) Was a LCS analyzed once per SDG?
- b) Were the proper compounds included in the LCS?
- c) Was the LCS accuracy criteria met?

YES	NO	NA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS

*LCSD (161913) d₄ benzene biased &
RPD w/in limits, see discussion for more***Duplicates**

- a) Were field duplicates collected (note original and duplicate sample names)?
- b) Were field dup. precision criteria met (note RPD)?
- c) Were lab duplicates analyzed (note original and duplicate samples)?
- d) Were lab dup. precision criteria met (note RPD)?

YES	NO	NA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Dup1/PP-2 + Dup2/BB-4-43
See accountable attached for %RPD***Blind Standards**

- a) Was a blind standard used (indicate name, compounds included and concentrations)?
- b) Was the %D within control limits?

YES	NO	NA
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

COMMENTS

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- a) Was MS accuracy criteria met?
- b) Recovery could not be calculated since sample contained high concentration of analyte?
- c) Was MSD accuracy criteria met?
- Recovery could not be calculated since sample contained high concentration of analyte?
- d) Were MS/MSD precision criteria met?

YES	NO	NA
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS

*No biased high for several analytes
Soil MSD associated
Sample results qualifed by
laboratory, no further necessary
Naphthalene biased low at NSD,
1,1,2 TCA, ethylenedibromide chlorobromo
RPD not for Naphthalene NSD (soil
biased low / LCS w/in control limits)***Reagent Water Spike and Duplicate (RWS & RWSD)**

- a) Was RWS accuracy criteria met?
- b) Was RWSD accuracy criteria met?
- c) Was RWS/RWSD precision criteria met (RPD)?

YES	NO	NA
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

COMMENTS

Surrogate Spikes

- a) Were surrogate recoveries within control limits?
- b) Were surrogate recoveries not calculated due to dilutions?

YES	NO	NA
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

COMMENTS

*4-Bromofluorobenzene
Biased high in SB-A-4-43
sample diluted 40X. duplicate
sample w/in limits & meets
precision criteria. No qualifac.
necessary*

Comments/Notes:

See attached Summary for discussion
 See attached Table for field duplicate RPD

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
<i>See attached summary</i>				

Signature:

Date:

4.3.2 Extent of Groundwater Contamination

Organic constituents were detected in all five temporary monitoring wells at the Site. The concentrations of the detected constituents were compared to their respective MCL (as stated in the decision rule in the DQOs). Two of the constituents (cumene and MEK) did not have an established MCL, so the RSL for tapwater was used for the comparison. One constituent, 4-isopropyltoluene, did not have an established MCL or RSL for tapwater. The detections of PCE exceeded the MCL in four of the temporary wells, three of the shallow wells and the deep well. The temporary well that did not exceed the MCL for PCE is DP-3. TCE exceeded the MCL in one well (DP-4). None of the other detected contaminants exceeded the MCL. Since TCE and PCE exceed the MCLs, further investigation and possibly remediation of the groundwater may be required before redevelopment of the property can proceed.

The shallow temporary wells (DP-1 through DP-4) were installed around the perimeter of the Site to provide for lateral delineation and to determine what may be migrating onto and off of the Site. Elevated concentrations of PCE (ranging from 350 ug/L to 2,700 ug/L) were observed in three of the four boundary wells. Either multiple source areas exist on the Site, or PCE is migrating both onto and off of the Site. The concentrations observed in DP-4 are of particular interest. The highest concentrations of the detected chlorinated organics during this investigation were in DP-4. This temporary monitoring well was located on the southwest boundary of the Site and was cross-gradient of the suspected source area based on the inferred groundwater flow direction. Either groundwater flows in more of a westerly direction and this location is downgradient of the former source area, or high concentrations of contaminants are migrating onsite from an offsite source area.

Deep well DP-5 was installed in the area of the shallow temporary monitoring well (GW-1) that was installed and sampled during the 2008 Ahlberg Engineering, Inc. site assessment. This temporary well was installed to provide vertical delineation of the contamination observed in GW-1. The level of PCE observed in DP-5 (160 ug/L) was several orders of magnitude lower than the concentration observed in GW-1 (12,000 ug/L). TCE (41 ug/L), DCE (21 ug/L), and vinyl chloride (14 ug/L) were also detected in GW-1. Vinyl chloride was not detected in DP-5, and TCE (1.6 J ug/L) and DCE (1.5 J ug/L) were detected at estimated levels. This indicates that the bedrock is unlikely to have been seriously affected by the analytes, although low levels could be present in the bedrock.

Permanent monitoring wells and aquifer performance tests (e.g., slug testing) would be needed to establish the average annual groundwater flow rate and direction. This would provide an indication of which areas have likely been affected by onsite activities, which areas have likely been affected by off-site activities, and how far the contamination may have migrated from the Site.

5 VAPOR INTRUSION SCREENING MODEL

Vapor intrusion screening was performed for the analytes detected in soil and groundwater. The screening was performed using two implementations of the Johnson-Ettinger Vapor Intrusion Model. The first model is the USEPA Ecosystems Research Division (ERD) web based Screening-Level Johnson and Ettinger Model. The second model is the USEPA Office of Solid Waste and Emergency Response (OSWER) Microsoft Excel based Screening-Level Johnson and Ettinger Model. A link to both of the models is included in the references section, a brief discussion of each of the implementations is presented below.

5.1 ERD Model

The ERD implementation of the model allows for a reverse calculation for estimating target media concentrations with a limited sensitivity analysis, a forward calculation for estimating hazard quotients and cancer risk factors with a limited sensitivity analysis, and a full uncertainty analysis for multiple unknown parameters. Only the reverse calculation for estimating target media concentrations was used for this analysis. The model calculates target analyte concentrations for groundwater and soil-gas. The limited sensitivity analysis is performed by using different soil moisture content and depth to contamination estimates to produce the best estimate, a less conservative estimate, and a more conservative. The best estimate uses the depth of contamination input by the user and the likely assumed moisture content for the type of soil. The more conservative estimates (more protective) are produced by using the highest assumed moisture content for the soil and the shallowest depth to contamination (based on an uncertainty interval).

Since the model does not calculate target soil concentrations, the model was only used to generate screening numbers for the analytes detected in groundwater. A reverse calculation was performed for each of the analytes detected in groundwater except 4-isopropyltoluene. A calculation could not be performed for that analyte because it is not included in the list of analytes for which the model can be run.

The user inputs to the model include building type, analyte, soil type, average soil or groundwater temperature, depth to contamination, and uncertainty interval for depth to contamination. The calculations were performed assuming that any future structure would be built on slab. The remaining inputs were based on site specific information that was either obtained during the investigation or estimates that are typical for the area of the Site.

The depth to contamination was set at the average top of screen interval for the shallow temporary wells, the uncertainty parameter was set at plus or minus 10 feet to coincide with the average depth to water observed in the shallow temporary wells (approximately 30 ft bgs) after they had been allowed to equilibrate. The average groundwater temperature was set at 17 degrees Celsius ($^{\circ}\text{C}$) which is typical of the Atlanta area. The soil type was set as loam. This selection was the closest match to the predominant soil

type observed during drilling (a reddish-brown lean silt, Unified Soil Classification System [USCS] soil type ML).

The model produces estimates of the chemical properties, the soil properties, the building properties, and the exposure parameters based on the above inputs. These estimates can be edited before performing the calculation for the target media concentrations, but they were not edited for this limited screening. The target concentration for the analyte is calculated for a best estimate, a less protective estimate, and a more protective estimate based on the inputs. The results of the modeling are included in Table 7. The model summary sheets for each parameter are included in Appendix D.

5.2 OSWER Model

The OSWER implementation of the model allows for a reverse calculation for estimating target media concentrations and a forward calculation for estimating hazard quotients and cancer risk factors. Only the reverse calculation for estimating target media concentrations was used for this analysis. The model calculates target analyte concentrations for groundwater, soil, and soil-gas.

The model was only used to generate screening numbers for the analytes detected in soil since the ERD model could not be used. The model does not automatically perform a sensitivity analysis, but model runs were performed for two assumed depths to contamination to perform a limited sensitivity analysis for that parameter.

The user inputs to the model include depth below grade to bottom of enclosed floor space, analyte, soil type, and depth to contamination. The depth below grade to bottom of enclosed floor space can be one of two values, 15 centimeters (cm) for buildings on slab and 200 cm for buildings constructed with a basement. The calculations were performed assuming that any future structure would be built on slab (i.e., depth below grade to bottom of enclosed floor space was set to 15 cm). The remaining inputs were based on site specific information that was either obtained during the investigation or estimates that are typical for the area of the Site.

The depth to contamination was set at the average soil sample depth (approximately 857cm) for one calculation and an assumed depth of 305 cm (approximately 10 ft) for a second more conservative calculation. The soil type was set as USCS soil type L. This selection was the closest match to the predominant soil type observed during drilling.

The model produces estimates of the chemical properties, the soil properties, the building properties, and the exposure parameters based on the above inputs and a target concentration is calculated. The average soil temperature is assumed by the model to be 10 °C, this value could not be changed. The results of the modeling are included in Table 8. The model summary sheets for each parameter are included in Appendix D.

5.3 Screening Results

The model outputs were compared to the average observed concentrations in soil or groundwater for each analyte. The average concentrations (rounded to two significant figures) are presented in the modeling results tables (Tables 7 and 8). Screening results that are exceeded by the average concentration are highlighted with bold font.

The screening results for the analytes detected in groundwater are typically orders of magnitude higher than the average concentration calculated for the analyte. The exceptions are PCE and TCE. The average concentrations for these analytes (710 ug/L and 2.5 ug/L, respectively) exceeded all of the screening values calculated by the ERD model (ranging from 1.9 ug/L to 5.6 ug/L and 0.78 ug/L to 2.4 ug/L, respectively). This limited screening indicates that PCE and TCE in groundwater could pose an exposure risk via the vapor intrusion pathway in buildings constructed on the Site. Further evaluation of the health risks or corrective actions (such as vapor barriers) may be required before or as a part of redevelopment.

The screening results for the analytes detected in soil are typically orders of magnitude higher than the average concentration calculated for the analyte. The exception is PCE. The average concentration for this analyte was 450 ug/kg, this exceeded the conservative screening value (0.72 ug/kg) and the less conservative screening value (1.9 ug/kg) calculated by the OSWER model. This limited screening indicates that PCE in soil could pose an exposure risk via the vapor intrusion pathway in buildings constructed on the Site. Further evaluation of the health risks or corrective actions (such as vapor barriers) may be required before or as a part of redevelopment.

6 SUMMARY AND RECOMMENDATIONS

6.1 Soil Assessment Summary

Eight surface soil samples were collected from four borings areas across the Site. The eight soil samples were analyzed for VOCs (8260B). VOCs were detected in all of the soil samples. The VOCs detected were acetone, DCE, MEK, and PCE. Acetone and MEK were only detected at estimated levels and may be a laboratory artifact. DCE was detected in one sample and PCE was detected in six samples. Based on the results of the soil investigation conducted at the Site, it is apparent that PCE contamination is present across the Site. Only the samples from boring SB-3 did not contain PCE.

The average concentration of each detected analyte was compared to USEPA RSLs for industrial soil (as stated in the decision rule in the DQOs) to determine if the Site should be considered contaminated. None of the average concentrations exceed the respective RSL. Therefore, the levels of contamination detected in the soils during this assessment are not considered to present a threat to human health if the Site is redeveloped for industrial use.

6.2 Groundwater Assessment Summary

Groundwater samples were collected from the five temporary monitoring wells, identified DP-1 through DP-5. Organic constituents were detected in all five temporary monitoring wells at the Site. The concentrations of the detected constituents were compared to their respective MCL (as stated in the decision rule in the DQOs), or to the RSL for tapwater if no MCL was established. One constituent, 4-isopropyltoluene, did not have an established MCL or RSL for tapwater. The detections of PCE exceeded the MCL in four of the temporary wells, three of the shallow wells and the deep well. The temporary well that did not exceed the MCL for PCE is DP-3. TCE exceeded the MCL in one well (DP-4).

The shallow temporary wells (DP-1 through DP-4) were installed around the perimeter of the Site to provide for lateral delineation and to determine what may be migrating onto and off of the Site. Elevated concentrations of PCE (ranging from 350 ug/L to 2,700 ug/L) were observed in three of the four boundary wells. Either multiple source areas exist on the Site, or PCE is migrating both onto and off of the Site.

Deep well DP-5 was installed to provide vertical delineation for the shallow temporary monitoring well (GW-1) that was installed and sampled during the February 2008 Ahlberg Engineering, Inc. site assessment. The levels of contaminants observed in DP-5 were orders of magnitude below those observed in GW-1. The results indicate that the bedrock is unlikely to have been seriously affected by the analytes, although low levels could be present in the bedrock.

6.3 Vapor Intrusion Screening Summary

Vapor intrusion screening was performed for the analytes detected in soil and groundwater. The screening was performed using two implementations of the Johnson-

Ettinger Vapor Intrusion Model. The first model is the USEPA ERD web based Screening-Level Johnson and Ettinger Model, this implementation was used to generate screening values for the analytes detected in groundwater. The second model is the USEPA OSWER Microsoft Excel based Screening-Level Johnson and Ettinger Model, this implementation was used to generate screening values for the analytes detected in soil.

The model outputs were compared to the average observed concentrations in soil or groundwater for each analyte. The screening results for the analytes detected in groundwater are typically orders of magnitude higher than the average concentration calculated for the analyte. The exceptions are PCE and TCE. The average concentrations for these analytes (710 ug/L and 2.5 ug/L, respectively) exceeded all of the respective screening values calculated by the ERD model (ranging from 1.9 ug/L to 5.6 ug/L and 0.78 ug/L to 2.4 ug/L, respectively). The screening results for the analytes detected in soil are typically orders of magnitude higher than the average concentration calculated for the analyte. The exception is PCE. The average concentration for this analyte was 450 ug/kg, this exceeded the conservative screening value (0.72 ug/kg) and the less conservative screening value (1.9 ug/kg) calculated by the OSWER model.

This limited screening indicates that PCE and TCE in groundwater and that PCE in soil could pose an exposure risk via the vapor intrusion pathway in buildings constructed on the Site.

6.4 Recommendations

The following recommendations are made based on the data collected during this Targeted Brownfield Assessment and the conclusions drawn from that data about the extent of contamination in the soil and groundwater at the Site and the possibility for vapor intrusion to pose a risk to human health at the Site.

- Concentrations of two contaminants (PCE and TCE) in groundwater exceed the MCL, further assessment should be performed to determine site specific risk-based screening/clean-up levels for these analytes.
- Analyte concentrations in both soil and groundwater could pose an exposure risk via the vapor intrusion pathway. More detailed evaluations of the health risks should be performed prior to redevelopment of the Site or engineering controls to address the exposure risk should be implemented as a part of the redevelopment of the Site.

7 REFERENCES.

Ahlberg Engineering, Inc., *Limited Phase II Environmental Site Assessment*, Marietta, Georgia, April 1, 2008.

Matrix Engineering Group, *Supplemental Environmental Study Calleo Garage Properties, Duluth, Georgia*, Tucker, Georgia, January 4, 2008.

United States Army Corps of Engineers (USACE), *Engineering Manual EM 1110-1-4000 Monitoring Well Design, Installation, and Documentation at Hazardous Waste Sites*, May 1990.

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United States Environmental Protection Agency (USEPA), *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846 Third Edition) Including Update IV*, Washington, DC, June 1997.

USEPA, *Quality Assurance Guidance for Conducting Brownfields Site Assessments*, EPA 540-R-98-038, Washington DC, September 1998.

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USEPA, *Screening Level Implementation of the Johnson and Ettinger Vapor Intrusion Model*, as available June 2010, http://epa.gov/athens/learn2model/part-two/onsite/JnE_lite.html.

USEPA, *Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion into Buildings*, as available June 2010, http://www.epa.gov/oswer/riskassessment/airmodel/johnson_ettinger.htm.

ANALYTICAL REPORT

Job Number: 680-56230-1

Job Description: Former Duluth Dry Cleaners

For:

U.S. Army Corps of Engineers
PO BOX 889

Savannah, GA 31402-0889

Attention: Mr. Kevin Haborak



Approved for release.
Kathryn Smith
Project Manager I
4/16/2010 6:32 PM

Kathryn Smith
Project Manager I
kathye.smith@testamericainc.com
04/16/2010

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #'s: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; AZ: AZ0741; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS: NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**Job Narrative
680-56230-1**

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for sample SB-4-19 (680-56230-11 MS) were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: SB-4-43 (680-56230-12). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

Method(s) 8260B: The field blanks associated with these samples contained detections above the reporting limit (RL), for Chlorodibromomethane, Chloroform, and Dichlorobromomethane. 680-56230-17 also contained Acetone above the method detection limit (MDL) . The presence of these compounds was confirmed by re-analysis.

Method(s) 8260B: The trip blank associated with these samples contained a detection above the method detection limit (MDL) for the following analyte: bromobenzene and styrene.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

METHOD / ANALYST SUMMARY

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method	Analyst	Analyst ID
SW846 8260B	Bearden, Robert	RB
SW846 8260B	Cowart, Judson	WJC
SW846 8260B	Sokolin, Eleina	ES
EPA Moisture	Morgan, Harriet	HM

SAMPLE SUMMARY

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-56230-1	SB-1-18	Solid	03/25/2010 1305	03/27/2010 1040
680-56230-2	SB-1-43	Solid	03/25/2010 1505	03/27/2010 1040
680-56230-3	BLK1	Water	03/25/2010 1515	03/27/2010 1040
680-56230-4	DP-5	Water	03/26/2010 0945	03/27/2010 1040
680-56230-5	SB-2-15	Solid	03/26/2010 1040	03/27/2010 1040
680-56230-6	DUP2	Solid	03/26/2010 1100	03/27/2010 1040
680-56230-7	SB-2-42	Solid	03/26/2010 1105	03/27/2010 1040
680-56230-8	DP-2	Water	03/26/2010 1255	03/27/2010 1040
680-56230-9	DP-1	Water	03/26/2010 1240	03/27/2010 1040
680-56230-10	DUP1	Water	03/26/2010 1300	03/27/2010 1040
680-56230-11	SB-4-19	Solid	03/26/2010 1340	03/27/2010 1040
680-56230-11MS	SB-4-19	Solid	03/26/2010 1340	03/27/2010 1040
680-56230-11MSD	SB-4-19	Solid	03/26/2010 1340	03/27/2010 1040
680-56230-12	SB-4-43	Solid	03/26/2010 1420	03/27/2010 1040
680-56230-13	DP-4	Water	03/26/2010 1440	03/27/2010 1040
680-56230-14	SB-3-10	Solid	03/26/2010 1520	03/27/2010 1040
680-56230-15	SB-3-35	Solid	03/26/2010 1545	03/27/2010 1040
680-56230-16	DP-3	Water	03/26/2010 1615	03/27/2010 1040
680-56230-16MS	DP-3	Water	03/26/2010 1615	03/27/2010 1040
680-56230-16MSD	DP-3	Water	03/26/2010 1615	03/27/2010 1040
680-56230-17	BLK2	Water	03/26/2010 1630	03/27/2010 1040
680-56230-18	TRIP BLANK	Water	03/26/2010 0000	03/27/2010 1040

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-1-18

Lab Sample ID: 680-56230-1

Date Sampled: 03/25/2010 1305

Client Matrix: Solid

% Moisture: 18.0

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0189.d
Dilution:	1.0		Initial Weight/Volume:	9.8 g
Date Analyzed:	04/05/2010 1226		Final Weight/Volume:	1.0 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		2.9	U	2.9	6.1
1,1,1-Trichloroethane		0.72	U	0.72	6.1
1,1,2,2-Tetrachloroethane		2.0	U	2.0	6.1
1,1,2-Trichloroethane		1.6	U	1.6	6.1
1,1-Dichloroethane		1.3	U	1.3	6.1
1,1-Dichloroethene		1.8	U	1.8	6.1
1,1-Dichloropropene		1.2	U	1.2	6.1
1,2,3-Trichlorobenzene		2.0	U	2.0	6.1
1,2,3-Trichloropropane		2.9	U	2.9	6.1
1,2,4-Trichlorobenzene		1.1	U	1.1	6.1
1,2,4-Trimethylbenzene		1.7	U	1.7	6.1
1,2-Dichloroethane		1.3	U	1.3	6.1
1,2-Dichlorobenzene		1.6	U	1.6	6.1
1,2-Dibromo-3-Chloropropane		5.4	U	5.4	12
1,2-Dichloropropane		1.0	U	1.0	6.1
Ethylene Dibromide		1.8	U	1.8	6.1
1,3,5-Trimethylbenzene		2.1	U	2.1	6.1
1,3-Dichlorobenzene		2.0	U	2.0	6.1
1,3-Dichloropropane		2.2	U	2.2	6.1
1,4-Dichlorobenzene		0.90	U	0.90	6.1
1-Chlorohexane		2.6	U	2.6	6.1
2,2-Dichloropropane		1.3	U	1.3	6.1
2-Chlorotoluene		2.4	U	2.4	6.1
4-Chlorotoluene		2.1	U	2.1	6.1
Acetone	30	J		13	61
Benzene	0.89	U		0.89	6.1
Bromobenzene	2.1	U		2.1	6.1
Chlorobromomethane	4.0	U		4.0	6.1
Dichlorobromomethane	1.2	U		1.2	6.1
Bromoform	1.8	U		1.8	6.1
Bromomethane	1.8	U		1.8	6.1
Carbon tetrachloride	1.0	U		1.0	6.1
Chlorobenzene	1.2	U Q		1.2	6.1
Chloroethane	3.3	U		3.3	6.1
Chloroform	1.3	U Q		1.3	6.1
Chloromethane	1.2	U		1.2	6.1
cis-1,2-Dichloroethene	1.7	U		1.7	6.1
cis-1,3-Dichloropropene	1.0	U		1.0	6.1
Chlorodibromomethane	2.1	U		2.1	6.1
Dichlorodifluoromethane	1.1	U		1.1	6.1
Ethylbenzene	1.6	U		1.6	6.1
Hexachlorobutadiene	3.8	U		3.8	6.1
Isopropylbenzene	2.3	U		2.3	6.1
Methylene Chloride	1.2	U		1.2	6.1
Methyl tert-butyl ether	1.2	U		1.2	61
2-Butanone (MEK)	4.5	J		2.9	30

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: **SB-1-18**

Lab Sample ID: 680-56230-1

Date Sampled: 03/25/2010 1305

Client Matrix: Solid

% Moisture: 18.0

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0189.d
Dilution:	1.0		Initial Weight/Volume:	9.8 g
Date Analyzed:	04/05/2010 1226		Final Weight/Volume:	1.0 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		5.1	U	5.1	30
n-Butylbenzene		2.9	U	2.9	6.1
N-Propylbenzene		3.3	U	3.3	6.1
m-Xylene & p-Xylene		3.2	U	3.2	12
Naphthalene		1.5	U	1.5	6.1
o-Xylene		1.3	U Q	1.3	6.1
4-Isopropyltoluene		2.7	U	2.7	6.1
sec-Butylbenzene		2.6	U	2.6	6.1
Styrene		1.1	U	1.1	6.1
Trichloroethene		1.6	U	1.6	6.1
tert-Butylbenzene		2.2	U	2.2	6.1
Tetrachloroethene		13		2.3	6.1
Toluene		1.0	U	1.0	6.1
trans-1,2-Dichloroethene		0.77	U	0.77	6.1
trans-1,3-Dichloropropene		1.1	U	1.1	6.1
Trichlorofluoromethane		1.5	U	1.5	6.1
Vinyl chloride		1.8	U	1.8	6.1
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		107		65 - 124	
Dibromofluoromethane		77		65 - 124	
Toluene-d8 (Surr)		95		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-1-43

Lab Sample ID: 680-56230-2

Date Sampled: 03/25/2010 1505

Client Matrix: Solid

% Moisture: 20.1

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0190.d
Dilution:	1.0		Initial Weight/Volume:	11.2 g
Date Analyzed:	04/05/2010 1249		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		1.3	U	1.3	2.8
1,1,1-Trichloroethane		0.33	U	0.33	2.8
1,1,2,2-Tetrachloroethane		0.89	U	0.89	2.8
1,1,2-Trichloroethane		0.73	U	0.73	2.8
1,1-Dichloroethane		0.61	U	0.61	2.8
1,1-Dichloroethene		0.84	U	0.84	2.8
1,1-Dichloropropene		0.53	U	0.53	2.8
1,2,3-Trichlorobenzene		0.89	U	0.89	2.8
1,2,3-Trichloropropane		1.3	U	1.3	2.8
1,2,4-Trichlorobenzene		0.50	U	0.50	2.8
1,2,4-Trimethylbenzene		0.78	U	0.78	2.8
1,2-Dichloroethane		0.61	U	0.61	2.8
1,2-Dichlorobenzene		0.73	U	0.73	2.8
1,2-Dibromo-3-Chloropropane		2.5	U	2.5	5.6
1,2-Dichloropropane		0.48	U	0.48	2.8
Ethylene Dibromide		0.84	U	0.84	2.8
1,3,5-Trimethylbenzene		0.95	U	0.95	2.8
1,3-Dichlorobenzene		0.89	U	0.89	2.8
1,3-Dichloropropane		1.0	U	1.0	2.8
1,4-Dichlorobenzene		0.41	U	0.41	2.8
1-Chlorohexane		1.2	U	1.2	2.8
2,2-Dichloropropane		0.61	U	0.61	2.8
2-Chlorotoluene		1.1	U	1.1	2.8
4-Chlorotoluene		0.95	U	0.95	2.8
Acetone		13	J	6.1	28
Benzene		0.41	U	0.41	2.8
Bromobenzene		0.95	U	0.95	2.8
Chlorobromomethane		1.8	U	1.8	2.8
Dichlorobromomethane		0.54	U	0.54	2.8
Bromoform		0.84	U	0.84	2.8
Bromomethane		0.84	U	0.84	2.8
Carbon tetrachloride		0.46	U	0.46	2.8
Chlorobenzene		0.54	U Q	0.54	2.8
Chloroethane		1.5	U	1.5	2.8
Chloroform		0.61	U Q	0.61	2.8
Chloromethane		0.56	U	0.56	2.8
cis-1,2-Dichloroethene		0.78	U	0.78	2.8
cis-1,3-Dichloropropene		0.46	U	0.46	2.8
Chlorodibromomethane		0.95	U	0.95	2.8
Dichlorodifluoromethane		0.53	U	0.53	2.8
Ethylbenzene		0.73	U	0.73	2.8
Hexachlorobutadiene		1.7	U	1.7	2.8
Isopropylbenzene		1.1	U	1.1	2.8
Methylene Chloride		0.55	U	0.55	2.8
Methyl tert-butyl ether		0.56	U	0.56	28
2-Butanone (MEK)		1.3	U	1.3	14

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: **SB-1-43**

Lab Sample ID: 680-56230-2

Date Sampled: 03/25/2010 1505

Client Matrix: Solid

% Moisture: 20.1

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0190.d
Dilution:	1.0		Initial Weight/Volume:	11.2 g
Date Analyzed:	04/05/2010 1249		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		2.3	U	2.3	14
n-Butylbenzene		1.3	U	1.3	2.8
N-Propylbenzene		1.5	U	1.5	2.8
m-Xylene & p-Xylene		1.5	U	1.5	5.6
Naphthalene		0.67	U	0.67	2.8
o-Xylene		0.61	U Q	0.61	2.8
4-Isopropyltoluene		1.2	U	1.2	2.8
sec-Butylbenzene		1.2	U	1.2	2.8
Styrene		0.52	U	0.52	2.8
Trichloroethene		0.73	U	0.73	2.8
tert-Butylbenzene		1.0	U	1.0	2.8
Tetrachloroethene		35		1.1	2.8
Toluene		0.47	U	0.47	2.8
trans-1,2-Dichloroethene		0.35	U	0.35	2.8
trans-1,3-Dichloropropene		0.49	U	0.49	2.8
Trichlorofluoromethane		0.67	U	0.67	2.8
Vinyl chloride		0.84	U	0.84	2.8
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		108		65 - 124	
Dibromofluoromethane		79		65 - 124	
Toluene-d8 (Surr)		92		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: BLK1Lab Sample ID: 680-56230-3
Client Matrix: WaterDate Sampled: 03/25/2010 1515
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0435.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1308		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1308			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.0	U	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	2.3		0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	2.3		0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	1.5		0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: **BLK1**

Lab Sample ID: 680-56230-3

Date Sampled: 03/25/2010 1515

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0435.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1308		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1308			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	102		75 - 120	
Dibromofluoromethane	116		75 - 121	
Toluene-d8 (Surr)	104		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-5Lab Sample ID: 680-56230-4
Client Matrix: WaterDate Sampled: 03/26/2010 0945
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-165125	Instrument ID:	MSA2
Preparation:	5030B		Lab File ID:	a036.d
Dilution:	2.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 1759		Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 1759			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.66	U	0.66	2.0
1,1,1-Trichloroethane	1.0	U	1.0	2.0
1,1,2,2-Tetrachloroethane	0.36	U	0.36	2.0
1,1,2-Trichloroethane	0.26	U	0.26	2.0
1,1-Dichloroethane	0.50	U	0.50	2.0
1,1-Dichloroethene	0.22	U	0.22	2.0
1,1-Dichloropropene	0.50	U	0.50	2.0
1,2,3-Trichlorobenzene	0.70	U	0.70	2.0
1,2,3-Trichloropropane	0.82	U	0.82	2.0
1,2,4-Trichlorobenzene	0.57	J	0.50	2.0
1,2,4-Trimethylbenzene	0.66	U	0.66	2.0
1,2-Dichloroethane	0.20	U	0.20	2.0
1,2-Dichlorobenzene	0.42	U	0.42	2.0
1,2-Dibromo-3-Chloropropane	0.88	U	0.88	2.0
1,2-Dichloropropane	0.26	U	0.26	2.0
Ethylene Dibromide	0.50	U	0.50	2.0
1,3,5-Trimethylbenzene	0.66	U	0.66	2.0
1,3-Dichlorobenzene	0.50	U	0.50	2.0
1,3-Dichloropropane	0.26	U	0.26	2.0
1,4-Dichlorobenzene	0.56	U	0.56	2.0
1-Chlorohexane	0.54	U	0.54	2.0
2,2-Dichloropropane	0.24	U	0.24	2.0
2-Chlorotoluene	0.34	U	0.34	2.0
4-Chlorotoluene	0.54	U	0.54	2.0
Acetone	10	U	10	50
Benzene	0.50	U	0.50	2.0
Bromobenzene	0.32	U	0.32	2.0
Chlorobromomethane	0.28	U	0.28	2.0
Dichlorobromomethane	0.50	U	0.50	2.0
Bromoform	1.0	U	1.0	2.0
Bromomethane	1.6	U	1.6	2.0
Carbon tetrachloride	1.0	U	1.0	2.0
Chlorobenzene	0.50	U	0.50	2.0
Chloroethane	2.0	U	2.0	2.0
Chloroform	0.28	U	0.28	2.0
Chloromethane	0.66	U	0.66	2.0
cis-1,2-Dichloroethene	1.2	J	0.30	2.0
cis-1,3-Dichloropropene	0.22	U	0.22	2.0
Chlorodibromomethane	0.20	U	0.20	2.0
Dichlorodifluoromethane	0.50	U	0.50	2.0
Ethylbenzene	0.22	U	0.22	2.0
Hexachlorobutadiene	0.80	U	0.80	2.0
Isopropylbenzene	0.20	U	0.20	2.0
Methylene Chloride	2.0	U	2.0	10
Methyl tert-butyl ether	0.40	U	0.40	20
2-Butanone (MEK)	2.0	U	2.0	20

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-5Lab Sample ID: 680-56230-4
Client Matrix: WaterDate Sampled: 03/26/2010 0945
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-165125	Instrument ID:	MSA2
Preparation:	5030B		Lab File ID:	a036.d
Dilution:	2.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 1759		Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 1759			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	2.0	U	2.0	20
n-Butylbenzene	0.20	U	0.20	2.0
N-Propylbenzene	0.30	U	0.30	2.0
m-Xylene & p-Xylene	0.40	U	0.40	4.0
Naphthalene	2.0	U	2.0	10
o-Xylene	0.50	U	0.50	2.0
4-Isopropyltoluene	3.2		0.26	2.0
sec-Butylbenzene	0.32	U	0.32	2.0
Styrene	0.22	U	0.22	2.0
Trichloroethene	1.4	J	0.26	2.0
tert-Butylbenzene	0.24	U	0.24	2.0
Tetrachloroethene	150		0.30	2.0
Toluene	0.66	U	0.66	2.0
trans-1,2-Dichloroethene	0.40	U	0.40	2.0
trans-1,3-Dichloropropene	0.42	U	0.42	2.0
Trichlorofluoromethane	0.50	U	0.50	2.0
Vinyl chloride	0.36	U	0.36	2.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	95		75 - 120	
Dibromofluoromethane	97		75 - 121	
Toluene-d8 (Surr)	96		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-2-15

Lab Sample ID: 680-56230-5

Date Sampled: 03/26/2010 1040

Client Matrix: Solid

% Moisture: 11.9

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0191.d
Dilution:	1.0		Initial Weight/Volume:	9.7 g
Date Analyzed:	04/05/2010 1311		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		1.4	U	1.4	2.9
1,1,1-Trichloroethane		0.35	U	0.35	2.9
1,1,2,2-Tetrachloroethane		0.94	U	0.94	2.9
1,1,2-Trichloroethane		0.76	U	0.76	2.9
1,1-Dichloroethane		0.64	U	0.64	2.9
1,1-Dichloroethene		0.88	U	0.88	2.9
1,1-Dichloropropene		0.56	U	0.56	2.9
1,2,3-Trichlorobenzene		0.94	U	0.94	2.9
1,2,3-Trichloropropane		1.4	U	1.4	2.9
1,2,4-Trichlorobenzene		0.52	U	0.52	2.9
1,2,4-Trimethylbenzene		0.82	U	0.82	2.9
1,2-Dichloroethane		0.64	U	0.64	2.9
1,2-Dichlorobenzene		0.76	U	0.76	2.9
1,2-Dibromo-3-Chloropropane		2.6	U	2.6	5.8
1,2-Dichloropropane		0.50	U	0.50	2.9
Ethylene Dibromide		0.88	U	0.88	2.9
1,3,5-Trimethylbenzene		0.99	U	0.99	2.9
1,3-Dichlorobenzene		0.94	U	0.94	2.9
1,3-Dichloropropane		1.1	U	1.1	2.9
1,4-Dichlorobenzene		0.43	U	0.43	2.9
1-Chlorohexane		1.2	U	1.2	2.9
2,2-Dichloropropane		0.64	U	0.64	2.9
2-Chlorotoluene		1.2	U	1.2	2.9
4-Chlorotoluene		0.99	U	0.99	2.9
Acetone		7.7	J	6.4	29
Benzene		0.43	U	0.43	2.9
Bromobenzene		0.99	U	0.99	2.9
Chlorobromomethane		1.9	U	1.9	2.9
Dichlorobromomethane		0.57	U	0.57	2.9
Bromoform		0.88	U	0.88	2.9
Bromomethane		0.88	U	0.88	2.9
Carbon tetrachloride		0.49	U	0.49	2.9
Chlorobenzene		0.56	U Q	0.56	2.9
Chloroethane		1.6	U	1.6	2.9
Chloroform		0.64	U Q	0.64	2.9
Chloromethane		0.58	U	0.58	2.9
cis-1,2-Dichloroethene		4.0		0.82	2.9
cis-1,3-Dichloropropene		0.49	U	0.49	2.9
Chlorodibromomethane		0.99	U	0.99	2.9
Dichlorodifluoromethane		0.55	U	0.55	2.9
Ethylbenzene		0.76	U	0.76	2.9
Hexachlorobutadiene		1.8	U	1.8	2.9
Isopropylbenzene		1.1	U	1.1	2.9
Methylene Chloride		0.57	U	0.57	2.9
Methyl tert-butyl ether		0.58	U	0.58	29
2-Butanone (MEK)		1.4	U	1.4	15

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-2-15

Lab Sample ID: 680-56230-5

Date Sampled: 03/26/2010 1040

Client Matrix: Solid

% Moisture: 11.9

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0191.d
Dilution:	1.0		Initial Weight/Volume:	9.7 g
Date Analyzed:	04/05/2010 1311		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		2.5	U	2.5	15
n-Butylbenzene		1.4	U	1.4	2.9
N-Propylbenzene		1.6	U	1.6	2.9
m-Xylene & p-Xylene		1.5	U	1.5	5.8
Naphthalene		0.70	U	0.70	2.9
o-Xylene		0.64	U Q	0.64	2.9
4-Isopropyltoluene		1.3	U	1.3	2.9
sec-Butylbenzene		1.2	U	1.2	2.9
Styrene		0.54	U	0.54	2.9
Trichloroethene		0.76	U	0.76	2.9
tert-Butylbenzene		1.1	U	1.1	2.9
Tetrachloroethene		70		1.1	2.9
Toluene		0.49	U	0.49	2.9
trans-1,2-Dichloroethene		0.37	U	0.37	2.9
trans-1,3-Dichloropropene		0.51	U	0.51	2.9
Trichlorofluoromethane		0.70	U	0.70	2.9
Vinyl chloride		0.88	U	0.88	2.9
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		110		65 - 124	
Dibromofluoromethane		84		65 - 124	
Toluene-d8 (Surr)		95		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DUP2

Lab Sample ID: 680-56230-6

Date Sampled: 03/26/2010 1100

Client Matrix: Solid

% Moisture: 22.1

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164919	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0197.d
Dilution:	40		Initial Weight/Volume:	9.0 g
Date Analyzed:	04/05/2010 1528		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		68	U	68	140
1,1,1-Trichloroethane		17	U	17	140
1,1,2,2-Tetrachloroethane		46	U	46	140
1,1,2-Trichloroethane		37	U	37	140
1,1-Dichloroethane		31	U	31	140
1,1-Dichloroethene		43	U	43	140
1,1-Dichloropropene		27	U	27	140
1,2,3-Trichlorobenzene		46	U	46	140
1,2,3-Trichloropropane		68	U	68	140
1,2,4-Trichlorobenzene		25	U	25	140
1,2,4-Trimethylbenzene		40	U	40	140
1,2-Dichloroethane		31	U	31	140
1,2-Dichlorobenzene		37	U	37	140
1,2-Dibromo-3-Chloropropane		130	U	130	290
1,2-Dichloropropane		25	U	25	140
Ethylene Dibromide		43	U	43	140
1,3,5-Trimethylbenzene		48	U	48	140
1,3-Dichlorobenzene		46	U	46	140
1,3-Dichloropropane		51	U	51	140
1,4-Dichlorobenzene		21	U	21	140
1-Chlorohexane		60	U	60	140
2,2-Dichloropropane		31	U	31	140
2-Chlorotoluene		57	U	57	140
4-Chlorotoluene		48	U	48	140
Acetone		310	U	310	1400
Benzene		21	U	21	140
Bromobenzene		48	U	48	140
Chlorobromomethane		94	U	94	140
Dichlorobromomethane		28	U	28	140
Bromoform		43	U	43	140
Bromomethane		43	U	43	140
Carbon tetrachloride		24	U	24	140
Chlorobenzene		27	U	27	140
Chloroethane		77	U	77	140
Chloroform		31	U	31	140
Chloromethane		29	U	29	140
cis-1,2-Dichloroethene		40	U	40	140
cis-1,3-Dichloropropene		24	U	24	140
Chlorodibromomethane		48	U	48	140
Dichlorodifluoromethane		27	U	27	140
Ethylbenzene		37	U	37	140
Hexachlorobutadiene		88	U	88	140
Isopropylbenzene		54	U	54	140
Methylene Chloride		28	U	28	140
Methyl tert-butyl ether		29	U	29	1400
2-Butanone (MEK)		68	U	68	710

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DUP2

Lab Sample ID: 680-56230-6

Date Sampled: 03/26/2010 1100

Client Matrix: Solid

% Moisture: 22.1

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164919	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0197.d
Dilution:	40		Initial Weight/Volume:	9.0 g
Date Analyzed:	04/05/2010 1528		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		120	U	120	710
n-Butylbenzene		68	U	68	140
N-Propylbenzene		77	U	77	140
m-Xylene & p-Xylene		74	U	74	290
Naphthalene		34	U	34	140
o-Xylene		31	U	31	140
4-Isopropyltoluene		63	U	63	140
sec-Butylbenzene		60	U	60	140
Styrene		27	U	27	140
Trichloroethene		37	U	37	140
tert-Butylbenzene		51	U	51	140
Tetrachloroethene		3300		54	140
Toluene		24	U	24	140
trans-1,2-Dichloroethene		18	U	18	140
trans-1,3-Dichloropropene		25	U	25	140
Trichlorofluoromethane		34	U	34	140
Vinyl chloride		43	U	43	140
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		99		65 - 124	
Dibromofluoromethane		78		65 - 124	
Toluene-d8 (Surr)		86		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-2-42

Lab Sample ID: 680-56230-7

Date Sampled: 03/26/2010 1105

Client Matrix: Solid

% Moisture: 18.8

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0192.d
Dilution:	1.0		Initial Weight/Volume:	9.8 g
Date Analyzed:	04/05/2010 1334		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		1.5	U	1.5	3.1
1,1,1-Trichloroethane		0.37	U	0.37	3.1
1,1,2,2-Tetrachloroethane		1.0	U	1.0	3.1
1,1,2-Trichloroethane		0.82	U	0.82	3.1
1,1-Dichloroethane		0.69	U	0.69	3.1
1,1-Dichloroethene		0.94	U	0.94	3.1
1,1-Dichloropropene		0.60	U	0.60	3.1
1,2,3-Trichlorobenzene		1.0	U	1.0	3.1
1,2,3-Trichloropropane		1.5	U	1.5	3.1
1,2,4-Trichlorobenzene		0.56	U	0.56	3.1
1,2,4-Trimethylbenzene		0.88	U	0.88	3.1
1,2-Dichloroethane		0.69	U	0.69	3.1
1,2-Dichlorobenzene		0.82	U	0.82	3.1
1,2-Dibromo-3-Chloropropane		2.8	U	2.8	6.3
1,2-Dichloropropane		0.54	U	0.54	3.1
Ethylene Dibromide		0.94	U	0.94	3.1
1,3,5-Trimethylbenzene		1.1	U	1.1	3.1
1,3-Dichlorobenzene		1.0	U	1.0	3.1
1,3-Dichloropropane		1.1	U	1.1	3.1
1,4-Dichlorobenzene		0.46	U	0.46	3.1
1-Chlorohexane		1.3	U	1.3	3.1
2,2-Dichloropropane		0.69	U	0.69	3.1
2-Chlorotoluene		1.3	U	1.3	3.1
4-Chlorotoluene		1.1	U	1.1	3.1
Acetone		8.1	J	6.9	31
Benzene		0.46	U	0.46	3.1
Bromobenzene		1.1	U	1.1	3.1
Chlorobromomethane		2.1	U	2.1	3.1
Dichlorobromomethane		0.61	U	0.61	3.1
Bromoform		0.94	U	0.94	3.1
Bromomethane		0.94	U	0.94	3.1
Carbon tetrachloride		0.52	U	0.52	3.1
Chlorobenzene		0.60	U Q	0.60	3.1
Chloroethane		1.7	U	1.7	3.1
Chloroform		0.69	U Q	0.69	3.1
Chloromethane		0.63	U	0.63	3.1
cis-1,2-Dichloroethene		0.88	U	0.88	3.1
cis-1,3-Dichloropropene		0.52	U	0.52	3.1
Chlorodibromomethane		1.1	U	1.1	3.1
Dichlorodifluoromethane		0.59	U	0.59	3.1
Ethylbenzene		0.82	U	0.82	3.1
Hexachlorobutadiene		1.9	U	1.9	3.1
Isopropylbenzene		1.2	U	1.2	3.1
Methylene Chloride		0.62	U	0.62	3.1
Methyl tert-butyl ether		0.63	U	0.63	31
2-Butanone (MEK)		1.5	U	1.5	16

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-2-42

Lab Sample ID: 680-56230-7

Date Sampled: 03/26/2010 1105

Client Matrix: Solid

% Moisture: 18.8

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0192.d
Dilution:	1.0		Initial Weight/Volume:	9.8 g
Date Analyzed:	04/05/2010 1334		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		2.6	U	2.6	16
n-Butylbenzene		1.5	U	1.5	3.1
N-Propylbenzene		1.7	U	1.7	3.1
m-Xylene & p-Xylene		1.6	U	1.6	6.3
Naphthalene		0.75	U	0.75	3.1
o-Xylene		0.69	U Q	0.69	3.1
4-Isopropyltoluene		1.4	U	1.4	3.1
sec-Butylbenzene		1.3	U	1.3	3.1
Styrene		0.58	U	0.58	3.1
Trichloroethene		0.82	U	0.82	3.1
tert-Butylbenzene		1.1	U	1.1	3.1
Tetrachloroethene		12		1.2	3.1
Toluene		0.53	U	0.53	3.1
trans-1,2-Dichloroethene		0.40	U	0.40	3.1
trans-1,3-Dichloropropene		0.55	U	0.55	3.1
Trichlorofluoromethane		0.75	U	0.75	3.1
Vinyl chloride		0.94	U	0.94	3.1
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		105		65 - 124	
Dibromofluoromethane		83		65 - 124	
Toluene-d8 (Surr)		92		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-2Lab Sample ID: 680-56230-8
Client Matrix: WaterDate Sampled: 03/26/2010 1255
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0447.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1605		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1605			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	7.0	J	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.32	J	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.13	J	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-2Lab Sample ID: 680-56230-8
Client Matrix: WaterDate Sampled: 03/26/2010 1255
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0447.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1605		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1605			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.13	J	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.14	J	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	1.0		0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	350	J	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	104		75 - 120	
Dibromofluoromethane	115		75 - 121	
Toluene-d8 (Surr)	101		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-2Lab Sample ID: 680-56230-8
Client Matrix: WaterDate Sampled: 03/26/2010 1255
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-165000	Instrument ID:	MSA2
Preparation:	5030B		Lab File ID:	a030.d
Dilution:	5.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 0155	Run Type: DL	Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 0155			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.6	U	1.6	5.0
1,1,1-Trichloroethane	2.5	U	2.5	5.0
1,1,2,2-Tetrachloroethane	0.90	U	0.90	5.0
1,1,2-Trichloroethane	0.65	U	0.65	5.0
1,1-Dichloroethane	1.2	U	1.2	5.0
1,1-Dichloroethene	0.55	U	0.55	5.0
1,1-Dichloropropene	1.2	U	1.2	5.0
1,2,3-Trichlorobenzene	1.8	U	1.8	5.0
1,2,3-Trichloropropane	2.0	U	2.0	5.0
1,2,4-Trichlorobenzene	1.2	U	1.2	5.0
1,2,4-Trimethylbenzene	1.6	U	1.6	5.0
1,2-Dichloroethane	0.50	U	0.50	5.0
1,2-Dichlorobenzene	1.0	U	1.0	5.0
1,2-Dibromo-3-Chloropropane	2.2	U	2.2	5.0
1,2-Dichloropropane	0.65	U	0.65	5.0
Ethylene Dibromide	1.2	U	1.2	5.0
1,3,5-Trimethylbenzene	1.6	U	1.6	5.0
1,3-Dichlorobenzene	1.2	U	1.2	5.0
1,3-Dichloropropane	0.65	U	0.65	5.0
1,4-Dichlorobenzene	1.4	U	1.4	5.0
1-Chlorohexane	1.4	U	1.4	5.0
2,2-Dichloropropane	0.60	U	0.60	5.0
2-Chlorotoluene	0.85	U	0.85	5.0
4-Chlorotoluene	1.4	U	1.4	5.0
Acetone	25	U	25	120
Benzene	1.2	U	1.2	5.0
Bromobenzene	0.80	U	0.80	5.0
Chlorobromomethane	0.70	U	0.70	5.0
Dichlorobromomethane	1.2	U	1.2	5.0
Bromoform	2.5	U	2.5	5.0
Bromomethane	4.0	U	4.0	5.0
Carbon tetrachloride	2.5	U	2.5	5.0
Chlorobenzene	1.2	U	1.2	5.0
Chloroethane	5.0	U	5.0	5.0
Chloroform	0.70	U	0.70	5.0
Chloromethane	1.6	U	1.6	5.0
cis-1,2-Dichloroethene	0.75	U	0.75	5.0
cis-1,3-Dichloropropene	0.55	U	0.55	5.0
Chlorodibromomethane	0.50	U	0.50	5.0
Dichlorodifluoromethane	1.2	U	1.2	5.0
Ethylbenzene	0.55	U	0.55	5.0
Hexachlorobutadiene	2.0	U	2.0	5.0
Isopropylbenzene	0.50	U	0.50	5.0
Methylene Chloride	5.0	U	5.0	25
Methyl tert-butyl ether	1.0	U	1.0	50
2-Butanone (MEK)	5.0	U	5.0	50

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-2

Lab Sample ID: 680-56230-8

Date Sampled: 03/26/2010 1255

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-165000	Instrument ID:	MSA2
Preparation:	5030B		Lab File ID:	a030.d
Dilution:	5.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 0155	Run Type: DL	Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 0155			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	50
n-Butylbenzene	0.50	U	0.50	5.0
N-Propylbenzene	0.75	U	0.75	5.0
m-Xylene & p-Xylene	1.0	U	1.0	10
Naphthalene	5.0	U	5.0	25
o-Xylene	1.2	U	1.2	5.0
4-Isopropyltoluene	0.65	U	0.65	5.0
sec-Butylbenzene	0.80	U	0.80	5.0
Styrene	0.55	U	0.55	5.0
Trichloroethene	1.2	J	0.65	5.0
tert-Butylbenzene	0.60	U	0.60	5.0
Tetrachloroethene	360		0.75	5.0
Toluene	1.6	U	1.6	5.0
trans-1,2-Dichloroethene	1.0	U	1.0	5.0
trans-1,3-Dichloropropene	1.0	U	1.0	5.0
Trichlorofluoromethane	1.2	U	1.2	5.0
Vinyl chloride	0.90	U	0.90	5.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	94		75 - 120	
Dibromofluoromethane	93		75 - 121	
Toluene-d8 (Surr)	95		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-1Lab Sample ID: 680-56230-9
Client Matrix: WaterDate Sampled: 03/26/2010 1240
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0449.d
Dilution:	5.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1634		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1634			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	1.6	U	1.6	5.0
1,1,1-Trichloroethane	2.5	U	2.5	5.0
1,1,2,2-Tetrachloroethane	0.90	U	0.90	5.0
1,1,2-Trichloroethane	0.65	U	0.65	5.0
1,1-Dichloroethane	1.2	U	1.2	5.0
1,1-Dichloroethene	0.55	U	0.55	5.0
1,1-Dichloropropene	1.2	U	1.2	5.0
1,2,3-Trichlorobenzene	1.8	U	1.8	5.0
1,2,3-Trichloropropane	2.0	U	2.0	5.0
1,2,4-Trichlorobenzene	1.2	U	1.2	5.0
1,2,4-Trimethylbenzene	1.6	U	1.6	5.0
1,2-Dichloroethane	0.50	U	0.50	5.0
1,2-Dichlorobenzene	1.0	U	1.0	5.0
1,2-Dibromo-3-Chloropropane	2.2	U	2.2	5.0
1,2-Dichloropropane	0.65	U	0.65	5.0
Ethylene Dibromide	1.2	U	1.2	5.0
1,3,5-Trimethylbenzene	1.6	U	1.6	5.0
1,3-Dichlorobenzene	1.2	U	1.2	5.0
1,3-Dichloropropane	0.65	U	0.65	5.0
1,4-Dichlorobenzene	1.4	U	1.4	5.0
1-Chlorohexane	1.4	U	1.4	5.0
2,2-Dichloropropane	0.60	U	0.60	5.0
2-Chlorotoluene	0.85	U	0.85	5.0
4-Chlorotoluene	1.4	U	1.4	5.0
Acetone	25	U	25	120
Benzene	1.2	U	1.2	5.0
Bromobenzene	0.80	U	0.80	5.0
Chlorobromomethane	0.70	U	0.70	5.0
Dichlorobromomethane	1.2	U	1.2	5.0
Bromoform	2.5	U	2.5	5.0
Bromomethane	4.0	U	4.0	5.0
Carbon tetrachloride	2.5	U	2.5	5.0
Chlorobenzene	1.2	U	1.2	5.0
Chloroethane	5.0	U	5.0	5.0
Chloroform	0.70	U	0.70	5.0
Chloromethane	1.6	U	1.6	5.0
cis-1,2-Dichloroethene	0.75	U	0.75	5.0
cis-1,3-Dichloropropene	0.55	U	0.55	5.0
Chlorodibromomethane	0.50	U	0.50	5.0
Dichlorodifluoromethane	1.2	U	1.2	5.0
Ethylbenzene	0.55	U	0.55	5.0
Hexachlorobutadiene	2.0	U	2.0	5.0
Isopropylbenzene	0.50	U	0.50	5.0
Methylene Chloride	5.0	U	5.0	25
Methyl tert-butyl ether	1.0	U	1.0	50
2-Butanone (MEK)	5.0	U	5.0	50

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-1

Lab Sample ID: 680-56230-9

Date Sampled: 03/26/2010 1240

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0449.d
Dilution:	5.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1634		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1634			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	50
n-Butylbenzene	0.51	J	0.50	5.0
N-Propylbenzene	0.75	U	0.75	5.0
m-Xylene & p-Xylene	1.0	U	1.0	10
Naphthalene	5.0	U	5.0	25
o-Xylene	1.2	U	1.2	5.0
4-Isopropyltoluene	0.65	U	0.65	5.0
sec-Butylbenzene	0.80	U	0.80	5.0
Styrene	0.55	U	0.55	5.0
Trichloroethene	0.78	J	0.65	5.0
tert-Butylbenzene	0.60	U	0.60	5.0
Tetrachloroethene	350		0.75	5.0
Toluene	1.6	U	1.6	5.0
trans-1,2-Dichloroethene	1.0	U	1.0	5.0
trans-1,3-Dichloropropene	1.0	U	1.0	5.0
Trichlorofluoromethane	1.2	U	1.2	5.0
Vinyl chloride	0.90	U	0.90	5.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	112		75 - 120	
Dibromofluoromethane	109		75 - 121	
Toluene-d8 (Surr)	105		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DUP1Lab Sample ID: 680-56230-10
Client Matrix: WaterDate Sampled: 03/26/2010 1300
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0443.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1506		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1506			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	12	J	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.29	J	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	1.8		0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.17	J	0.10	1.0
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.9	J	1.0	10

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DUP1

Lab Sample ID: 680-56230-10

Date Sampled: 03/26/2010 1300

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0443.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1506		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1506			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.22	J	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.55	J	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.12	J	0.11	1.0
Trichloroethene	1.8		0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	170		0.15	1.0
Toluene	0.35	J	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	102		75 - 120	
Dibromofluoromethane	116		75 - 121	
Toluene-d8 (Surr)	106		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-4-19

Lab Sample ID: 680-56230-11

Date Sampled: 03/26/2010 1340

Client Matrix: Solid

% Moisture: 17.4

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0194.d
Dilution:	1.0		Initial Weight/Volume:	9.5 g
Date Analyzed:	04/05/2010 1420		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		1.5	U	1.5	3.2
1,1,1-Trichloroethane		0.38	U	0.38	3.2
1,1,2,2-Tetrachloroethane		1.0	U J	1.0	3.2
1,1,2-Trichloroethane		0.83	U	0.83	3.2
1,1-Dichloroethane		0.70	U	0.70	3.2
1,1-Dichloroethene		0.96	U	0.96	3.2
1,1-Dichloropropene		0.61	U	0.61	3.2
1,2,3-Trichlorobenzene		1.0	U	1.0	3.2
1,2,3-Trichloropropane		1.5	U J	1.5	3.2
1,2,4-Trichlorobenzene		0.57	U	0.57	3.2
1,2,4-Trimethylbenzene		0.89	U	0.89	3.2
1,2-Dichloroethane		0.70	U	0.70	3.2
1,2-Dichlorobenzene		0.83	U	0.83	3.2
1,2-Dibromo-3-Chloropropane		2.8	U J	2.8	6.4
1,2-Dichloropropane		0.55	U	0.55	3.2
Ethylene Dibromide		0.96	U	0.96	3.2
1,3,5-Trimethylbenzene		1.1	U	1.1	3.2
1,3-Dichlorobenzene		1.0	U	1.0	3.2
1,3-Dichloropropane		1.1	U	1.1	3.2
1,4-Dichlorobenzene		0.47	U	0.47	3.2
1-Chlorohexane		1.3	U	1.3	3.2
2,2-Dichloropropane		0.70	U	0.70	3.2
2-Chlorotoluene		1.3	U	1.3	3.2
4-Chlorotoluene		1.1	U	1.1	3.2
Acetone		7.7	J	7.0	32
Benzene		0.47	U	0.47	3.2
Bromobenzene		1.1	U	1.1	3.2
Chlorobromomethane		2.1	U	2.1	3.2
Dichlorobromomethane		0.62	U	0.62	3.2
Bromoform		0.96	U	0.96	3.2
Bromomethane		0.96	U	0.96	3.2
Carbon tetrachloride		0.53	U	0.53	3.2
Chlorobenzene		0.61	U Q	0.61	3.2
Chloroethane		1.7	U	1.7	3.2
Chloroform		0.70	U Q	0.70	3.2
Chloromethane		0.64	U	0.64	3.2
cis-1,2-Dichloroethene		0.89	U	0.89	3.2
cis-1,3-Dichloropropene		0.53	U	0.53	3.2
Chlorodibromomethane		1.1	U	1.1	3.2
Dichlorodifluoromethane		0.60	U	0.60	3.2
Ethylbenzene		0.83	U	0.83	3.2
Hexachlorobutadiene		2.0	U	2.0	3.2
Isopropylbenzene		1.2	U	1.2	3.2
Methylene Chloride		0.62	U	0.62	3.2
Methyl tert-butyl ether		0.64	U	0.64	32
2-Butanone (MEK)		1.5	U J	1.5	16

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-4-19

Lab Sample ID: 680-56230-11

Date Sampled: 03/26/2010 1340

Client Matrix: Solid

% Moisture: 17.4

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0194.d
Dilution:	1.0		Initial Weight/Volume:	9.5 g
Date Analyzed:	04/05/2010 1420		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		2.7	U J	2.7	16
n-Butylbenzene		1.5	U	1.5	3.2
N-Propylbenzene		1.7	U	1.7	3.2
m-Xylene & p-Xylene		1.7	U	1.7	6.4
Naphthalene		0.77	U J	0.77	3.2
o-Xylene		0.70	U Q	0.70	3.2
4-Isopropyltoluene		1.4	U	1.4	3.2
sec-Butylbenzene		1.3	U	1.3	3.2
Styrene		0.59	U	0.59	3.2
Trichloroethene		0.83	U	0.83	3.2
tert-Butylbenzene		1.1	U	1.1	3.2
Tetrachloroethene		3.3		1.2	3.2
Toluene		0.54	U	0.54	3.2
trans-1,2-Dichloroethene		0.40	U	0.40	3.2
trans-1,3-Dichloropropene		0.55	U	0.55	3.2
Trichlorofluoromethane		0.77	U	0.77	3.2
Vinyl chloride		0.96	U	0.96	3.2
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		109		65 - 124	
Dibromofluoromethane		84		65 - 124	
Toluene-d8 (Surr)		93		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-4-43

Lab Sample ID: 680-56230-12

Date Sampled: 03/26/2010 1420

Client Matrix: Solid

% Moisture: 23.2

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-165027	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0214.d
Dilution:	40		Initial Weight/Volume:	9.8 g
Date Analyzed:	04/06/2010 1312		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		64	U	64	130
1,1,1-Trichloroethane		16	U	16	130
1,1,2,2-Tetrachloroethane		43	U	43	130
1,1,2-Trichloroethane		35	U	35	130
1,1-Dichloroethane		29	U	29	130
1,1-Dichloroethene		40	U	40	130
1,1-Dichloropropene		25	U	25	130
1,2,3-Trichlorobenzene		43	U	43	130
1,2,3-Trichloropropane		64	U	64	130
1,2,4-Trichlorobenzene		24	U	24	130
1,2,4-Trimethylbenzene		37	U	37	130
1,2-Dichloroethane		29	U	29	130
1,2-Dichlorobenzene		35	U	35	130
1,2-Dibromo-3-Chloropropane		120	U	120	270
1,2-Dichloropropane		23	U	23	130
Ethylene Dibromide		40	U	40	130
1,3,5-Trimethylbenzene		45	U	45	130
1,3-Dichlorobenzene		43	U	43	130
1,3-Dichloropropane		48	U	48	130
1,4-Dichlorobenzene		20	U	20	130
1-Chlorohexane		56	U	56	130
2,2-Dichloropropane		29	U	29	130
2-Chlorotoluene		53	U	53	130
4-Chlorotoluene		45	U	45	130
Acetone		290	U	290	1300
Benzene		19	U	19	130
Bromobenzene		45	U	45	130
Chlorobromomethane		88	U	88	130
Dichlorobromomethane		26	U	26	130
Bromoform		40	U	40	130
Bromomethane		40	U	40	130
Carbon tetrachloride		22	U	22	130
Chlorobenzene		26	U	26	130
Chloroethane		72	U	72	130
Chloroform		29	U	29	130
Chloromethane		27	U	27	130
cis-1,2-Dichloroethene		37	U	37	130
cis-1,3-Dichloropropene		22	U	22	130
Chlorodibromomethane		45	U	45	130
Dichlorodifluoromethane		25	U	25	130
Ethylbenzene		35	U	35	130
Hexachlorobutadiene		82	U	82	130
Isopropylbenzene		51	U	51	130
Methylene Chloride		26	U	26	130
Methyl tert-butyl ether		27	U	27	1300
2-Butanone (MEK)		64	U	64	660

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-4-43Lab Sample ID: 680-56230-12
Client Matrix: Solid

% Moisture: 23.2

Date Sampled: 03/26/2010 1420
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-165027	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0214.d
Dilution:	40		Initial Weight/Volume:	9.8 g
Date Analyzed:	04/06/2010 1312		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		110	U	110	660
n-Butylbenzene		64	U	64	130
N-Propylbenzene		72	U	72	130
m-Xylene & p-Xylene		69	U	69	270
Naphthalene		32	U	32	130
o-Xylene		29	U	29	130
4-Isopropyltoluene		58	U	58	130
sec-Butylbenzene		56	U	56	130
Styrene		25	U	25	130
Trichloroethene		35	U	35	130
tert-Butylbenzene		48	U	48	130
Tetrachloroethene		3700		51	130
Toluene		22	U	22	130
trans-1,2-Dichloroethene		17	U	17	130
trans-1,3-Dichloropropene		23	U	23	130
Trichlorofluoromethane		32	U	32	130
Vinyl chloride		40	U	40	130
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		127	J	65 - 124	
Dibromofluoromethane		95		65 - 124	
Toluene-d8 (Surr)		108		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-4Lab Sample ID: 680-56230-13
Client Matrix: WaterDate Sampled: 03/26/2010 1440
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-165000	Instrument ID:	MSA2
Preparation:	5030B		Lab File ID:	a032.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 0224		Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 0224			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	16	U	16	50
1,1,1-Trichloroethane	25	U	25	50
1,1,2,2-Tetrachloroethane	9.0	U	9.0	50
1,1,2-Trichloroethane	6.5	U	6.5	50
1,1-Dichloroethane	12	U	12	50
1,1-Dichloroethene	5.5	U	5.5	50
1,1-Dichloropropene	12	U	12	50
1,2,3-Trichlorobenzene	18	U	18	50
1,2,3-Trichloropropane	20	U	20	50
1,2,4-Trichlorobenzene	12	U	12	50
1,2,4-Trimethylbenzene	16	U	16	50
1,2-Dichloroethane	5.0	U	5.0	50
1,2-Dichlorobenzene	10	U	10	50
1,2-Dibromo-3-Chloropropane	22	U	22	50
1,2-Dichloropropane	6.5	U	6.5	50
Ethylene Dibromide	12	U	12	50
1,3,5-Trimethylbenzene	16	U	16	50
1,3-Dichlorobenzene	12	U	12	50
1,3-Dichloropropane	6.5	U	6.5	50
1,4-Dichlorobenzene	14	U	14	50
1-Chlorohexane	14	U	14	50
2,2-Dichloropropane	6.0	U	6.0	50
2-Chlorotoluene	8.5	U	8.5	50
4-Chlorotoluene	14	U	14	50
Acetone	250	U	250	1200
Benzene	12	U	12	50
Bromobenzene	8.0	U	8.0	50
Chlorobromomethane	7.0	U	7.0	50
Dichlorobromomethane	12	U	12	50
Bromoform	25	U	25	50
Bromomethane	40	U	40	50
Carbon tetrachloride	25	U	25	50
Chlorobenzene	12	U	12	50
Chloroethane	50	U	50	50
Chloroform	7.0	U	7.0	50
Chloromethane	16	U	16	50
cis-1,2-Dichloroethene	40	J	7.5	50
cis-1,3-Dichloropropene	5.5	U	5.5	50
Chlorodibromomethane	5.0	U	5.0	50
Dichlorodifluoromethane	12	U	12	50
Ethylbenzene	5.5	U	5.5	50
Hexachlorobutadiene	20	U	20	50
Isopropylbenzene	5.0	U	5.0	50
Methylene Chloride	50	U	50	250
Methyl tert-butyl ether	10	U	10	500
2-Butanone (MEK)	50	U	50	500

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-4Lab Sample ID: 680-56230-13
Client Matrix: WaterDate Sampled: 03/26/2010 1440
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-165000	Instrument ID:	MSA2
Preparation:	5030B		Lab File ID:	a032.d
Dilution:	50		Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 0224		Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 0224			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	50	U	50	500
n-Butylbenzene	5.0	U	5.0	50
N-Propylbenzene	7.5	U	7.5	50
m-Xylene & p-Xylene	10	U	10	100
Naphthalene	50	U	50	250
o-Xylene	12	U	12	50
4-Isopropyltoluene	6.5	U	6.5	50
sec-Butylbenzene	8.0	U	8.0	50
Styrene	5.5	U	5.5	50
Trichloroethene	9.0	J	6.5	50
tert-Butylbenzene	6.0	U	6.0	50
Tetrachloroethene	2700		7.5	50
Toluene	16	U	16	50
trans-1,2-Dichloroethene	10	U	10	50
trans-1,3-Dichloropropene	10	U	10	50
Trichlorofluoromethane	12	U	12	50
Vinyl chloride	9.0	U	9.0	50
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	91		75 - 120	
Dibromofluoromethane	94		75 - 121	
Toluene-d8 (Surr)	96		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-3-10

Lab Sample ID: 680-56230-14

Date Sampled: 03/26/2010 1520

Client Matrix: Solid

% Moisture: 25.5

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0195.d
Dilution:	1.0		Initial Weight/Volume:	10.0 g
Date Analyzed:	04/05/2010 1442		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		1.6	U	1.6	3.4
1,1,1-Trichloroethane		0.40	U	0.40	3.4
1,1,2,2-Tetrachloroethane		1.1	U	1.1	3.4
1,1,2-Trichloroethane		0.87	U	0.87	3.4
1,1-Dichloroethane		0.74	U	0.74	3.4
1,1-Dichloroethene		1.0	U	1.0	3.4
1,1-Dichloropropene		0.64	U	0.64	3.4
1,2,3-Trichlorobenzene		1.1	U	1.1	3.4
1,2,3-Trichloropropane		1.6	U	1.6	3.4
1,2,4-Trichlorobenzene		0.60	U	0.60	3.4
1,2,4-Trimethylbenzene		0.94	U	0.94	3.4
1,2-Dichloroethane		0.74	U	0.74	3.4
1,2-Dichlorobenzene		0.87	U	0.87	3.4
1,2-Dibromo-3-Chloropropane		3.0	U	3.0	6.7
1,2-Dichloropropane		0.58	U	0.58	3.4
Ethylene Dibromide		1.0	U	1.0	3.4
1,3,5-Trimethylbenzene		1.1	U	1.1	3.4
1,3-Dichlorobenzene		1.1	U	1.1	3.4
1,3-Dichloropropane		1.2	U	1.2	3.4
1,4-Dichlorobenzene		0.50	U	0.50	3.4
1-Chlorohexane		1.4	U	1.4	3.4
2,2-Dichloropropane		0.74	U	0.74	3.4
2-Chlorotoluene		1.3	U	1.3	3.4
4-Chlorotoluene		1.1	U	1.1	3.4
Acetone	27	J	7.4	34	
Benzene	0.49	U	0.49	3.4	
Bromobenzene	1.1	U	1.1	3.4	
Chlorobromomethane	2.2	U	2.2	3.4	
Dichlorobromomethane	0.65	U	0.65	3.4	
Bromoform	1.0	U	1.0	3.4	
Bromomethane	1.0	U	1.0	3.4	
Carbon tetrachloride	0.56	U	0.56	3.4	
Chlorobenzene	0.64	U Q	0.64	3.4	
Chloroethane	1.8	U	1.8	3.4	
Chloroform	0.74	U Q	0.74	3.4	
Chloromethane	0.67	U	0.67	3.4	
cis-1,2-Dichloroethene	0.94	U	0.94	3.4	
cis-1,3-Dichloropropene	0.56	U	0.56	3.4	
Chlorodibromomethane	1.1	U	1.1	3.4	
Dichlorodifluoromethane	0.63	U	0.63	3.4	
Ethylbenzene	0.87	U	0.87	3.4	
Hexachlorobutadiene	2.1	U	2.1	3.4	
Isopropylbenzene	1.3	U	1.3	3.4	
Methylene Chloride	0.66	U	0.66	3.4	
Methyl tert-butyl ether	0.67	U	0.67	34	
2-Butanone (MEK)	5.2	J	1.6	17	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: **SB-3-10**

Lab Sample ID: 680-56230-14

Date Sampled: 03/26/2010 1520

Client Matrix: Solid

% Moisture: 25.5

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0195.d
Dilution:	1.0		Initial Weight/Volume:	10.0 g
Date Analyzed:	04/05/2010 1442		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		2.8	U	2.8	17
n-Butylbenzene		1.6	U	1.6	3.4
N-Propylbenzene		1.8	U	1.8	3.4
m-Xylene & p-Xylene		1.7	U	1.7	6.7
Naphthalene		0.81	U	0.81	3.4
o-Xylene		0.74	U Q	0.74	3.4
4-Isopropyltoluene		1.5	U	1.5	3.4
sec-Butylbenzene		1.4	U	1.4	3.4
Styrene		0.62	U	0.62	3.4
Trichloroethene		0.87	U	0.87	3.4
tert-Butylbenzene		1.2	U	1.2	3.4
Tetrachloroethene		1.3	U	1.3	3.4
Toluene		0.56	U	0.56	3.4
trans-1,2-Dichloroethene		0.42	U	0.42	3.4
trans-1,3-Dichloropropene		0.58	U	0.58	3.4
Trichlorofluoromethane		0.81	U	0.81	3.4
Vinyl chloride		1.0	U	1.0	3.4
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		107		65 - 124	
Dibromofluoromethane		84		65 - 124	
Toluene-d8 (Surr)		95		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: SB-3-35

Lab Sample ID: 680-56230-15

Date Sampled: 03/26/2010 1545

Client Matrix: Solid

% Moisture: 32.0

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0196.d
Dilution:	1.0		Initial Weight/Volume:	14.1 g
Date Analyzed:	04/05/2010 1505		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane		1.3	U	1.3	2.6
1,1,1-Trichloroethane		0.31	U	0.31	2.6
1,1,2,2-Tetrachloroethane		0.83	U	0.83	2.6
1,1,2-Trichloroethane		0.68	U	0.68	2.6
1,1-Dichloroethane		0.57	U	0.57	2.6
1,1-Dichloroethene		0.78	U	0.78	2.6
1,1-Dichloropropene		0.50	U	0.50	2.6
1,2,3-Trichlorobenzene		0.83	U	0.83	2.6
1,2,3-Trichloropropane		1.3	U	1.3	2.6
1,2,4-Trichlorobenzene		0.46	U	0.46	2.6
1,2,4-Trimethylbenzene		0.73	U	0.73	2.6
1,2-Dichloroethane		0.57	U	0.57	2.6
1,2-Dichlorobenzene		0.68	U	0.68	2.6
1,2-Dibromo-3-Chloropropane		2.3	U	2.3	5.2
1,2-Dichloropropane		0.45	U	0.45	2.6
Ethylene Dibromide		0.78	U	0.78	2.6
1,3,5-Trimethylbenzene		0.89	U	0.89	2.6
1,3-Dichlorobenzene		0.83	U	0.83	2.6
1,3-Dichloropropane		0.94	U	0.94	2.6
1,4-Dichlorobenzene		0.39	U	0.39	2.6
1-Chlorohexane		1.1	U	1.1	2.6
2,2-Dichloropropane		0.57	U	0.57	2.6
2-Chlorotoluene		1.0	U	1.0	2.6
4-Chlorotoluene		0.89	U	0.89	2.6
Acetone		18	J	5.7	26
Benzene		0.38	U	0.38	2.6
Bromobenzene		0.89	U	0.89	2.6
Chlorobromomethane		1.7	U	1.7	2.6
Dichlorobromomethane		0.51	U	0.51	2.6
Bromoform		0.78	U	0.78	2.6
Bromomethane		0.78	U	0.78	2.6
Carbon tetrachloride		0.43	U	0.43	2.6
Chlorobenzene		0.50	U Q	0.50	2.6
Chloroethane		1.4	U	1.4	2.6
Chloroform		0.57	U Q	0.57	2.6
Chloromethane		0.52	U	0.52	2.6
cis-1,2-Dichloroethene		0.73	U	0.73	2.6
cis-1,3-Dichloropropene		0.43	U	0.43	2.6
Chlorodibromomethane		0.89	U	0.89	2.6
Dichlorodifluoromethane		0.49	U	0.49	2.6
Ethylbenzene		0.68	U	0.68	2.6
Hexachlorobutadiene		1.6	U	1.6	2.6
Isopropylbenzene		0.99	U	0.99	2.6
Methylene Chloride		0.51	U	0.51	2.6
Methyl tert-butyl ether		0.52	U	0.52	26
2-Butanone (MEK)		1.9	J	1.3	13

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: **SB-3-35**

Lab Sample ID: 680-56230-15

Date Sampled: 03/26/2010 1545

Client Matrix: Solid

% Moisture: 32.0

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164913	Instrument ID:	MSM
Preparation:	5035	Prep Batch: 680-164296	Lab File ID:	m0196.d
Dilution:	1.0		Initial Weight/Volume:	14.1 g
Date Analyzed:	04/05/2010 1505		Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)		2.2	U	2.2	13
n-Butylbenzene		1.3	U	1.3	2.6
N-Propylbenzene		1.4	U	1.4	2.6
m-Xylene & p-Xylene		1.4	U	1.4	5.2
Naphthalene		0.63	U	0.63	2.6
o-Xylene		0.57	U Q	0.57	2.6
4-Isopropyltoluene		1.1	U	1.1	2.6
sec-Butylbenzene		1.1	U	1.1	2.6
Styrene		0.48	U	0.48	2.6
Trichloroethene		0.68	U	0.68	2.6
tert-Butylbenzene		0.94	U	0.94	2.6
Tetrachloroethene		0.99	U	0.99	2.6
Toluene		0.44	U	0.44	2.6
trans-1,2-Dichloroethene		0.33	U	0.33	2.6
trans-1,3-Dichloropropene		0.45	U	0.45	2.6
Trichlorofluoromethane		0.63	U	0.63	2.6
Vinyl chloride		0.78	U	0.78	2.6
Surrogate		%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene		110		65 - 124	
Dibromofluoromethane		83		65 - 124	
Toluene-d8 (Surr)		96		65 - 132	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-3Lab Sample ID: 680-56230-16
Client Matrix: WaterDate Sampled: 03/26/2010 1615
Date Received: 03/27/2010 1040**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0445.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1535		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1535			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	8.9	J	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.11	J	0.10	1.0
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: DP-3

Lab Sample ID: 680-56230-16

Date Sampled: 03/26/2010 1615

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0445.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1535		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1535			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.15	J	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.94	J	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	97		75 - 120	
Dibromofluoromethane	112		75 - 121	
Toluene-d8 (Surr)	103		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: BLK2

Lab Sample ID: 680-56230-17

Date Sampled: 03/26/2010 1630

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0437.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1338		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1338			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.5	J	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	6.7		0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	14		0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	2.3		0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: **BLK2**

Lab Sample ID: 680-56230-17

Date Sampled: 03/26/2010 1630

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0437.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1338		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1338			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	101		75 - 120	
Dibromofluoromethane	113		75 - 121	
Toluene-d8 (Surr)	105		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 680-56230-18

Date Sampled: 03/26/2010 0000

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0433.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1239		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1239			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.0	U	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.21	J	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 680-56230-18

Date Sampled: 03/26/2010 0000

Client Matrix: Water

Date Received: 03/27/2010 1040

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-164873	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0433.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1239		Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1239			

Analyte	Result (ug/L)	Qualifier	MDL	RL
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.12	J	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
4-Bromofluorobenzene	104		75 - 120	
Dibromofluoromethane	112		75 - 121	
Toluene-d8 (Surr)	102		75 - 120	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-1-18

Lab Sample ID: 680-56230-1

Date Sampled: 03/25/2010 1305

Client Matrix: Solid

Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	18		%	0.010	0.010	1.0	Moisture Dry/Wt Corrected: N

Analysis Batch: 680-164292

Date Analyzed: 03/29/2010 1322

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-1-43

Lab Sample ID: 680-56230-2

Date Sampled: 03/25/2010 1505

Client Matrix: Solid

Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	20		%	0.010	0.010	1.0	Moisture Dry/Wt Corrected: N

Analysis Batch: 680-164292

Date Analyzed: 03/29/2010 1322

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-2-15

Lab Sample ID: 680-56230-5

Client Matrix: Solid Date Sampled: 03/26/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12	%	0.010	0.010	1.0	Moisture	
	Analysis Batch: 680-164292		Date Analyzed: 03/29/2010 1322			DryWt Corrected: N	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** DUP2

Lab Sample ID: 680-56230-6

Date Sampled: 03/26/2010 1100

Client Matrix: Solid

Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	22		%	0.010	0.010	1.0	Moisture Dry/Wt Corrected: N

Analysis Batch: 680-164292

Date Analyzed: 03/29/2010 1322

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-2-42

Lab Sample ID: 680-56230-7

Date Sampled: 03/26/2010 1105

Client Matrix: Solid

Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	19		%	0.010	0.010	1.0	Moisture Dry/Wt Corrected: N

Analysis Batch: 680-164292

Date Analyzed: 03/29/2010 1322

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-4-19

Lab Sample ID: 680-56230-11 Date Sampled: 03/26/2010 1340

Client Matrix: Solid Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17		%	0.010	0.010	1.0	Moisture Dry/Wt Corrected: N

Analysis Batch: 680-164292 Date Analyzed: 03/29/2010 1322

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-4-43

Lab Sample ID: 680-56230-12 Date Sampled: 03/26/2010 1420
Client Matrix: Solid Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	23	%	0.010	0.010	1.0	Moisture	
	Analysis Batch: 680-164292	Date Analyzed: 03/29/2010 1322				DryWt Corrected: N	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-3-10

Lab Sample ID: 680-56230-14 Date Sampled: 03/26/2010 1520

Client Matrix: Solid Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	26	%	0.010	0.010	1.0	Moisture	
	Analysis Batch: 680-164292	Date Analyzed: 03/29/2010 1322				DryWt Corrected: N	

Analytical Data

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

General Chemistry**Client Sample ID:** SB-3-35

Lab Sample ID: 680-56230-15 Date Sampled: 03/26/2010 1545
Client Matrix: Solid Date Received: 03/27/2010 1040

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	32		%	0.010	0.010	1.0	Moisture
	Analysis Batch: 680-164292		Date Analyzed: 03/29/2010 1322				Dry/Wt Corrected: N

DATA REPORTING QUALIFIERS

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Section	Qualifier	Description
GC/MS VOA	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	Q	One or more quality control criteria failed.
	U	Undetected at the Limit of Detection.

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-164296**

Method: 8260B

Preparation: 5035

MS Lab Sample ID:	680-56230-11	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	680-164296	Lab File ID:	m0207.d
Dilution:	1.0			Initial Weight/Volume:	8.3 g
Date Analyzed:	04/05/2010 1915			Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153				
MSD Lab Sample ID:	680-56230-11	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	680-164296	Lab File ID:	m0228.d
Dilution:	1.0			Initial Weight/Volume:	9.7 g
Date Analyzed:	04/06/2010 1830			Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153				

Analyte	% Rec.		RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD				
1,1,1,2-Tetrachloroethane	88	83	72 - 124	21	50	
1,1,1-Trichloroethane	88	92	56 - 140	11	50	
1,1,2,2-Tetrachloroethane	157	158	65 - 130	15	50	J J
1,1,2-Trichloroethane	108	110	62 - 138	13	50	
1,1-Dichloroethane	90	89	65 - 130	17	50	
1,1-Dichloroethene	81	87	59 - 137	9	50	
1,1-Dichloropropene	93	97	55 - 141	12	50	
1,2,3-Trichlorobenzene	87	89	72 - 132	14	50	
1,2,3-Trichloropropane	165	157	65 - 132	20	50	J J
1,2,4-Trichlorobenzene	82	82	74 - 130	15	50	
1,2,4-Trimethylbenzene	84	78	68 - 130	22	50	
1,2-Dichloroethane	98	98	62 - 140	15	50	
1,2-Dichlorobenzene	104	103	75 - 123	17	50	
1,2-Dibromo-3-Chloropropane	185	178	62 - 140	20	50	J J
1,2-Dichloropropane	94	95	66 - 135	15	50	
Ethylene Dibromide	114	117	61 - 138	13	50	
1,3,5-Trimethylbenzene	91	88	67 - 131	19	50	
1,3-Dichlorobenzene	101	101	74 - 123	15	50	
1,3-Dichloropropane	106	108	60 - 137	14	50	
1,4-Dichlorobenzene	102	100	75 - 122	17	50	
2,2-Dichloropropane	75	81	59 - 138	8	50	
2-Chlorotoluene	96	92	73 - 123	20	50	
4-Chlorotoluene	99	100	75 - 123	15	50	
Acetone	180	190	16 - 202	9	50	
Benzene	94	93	63 - 130	17	50	
Bromobenzene	86	84	73 - 123	18	50	
Chlorobromomethane	70	94	12 - 159	14	50	
Dichlorobromomethane	103	106	64 - 137	13	50	
Bromoform	113	112	66 - 127	17	50	
Bromomethane	71	78	54 - 146	6	50	

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-164296**

Method: 8260B

Preparation: 5035

MS Lab Sample ID:	680-56230-11	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	680-164296	Lab File ID:	m0207.d
Dilution:	1.0			Initial Weight/Volume:	8.3 g
Date Analyzed:	04/05/2010 1915			Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153				
MSD Lab Sample ID:	680-56230-11	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	680-164296	Lab File ID:	m0228.d
Dilution:	1.0			Initial Weight/Volume:	9.7 g
Date Analyzed:	04/06/2010 1830			Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Carbon tetrachloride	84	85	60 - 136	15	50		
Chlorobenzene	88	85	77 - 120	19	50		
Chloroethane	37	38	26 - 166	11	50		
Chloroform	71	82	68 - 127	2	50		
Chloromethane	104	122	46 - 137	0	50		
cis-1,2-Dichloroethene	83	82	58 - 143	16	50		
cis-1,3-Dichloropropene	91	96	66 - 137	10	50		
Chlorodibromomethane	96	91	70 - 126	21	50		
Dichlorodifluoromethane	78	87	17 - 163	5	50		
Ethylbenzene	90	87	77 - 121	19	50		
Hexachlorobutadiene	85	82	66 - 134	19	50		
Isopropylbenzene	93	87	74 - 124	22	50		
Methylene Chloride	94	96	65 - 126	13	50		
Methyl tert-butyl ether	110	114	68 - 128	12	50		
2-Butanone (MEK)	211	219	19 - 192	11	50	J	J
4-Methyl-2-pentanone (MIBK)	207	204	50 - 148	17	50	J	J
n-Butylbenzene	94	92	66 - 130	17	50		
N-Propylbenzene	99	96	74 - 124	19	50		
m-Xylene & p-Xylene	91	90	76 - 122	17	50		
Naphthalene	60	19	63 - 144	116	50	J	J
o-Xylene	88	85	76 - 122	19	50		
4-Isopropyltoluene	90	88	62 - 134	18	50		
sec-Butylbenzene	95	91	74 - 125	19	50		
Styrene	80	79	75 - 123	16	50		
Trichloroethene	81	85	68 - 133	11	50		
tert-Butylbenzene	92	88	75 - 123	19	50		
Tetrachloroethene	85	94	76 - 120	5	50		
Toluene	93	94	67 - 132	15	50		
trans-1,2-Dichloroethene	81	87	66 - 127	9	50		
trans-1,3-Dichloropropene	107	114	64 - 138	10	50		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-164296**

Method: 8260B

Preparation: 5035

MS Lab Sample ID:	680-56230-11	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	680-164296	Lab File ID:	m0207.d
Dilution:	1.0			Initial Weight/Volume:	8.3 g
Date Analyzed:	04/05/2010 1915			Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153				
MSD Lab Sample ID:	680-56230-11	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	680-164296	Lab File ID:	m0228.d
Dilution:	1.0			Initial Weight/Volume:	9.7 g
Date Analyzed:	04/06/2010 1830			Final Weight/Volume:	5 g
Date Prepared:	03/29/2010 1153				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Trichlorofluoromethane	76	81	33 - 152	9	50		
Vinyl chloride	89	99	56 - 139	4	50		
Surrogate		MS % Rec	MSD % Rec		Acceptance Limits		
4-Bromofluorobenzene		100		98		65 - 124	
Dibromofluoromethane		82		80		65 - 124	
Toluene-d8 (Surr)		88		89		65 - 132	

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-164873**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-164873/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/05/2010 1210
Date Prepared: 04/05/2010 1210

Analysis Batch: 680-164873
Prep Batch: N/A
Units: ug/L

Instrument ID: MSO
Lab File ID: oq343.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.0	U	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-164873**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-164873/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/05/2010 1210
Date Prepared: 04/05/2010 1210

Analysis Batch: 680-164873
Prep Batch: N/A
Units: ug/L

Instrument ID: MSO
Lab File ID: oq343.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.158	J	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	104	75 - 120		
Dibromofluoromethane	115	75 - 121		
Toluene-d8 (Surr)	104	75 - 120		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-164873

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-164873/4	Analysis Batch:	680-164873	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq333.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 0943			Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 0943				
LCSD Lab Sample ID:	LCSD 680-164873/5	Analysis Batch:	680-164873	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq335.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/05/2010 1012			Final Weight/Volume:	5 mL
Date Prepared:	04/05/2010 1012				

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual	% Rec.
1,1,1,2-Tetrachloroethane	92	90	81 - 128	2	30			
1,1,1-Trichloroethane	102	98	76 - 127	4	30			
1,1,2,2-Tetrachloroethane	104	95	69 - 129	9	30			
1,1,2-Trichloroethane	99	95	75 - 121	4	30			
1,1-Dichloroethane	110	105	74 - 127	5	30			
1,1-Dichloroethene	113	108	62 - 141	4	30			
1,1-Dichloropropene	98	94	77 - 122	4	30			
1,2,3-Trichlorobenzene	92	95	60 - 132	3	30			
1,2,3-Trichloropropane	97	93	70 - 130	5	30			
1,2,4-Trichlorobenzene	81	87	60 - 135	8	30			
1,2,4-Trimethylbenzene	102	100	72 - 132	2	30			
1,2-Dichloroethane	92	88	66 - 132	4	30			
1,2-Dichlorobenzene	101	100	79 - 124	1	30			
1,2-Dibromo-3-Chloropropane	82	80	49 - 140	2	30			
1,2-Dichloropropane	96	94	73 - 124	2	30			
Ethylene Dibromide	106	102	80 - 121	4	30			
1,3,5-Trimethylbenzene	103	96	72 - 133	7	30			
1,3-Dichlorobenzene	100	98	78 - 125	2	30			
1,3-Dichloropropane	102	96	75 - 120	5	30			
1,4-Dichlorobenzene	103	101	81 - 122	3	30			
2,2-Dichloropropane	131	126	55 - 157	4	30			
2-Chlorotoluene	104	99	82 - 123	5	30			
4-Chlorotoluene	98	93	83 - 122	5	30			
Acetone	115	112	17 - 175	3	50			
Benzene	101	97	77 - 119	3	30			
Bromobenzene	104	94	80 - 124	11	30			
Chlorobromomethane	109	108	10 - 150	1	30			
Dichlorobromomethane	102	97	78 - 127	5	30			
Bromoform	95	95	62 - 133	0	30			
Bromomethane	88	90	12 - 184	3	50			
Carbon tetrachloride	108	102	71 - 135	5	30			
Chlorobenzene	101	100	85 - 116	2	30			
Chloroethane	82	68	40 - 165	18	50			

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-164873

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-164873/4
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 04/05/2010 0943
 Date Prepared: 04/05/2010 0943

Analysis Batch: 680-164873
 Prep Batch: N/A
 Units: ug/L

Instrument ID: MSO
 Lab File ID: oq333.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-164873/5
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 04/05/2010 1012
 Date Prepared: 04/05/2010 1012

Analysis Batch: 680-164873
 Prep Batch: N/A
 Units: ug/L

Instrument ID: MSO
 Lab File ID: oq335.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual	% Rec.
Chloroform	110	108	82 - 120	2	30			
Chloromethane	87	87	48 - 142	1	50			
cis-1,2-Dichloroethene	113	111	69 - 134	1	30			
cis-1,3-Dichloropropene	109	104	76 - 126	4	30			
Chlorodibromomethane	114	112	75 - 133	2	30			
Dichlorodifluoromethane	116	118	34 - 154	1	30			
Ethylbenzene	100	98	86 - 116	2	30			
Hexachlorobutadiene	70	90	62 - 142	25	30			
Isopropylbenzene	104	93	82 - 121	11	30			
Methylene Chloride	113	107	70 - 125	5	30			
Methyl tert-butyl ether	115	110	77 - 121	4	30			
2-Butanone (MEK)	112	113	33 - 157	1	30			
4-Methyl-2-pentanone (MIBK)	102	101	40 - 151	2	30			
n-Butylbenzene	101	98	64 - 136	2	30			
N-Propylbenzene	106	97	80 - 126	8	30			
m-Xylene & p-Xylene	101	99	83 - 118	3	30			
Naphthalene	90	82	48 - 135	10	30			
o-Xylene	99	97	83 - 119	2	30			
4-Isopropyltoluene	103	100	63 - 139	3	30			
sec-Butylbenzene	100	97	77 - 126	3	30			
Styrene	103	101	82 - 122	2	30			
Trichloroethene	101	97	84 - 115	3	30			
tert-Butylbenzene	100	99	80 - 124	1	30			
Tetrachloroethene	103	100	76 - 126	3	30			
Toluene	99	96	81 - 117	4	30			
trans-1,2-Dichloroethene	106	101	72 - 131	4	30			
trans-1,3-Dichloropropene	113	107	73 - 128	5	30			
Trichlorofluoromethane	80	86	58 - 149	7	50			
Vinyl chloride	79	78	59 - 144	2	50			
Surrogate		LCS % Rec	LCSD % Rec			Acceptance Limits		
4-Bromofluorobenzene	102		89			75 - 120		
Dibromofluoromethane	114		115			75 - 121		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	102	98	75 - 120

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-164913

Method: 8260B

Preparation: N/A

Lab Sample ID: MB 680-164913/12
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/05/2010 1137
Date Prepared: N/A

Analysis Batch: 680-164913
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq081.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	2.4	U	2.4	5.0
1,1,1-Trichloroethane	0.59	U	0.59	5.0
1,1,2,2-Tetrachloroethane	1.6	U	1.6	5.0
1,1,2-Trichloroethane	1.3	U	1.3	5.0
1,1-Dichloroethane	1.1	U	1.1	5.0
1,1-Dichloroethene	1.5	U	1.5	5.0
1,1-Dichloropropene	0.95	U	0.95	5.0
1,2,3-Trichlorobenzene	1.6	U	1.6	5.0
1,2,3-Trichloropropane	2.4	U	2.4	5.0
1,2,4-Trichlorobenzene	0.89	U	0.89	5.0
1,2,4-Trimethylbenzene	1.4	U	1.4	5.0
1,2-Dichloroethane	1.1	U	1.1	5.0
1,2-Dichlorobenzene	1.3	U	1.3	5.0
1,2-Dibromo-3-Chloropropane	4.4	U	4.4	10
1,2-Dichloropropane	0.86	U	0.86	5.0
Ethylene Dibromide	1.5	U	1.5	5.0
1,3,5-Trimethylbenzene	1.7	U	1.7	5.0
1,3-Dichlorobenzene	1.6	U	1.6	5.0
1,3-Dichloropropane	1.8	U	1.8	5.0
1,4-Dichlorobenzene	0.74	U	0.74	5.0
1-Chlorohexane	2.1	U	2.1	5.0
2,2-Dichloropropane	1.1	U	1.1	5.0
2-Chlorotoluene	2.0	U	2.0	5.0
4-Chlorotoluene	1.7	U	1.7	5.0
Acetone	11	U	11	50
Benzene	0.73	U	0.73	5.0
Bromobenzene	1.7	U	1.7	5.0
Chlorobromomethane	3.3	U	3.3	5.0
Dichlorobromomethane	0.97	U	0.97	5.0
Bromoform	1.5	U	1.5	5.0
Bromomethane	1.5	U	1.5	5.0
Carbon tetrachloride	0.83	U	0.83	5.0
Chlorobenzene	0.96	U	0.96	5.0
Chloroethane	2.7	U	2.7	5.0
Chloroform	1.1	U	1.1	5.0
Chloromethane	1.0	U	1.0	5.0
cis-1,2-Dichloroethene	1.4	U	1.4	5.0
cis-1,3-Dichloropropene	0.83	U	0.83	5.0
Chlorodibromomethane	1.7	U	1.7	5.0
Dichlorodifluoromethane	0.94	U	0.94	5.0
Ethylbenzene	1.3	U	1.3	5.0
Hexachlorobutadiene	3.1	U	3.1	5.0
Isopropylbenzene	1.9	U	1.9	5.0

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-164913**Method: 8260B****Preparation: N/A**

Lab Sample ID: MB 680-164913/12
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/05/2010 1137
Date Prepared: N/A

Analysis Batch: 680-164913
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq081.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	0.98	U	0.98	5.0
Methyl tert-butyl ether	1.0	U	1.0	50
2-Butanone (MEK)	2.4	U	2.4	25
4-Methyl-2-pentanone (MIBK)	4.2	U	4.2	25
n-Butylbenzene	2.4	U	2.4	5.0
N-Propylbenzene	2.7	U	2.7	5.0
m-Xylene & p-Xylene	2.6	U	2.6	10
Naphthalene	1.2	U	1.2	5.0
o-Xylene	1.1	U	1.1	5.0
4-Isopropyltoluene	2.2	U	2.2	5.0
sec-Butylbenzene	2.1	U	2.1	5.0
Styrene	0.93	U	0.93	5.0
Trichloroethene	1.3	U	1.3	5.0
tert-Butylbenzene	1.8	U	1.8	5.0
Tetrachloroethene	1.9	U	1.9	5.0
Toluene	0.84	U	0.84	5.0
trans-1,2-Dichloroethene	0.63	U	0.63	5.0
trans-1,3-Dichloropropene	0.87	U	0.87	5.0
Trichlorofluoromethane	1.2	U	1.2	5.0
Vinyl chloride	1.5	U	1.5	5.0
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	104	65 - 124		
Dibromofluoromethane	92	65 - 124		
Toluene-d8 (Surr)	95	65 - 132		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-164913

Method: 8260B

Preparation: N/A

LCS Lab Sample ID:	LCS 680-164913/10	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq077.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/05/2010 0944			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 680-164913/11	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq078.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/05/2010 1006			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	76	74		72 - 124	3	50		
1,1,1-Trichloroethane	69	67		56 - 140	3	50		
1,1,2,2-Tetrachloroethane	96	93		65 - 130	3	50		
1,1,2-Trichloroethane	81	78		62 - 138	3	50		
1,1-Dichloroethane	102	89		65 - 130	14	50		
1,1-Dichloroethene	97	85		59 - 137	13	50		
1,1-Dichloropropene	67	84		55 - 141	24	50		
1,2,3-Trichlorobenzene	78	77		72 - 132	2	50		
1,2,3-Trichloropropane	84	81		65 - 132	3	50		
1,2,4-Trichlorobenzene	75	78		74 - 130	4	50		
1,2,4-Trimethylbenzene	82	80		68 - 130	3	50		
1,2-Dichloroethane	69	78		62 - 140	12	50		
1,2-Dichlorobenzene	93	90		75 - 123	3	50		
1,2-Dibromo-3-Chloropropane	79	74		62 - 140	6	50		
1,2-Dichloropropane	83	79		66 - 135	5	50		
Ethylene Dibromide	82	78		61 - 138	5	50		
1,3,5-Trimethylbenzene	82	79		67 - 131	4	50		
1,3-Dichlorobenzene	93	90		74 - 123	3	50		
1,3-Dichloropropane	82	79		60 - 137	4	50		
1,4-Dichlorobenzene	90	90		75 - 122	0	50		
2,2-Dichloropropane	100	91		59 - 138	10	50		
2-Chlorotoluene	89	86		73 - 123	3	50		
4-Chlorotoluene	91	92		75 - 123	1	50		
Acetone	121	100		16 - 202	19	50		
Benzene	66	82		63 - 130	22	50		
Bromobenzene	78	73		73 - 123	6	50		
Chlorobromomethane	74	63		12 - 159	16	50		
Dichlorobromomethane	94	88		64 - 137	6	50		
Bromoform	76	72		66 - 127	5	50		
Bromomethane	99	90		54 - 146	9	50		
Carbon tetrachloride	66	81		60 - 136	20	50		
Chlorobenzene	78	75		77 - 120	4	50		
Chloroethane	83	71		26 - 166	16	50		Q

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-164913

Method: 8260B

Preparation: N/A

LCS Lab Sample ID:	LCS 680-164913/10	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq077.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/05/2010 0944			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 680-164913/11	Analysis Batch:	680-164913	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq078.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/05/2010 1006			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroform	77	65	68 - 127	17	50		Q
Chloromethane	89	98	46 - 137	10	50		
cis-1,2-Dichloroethene	96	84	58 - 143	13	50		
cis-1,3-Dichloropropene	82	81	66 - 137	1	50		
Chlorodibromomethane	79	74	70 - 126	7	50		
Dichlorodifluoromethane	82	74	17 - 163	10	50		
Ethylbenzene	82	78	77 - 121	5	50		
Hexachlorobutadiene	76	78	66 - 134	2	50		
Isopropylbenzene	82	78	74 - 124	4	50		
Methylene Chloride	108	90	65 - 126	18	50		
Methyl tert-butyl ether	114	99	68 - 128	15	50		
2-Butanone (MEK)	123	110	19 - 192	11	50		
4-Methyl-2-pentanone (MIBK)	90	85	50 - 148	5	50		
n-Butylbenzene	85	85	66 - 130	1	50		
N-Propylbenzene	92	88	74 - 124	4	50		
m-Xylene & p-Xylene	82	80	76 - 122	3	50		
Naphthalene	77	76	63 - 144	2	50		
o-Xylene	81	75	76 - 122	7	50		Q
4-Isopropyltoluene	82	80	62 - 134	3	50		
sec-Butylbenzene	84	79	74 - 125	5	50		
Styrene	95	87	75 - 123	9	50		
Trichloroethene	78	76	68 - 133	3	50		
tert-Butylbenzene	81	78	75 - 123	4	50		
Tetrachloroethene	79	77	76 - 120	2	50		
Toluene	85	83	67 - 132	3	50		
trans-1,2-Dichloroethene	99	83	66 - 127	18	50		
trans-1,3-Dichloropropene	95	92	64 - 138	4	50		
Trichlorofluoromethane	87	76	33 - 152	13	50		
Vinyl chloride	92	80	56 - 139	15	50		
Surrogate		LCS % Rec	LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	92		88		65 - 124		
Dibromofluoromethane	75		66		65 - 124		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	82	79	65 - 132

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-164919

Method: 8260B

Preparation: N/A

Lab Sample ID: MB 680-164919/7
Client Matrix: Solid
Dilution: 40
Date Analyzed: 04/05/2010 1200
Date Prepared: N/A

Analysis Batch: 680-164919
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq082.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	96	U	96	200
1,1,1-Trichloroethane	24	U	24	200
1,1,2,2-Tetrachloroethane	64	U	64	200
1,1,2-Trichloroethane	52	U	52	200
1,1-Dichloroethane	44	U	44	200
1,1-Dichloroethene	60	U	60	200
1,1-Dichloropropene	38	U	38	200
1,2,3-Trichlorobenzene	64	U	64	200
1,2,3-Trichloropropane	96	U	96	200
1,2,4-Trichlorobenzene	36	U	36	200
1,2,4-Trimethylbenzene	56	U	56	200
1,2-Dichloroethane	44	U	44	200
1,2-Dichlorobenzene	52	U	52	200
1,2-Dibromo-3-Chloropropane	180	U	180	400
1,2-Dichloropropane	34	U	34	200
Ethylene Dibromide	60	U	60	200
1,3,5-Trimethylbenzene	68	U	68	200
1,3-Dichlorobenzene	64	U	64	200
1,3-Dichloropropane	72	U	72	200
1,4-Dichlorobenzene	30	U	30	200
1-Chlorohexane	84	U	84	200
2,2-Dichloropropane	44	U	44	200
2-Chlorotoluene	80	U	80	200
4-Chlorotoluene	68	U	68	200
Acetone	440	U	440	2000
Benzene	29	U	29	200
Bromobenzene	68	U	68	200
Chlorobromomethane	130	U	130	200
Dichlorobromomethane	39	U	39	200
Bromoform	60	U	60	200
Bromomethane	60	U	60	200
Carbon tetrachloride	33	U	33	200
Chlorobenzene	38	U	38	200
Chloroethane	110	U	110	200
Chloroform	44	U	44	200
Chloromethane	40	U	40	200
cis-1,2-Dichloroethene	56	U	56	200
cis-1,3-Dichloropropene	33	U	33	200
Chlorodibromomethane	68	U	68	200
Dichlorodifluoromethane	38	U	38	200
Ethylbenzene	52	U	52	200
Hexachlorobutadiene	120	U	120	200
Isopropylbenzene	76	U	76	200

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-164919**Method: 8260B****Preparation: N/A**

Lab Sample ID: MB 680-164919/7
Client Matrix: Solid
Dilution: 40
Date Analyzed: 04/05/2010 1200
Date Prepared: N/A

Analysis Batch: 680-164919
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq082.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	39	U	39	200
Methyl tert-butyl ether	40	U	40	2000
2-Butanone (MEK)	96	U	96	1000
4-Methyl-2-pentanone (MIBK)	170	U	170	1000
n-Butylbenzene	96	U	96	200
N-Propylbenzene	110	U	110	200
m-Xylene & p-Xylene	100	U	100	400
Naphthalene	48	U	48	200
o-Xylene	44	U	44	200
4-Isopropyltoluene	88	U	88	200
sec-Butylbenzene	84	U	84	200
Styrene	37	U	37	200
Trichloroethene	52	U	52	200
tert-Butylbenzene	72	U	72	200
Tetrachloroethene	76	U	76	200
Toluene	34	U	34	200
trans-1,2-Dichloroethene	25	U	25	200
trans-1,3-Dichloropropene	35	U	35	200
Trichlorofluoromethane	48	U	48	200
Vinyl chloride	60	U	60	200
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	92	65 - 124		
Dibromofluoromethane	73	65 - 124		
Toluene-d8 (Surr)	88	65 - 132		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/**Lab Control Sample Duplicate Recovery Report - Batch: 680-164919****Method: 8260B****Preparation: N/A**

LCS Lab Sample ID:	LCS 680-164919/5	Analysis Batch:	680-164919	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq079.d
Dilution:	40	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/05/2010 1029			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 680-164919/6	Analysis Batch:	680-164919	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq080.d
Dilution:	40	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/05/2010 1052			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	82	102	72 - 124	21	50			
1,1,1-Trichloroethane	77	113	56 - 140	38	50			
1,1,2,2-Tetrachloroethane	104	123	65 - 130	17	50			
1,1,2-Trichloroethane	90	108	62 - 138	18	50			
1,1-Dichloroethane	95	119	65 - 130	22	50			
1,1-Dichloroethene	87	111	59 - 137	24	50			
1,1-Dichloropropene	94	113	55 - 141	19	50			
1,2,3-Trichlorobenzene	82	104	72 - 132	23	50			
1,2,3-Trichloropropane	102	122	65 - 132	18	50			
1,2,4-Trichlorobenzene	83	102	74 - 130	21	50			
1,2,4-Trimethylbenzene	89	110	68 - 130	21	50			
1,2-Dichloroethane	87	107	62 - 140	21	50			
1,2-Dichlorobenzene	98	119	75 - 123	20	50			
1,2-Dibromo-3-Chloropropane	95	115	62 - 140	19	50			
1,2-Dichloropropane	90	112	66 - 135	21	50			
Ethylene Dibromide	90	108	61 - 138	18	50			
1,3,5-Trimethylbenzene	89	111	67 - 131	22	50			
1,3-Dichlorobenzene	98	121	74 - 123	21	50			
1,3-Dichloropropane	90	107	60 - 137	17	50			
1,4-Dichlorobenzene	98	119	75 - 122	19	50			
2,2-Dichloropropane	91	114	59 - 138	23	50			
2-Chlorotoluene	98	119	73 - 123	20	50			
4-Chlorotoluene	95	121	75 - 123	24	50			
Acetone	127	141	16 - 202	10	50			
Benzene	92	114	63 - 130	21	50			
Bromobenzene	84	99	73 - 123	16	50			
Chlorobromomethane	67	86	12 - 159	25	50			
Dichlorobromomethane	99	120	64 - 137	19	50			
Bromoform	89	107	66 - 127	19	50			
Bromomethane	94	110	54 - 146	16	50			
Carbon tetrachloride	86	105	60 - 136	19	50			
Chlorobenzene	84	103	77 - 120	21	50			
Chloroethane	56	71	26 - 166	24	50			

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-164919

Method: 8260B

Preparation: N/A

LCS Lab Sample ID: LCS 680-164919/5
 Client Matrix: Solid
 Dilution: 40
 Date Analyzed: 04/05/2010 1029
 Date Prepared: N/A

Analysis Batch: 680-164919
 Prep Batch: N/A
 Units: ug/Kg

Instrument ID: MSM
 Lab File ID: mq079.d
 Initial Weight/Volume: 5 g
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-164919/6
 Client Matrix: Solid
 Dilution: 40
 Date Analyzed: 04/05/2010 1052
 Date Prepared: N/A

Analysis Batch: 680-164919
 Prep Batch: N/A
 Units: ug/Kg

Instrument ID: MSM
 Lab File ID: mq080.d
 Initial Weight/Volume: 5 g
 Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroform	70	86	68 - 127	21	50		
Chloromethane	106	106	46 - 137	0	50		
cis-1,2-Dichloroethene	86	113	58 - 143	26	50		
cis-1,3-Dichloropropene	89	106	66 - 137	17	50		
Chlorodibromomethane	88	107	70 - 126	20	50		
Dichlorodifluoromethane	75	94	17 - 163	23	50		
Ethylbenzene	87	109	77 - 121	22	50		
Hexachlorobutadiene	83	104	66 - 134	22	50		
Isopropylbenzene	88	108	74 - 124	20	50		
Methylene Chloride	98	123	65 - 126	22	50		
Methyl tert-butyl ether	104	128	68 - 128	20	50		
2-Butanone (MEK)	119	145	19 - 192	19	50		
4-Methyl-2-pentanone (MIBK)	100	121	50 - 148	20	50		
n-Butylbenzene	91	113	66 - 130	22	50		
N-Propylbenzene	96	117	74 - 124	20	50		
m-Xylene & p-Xylene	89	111	76 - 122	22	50		
Naphthalene	86	107	63 - 144	21	50		
o-Xylene	87	105	76 - 122	19	50		
4-Isopropyltoluene	87	109	62 - 134	23	50		
sec-Butylbenzene	87	110	74 - 125	23	50		
Styrene	100	121	75 - 123	18	50		
Trichloroethene	84	102	68 - 133	19	50		
tert-Butylbenzene	89	110	75 - 123	22	50		
Tetrachloroethene	85	102	76 - 120	18	50		
Toluene	93	113	67 - 132	19	50		
trans-1,2-Dichloroethene	91	110	66 - 127	19	50		
trans-1,3-Dichloropropene	102	123	64 - 138	18	50		
Trichlorofluoromethane	82	103	33 - 152	22	50		
Vinyl chloride	86	109	56 - 139	23	50		
Surrogate		LCS % Rec	LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	97		119		65 - 124		
Dibromofluoromethane	72		106		65 - 124		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	88	111	65 - 132

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165000**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-165000/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/06/2010 1821
Date Prepared: 04/06/2010 1821

Analysis Batch: 680-165000
Prep Batch: N/A
Units: ug/L

Instrument ID: MSA2
Lab File ID: aq046.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.0	U	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165000**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-165000/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/06/2010 1821
Date Prepared: 04/06/2010 1821

Analysis Batch: 680-165000
Prep Batch: N/A
Units: ug/L

Instrument ID: MSA2
Lab File ID: aq046.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	91	75 - 120		
Dibromofluoromethane	98	75 - 121		
Toluene-d8 (Surr)	94	75 - 120		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/**Lab Control Sample Duplicate Recovery Report - Batch: 680-165000****Method: 8260B****Preparation: 5030B**

LCS Lab Sample ID:	LCS 680-165000/5	Analysis Batch:	680-165000	Instrument ID:	MSA2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq038.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/06/2010 1624			Final Weight/Volume:	5 mL
Date Prepared:	04/06/2010 1624				
LCSD Lab Sample ID:	LCSD 680-165000/6	Analysis Batch:	680-165000	Instrument ID:	MSA2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq040.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/06/2010 1653			Final Weight/Volume:	5 mL
Date Prepared:	04/06/2010 1653				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	90	88	81 - 128	2	30			
1,1,1-Trichloroethane	97	99	76 - 127	2	30			
1,1,2,2-Tetrachloroethane	104	103	69 - 129	1	30			
1,1,2-Trichloroethane	98	99	75 - 121	1	30			
1,1-Dichloroethane	99	99	74 - 127	0	30			
1,1-Dichloroethene	96	96	62 - 141	0	30			
1,1-Dichloropropene	105	106	77 - 122	1	30			
1,2,3-Trichlorobenzene	108	107	60 - 132	1	30			
1,2,3-Trichloropropane	112	113	70 - 130	1	30			
1,2,4-Trichlorobenzene	106	105	60 - 135	0	30			
1,2,4-Trimethylbenzene	100	99	72 - 132	1	30			
1,2-Dichloroethane	92	94	66 - 132	2	30			
1,2-Dichlorobenzene	105	105	79 - 124	0	30			
1,2-Dibromo-3-Chloropropane	92	92	49 - 140	0	30			
1,2-Dichloropropane	101	100	73 - 124	0	30			
Ethylene Dibromide	97	98	80 - 121	1	30			
1,3,5-Trimethylbenzene	98	98	72 - 133	0	30			
1,3-Dichlorobenzene	105	105	78 - 125	0	30			
1,3-Dichloropropane	102	103	75 - 120	1	30			
1,4-Dichlorobenzene	103	101	81 - 122	2	30			
2,2-Dichloropropane	110	104	55 - 157	5	30			
2-Chlorotoluene	103	101	82 - 123	1	30			
4-Chlorotoluene	106	106	83 - 122	0	30			
Acetone	101	101	17 - 175	0	50			
Benzene	103	104	77 - 119	1	30			
Bromobenzene	104	103	80 - 124	1	30			
Chlorobromomethane	100	100	10 - 150	0	30			
Dichlorobromomethane	100	98	78 - 127	2	30			
Bromoform	96	97	62 - 133	0	30			
Bromomethane	55	64	12 - 184	14	50			
Carbon tetrachloride	92	93	71 - 135	2	30			
Chlorobenzene	99	97	85 - 116	1	30			
Chloroethane	102	100	40 - 165	2	50			

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165000

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-165000/5	Analysis Batch:	680-165000	Instrument ID:	MSA2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq038.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/06/2010 1624			Final Weight/Volume:	5 mL
Date Prepared:	04/06/2010 1624				

LCSD Lab Sample ID:	LCSD 680-165000/6	Analysis Batch:	680-165000	Instrument ID:	MSA2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq040.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/06/2010 1653			Final Weight/Volume:	5 mL
Date Prepared:	04/06/2010 1653				

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroform	98	96	82 - 120	3	30		
Chloromethane	94	98	48 - 142	4	50		
cis-1,2-Dichloroethene	98	96	69 - 134	2	30		
cis-1,3-Dichloropropene	110	109	76 - 126	0	30		
Chlorodibromomethane	87	85	75 - 133	3	30		
Dichlorodifluoromethane	118	115	34 - 154	3	30		
Ethylbenzene	105	104	86 - 116	1	30		
Hexachlorobutadiene	109	107	62 - 142	2	30		
Isopropylbenzene	101	100	82 - 121	1	30		
Methylene Chloride	113	113	70 - 125	0	30		
Methyl tert-butyl ether	108	97	77 - 121	10	30		
2-Butanone (MEK)	105	104	33 - 157	1	30		
4-Methyl-2-pentanone (MIBK)	105	106	40 - 151	1	30		
n-Butylbenzene	111	110	64 - 136	1	30		
N-Propylbenzene	110	110	80 - 126	0	30		
m-Xylene & p-Xylene	100	99	83 - 118	1	30		
Naphthalene	113	113	48 - 135	0	30		
o-Xylene	104	104	83 - 119	0	30		
4-Isopropyltoluene	100	99	63 - 139	1	30		
sec-Butylbenzene	99	97	77 - 126	2	30		
Styrene	105	103	82 - 122	2	30		
Trichloroethene	98	100	84 - 115	2	30		
tert-Butylbenzene	113	113	80 - 124	1	30		
Tetrachloroethene	100	100	76 - 126	0	30		
Toluene	102	101	81 - 117	0	30		
trans-1,2-Dichloroethene	88	82	72 - 131	6	30		
trans-1,3-Dichloropropene	98	99	73 - 128	1	30		
Trichlorofluoromethane	106	105	58 - 149	0	50		
Vinyl chloride	97	95	59 - 144	2	50		
Surrogate		LCS % Rec	LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	95	96			75 - 120		
Dibromofluoromethane	96	95			75 - 121		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	93	94	75 - 120

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165017

Method: 8260B

Preparation: N/A

Lab Sample ID: MB 680-165017/11
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/06/2010 1153
Date Prepared: N/A

Analysis Batch: 680-165017
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq090.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	2.4	U	2.4	5.0
1,1,1-Trichloroethane	0.59	U	0.59	5.0
1,1,2,2-Tetrachloroethane	1.6	U	1.6	5.0
1,1,2-Trichloroethane	1.3	U	1.3	5.0
1,1-Dichloroethane	1.1	U	1.1	5.0
1,1-Dichloroethene	1.5	U	1.5	5.0
1,1-Dichloropropene	0.95	U	0.95	5.0
1,2,3-Trichlorobenzene	1.6	U	1.6	5.0
1,2,3-Trichloropropane	2.4	U	2.4	5.0
1,2,4-Trichlorobenzene	0.89	U	0.89	5.0
1,2,4-Trimethylbenzene	1.4	U	1.4	5.0
1,2-Dichloroethane	1.1	U	1.1	5.0
1,2-Dichlorobenzene	1.3	U	1.3	5.0
1,2-Dibromo-3-Chloropropane	4.4	U	4.4	10
1,2-Dichloropropane	0.86	U	0.86	5.0
Ethylene Dibromide	1.5	U	1.5	5.0
1,3,5-Trimethylbenzene	1.7	U	1.7	5.0
1,3-Dichlorobenzene	1.6	U	1.6	5.0
1,3-Dichloropropane	1.8	U	1.8	5.0
1,4-Dichlorobenzene	0.74	U	0.74	5.0
1-Chlorohexane	2.1	U	2.1	5.0
2,2-Dichloropropane	1.1	U	1.1	5.0
2-Chlorotoluene	2.0	U	2.0	5.0
4-Chlorotoluene	1.7	U	1.7	5.0
Acetone	11	U	11	50
Benzene	0.73	U	0.73	5.0
Bromobenzene	1.7	U	1.7	5.0
Chlorobromomethane	3.3	U	3.3	5.0
Dichlorobromomethane	0.97	U	0.97	5.0
Bromoform	1.5	U	1.5	5.0
Bromomethane	1.5	U	1.5	5.0
Carbon tetrachloride	0.83	U	0.83	5.0
Chlorobenzene	0.96	U	0.96	5.0
Chloroethane	2.7	U	2.7	5.0
Chloroform	1.1	U	1.1	5.0
Chloromethane	1.0	U	1.0	5.0
cis-1,2-Dichloroethene	1.4	U	1.4	5.0
cis-1,3-Dichloropropene	0.83	U	0.83	5.0
Chlorodibromomethane	1.7	U	1.7	5.0
Dichlorodifluoromethane	0.94	U	0.94	5.0
Ethylbenzene	1.3	U	1.3	5.0
Hexachlorobutadiene	3.1	U	3.1	5.0
Isopropylbenzene	1.9	U	1.9	5.0

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165017**Method: 8260B****Preparation: N/A**

Lab Sample ID: MB 680-165017/11
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/06/2010 1153
Date Prepared: N/A

Analysis Batch: 680-165017
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq090.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	0.98	U	0.98	5.0
Methyl tert-butyl ether	1.0	U	1.0	50
2-Butanone (MEK)	2.4	U	2.4	25
4-Methyl-2-pentanone (MIBK)	4.2	U	4.2	25
n-Butylbenzene	2.4	U	2.4	5.0
N-Propylbenzene	2.7	U	2.7	5.0
m-Xylene & p-Xylene	2.6	U	2.6	10
Naphthalene	1.2	U	1.2	5.0
o-Xylene	1.1	U	1.1	5.0
4-Isopropyltoluene	2.2	U	2.2	5.0
sec-Butylbenzene	2.1	U	2.1	5.0
Styrene	0.93	U	0.93	5.0
Trichloroethene	1.3	U	1.3	5.0
tert-Butylbenzene	1.8	U	1.8	5.0
Tetrachloroethene	1.9	U	1.9	5.0
Toluene	0.84	U	0.84	5.0
trans-1,2-Dichloroethene	0.63	U	0.63	5.0
trans-1,3-Dichloropropene	0.87	U	0.87	5.0
Trichlorofluoromethane	1.2	U	1.2	5.0
Vinyl chloride	1.5	U	1.5	5.0
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	104	65 - 124		
Dibromofluoromethane	89	65 - 124		
Toluene-d8 (Surr)	94	65 - 132		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/**Lab Control Sample Duplicate Recovery Report - Batch: 680-165017****Method: 8260B****Preparation: N/A**

LCS Lab Sample ID:	LCS 680-165017/9	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq086.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/06/2010 0959			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 680-165017/10	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq087.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/06/2010 1022			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	84	74	72 - 124	12	50			
1,1,1-Trichloroethane	91	82	56 - 140	10	50			
1,1,2,2-Tetrachloroethane	112	98	65 - 130	14	50			
1,1,2-Trichloroethane	96	86	62 - 138	12	50			
1,1-Dichloroethane	100	92	65 - 130	9	50			
1,1-Dichloroethene	94	85	59 - 137	10	50			
1,1-Dichloropropene	99	86	55 - 141	15	50			
1,2,3-Trichlorobenzene	82	80	72 - 132	3	50			
1,2,3-Trichloropropane	100	91	65 - 132	9	50			
1,2,4-Trichlorobenzene	82	79	74 - 130	3	50			
1,2,4-Trimethylbenzene	90	81	68 - 130	11	50			
1,2-Dichloroethane	93	84	62 - 140	10	50			
1,2-Dichlorobenzene	101	92	75 - 123	9	50			
1,2-Dibromo-3-Chloropropane	91	80	62 - 140	12	50			
1,2-Dichloropropane	98	86	66 - 135	13	50			
Ethylene Dibromide	94	84	61 - 138	11	50			
1,3,5-Trimethylbenzene	89	80	67 - 131	11	50			
1,3-Dichlorobenzene	102	91	74 - 123	11	50			
1,3-Dichloropropane	95	85	60 - 137	11	50			
1,4-Dichlorobenzene	101	91	75 - 122	11	50			
2,2-Dichloropropane	99	86	59 - 138	13	50			
2-Chlorotoluene	97	87	73 - 123	11	50			
4-Chlorotoluene	103	90	75 - 123	13	50			
Acetone	133	117	16 - 202	13	50			
Benzene	97	86	63 - 130	12	50			
Bromobenzene	87	74	73 - 123	15	50			
Chlorobromomethane	73	69	12 - 159	6	50			
Dichlorobromomethane	107	93	64 - 137	14	50			
Bromoform	89	79	66 - 127	12	50			
Bromomethane	88	87	54 - 146	1	50			
Carbon tetrachloride	90	78	60 - 136	13	50			
Chlorobenzene	85	77	77 - 120	10	50			
Chloroethane	74	67	26 - 166	10	50			

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165017

Method: 8260B

Preparation: N/A

LCS Lab Sample ID:	LCS 680-165017/9	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq086.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/06/2010 0959			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 680-165017/10	Analysis Batch:	680-165017	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq087.d
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/06/2010 1022			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroform	73	69	68 - 127	6	50			
Chloromethane	116	105	46 - 137	10	50			
cis-1,2-Dichloroethene	97	91	58 - 143	6	50			
cis-1,3-Dichloropropene	93	85	66 - 137	10	50			
Chlorodibromomethane	87	77	70 - 126	11	50			
Dichlorodifluoromethane	78	70	17 - 163	11	50			
Ethylbenzene	88	79	77 - 121	10	50			
Hexachlorobutadiene	85	77	66 - 134	10	50			
Isopropylbenzene	89	80	74 - 124	11	50			
Methylene Chloride	109	98	65 - 126	10	50			
Methyl tert-butyl ether	113	105	68 - 128	7	50			
2-Butanone (MEK)	129	119	19 - 192	8	50			
4-Methyl-2-pentanone (MIBK)	109	97	50 - 148	11	50			
n-Butylbenzene	95	85	66 - 130	11	50			
N-Propylbenzene	100	92	74 - 124	8	50			
m-Xylene & p-Xylene	92	80	76 - 122	14	50			
Naphthalene	85	81	63 - 144	4	50			
o-Xylene	87	79	76 - 122	10	50			
4-Isopropyltoluene	90	80	62 - 134	12	50			
sec-Butylbenzene	91	81	74 - 125	11	50			
Styrene	105	94	75 - 123	11	50			
Trichloroethene	88	81	68 - 133	9	50			
tert-Butylbenzene	89	81	75 - 123	10	50			
Tetrachloroethene	87	77	76 - 120	12	50			
Toluene	96	86	67 - 132	10	50			
trans-1,2-Dichloroethene	98	86	66 - 127	13	50			
trans-1,3-Dichloropropene	109	97	64 - 138	12	50			
Trichlorofluoromethane	86	78	33 - 152	10	50			
Vinyl chloride	93	86	56 - 139	8	50			
Surrogate		LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene		101		90		65 - 124		
Dibromofluoromethane		91		83		65 - 124		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	92	81	65 - 132

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165027

Method: 8260B

Preparation: N/A

Lab Sample ID: MB 680-165027/11
Client Matrix: Solid
Dilution: 40
Date Analyzed: 04/06/2010 1244
Date Prepared: N/A

Analysis Batch: 680-165027
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq092.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	96	U	96	200
1,1,1-Trichloroethane	24	U	24	200
1,1,2,2-Tetrachloroethane	64	U	64	200
1,1,2-Trichloroethane	52	U	52	200
1,1-Dichloroethane	44	U	44	200
1,1-Dichloroethene	60	U	60	200
1,1-Dichloropropene	38	U	38	200
1,2,3-Trichlorobenzene	64	U	64	200
1,2,3-Trichloropropane	96	U	96	200
1,2,4-Trichlorobenzene	36	U	36	200
1,2,4-Trimethylbenzene	56	U	56	200
1,2-Dichloroethane	44	U	44	200
1,2-Dichlorobenzene	52	U	52	200
1,2-Dibromo-3-Chloropropane	180	U	180	400
1,2-Dichloropropane	34	U	34	200
Ethylene Dibromide	60	U	60	200
1,3,5-Trimethylbenzene	68	U	68	200
1,3-Dichlorobenzene	64	U	64	200
1,3-Dichloropropane	72	U	72	200
1,4-Dichlorobenzene	30	U	30	200
1-Chlorohexane	84	U	84	200
2,2-Dichloropropane	44	U	44	200
2-Chlorotoluene	80	U	80	200
4-Chlorotoluene	68	U	68	200
Acetone	440	U	440	2000
Benzene	29	U	29	200
Bromobenzene	68	U	68	200
Chlorobromomethane	130	U	130	200
Dichlorobromomethane	39	U	39	200
Bromoform	60	U	60	200
Bromomethane	60	U	60	200
Carbon tetrachloride	33	U	33	200
Chlorobenzene	38	U	38	200
Chloroethane	110	U	110	200
Chloroform	44	U	44	200
Chloromethane	40	U	40	200
cis-1,2-Dichloroethene	56	U	56	200
cis-1,3-Dichloropropene	33	U	33	200
Chlorodibromomethane	68	U	68	200
Dichlorodifluoromethane	38	U	38	200
Ethylbenzene	52	U	52	200
Hexachlorobutadiene	120	U	120	200
Isopropylbenzene	76	U	76	200

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165027**Method: 8260B****Preparation: N/A**

Lab Sample ID: MB 680-165027/11
Client Matrix: Solid
Dilution: 40
Date Analyzed: 04/06/2010 1244
Date Prepared: N/A

Analysis Batch: 680-165027
Prep Batch: N/A
Units: ug/Kg

Instrument ID: MSM
Lab File ID: mq092.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	39	U	39	200
Methyl tert-butyl ether	40	U	40	2000
2-Butanone (MEK)	96	U	96	1000
4-Methyl-2-pentanone (MIBK)	170	U	170	1000
n-Butylbenzene	96	U	96	200
N-Propylbenzene	110	U	110	200
m-Xylene & p-Xylene	100	U	100	400
Naphthalene	48	U	48	200
o-Xylene	44	U	44	200
4-Isopropyltoluene	88	U	88	200
sec-Butylbenzene	84	U	84	200
Styrene	37	U	37	200
Trichloroethene	52	U	52	200
tert-Butylbenzene	72	U	72	200
Tetrachloroethene	76	U	76	200
Toluene	34	U	34	200
trans-1,2-Dichloroethene	25	U	25	200
trans-1,3-Dichloropropene	35	U	35	200
Trichlorofluoromethane	48	U	48	200
Vinyl chloride	60	U	60	200
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	112	65 - 124		
Dibromofluoromethane	100	65 - 124		
Toluene-d8 (Surr)	104	65 - 132		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165027

Method: 8260B

Preparation: N/A

LCS Lab Sample ID: LCS 680-165027/8
 Client Matrix: Solid
 Dilution: 40
 Date Analyzed: 04/06/2010 1045
 Date Prepared: N/A

Analysis Batch: 680-165027
 Prep Batch: N/A
 Units: ug/Kg

Instrument ID: MSM
 Lab File ID: mq088.d
 Initial Weight/Volume: 5 g
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-165027/9
 Client Matrix: Solid
 Dilution: 40
 Date Analyzed: 04/06/2010 1108
 Date Prepared: N/A

Analysis Batch: 680-165027
 Prep Batch: N/A
 Units: ug/Kg

Instrument ID: MSM
 Lab File ID: mq089.d
 Initial Weight/Volume: 5 g
 Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	82	81	72 - 124	1	50		
1,1,1-Trichloroethane	93	89	56 - 140	4	50		
1,1,2,2-Tetrachloroethane	108	106	65 - 130	3	50		
1,1,2-Trichloroethane	95	95	62 - 138	0	50		
1,1-Dichloroethane	98	99	65 - 130	1	50		
1,1-Dichloroethene	91	98	59 - 137	8	50		
1,1-Dichloropropene	95	96	55 - 141	1	50		
1,2,3-Trichlorobenzene	80	81	72 - 132	1	50		
1,2,3-Trichloropropane	102	101	65 - 132	0	50		
1,2,4-Trichlorobenzene	81	83	74 - 130	3	50		
1,2,4-Trimethylbenzene	85	86	68 - 130	1	50		
1,2-Dichloroethane	92	90	62 - 140	2	50		
1,2-Dichlorobenzene	94	98	75 - 123	4	50		
1,2-Dibromo-3-Chloropropane	91	91	62 - 140	0	50		
1,2-Dichloropropane	98	94	66 - 135	4	50		
Ethylene Dibromide	100	96	61 - 138	3	50		
1,3,5-Trimethylbenzene	84	87	67 - 131	4	50		
1,3-Dichlorobenzene	95	97	74 - 123	2	50		
1,3-Dichloropropane	97	94	60 - 137	4	50		
1,4-Dichlorobenzene	96	97	75 - 122	1	50		
2,2-Dichloropropane	93	96	59 - 138	3	50		
2-Chlorotoluene	92	93	73 - 123	2	50		
4-Chlorotoluene	93	95	75 - 123	2	50		
Acetone	134	137	16 - 202	2	50		
Benzene	97	96	63 - 130	0	50		
Bromobenzene	80	82	73 - 123	2	50		
Chlorobromomethane	97	97	12 - 159	0	50		
Dichlorobromomethane	104	104	64 - 137	0	50		
Bromoform	90	88	66 - 127	2	50		
Bromomethane	80	86	54 - 146	8	50		
Carbon tetrachloride	86	86	60 - 136	1	50		
Chlorobenzene	83	83	77 - 120	0	50		
Chloroethane	42	39	26 - 166	6	50		M

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165027

Method: 8260B

Preparation: N/A

LCS Lab Sample ID:	LCS 680-165027/8	Analysis Batch:	680-165027	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq088.d
Dilution:	40	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/06/2010 1045			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

LCSD Lab Sample ID:	LCSD 680-165027/9	Analysis Batch:	680-165027	Instrument ID:	MSM
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	mq089.d
Dilution:	40	Units:	ug/Kg	Initial Weight/Volume:	5 g
Date Analyzed:	04/06/2010 1108			Final Weight/Volume:	5 mL
Date Prepared:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Chloroform	88	90	68 - 127	2	50	
Chloromethane	119	121	46 - 137	2	50	
cis-1,2-Dichloroethene	98	94	58 - 143	3	50	
cis-1,3-Dichloropropene	94	92	66 - 137	2	50	
Chlorodibromomethane	85	85	70 - 126	1	50	
Dichlorodifluoromethane	75	76	17 - 163	1	50	
Ethylbenzene	85	85	77 - 121	0	50	
Hexachlorobutadiene	80	81	66 - 134	2	50	
Isopropylbenzene	85	86	74 - 124	2	50	
Methylene Chloride	106	102	65 - 126	3	50	
Methyl tert-butyl ether	112	112	68 - 128	0	50	
2-Butanone (MEK)	136	132	19 - 192	3	50	
4-Methyl-2-pentanone (MIBK)	115	110	50 - 148	5	50	
n-Butylbenzene	87	90	66 - 130	3	50	
N-Propylbenzene	94	97	74 - 124	3	50	
m-Xylene & p-Xylene	85	88	76 - 122	3	50	
Naphthalene	84	86	63 - 144	2	50	
o-Xylene	81	84	76 - 122	4	50	
4-Isopropyltoluene	86	86	62 - 134	1	50	
sec-Butylbenzene	85	87	74 - 125	2	50	
Styrene	98	98	75 - 123	1	50	
Trichloroethene	90	88	68 - 133	2	50	
tert-Butylbenzene	84	86	75 - 123	2	50	
Tetrachloroethene	80	84	76 - 120	5	50	
Toluene	97	97	67 - 132	0	50	
trans-1,2-Dichloroethene	96	94	66 - 127	1	50	
trans-1,3-Dichloropropene	108	108	64 - 138	0	50	
Trichlorofluoromethane	84	86	33 - 152	2	50	
Vinyl chloride	100	102	56 - 139	2	50	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	96		97		65 - 124	
Dibromofluoromethane	88		88		65 - 124	

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	93	92	65 - 132

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165124**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-165124/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1657
Date Prepared: 04/07/2010 1657

Analysis Batch: 680-165124
Prep Batch: N/A
Units: ug/L

Instrument ID: MSA
Lab File ID: aq059.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.25	U	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.0	U	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165124**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-165124/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1657
Date Prepared: 04/07/2010 1657

Analysis Batch: 680-165124
Prep Batch: N/A
Units: ug/L

Instrument ID: MSA
Lab File ID: aq059.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	97	75 - 120		
Dibromofluoromethane	101	75 - 121		
Toluene-d8 (Surr)	98	75 - 120		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/**Lab Control Sample Duplicate Recovery Report - Batch: 680-165124****Method: 8260B****Preparation: 5030B**

LCS Lab Sample ID:	LCS 680-165124/5	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq051.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 1502			Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 1502				

LCSD Lab Sample ID:	LCSD 680-165124/6	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq053.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 1531			Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 1531				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	91	92	81 - 128	1	30			
1,1,1-Trichloroethane	103	104	76 - 127	1	30			
1,1,2,2-Tetrachloroethane	100	103	69 - 129	4	30			
1,1,2-Trichloroethane	96	100	75 - 121	3	30			
1,1-Dichloroethane	99	100	74 - 127	1	30			
1,1-Dichloroethene	109	109	62 - 141	0	30			
1,1-Dichloropropene	108	108	77 - 122	0	30			
1,2,3-Trichlorobenzene	107	110	60 - 132	2	30			
1,2,3-Trichloropropane	103	106	70 - 130	3	30			
1,2,4-Trichlorobenzene	104	109	60 - 135	5	30			
1,2,4-Trimethylbenzene	110	112	72 - 132	2	30			
1,2-Dichloroethane	97	96	66 - 132	1	30			
1,2-Dichlorobenzene	108	110	79 - 124	1	30			
1,2-Dibromo-3-Chloropropane	89	91	49 - 140	1	30			
1,2-Dichloropropane	104	105	73 - 124	1	30			
Ethylene Dibromide	98	100	80 - 121	2	30			
1,3,5-Trimethylbenzene	108	110	72 - 133	2	30			
1,3-Dichlorobenzene	106	107	78 - 125	1	30			
1,3-Dichloropropane	101	103	75 - 120	1	30			
1,4-Dichlorobenzene	106	107	81 - 122	2	30			
2,2-Dichloropropane	106	104	55 - 157	1	30			
2-Chlorotoluene	107	109	82 - 123	1	30			
4-Chlorotoluene	110	112	83 - 122	2	30			
Acetone	129	108	17 - 175	18	50			
Benzene	102	103	77 - 119	0	30			
Bromobenzene	106	106	80 - 124	0	30			
Chlorobromomethane	103	105	10 - 150	2	30			
Dichlorobromomethane	104	104	78 - 127	1	30			
Bromoform	97	101	62 - 133	3	30			
Bromomethane	73	72	12 - 184	2	50			
Carbon tetrachloride	94	94	71 - 135	1	30			
Chlorobenzene	99	101	85 - 116	1	30			
Chloroethane	109	98	40 - 165	10	50			

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165124

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-165124/5	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq051.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 1502			Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 1502				

LCSD Lab Sample ID:	LCSD 680-165124/6	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	aq053.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	04/07/2010 1531			Final Weight/Volume:	5 mL
Date Prepared:	04/07/2010 1531				

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Chloroform	99	101	82 - 120	1	30		
Chloromethane	109	86	48 - 142	24	50		
cis-1,2-Dichloroethene	99	100	69 - 134	1	30		
cis-1,3-Dichloropropene	110	110	76 - 126	0	30		
Chlorodibromomethane	85	87	75 - 133	2	30		
Dichlorodifluoromethane	132	129	34 - 154	2	30		
Ethylbenzene	105	106	86 - 116	1	30		
Hexachlorobutadiene	110	114	62 - 142	4	30		
Isopropylbenzene	108	110	82 - 121	1	30		
Methylene Chloride	112	107	70 - 125	4	30		
Methyl tert-butyl ether	112	115	77 - 121	2	30		
2-Butanone (MEK)	101	105	33 - 157	3	30		
4-Methyl-2-pentanone (MIBK)	102	104	40 - 151	2	30		
n-Butylbenzene	112	113	64 - 136	1	30		
N-Propylbenzene	111	114	80 - 126	2	30		
m-Xylene & p-Xylene	104	105	83 - 118	1	30		
Naphthalene	109	113	48 - 135	4	30		
o-Xylene	105	108	83 - 119	3	30		
4-Isopropyltoluene	110	113	63 - 139	2	30		
sec-Butylbenzene	109	112	77 - 126	2	30		
Styrene	105	107	82 - 122	2	30		
Trichloroethene	99	99	84 - 115	0	30		
tert-Butylbenzene	111	113	80 - 124	2	30		
Tetrachloroethene	99	101	76 - 126	2	30		
Toluene	103	104	81 - 117	1	30		
trans-1,2-Dichloroethene	101	100	72 - 131	0	30		
trans-1,3-Dichloropropene	112	113	73 - 128	1	30		
Trichlorofluoromethane	110	110	58 - 149	0	50		
Vinyl chloride	101	78	59 - 144	26	50		
Surrogate		LCS % Rec	LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene		100	101		75 - 120		
Dibromofluoromethane		97	99		75 - 121		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	98	98	75 - 120

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-165124**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID:	680-56230-16	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	a065.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	04/08/2010 0056			Final Weight/Volume:	5 mL
Date Prepared:	04/08/2010 0056				

MSD Lab Sample ID:	680-56230-16	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	a067.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	04/08/2010 0125			Final Weight/Volume:	5 mL
Date Prepared:	04/08/2010 0125				

Analyte	MS	MSD	% Rec.	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1,2-Tetrachloroethane	88	75		81 - 128	16	30		J
1,1,1-Trichloroethane	99	85		76 - 127	15	30		
1,1,2,2-Tetrachloroethane	97	83		69 - 129	16	30		
1,1,2-Trichloroethane	91	78		75 - 121	15	30		
1,1-Dichloroethane	97	83		74 - 127	16	30		
1,1-Dichloroethene	111	103		62 - 141	8	30		
1,1-Dichloropropene	105	91		77 - 122	13	30		
1,2,3-Trichlorobenzene	95	83		60 - 132	13	30		
1,2,3-Trichloropropane	99	84		70 - 130	17	30		
1,2,4-Trichlorobenzene	92	83		60 - 135	11	30		
1,2,4-Trimethylbenzene	108	95		72 - 132	13	30		
1,2-Dichloroethane	92	79		66 - 132	15	30		
1,2-Dichlorobenzene	102	89		79 - 124	13	30		
1,2-Dibromo-3-Chloropropane	76	65		49 - 140	16	30		
1,2-Dichloropropane	100	85		73 - 124	17	30		
Ethylene Dibromide	92	78		80 - 121	16	30		J
1,3,5-Trimethylbenzene	106	92		72 - 133	14	30		
1,3-Dichlorobenzene	102	89		78 - 125	13	30		
1,3-Dichloropropane	97	82		75 - 120	16	30		
1,4-Dichlorobenzene	101	89		81 - 122	12	30		
2,2-Dichloropropane	84	72		55 - 157	15	30		
2-Chlorotoluene	106	92		82 - 123	14	30		
4-Chlorotoluene	109	95		83 - 122	14	30		
Acetone	107	92		17 - 175	15	50		
Benzene	100	87		77 - 119	14	30		
Bromobenzene	105	90		80 - 124	16	30		
Chlorobromomethane	98	84		10 - 150	16	30		
Dichlorobromomethane	97	83		78 - 127	16	30		
Bromoform	87	75		62 - 133	14	30		
Bromomethane	112	99		12 - 184	12	50		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-165124**

**Method: 8260B
Preparation: 5030B**

MS Lab Sample ID:	680-56230-16	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	a065.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	04/08/2010 0056			Final Weight/Volume:	5 mL
Date Prepared:	04/08/2010 0056				

MSD Lab Sample ID:	680-56230-16	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	a067.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	04/08/2010 0125			Final Weight/Volume:	5 mL
Date Prepared:	04/08/2010 0125				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Carbon tetrachloride	88	79	71 - 135	11	30		
Chlorobenzene	100	87	85 - 116	15	30		
Chloroethane	112	111	40 - 165	1	50		
Chloroform	96	83	82 - 120	14	30		
Chloromethane	111	94	48 - 142	16	50		
cis-1,2-Dichloroethene	95	82	69 - 134	15	30		
cis-1,3-Dichloropropene	98	85	76 - 126	13	30		
Chlorodibromomethane	79	69	75 - 133	13	30		J
Dichlorodifluoromethane	127	109	34 - 154	15	30		
Ethylbenzene	107	93	86 - 116	13	30		
Hexachlorobutadiene	96	92	62 - 142	5	30		
Isopropylbenzene	110	96	82 - 121	13	30		
Methylene Chloride	99	95	70 - 125	4	30		
Methyl tert-butyl ether	103	89	77 - 121	15	30		
2-Butanone (MEK)	88	73	33 - 157	18	30		
4-Methyl-2-pentanone (MIBK)	92	76	40 - 151	19	30		
n-Butylbenzene	107	94	64 - 136	13	30		
N-Propylbenzene	110	97	80 - 126	13	30		
m-Xylene & p-Xylene	105	92	83 - 118	13	30		
Naphthalene	96	84	48 - 135	14	30		
o-Xylene	106	92	83 - 119	14	30		
4-Isopropyltoluene	108	95	63 - 139	13	30		
sec-Butylbenzene	107	94	77 - 126	13	30		
Styrene	105	91	82 - 122	14	30		
Trichloroethene	95	84	84 - 115	13	30		
tert-Butylbenzene	110	96	80 - 124	13	30		
Tetrachloroethene	98	87	76 - 126	11	30		
Toluene	100	87	81 - 117	13	30		
trans-1,2-Dichloroethene	98	85	72 - 131	14	30		
trans-1,3-Dichloropropene	100	86	73 - 128	15	30		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-165124**

Method: 8260B

Preparation: 5030B

MS Lab Sample ID:	680-56230-16	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	a065.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	04/08/2010 0056			Final Weight/Volume:	5 mL
Date Prepared:	04/08/2010 0056				
MSD Lab Sample ID:	680-56230-16	Analysis Batch:	680-165124	Instrument ID:	MSA
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	a067.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	04/08/2010 0125			Final Weight/Volume:	5 mL
Date Prepared:	04/08/2010 0125				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Trichlorofluoromethane	112	98	58 - 149	14	50		
Vinyl chloride	111	84	59 - 144	28	50		
Surrogate		MS % Rec	MSD % Rec		Acceptance Limits		
4-Bromofluorobenzene		99		86		75 - 120	
Dibromofluoromethane		93		81		75 - 121	
Toluene-d8 (Surr)		96		83		75 - 120	

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165125**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-165125/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1712
Date Prepared: 04/07/2010 1712

Analysis Batch: 680-165125
Prep Batch: N/A
Units: ug/L

Instrument ID: MSA2
Lab File ID: aq060.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1,2-Tetrachloroethane	0.33	U	0.33	1.0
1,1,1-Trichloroethane	0.50	U	0.50	1.0
1,1,2,2-Tetrachloroethane	0.18	U	0.18	1.0
1,1,2-Trichloroethane	0.13	U	0.13	1.0
1,1-Dichloroethane	0.25	U	0.25	1.0
1,1-Dichloroethene	0.11	U	0.11	1.0
1,1-Dichloropropene	0.25	U	0.25	1.0
1,2,3-Trichlorobenzene	0.35	U	0.35	1.0
1,2,3-Trichloropropane	0.41	U	0.41	1.0
1,2,4-Trichlorobenzene	0.257	J	0.25	1.0
1,2,4-Trimethylbenzene	0.33	U	0.33	1.0
1,2-Dichloroethane	0.10	U	0.10	1.0
1,2-Dichlorobenzene	0.21	U	0.21	1.0
1,2-Dibromo-3-Chloropropane	0.44	U	0.44	1.0
1,2-Dichloropropane	0.13	U	0.13	1.0
Ethylene Dibromide	0.25	U	0.25	1.0
1,3,5-Trimethylbenzene	0.33	U	0.33	1.0
1,3-Dichlorobenzene	0.25	U	0.25	1.0
1,3-Dichloropropane	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.28	U	0.28	1.0
1-Chlorohexane	0.27	U	0.27	1.0
2,2-Dichloropropane	0.12	U	0.12	1.0
2-Chlorotoluene	0.17	U	0.17	1.0
4-Chlorotoluene	0.27	U	0.27	1.0
Acetone	5.0	U	5.0	25
Benzene	0.25	U	0.25	1.0
Bromobenzene	0.16	U	0.16	1.0
Chlorobromomethane	0.14	U	0.14	1.0
Dichlorobromomethane	0.25	U	0.25	1.0
Bromoform	0.50	U	0.50	1.0
Bromomethane	0.80	U	0.80	1.0
Carbon tetrachloride	0.50	U	0.50	1.0
Chlorobenzene	0.25	U	0.25	1.0
Chloroethane	1.0	U	1.0	1.0
Chloroform	0.14	U	0.14	1.0
Chloromethane	0.33	U	0.33	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
cis-1,3-Dichloropropene	0.11	U	0.11	1.0
Chlorodibromomethane	0.10	U	0.10	1.0
Dichlorodifluoromethane	0.25	U	0.25	1.0
Ethylbenzene	0.11	U	0.11	1.0
Hexachlorobutadiene	0.40	U	0.40	1.0
Isopropylbenzene	0.10	U	0.10	1.0

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Method Blank - Batch: 680-165125**Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-165125/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1712
Date Prepared: 04/07/2010 1712

Analysis Batch: 680-165125
Prep Batch: N/A
Units: ug/L

Instrument ID: MSA2
Lab File ID: aq060.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Methylene Chloride	1.0	U	1.0	5.0
Methyl tert-butyl ether	0.20	U	0.20	10
2-Butanone (MEK)	1.0	U	1.0	10
4-Methyl-2-pentanone (MIBK)	1.0	U	1.0	10
n-Butylbenzene	0.10	U	0.10	1.0
N-Propylbenzene	0.15	U	0.15	1.0
m-Xylene & p-Xylene	0.20	U	0.20	2.0
Naphthalene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	1.0
4-Isopropyltoluene	0.13	U	0.13	1.0
sec-Butylbenzene	0.16	U	0.16	1.0
Styrene	0.11	U	0.11	1.0
Trichloroethene	0.13	U	0.13	1.0
tert-Butylbenzene	0.12	U	0.12	1.0
Tetrachloroethene	0.15	U	0.15	1.0
Toluene	0.33	U	0.33	1.0
trans-1,2-Dichloroethene	0.20	U	0.20	1.0
trans-1,3-Dichloropropene	0.21	U	0.21	1.0
Trichlorofluoromethane	0.25	U	0.25	1.0
Vinyl chloride	0.18	U	0.18	1.0
Surrogate	% Rec	Acceptance Limits		
4-Bromofluorobenzene	90	75 - 120		
Dibromofluoromethane	102	75 - 121		
Toluene-d8 (Surr)	94	75 - 120		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165125

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-165125/5
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 04/07/2010 1516
 Date Prepared: 04/07/2010 1516

Analysis Batch: 680-165125
 Prep Batch: N/A
 Units: ug/L

Instrument ID: MSA2
 Lab File ID: aq052.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-165125/6
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 04/07/2010 1545
 Date Prepared: 04/07/2010 1545

Analysis Batch: 680-165125
 Prep Batch: N/A
 Units: ug/L

Instrument ID: MSA2
 Lab File ID: aq054.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1,2-Tetrachloroethane	89	90	81 - 128	1	30		
1,1,1-Trichloroethane	99	101	76 - 127	1	30		
1,1,2,2-Tetrachloroethane	103	102	69 - 129	1	30		
1,1,2-Trichloroethane	99	98	75 - 121	1	30		
1,1-Dichloroethane	97	100	74 - 127	3	30		
1,1-Dichloroethene	101	100	62 - 141	1	30		
1,1-Dichloropropene	107	107	77 - 122	0	30		
1,2,3-Trichlorobenzene	108	108	60 - 132	0	30		
1,2,3-Trichloropropane	110	110	70 - 130	0	30		
1,2,4-Trichlorobenzene	105	106	60 - 135	0	30		
1,2,4-Trimethylbenzene	99	99	72 - 132	0	30		
1,2-Dichloroethane	97	96	66 - 132	2	30		
1,2-Dichlorobenzene	106	107	79 - 124	1	30		
1,2-Dibromo-3-Chloropropane	89	90	49 - 140	1	30		
1,2-Dichloropropane	102	104	73 - 124	1	30		
Ethylene Dibromide	99	98	80 - 121	1	30		
1,3,5-Trimethylbenzene	97	97	72 - 133	0	30		
1,3-Dichlorobenzene	105	106	78 - 125	1	30		
1,3-Dichloropropane	103	104	75 - 120	1	30		
1,4-Dichlorobenzene	102	103	81 - 122	1	30		
2,2-Dichloropropane	105	104	55 - 157	1	30		
2-Chlorotoluene	101	102	82 - 123	1	30		
4-Chlorotoluene	106	109	83 - 122	3	30		
Acetone	102	109	17 - 175	7	50		
Benzene	104	104	77 - 119	1	30		
Bromobenzene	104	104	80 - 124	0	30		
Chlorobromomethane	101	102	10 - 150	1	30		
Dichlorobromomethane	100	100	78 - 127	0	30		
Bromoform	100	98	62 - 133	2	30		
Bromomethane	95	113	12 - 184	17	50		
Carbon tetrachloride	95	96	71 - 135	2	30		
Chlorobenzene	98	99	85 - 116	0	30		
Chloroethane	122	113	40 - 165	7	50		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 680-165125

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-165125/5
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 04/07/2010 1516
 Date Prepared: 04/07/2010 1516

Analysis Batch: 680-165125
 Prep Batch: N/A
 Units: ug/L

Instrument ID: MSA2
 Lab File ID: aq052.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-165125/6
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 04/07/2010 1545
 Date Prepared: 04/07/2010 1545

Analysis Batch: 680-165125
 Prep Batch: N/A
 Units: ug/L

Instrument ID: MSA2
 Lab File ID: aq054.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual	% Rec.
Chloroform	100	99	82 - 120	0	30			
Chloromethane	98	103	48 - 142	5	50			
cis-1,2-Dichloroethene	98	99	69 - 134	1	30			
cis-1,3-Dichloropropene	109	109	76 - 126	1	30			
Chlorodibromomethane	86	86	75 - 133	0	30			
Dichlorodifluoromethane	118	119	34 - 154	1	30			
Ethylbenzene	106	106	86 - 116	0	30			
Hexachlorobutadiene	114	113	62 - 142	0	30			
Isopropylbenzene	99	102	82 - 121	3	30			
Methylene Chloride	117	117	70 - 125	0	30			
Methyl tert-butyl ether	119	121	77 - 121	2	30			
2-Butanone (MEK)	107	105	33 - 157	2	30			
4-Methyl-2-pentanone (MIBK)	106	105	40 - 151	1	30			
n-Butylbenzene	111	111	64 - 136	0	30			
N-Propylbenzene	109	111	80 - 126	2	30			
m-Xylene & p-Xylene	101	101	83 - 118	0	30			
Naphthalene	111	111	48 - 135	0	30			
o-Xylene	104	103	83 - 119	1	30			
4-Isopropyltoluene	100	101	63 - 139	1	30			
sec-Butylbenzene	98	100	77 - 126	2	30			
Styrene	104	104	82 - 122	0	30			
Trichloroethene	100	100	84 - 115	0	30			
tert-Butylbenzene	113	114	80 - 124	1	30			
Tetrachloroethene	99	102	76 - 126	3	30			
Toluene	102	103	81 - 117	0	30			
trans-1,2-Dichloroethene	105	106	72 - 131	1	30			
trans-1,3-Dichloropropene	98	99	73 - 128	1	30			
Trichlorofluoromethane	108	113	58 - 149	4	50			
Vinyl chloride	101	99	59 - 144	2	50			
Surrogate		LCS % Rec	LCSD % Rec			Acceptance Limits		
4-Bromofluorobenzene	96		96			75 - 120		
Dibromofluoromethane	96		98			75 - 121		

Quality Control Results

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	94	94	75 - 120

TestAmerica

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD
TestAmerica Savannah

5102 LaRocie Avenue

Savannah, GA 31404

Website: www.testamericainc.com

Phone: (912) 354-7858

Fax: (912) 352-0165

 Alternate Laboratory Name/Location

THE LEADER IN ENVIRONMENTAL TESTING

 Phone: _____
 Fax: _____

Z

REQUIRED ANALYSIS

PAGE

1

OF

Z

STANDARD REPORT

O

DATE DUE

EXPEDITED REPORT

O

DATE DUE

NUMBER OF COOLERS SUBMITTED

PER SHIPMENT

DELIVERY

O

DATE DUE

SURCHARGE

O

DATE DUE

LABORATORY USE ONLY

O

DATE

TIME

CUSTODY INTACT

YES

NO

RECEIVED BY: (SIGNATURE)

DATE

TIME

RELINQUISHED BY: (SIGNATURE)

DATE

TIME

RECEIVED BY: (SIGNATURE)

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DATE

TIME

CUSTODY SEAL NO.

O

LOG NO.

O

SAVANNAH

O

LABORATORY REMARKS

O

4.6°C

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD



5102 LaRochte Avenue
Savannah, GA 31404

Alternate Laboratory Name/Location

Phone:
Fax:

Website: www.testamericainc.com

Phone: (912) 354-7858
Fax: (912) 352-0165

Serial Number

028128

Project Reference
Former Dry Cleaning Site

Project No.
P.O. NUMBER

Project Location
(State) GA

Contract No.

Client Fax

Client Phone

Client E-Mail

Client Name
VSACE

Client Address
100 W. Oglethorpe Ave. Savannah GA 31401

Company Contracting This Work (if applicable)

Matrix Type

Compositing (G) OR Grade (G) Indicate

Aqueous (Water)

Solid or Semisolid

Aqueous Liquid (Oil, Solvent, ...)

Nonaqueous Liquid (Oil, Solvent, ...)

Number of Containers Submitted Per Shipment:

REMARKS

NUMBER OF CONTAINERS SUBMITTED

SAMPLE IDENTIFICATION

DATE

TIME

Page

100

of 101

1520

SB-3-10

✓

4

1545

SB-3-35

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1615

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RELINQUISHED BY: (Signature)

J. S. L. J.

DATE

TIME

RELINQUISHED BY: (Signature)

J. S. L. J.

DATE

TIME

RECEIVED BY: (Signature)

J. S. L. J.

DATE

TIME

RECEIVED BY: (Signature)

J. S. L. J.

DATE

TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:

J. S. L. J.

DATE

TIME

CUSTODY INTACT

YES

NO

RECEIVED BY: (Signature)

J. S. L. J.

DATE

TIME

CUSTODY SEAL NO.

SAVANNAH LOG NO.

680-56230

LABORATORY REMARKS

Login Sample Receipt Check List

Client: U.S. Army Corps of Engineers

Job Number: 680-56230-1

Login Number: 56230

List Source: TestAmerica Savannah

Creator: Conner, Keaton

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	N/A	-6 LABELS READ DUP1/-10 LABELS READ DUP2/-7 LABELS READ SB-2-41
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Appendix E

Soil Boring Logs
Monitoring Well Installation Logs



LOG OF BORING SB-1

(Page 1 of 1)

Responsive partner. Exceptional outcomes.

Project Information		Boring Log Details					
		Date Started	: 5/3/15	Water First Observed At 32.9			
		Date Completed	: 5/3/15	Logged By : CM			
		Contractor	: Atlas Geo	Checked By : KR			
		Method	: DPT				
		Operator	: Sammy, Danny				
Depth in Feet	Surf. Elev. 850	USCS GRAPHIC	Water Levels ▼ Water Level	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.	Water Level	Soil Sample Interval	PID Result (PPM)
DESCRIPTION							
0 - 850							3.5
0 - 845							5.0
5 - 845							5.6
840							7.0
10 - 840							6.5
15 - 835							6.8
20 - 830							8.5
25 - 825							6.1
30 - 820							8.7
35 - 815							18-20 9.2
40 - 810							8.3
45							8.2
							7.1
							28-30 8.6
							7.9
							4.1
							8.2
							7.7
							9.9
							38-40 10.3
							5.2



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-2

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia				Date Started : 5/3/15 Date Completed : 5/3/15 Contractor : Atlas Geo Method : DPT Operator : Sammy, Danny	Water First Observed At None encountered Logged By : CM Checked By : KR			
Project # 5365								
Depth in Feet	Surf. Elev. 850	USCS	GRAPHIC	Water Levels ▼ Water Level	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.	Water Level	Soil Sample Interval	PID Result (PPM)
0	850			No recovery				
				Asphalt Surface				0.2
		CL		CLAY, red, stiff, dry				0.0
5	845			SANDY SILT, reddish brown, stiff, dry relic foliation (saprolite)				0.0
								0.0
10	840			SANDY SILT to SILTY SAND, reddish brown, stiff, dry				0.0
								0.0
15	835			13' Some black striations				0.0
								0.0
20	830	ML-SM		22' Increasing sand, light brown				0.0
								0.4
25	825							0.2
								0.0
30	820							0.0
								0.0
35	815							
40	810							
45								



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-3

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia				Date Started : 5/3/15 Date Completed : 5/3/15 Contractor : Atlas Geo Method : DPT Operator : Sammy, Danny	Water First Observed At Dry at time of well installation Logged By : CM Checked By : KR				
Project # 5365									
Depth in Feet	Surf. Elev. 850	USCS	GRAPHIC	Water Levels ▼ Water Level	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.	Water Level	Soil Sample Interval	PID Result (PPM)	
0	850			Asphalt Surface				0.8	
		CL	CLAY, red, stiff, dry					4.7	
5	845			SANDY SILT, reddish tan, stiff, dry relic foliation (saprolite)				5.5	
10	840	ML						1.4	
15	835			SANDY SILT, reddish brown, stiff, dry, foliated				8.5	
20	830	ML		16'- 20' Highly foliated				8.9	
25	825			27' Wet				7.3	
30	820							5.9	
35	815							16-18	9.1
40	810							5.5	
45	805							5.6	
								22-24	5.6
									5.8



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-4

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia		Date Started : 5/3/15	Water First Observed At None encountered
Project # 5365		Date Completed : 5/3/15	Logged By : CM
		Contractor : Atlas Geo	Checked By : KR
		Method : DPT	
		Operator : Sammy, Danny	
Depth in Feet	Surf. Elev. 850	USCS GRAPHIC	Water Levels ▼ Water Level
			Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.
			DESCRIPTION
0	850		Bituminous
		CL	CLAY, red, stiff, dry
5	845	ML	SANDY SILT, reddish tan, stiff, dry relic foliation (saprolite)
10	840		
15	835		
20	830	ML	SANDY SILT, reddish brown, stiff, dry, foliated 16'- 20' Highly foliated
25	825		27' Wet
30	820		
35	815		
40	810		
45			
		Water Level	Soil Sample Interval
			PID Result (PPM)
			0.8
			4.7
			5.5
			1.4
		8-10	8.5
			8.9
			7.3
			5.9
		16-18	9.1
			5.5
			5.6
		22-24	5.6
			5.8



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-5

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia				Date Started : 5/3/15 Date Completed : 5/3/15 Contractor : Atlas Geo Method : DPT Operator : Sammy, Danny	Water First Observed At 33.5 Logged By : CM Checked By : KR
Project # 5365					
Depth in Feet	Surf. Elev. 850	USCS	GRAPHIC	Water Levels ▼ Water Level	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.
				DESCRIPTION	
0	850			Asphalt / Concrete	4.5
		CL		CLAY, red, stiff, dry	4.5
5	845			SANDY SILT, reddish brown, stiff, dry, foliated	3.4
10	840			12' - 16' Highly foliated	3.7
15	835		ML		1.5
20	830				3.3
25	825				4.2
30	820				3.8
35	815				3.0
40	810				1.8
45					4.5
					4.4
					6.6
				28-30	7.1
					7.8
					5.9
					6.3
				▼	



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-6

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia		Date Started : 5/4/15	Water First Observed At 30
Project # 5365		Date Completed : 5/4/15	Logged By : CM
		Contractor : Atlas Geo	Checked By : KR
		Method : DPT	
		Operator : Sammy, Danny	
Depth in Feet	Surf. Elev. 850	USCS GRAPHIC	Water Levels ▼ Water Level
			Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.
			DESCRIPTION
0	850		Asphalt / Concrete
		CL	CLAY, red, stiff, dry
5	845	ML	SANDY SILT, reddish brown, stiff, dry, foliated
10	840		
15	835		
20	830		
25	825		
30	820		28' partially weathered rock
35	815		
40	810		
45			
Water Level	Soil Sample Interval	PID Result (PPM)	



LOG OF BORING SB-7

(Page 1 of 1)

Responsive partner. Exceptional outcomes.

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia		Date Started : 5/4/15	Water First Observed At 31.4
Project # 5365		Date Completed : 5/4/15	Logged By : CM
		Contractor : Atlas Geo	Checked By : KR
		Method : DPT	
		Operator : Sammy, Danny	
Depth in Feet	Surf. Elev. 850	USCS GRAPHIC	Water Levels ▼ Water Level
			Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.
			DESCRIPTION
0	850		
5	845	CL	Asphalt Surface CLAY, reddish brown, stiff, dry Strong odor
10	840		SANDY SILT, red, stiff, dry, relic structure, SAPROLITE
15	835		8' - 12' Tan/brown striations
20	830		
25	825	ML	
30	820		30' 2" of Quartz
35	815		
40	810		
45			
Water Level	Soil Sample Interval	PID Result (PPM)	



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-8

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia				Date Started : 5/4/15 Date Completed : 5/4/15 Contractor : Atlas Geo Method : DPT Operator : Sammy, Danny	Water First Observed At None encountered Logged By : CM Checked By : KR		
Depth in Feet	Surf. Elev. 850	USCS GRAPHIC	Water Levels ▼ Water Level	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.	Water Level	Soil Sample Interval	PID Result (PPM)
0 - 850			Asphalt Surface				
CL			CLAY, red, stiff, dry				9.8
5 - 845			SANDY SILT, red, stiff, dry, foliated				6.2
			8' 3" of black asphalt				6.5
10 - 840							14.2
15 - 835							16.5
20 - 830							20.2
25 - 825							25.6
30 - 820							25.7
35 - 815							21.4
40 - 810							19.7
45							15.5

ML

05-14-2015 C:\Users\JawK\0699\Desktop\Quicklogs\SB-8.boi



Responsive partner. Exceptional outcomes.

LOG OF BORING SB-9

(Page 1 of 1)

City of Duluth Subsurface Investigation Mainstreet, Duluth, Georgia				Date Started : 5/5/15 Date Completed : 5/5/15 Contractor : Atlas Geo Method : DPT Operator : Sammy, Danny	Water First Observed At 27.9 Logged By : CM Checked By : KR			
Depth in Feet	Surf. Elev. 850	USCS	GRAPHIC	Water Levels ▼ Water Level	Sampler Type SS Split Spoon ST Shelby Tube PS Piston Sampler DC Diamond Core Bar.	Water Level	Soil Sample Interval	PID Result (PPM)
0 - 850								
CL				Asphalt Surface				
5 - 845				CLAY, red, stiff, dry 3' - 3.5' Large gravel				6.4
ML				SANDY SILT, red, stiff, dry, saprolite 8' - 12' Lighter brown		4-6	7.4	
20 - 830							5.3	
25 - 825							3.8	
30 - 820							5.1	
35 - 815							4.2	
40 - 810							5.2	
45						16-18	4.3	
							3.3	
							4.0	
							5.0	
							7.6	
							5.1	



LOG OF BORING SB-10

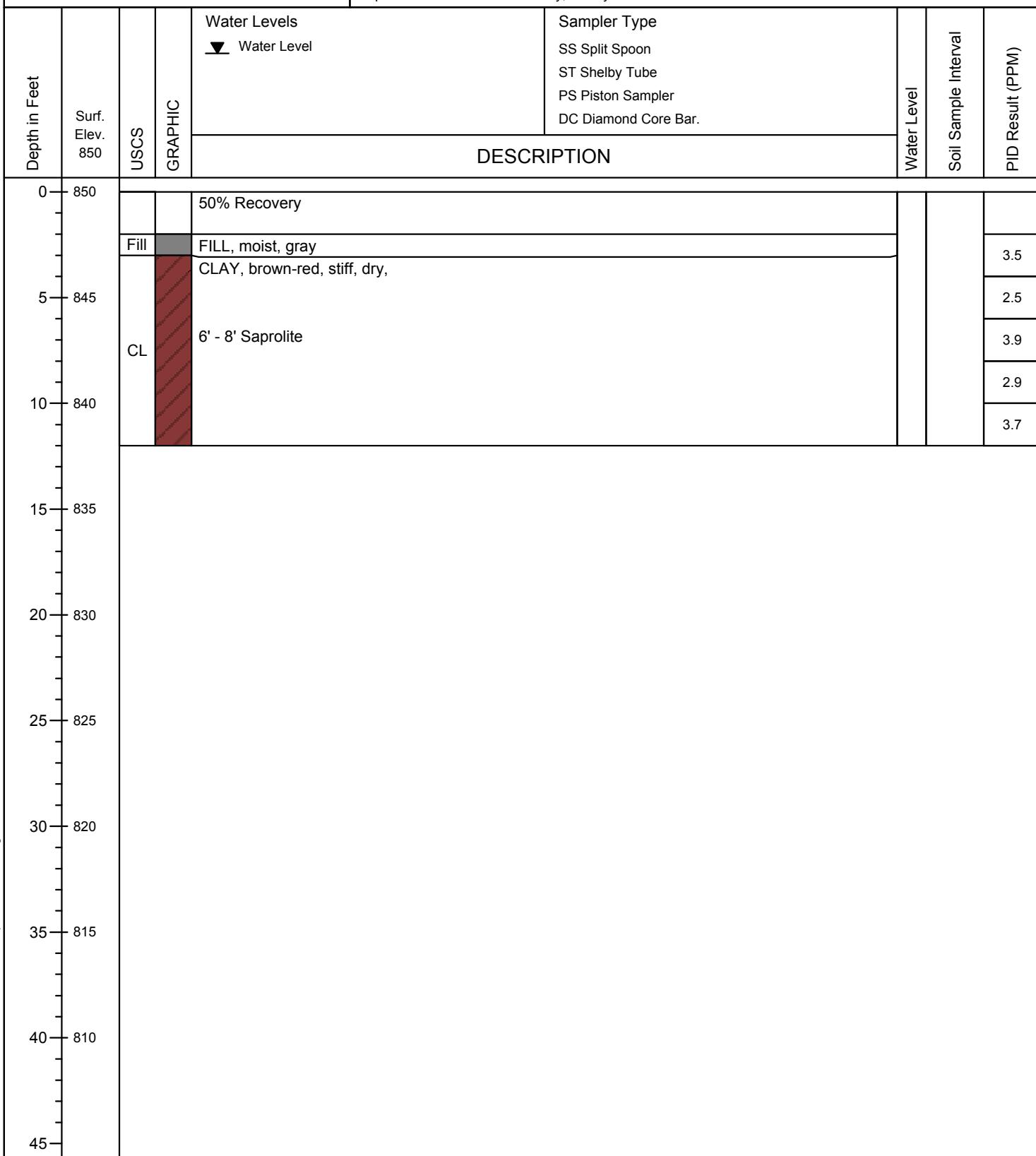
(Page 1 of 1)

Responsive partner. Exceptional outcomes.

City of Duluth
Subsurface Investigation
Mainstreet, Duluth, Georgia

Project # 5365

Date Started	: 5/5/15	Water First Observed At	None	encountered
Date Completed	: 5/5/15	Logged By	: CM	
Contractor	: Atlas Geo	Checked By	: KR	
Method	: DPT			
Operator	: Sammy, Danny			





LOG OF BORING SB-11

(Page 1 of 1)

Responsive partner. Exceptional outcomes.

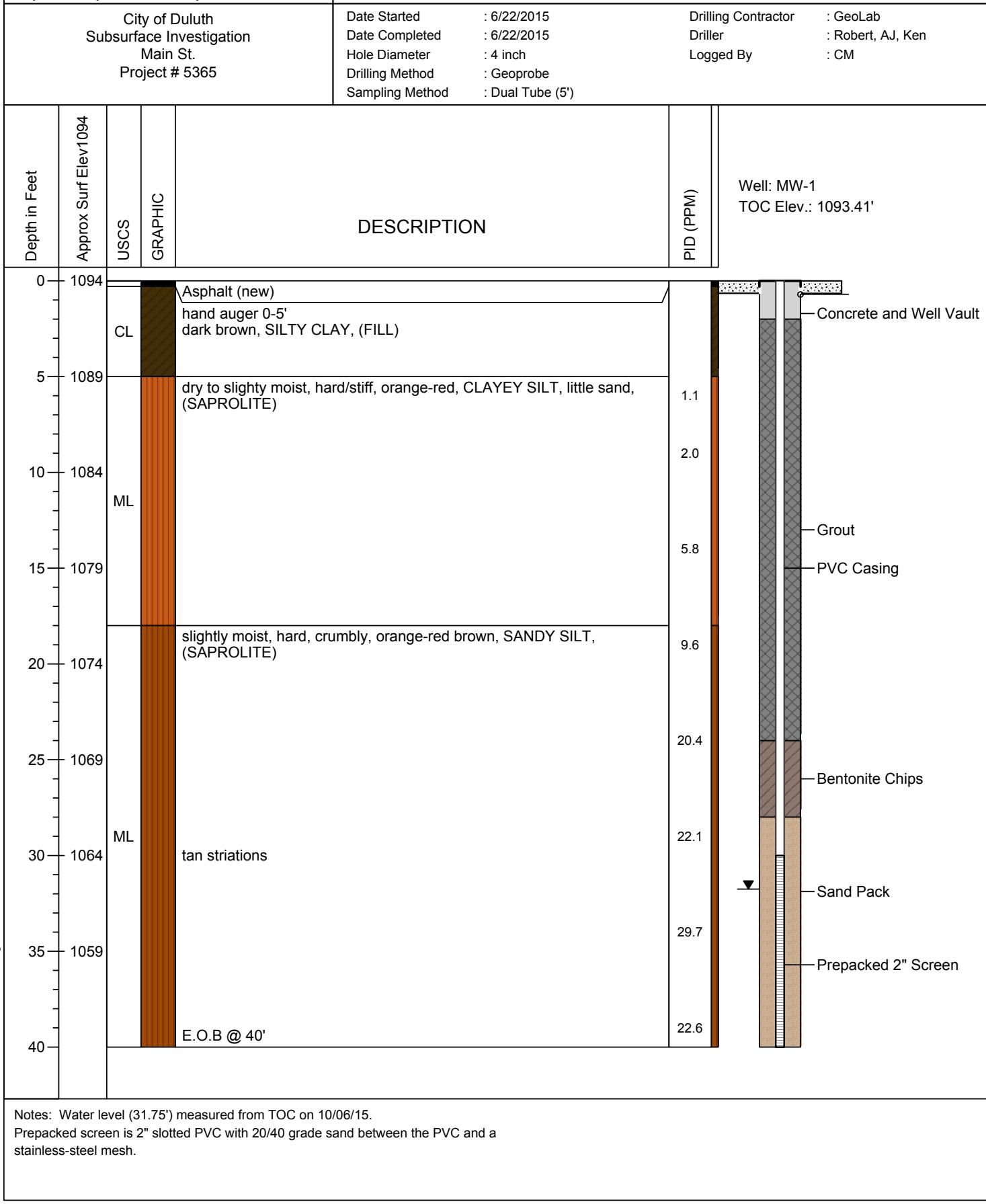
Project Information		Boring Log Details					
		Date Started	: 5/5/15	Water First Observed At None encountered			
		Date Completed	: 5/5/15	Logged By : CM			
		Contractor	: Atlas Geo	Checked By : KR			
		Method	: DPT				
		Operator	: Sammy, Danny				
Depth in Feet	Surf. Elev. 850	USCS GRAPHIC	Water Levels ▼ Water Level	Sampler Type	Water Level	Soil Sample Interval	PID Result (PPM)
DESCRIPTION							
0	850		50% Recovery				
		Fill	FILL, asphalt, organic				5.2
		CL	CLAY, brown-red, stiff, dry,				4.0
5	845		SANDY SILT, reddish brown, stiff, dry, saprolite				2.9
10	840	ML					2.9
15	835						3.5
20	830						
25	825						
30	820						
35	815						
40	810						
45	805						



LOG OF BORING MW-1

(Page 1 of 1)

Responsive partner. Exceptional outcomes.





LOG OF BORING MW-2

(Page 1 of 1)

Responsive partner. Exceptional outcomes.

City of Duluth Subsurface Investigation Main St. Project # 5365		Date Started : 9/28/2015	Drilling Contractor : Atlas Geo			
		Date Completed : 9/28/2015	Driller : Tim & Penny			
Depth in Feet	Approx Surf Elev 1094	USCS	GRAPHIC	DESCRIPTION	PID (PPM)	
0	1094			Asphalt (new) hand auger 0-4' orange-red, SILTY CLAY, (FILL)	.9	Well: MW-2 TOC Elev.: 1086.41'
4	1090			dry to slightly moist, hard/stiff, orange-red, SANDY SILT, little clay, (SAPROLITE) yellow striations	1.3	Concrete and Well Vault
8	1086	ML			2.9	Bentonite Chips
12	1082			slightly moist, hard/stiff, dark orange-red, yellow & black striations, SANDY SILT, (SAPROLITE)	7.5	PVC Casing
16	1078	ML		large quartz pebbles @ 16-17'	12.4	Sand Pack
20	1074			moist, hard/stiff, dark red-brown, yellow & white striations, SANDY SILT, (SAPROLITE)	6.5	Prepacked 2" Screen
24	1070	ML				
28	1066			solid tip auger 28-30' E.O.B. @ 30'		
32						

Notes: Water level (24.38') measured from TOC on 10/06/15.
 Prepacked screen is 2" slotted PVC with 20/40 grade sand between the PVC and a stainless-steel mesh.



LOG OF BORING MW-3

(Page 1 of 1)

Responsive partner. Exceptional outcomes.

Project Information		Date Started : 6/22/2015	Drilling Contractor : GeoLab
Project Address		Date Completed : 6/22/2015	Driller : Robert, AJ, Ken
		Hole Diameter : 4 inch	Logged By : CM
		Drilling Method : Geoprobe	
		Sampling Method : Dual Tube (5')	
Depth in Feet	Approx Surf Elev 1095	DESCRIPTION	
		USCS	GRAPHIC
0	1095	Asphalt (new) hand auger 0-5' orange-red, SILTY CLAY, (FILL)	
5	1090	dry to slightly moist, hard, crumbly, orange-red, SANDY SILT, some clay, (SAPROLITE)	
10	1085	ML	
15	1080	slightly moist, hard, crumbly, orange-red brown, SANDY SILT, (SAPROLITE)	
20	1075		
25	1070	ML	
30	1065		
35	1060	slightly moist, hard, red brown, SANDY SILT, (SAPROLITE) brown & black striations	
40	1055	ML outside of core wet	
45		E.O.B @ 45'	
		Well: MW-3 TOC Elev.: 1094.13'	
		PID (PPM)	
			Concrete and Well Vault
		1.0	
		1.3	
		1.3	Grout
		2.1	PVC Casing
		2.0	Bentonite Chips
		2.5	Sand Pack
		4.4	Prepacked 2" Screen



LOG OF BORING MW-4

(Page 1 of 1)

Responsive partner. Exceptional outcomes.

Depth in Feet	Approx Surf Elev 1094	USCS	GRAPHIC	DESCRIPTION	PID (PPM)	Well: MW-4 TOC Elev.: 1093.49'	
						Date Started : 9/28/2015	Date Completed : 9/28/2015
0	1094	CL		Asphalt (new) dry to slightly moist, medium hard/stiff, orange-red, SILTY CLAY, (FILL)	1.4		Concrete and Well Vault
4	1090			dry to slightly moist, medium hard/stiff, red-brown, SANDY SILT, little clay, (SAPROLITE)	.5		
8	1086	ML		yellow striations	1.8		
12	1082	ML			3.3		Bentonite Chips
16	1078				4.3		PVC Casing
20	1074	ML		slightly moist, hard/stiff, dark red-brown, yellow & white striations, SANDY SILT, little clay, (SAPROLITE)	5.7		
24	1070	ML			5.1		
28	1066			slightly moist, crumbly, hard/stiff, dark red-brown, yellow, orange & black striations, SANDY SILT, (SAPROLITE)	6.0		Sand Pack
32	1062	ML			2.6		
36	1058			moist	2.2		Prepacked 2" Screen
40				E.O.B. @ 40'			

Notes: Water level (33.78') measured from TOC on 10/06/15.
 Prepacked screen is 2" slotted PVC with 20/40 grade sand between the PVC and a stainless-steel mesh.

Appendix F

Laboratory Analytical Reports



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

October 14, 2015

Katie Ross
Wenck Associates
1080 Holcomb Bridge Rd, Bldg 100, Ste
Roswell GA 30076

TEL: (678) 987-5840

FAX:

RE: Duluth

Dear Katie Ross:

Order No: 1510561

Analytical Environmental Services, Inc. received 5 samples on 10/6/2015 6:53:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/15-06/30/16.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in black ink that reads "Chantelle Kanhai".

Chantelle Kanhai
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

AES

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1510561

Date: 10/06/15 Page 1 of 1

COMPANY: Wenck		ADDRESS: 1080 Holcomb Bridge Rd Building 100 suite 190 Roswell GA 30076		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	No # of Containers				
				VOC															
PHONE:	678 981 5840	FAX:	678 981 5877	SAMPLER BY: L McCullen		SIGNATURE: EMM		PRESERVATION (See codes)										REMARKS	
#	SAMPLE ID	SAMPLER		DATE	TIME	Grab	Composite	Matrix (See codes)	H+I										
1	GW - MW1	10/06		12:45 p				GW	X							2			
2	GW - MW4	10/06		2:15 p				GW	X							2			
3	GW - MW3	10/06		4:30 p				GW	X							2			
4	GW - MW2	10/06		6:00 p				GW	X							2			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION										RECEIPT	
1:	EMM		10/06/15 6:53 pm		1:		PROJECT NAME: Duluth										Total # of Containers 8		
2:					2:		PROJECT #: 53105										Turnaround Time Request		
3:					3:		SITE ADDRESS: Main St										Standard 5 Business Days		
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD										SEND REPORT TO: Katie Ross		2 Business Day Rush					
		OUT / /	VIA:		INVOICE TO: (IF DIFFERENT FROM ABOVE)										Next Business Day Rush				
		IN / /	VIA:		kross@wenck.com										Same Day Rush (auth req.)				
		CLIENT FedEx UPS MAIL COURIER	GREYHOUND OTHER		QUOTE #: PO#:										Other _____				
SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.														STATE PROGRAM (if any): _____					
														E-mail? Y/N		Fax? Y/N			
														DATA PACKAGE: I II III IV					

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Page 2 of 18

White Copy - Original; Yellow Copy - Client

Client: Wenck Associates
Project: Duluth
Lab ID: 1510561

Case Narrative

Sample Receiving Nonconformance:

A Trip Blank was provided but not listed on the Chain of Custody. Trip blank analyzed at no cost to the client.

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client: Wenck Associates		Client Sample ID: GW-MW 1						
Project Name: Duluth		Collection Date: 10/6/2015 12:45:00 PM						
Lab ID: 1510561-001		Matrix: Groundwater						
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								(SW5030B)
1,1,1-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,1-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,1-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,2-Dibromoethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,2-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,2-Dichloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
2-Butanone	BRL	50		ug/L	214185	1	10/13/2015 02:25	CH
2-Hexanone	BRL	10		ug/L	214185	1	10/13/2015 02:25	CH
4-Methyl-2-pentanone	BRL	10		ug/L	214185	1	10/13/2015 02:25	CH
Acetone	BRL	50		ug/L	214185	1	10/13/2015 02:25	CH
Benzene		10	5.0	ug/L	214185	1	10/13/2015 02:25	CH
Bromodichloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Bromoform	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Bromomethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Carbon disulfide	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Carbon tetrachloride	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Chlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Chloroethane	BRL	10		ug/L	214185	1	10/13/2015 02:25	CH
Chloroform		13	5.0	ug/L	214185	1	10/13/2015 02:25	CH
Chloromethane	BRL	10		ug/L	214185	1	10/13/2015 02:25	CH
cis-1,2-Dichloroethene		540	250	ug/L	214185	50	10/14/2015 12:12	MD
cis-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Cyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Dibromochloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Dichlorodifluoromethane	BRL	10		ug/L	214185	1	10/13/2015 02:25	CH
Ethylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Freon-113	BRL	10		ug/L	214185	1	10/13/2015 02:25	CH
Isopropylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
m,p-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Methyl acetate	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Methylcyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Methylene chloride	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
o-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 1
Project Name:	Duluth	Collection Date:	10/6/2015 12:45:00 PM
Lab ID:	1510561-001	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5030B)			
Styrene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Tetrachloroethene	15000	2500		ug/L	214185	500	10/14/2015 00:59	CH
Toluene	16	5.0		ug/L	214185	1	10/13/2015 02:25	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Trichloroethene	120	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Trichlorofluoromethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:25	CH
Vinyl chloride	2.4	2.0		ug/L	214185	1	10/13/2015 02:25	CH
Surr: 4-Bromofluorobenzene	71.6	70.6-123		%REC	214185	50	10/14/2015 12:12	MD
Surr: 4-Bromofluorobenzene	73.7	70.6-123		%REC	214185	500	10/14/2015 00:59	CH
Surr: 4-Bromofluorobenzene	66.7	70.6-123	S	%REC	214185	1	10/13/2015 02:25	CH
Surr: Dibromofluoromethane	108	78.7-124		%REC	214185	500	10/14/2015 00:59	CH
Surr: Dibromofluoromethane	109	78.7-124		%REC	214185	50	10/14/2015 12:12	MD
Surr: Dibromofluoromethane	108	78.7-124		%REC	214185	1	10/13/2015 02:25	CH
Surr: Toluene-d8	92.5	81.3-120		%REC	214185	50	10/14/2015 12:12	MD
Surr: Toluene-d8	96.1	81.3-120		%REC	214185	500	10/14/2015 00:59	CH
Surr: Toluene-d8	90.2	81.3-120		%REC	214185	1	10/13/2015 02:25	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 4
Project Name:	Duluth	Collection Date:	10/6/2015 2:15:00 PM
Lab ID:	1510561-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,1-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,1-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,2-Dibromoethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,2-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,2-Dichloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
2-Butanone	BRL	50		ug/L	214185	1	10/13/2015 01:38	CH
2-Hexanone	BRL	10		ug/L	214185	1	10/13/2015 01:38	CH
4-Methyl-2-pentanone	BRL	10		ug/L	214185	1	10/13/2015 01:38	CH
Acetone	BRL	50		ug/L	214185	1	10/13/2015 01:38	CH
Benzene		12	5.0	ug/L	214185	1	10/13/2015 01:38	CH
Bromodichloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Bromoform	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Bromomethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Carbon disulfide	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Carbon tetrachloride	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Chlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Chloroethane	BRL	10		ug/L	214185	1	10/13/2015 01:38	CH
Chloroform	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Chloromethane	BRL	10		ug/L	214185	1	10/13/2015 01:38	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Cyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Dibromochloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Dichlorodifluoromethane	BRL	10		ug/L	214185	1	10/13/2015 01:38	CH
Ethylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Freon-113	BRL	10		ug/L	214185	1	10/13/2015 01:38	CH
Isopropylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
m,p-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Methyl acetate	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Methylcyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Methylene chloride	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
o-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 4
Project Name:	Duluth	Collection Date:	10/6/2015 2:15:00 PM
Lab ID:	1510561-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Tetrachloroethene	600	50		ug/L	214185	10	10/14/2015 03:22	CH
Toluene	23	5.0		ug/L	214185	1	10/13/2015 01:38	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Trichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Trichlorofluoromethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:38	CH
Vinyl chloride	BRL	2.0		ug/L	214185	1	10/13/2015 01:38	CH
Surr: 4-Bromofluorobenzene	72.5	70.6-123		%REC	214185	1	10/13/2015 01:38	CH
Surr: 4-Bromofluorobenzene	73	70.6-123		%REC	214185	10	10/14/2015 03:22	CH
Surr: Dibromofluoromethane	106	78.7-124		%REC	214185	10	10/14/2015 03:22	CH
Surr: Dibromofluoromethane	109	78.7-124		%REC	214185	1	10/13/2015 01:38	CH
Surr: Toluene-d8	94.7	81.3-120		%REC	214185	1	10/13/2015 01:38	CH
Surr: Toluene-d8	98.1	81.3-120		%REC	214185	10	10/14/2015 03:22	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 3
Project Name:	Duluth	Collection Date:	10/6/2015 4:30:00 PM
Lab ID:	1510561-003	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,1-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,1-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,2-Dibromoethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,2-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,2-Dichloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
2-Butanone	BRL	50		ug/L	214185	1	10/13/2015 01:14	CH
2-Hexanone	BRL	10		ug/L	214185	1	10/13/2015 01:14	CH
4-Methyl-2-pentanone	BRL	10		ug/L	214185	1	10/13/2015 01:14	CH
Acetone	BRL	50		ug/L	214185	1	10/13/2015 01:14	CH
Benzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Bromodichloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Bromoform	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Bromomethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Carbon disulfide	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Carbon tetrachloride	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Chlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Chloroethane	BRL	10		ug/L	214185	1	10/13/2015 01:14	CH
Chloroform	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Chloromethane	BRL	10		ug/L	214185	1	10/13/2015 01:14	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Cyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Dibromochloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Dichlorodifluoromethane	BRL	10		ug/L	214185	1	10/13/2015 01:14	CH
Ethylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Freon-113	BRL	10		ug/L	214185	1	10/13/2015 01:14	CH
Isopropylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
m,p-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Methyl acetate	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Methylcyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Methylene chloride	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
o-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 3
Project Name:	Duluth	Collection Date:	10/6/2015 4:30:00 PM
Lab ID:	1510561-003	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Tetrachloroethene	1500	250		ug/L	214185	50	10/14/2015 02:10	CH
Toluene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Trichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Trichlorofluoromethane	BRL	5.0		ug/L	214185	1	10/13/2015 01:14	CH
Vinyl chloride	BRL	2.0		ug/L	214185	1	10/13/2015 01:14	CH
Surr: 4-Bromofluorobenzene	78.4	70.6-123		%REC	214185	50	10/14/2015 02:10	CH
Surr: 4-Bromofluorobenzene	70.7	70.6-123		%REC	214185	1	10/13/2015 01:14	CH
Surr: Dibromofluoromethane	105	78.7-124		%REC	214185	50	10/14/2015 02:10	CH
Surr: Dibromofluoromethane	103	78.7-124		%REC	214185	1	10/13/2015 01:14	CH
Surr: Toluene-d8	96.5	81.3-120		%REC	214185	50	10/14/2015 02:10	CH
Surr: Toluene-d8	102	81.3-120		%REC	214185	1	10/13/2015 01:14	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 2
Project Name:	Duluth	Collection Date:	10/6/2015 6:00:00 PM
Lab ID:	1510561-004	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,1-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,1-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,2-Dibromoethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,2-Dichloroethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,2-Dichloropropane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
2-Butanone	BRL	50		ug/L	214185	1	10/13/2015 02:01	CH
2-Hexanone	BRL	10		ug/L	214185	1	10/13/2015 02:01	CH
4-Methyl-2-pentanone	BRL	10		ug/L	214185	1	10/13/2015 02:01	CH
Acetone	BRL	50		ug/L	214185	1	10/13/2015 02:01	CH
Benzene		7.8	5.0	ug/L	214185	1	10/13/2015 02:01	CH
Bromodichloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Bromoform	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Bromomethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Carbon disulfide	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Carbon tetrachloride	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Chlorobenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Chloroethane	BRL	10		ug/L	214185	1	10/13/2015 02:01	CH
Chloroform	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Chloromethane	BRL	10		ug/L	214185	1	10/13/2015 02:01	CH
cis-1,2-Dichloroethene		8.0	5.0	ug/L	214185	1	10/13/2015 02:01	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Cyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Dibromochloromethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Dichlorodifluoromethane	BRL	10		ug/L	214185	1	10/13/2015 02:01	CH
Ethylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Freon-113	BRL	10		ug/L	214185	1	10/13/2015 02:01	CH
Isopropylbenzene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
m,p-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Methyl acetate	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Methylcyclohexane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Methylene chloride	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
o-Xylene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	GW-MW 2
Project Name:	Duluth	Collection Date:	10/6/2015 6:00:00 PM
Lab ID:	1510561-004	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5030B)			
Styrene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Tetrachloroethene	1100	50		ug/L	214185	10	10/14/2015 02:58	CH
Toluene	15	5.0		ug/L	214185	1	10/13/2015 02:01	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Trichloroethene	7.6	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Trichlorofluoromethane	BRL	5.0		ug/L	214185	1	10/13/2015 02:01	CH
Vinyl chloride	BRL	2.0		ug/L	214185	1	10/13/2015 02:01	CH
Surr: 4-Bromofluorobenzene	67.8	70.6-123	S	%REC	214185	1	10/13/2015 02:01	CH
Surr: 4-Bromofluorobenzene	74.1	70.6-123		%REC	214185	10	10/14/2015 02:58	CH
Surr: Dibromofluoromethane	111	78.7-124		%REC	214185	1	10/13/2015 02:01	CH
Surr: Dibromofluoromethane	107	78.7-124		%REC	214185	10	10/14/2015 02:58	CH
Surr: Toluene-d8	101	81.3-120		%REC	214185	1	10/13/2015 02:01	CH
Surr: Toluene-d8	102	81.3-120		%REC	214185	10	10/14/2015 02:58	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	TRIP BLANK
Project Name:	Duluth	Collection Date:	10/6/2015
Lab ID:	1510561-005	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,1-Dichloroethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,1-Dichloroethene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,2-Dibromoethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,2-Dichloroethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,2-Dichloropropane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
2-Butanone	BRL	50		ug/L	214185	1	10/12/2015 19:39	CH
2-Hexanone	BRL	10		ug/L	214185	1	10/12/2015 19:39	CH
4-Methyl-2-pentanone	BRL	10		ug/L	214185	1	10/12/2015 19:39	CH
Acetone	BRL	50		ug/L	214185	1	10/12/2015 19:39	CH
Benzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Bromodichloromethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Bromoform	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Bromomethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Carbon disulfide	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Carbon tetrachloride	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Chlorobenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Chloroethane	BRL	10		ug/L	214185	1	10/12/2015 19:39	CH
Chloroform	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Chloromethane	BRL	10		ug/L	214185	1	10/12/2015 19:39	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Cyclohexane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Dibromochloromethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Dichlorodifluoromethane	BRL	10		ug/L	214185	1	10/12/2015 19:39	CH
Ethylbenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Freon-113	BRL	10		ug/L	214185	1	10/12/2015 19:39	CH
Isopropylbenzene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
m,p-Xylene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Methyl acetate	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Methylcyclohexane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Methylene chloride	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
o-Xylene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Oct-15

Client:	Wenck Associates	Client Sample ID:	TRIP BLANK
Project Name:	Duluth	Collection Date:	10/6/2015
Lab ID:	1510561-005	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Tetrachloroethene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Toluene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Trichloroethene	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Trichlorofluoromethane	BRL	5.0		ug/L	214185	1	10/12/2015 19:39	CH
Vinyl chloride	BRL	2.0		ug/L	214185	1	10/12/2015 19:39	CH
Surr: 4-Bromofluorobenzene	75.2	70.6-123	%REC		214185	1	10/12/2015 19:39	CH
Surr: Dibromofluoromethane	113	78.7-124	%REC		214185	1	10/12/2015 19:39	CH
Surr: Toluene-d8	100	81.3-120	%REC		214185	1	10/12/2015 19:39	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Wende

Work Order Number 1510561

Checklist completed by Feeley Signature Date 10/01/15

Carrier name: FedEx UPS Courier Client US Mail Other _____

Shipping container/coolers in good condition? Yes No Not Present

Custody seals intact on shipping container/coolers? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No

Cooler #1 4-2 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler #5 _____ Cooler #6 _____

Chain of custody present? Yes No

Chain of custody signed when relinquished and received? Yes No

Chain of custody agrees with sample labels? Yes No

Samples in proper container/bottle? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test? Yes No

All samples received within holding time? Yes No

Was TAT marked on the COC? Yes No

Proceed with Standard TAT as per project history? Yes No Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted Yes No

Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by _____

Sample Condition: Good Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: Wenck Associates
Project Name: Duluth
Workorder: 1510561

ANALYTICAL QC SUMMARY REPORT
BatchID: 214185

Sample ID: MB-214185	Client ID:			Units: ug/L	Prep Date: 10/09/2015	Run No: 301757					
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B			BatchID: 214185	Analysis Date: 10/09/2015	Seq No: 6454693					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: Duluth
Workorder: 1510561

ANALYTICAL QC SUMMARY REPORT**BatchID: 214185**

Sample ID: MB-214185	Client ID:				Units: ug/L	Prep Date: 10/09/2015	Run No: 301757				
SampleType: MLBK	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 214185	Analysis Date: 10/09/2015	Seq No: 6454693				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	38.57	0	50.00		77.1	70.6	123				
Surr: Dibromofluoromethane	52.42	0	50.00		105	78.7	124				
Surr: Toluene-d8	47.26	0	50.00		94.5	81.3	120				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: Duluth
Workorder: 1510561

ANALYTICAL QC SUMMARY REPORT**BatchID: 214185**

Sample ID: LCS-214185	Client ID:				Units: ug/L	Prep Date: 10/09/2015	Run No: 301757				
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 214185	Analysis Date: 10/09/2015	Seq No: 6454691				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	57.72	5.0	50.00		115	64.2	137				
Benzene	57.72	5.0	50.00		115	72.8	128				
Chlorobenzene	54.93	5.0	50.00	0.3700	109	72.3	126				
Toluene	56.19	5.0	50.00		112	74.9	127				
Trichloroethene	53.04	5.0	50.00		106	70.5	134				
Surr: 4-Bromofluorobenzene	35.89	0	50.00		71.8	70.6	123				
Surr: Dibromofluoromethane	47.97	0	50.00		95.9	78.7	124				
Surr: Toluene-d8	47.14	0	50.00		94.3	81.3	120				

Sample ID: 1510802-013AMS	Client ID:				Units: ug/L	Prep Date: 10/09/2015	Run No: 301757				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 214185	Analysis Date: 10/09/2015	Seq No: 6455256				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	58.11	5.0	50.00		116	60.5	156				
Benzene	57.12	5.0	50.00		114	70	135				
Chlorobenzene	53.25	5.0	50.00		106	70.5	132				
Toluene	55.71	5.0	50.00		111	70.5	137				
Trichloroethene	51.65	5.0	50.00		103	71.8	139				
Surr: 4-Bromofluorobenzene	37.06	0	50.00		74.1	70.6	123				
Surr: Dibromofluoromethane	49.04	0	50.00		98.1	78.7	124				
Surr: Toluene-d8	46.92	0	50.00		93.8	81.3	120				

Sample ID: 1510802-013AMSD	Client ID:				Units: ug/L	Prep Date: 10/09/2015	Run No: 301757				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 214185	Analysis Date: 10/09/2015	Seq No: 6455257				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	56.59	5.0	50.00		113	60.5	156	58.11	2.65	20	
Benzene	58.01	5.0	50.00		116	70	135	57.12	1.55	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Wenck Associates
Project Name: Duluth
Workorder: 1510561

ANALYTICAL QC SUMMARY REPORT**BatchID: 214185**

Sample ID: 1510802-013AMSD	Client ID:				Units: ug/L	Prep Date: 10/09/2015	Run No: 301757				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 214185	Analysis Date: 10/09/2015	Seq No: 6455257				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	52.40	5.0	50.00		105	70.5	132	53.25	1.61	20	
Toluene	58.94	5.0	50.00		118	70.5	137	55.71	5.63	20	
Trichloroethene	51.98	5.0	50.00		104	71.8	139	51.65	0.637	20	
Surr: 4-Bromofluorobenzene	37.95	0	50.00		75.9	70.6	123	37.06	0	0	
Surr: Dibromofluoromethane	52.49	0	50.00		105	78.7	124	49.04	0	0	
Surr: Toluene-d8	50.21	0	50.00		100	81.3	120	46.92	0	0	

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 11, 2015

Katie Ross
Wenck Associates
1080 Holcomb Bridge Rd, Bldg 100, Ste
Roswell GA 30076

TEL: (678) 987-5840

FAX:

RE: B5365-001

Dear Katie Ross:

Order No: 1505348

Analytical Environmental Services, Inc. received 28 samples on 5/5/2015 12:15:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Chantelle Kanhai
Project Manager



COMPANY: Wenck Associates		ADDRESS: 1080 Holcomb Bridge Suite 100, Bldg 100 Roswell, GA 30076		ANALYSIS REQUESTED								Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	No # of Containers			
PHONE: 678-987-5848		FAX:		VOC												
SAMPLED BY: Christine Mayo		SIGNATURE: <i>Christine Mayo</i>														
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)								REMARKS	
		DATE	TIME				soil/5 ^{methanol} HCl H ₂ O									
1	S-SB1-18-20	5-3-15	10:30			SO	✓									4
2	S-SB1-28-30		12:45				✓									4
3	S-SB4-4-6		12:50				✓									4
4	S-SB4-28-30		13:00				✓									4
5	S-SB2-18-20		15:10				✓									4
6	S-SB2-30-32		15:15				✓									4
7	S-SB5-12-14		15:35				✓									4
8	S-SB5-28-30	↓	15:40	↓		GW	✓								cm	4
9	GW-SB1-01	5-3-15	10:35												*** Same Date Analysis	2
10	GW-050315-02		-													2
11	GW-SB4-03		15:15				✓									2
12	GW-SB5-04	↓	15:25	↓			✓									2
13	S-SB3-8-10	5-4-15	15:16			SO	✓									4
14	S-SB3-16-18	↓	15:25	↓			✓									4
RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION								RECEIPT			
1: <i>Christine Mayo 5/5/15</i>			2: <i>Latoya Reeves 5/5/15 12:15 p</i>		PROJECT NAME: B5365-001								Total # of Containers 48			
2:					PROJECT #:								Turnaround Time Request			
3:					SITE ADDRESS: city of Duluth								Standard 5 Business Days			
					SEND REPORT TO: Katie ROSS								2 Business Day Rush			
													Next Business Day Rush			
													Same Day Rush (auth req.)			
													Other _____			
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD				INVOICE TO: (IF DIFFERENT FROM ABOVE)								STATE PROGRAM (if any): _____		
		OUT / /	VIA:													E-mail? Y / N; Fax? Y / N
		IN / /	VIA:													
		CLIENT FedEx UPS MAIL COURIER													DATA PACKAGE: I II III IV	
		GREYHOUND OTHER _____														
		QUOTE #: _____														
		PO#: _____														

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

AES

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1505348

Date: 5-8-15 Page 2 of 3

COMPANY: Wenck Associates		ADDRESS: Roswell, GA			ANALYSIS REQUESTED								Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	No # of Containers					
PHONE: 678-987-5848	FAX:				VO	C													
SAMPLED BY: Christine Mayo	SIGNATURE: <i>Christine Mayo</i>				sb	methanol	PRESERVATION (See codes)												
#	SAMPLE ID	SAMPLING		Grab	Composite	Matrix (See codes)									REMARKS				
		DATE	TIME																
1	SP-SB3-22-24	5-4-15	15:30		SO	✓										4			
2	S-SB8-14-16		10:35			✓										4			
3	S-SB8-28-30		10:45			✓										4			
4	S-SB7-2-4		15:35			✓										4			
5	S-SB7-4-6		15:40			✓										4			
6	S-SB7-14-16		15:45			✓										4			
7	S-SB6-4-6		16:00			✓										4			
8	S-SB6-18-20	↓	16:15			✓										4			
9	GW-SB8-05	5-4-15	10:50		GW	✓										2			
10	GW-SB7-06	↓	13:50		↓	✓										2			
11	S-SB9-4-6	5-5-15	9:50		SO	✓										4			
12	S-SB9-16-18	↓	9:45		↓	✓										4			
13	GW-SB9-07	5-5-15	9:42		GW	✓										2			
14	TRIP BLANK	—	—		W	✓										2			
RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION								RECEIPT						
1: <i>Christine Mayo</i>		5/15 12:45	2: <i>Kathy Reeves</i>	5/15/15 12:15p	PROJECT NAME: B5365-001								Total # of Containers	46					
2:		2:	PROJECT #:								Turnaround Time Request								
3:		3:	SITE ADDRESS: City of Duluth								Standard 5 Business Days								
			SEND REPORT TO: Katie Ross								2 Business Day Rush								
											Next Business Day Rush								
											Same Day Rush (auth req.)								
											Other								
											STATE PROGRAM (if any): _____								
											E-mail? Y/N; Fax? Y/N								
											DATA PACKAGE: I II III IV								
SPECIAL INSTRUCTIONS/COMMENTS:																			
		SHIPMENT METHOD						INVOICE TO: (IF DIFFERENT FROM ABOVE)											
		OUT / /	VIA:																
		IN / /	VIA:																
		CLIENT FedEx UPS MAIL COURIER																	
		GREATHOUND OTHER _____																	
										QUOTE #: _____	PO#:								

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Page 3 of 74

White Copy - Original; Yellow Copy - Client



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

AES

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1505348

Date: _____ Page 3 of 3

COMPANY: Wenck Associates		ADDRESS: Roswell, GA		ANALYSIS REQUESTED								Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.	No. of Containers			
PHONE:		FAX:		TCLP VOC												
SAMPLED BY:		SIGNATURE:		PRESERVATION (See codes)								REMARKS				
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)										
		DATE	TIME													
1	S-Waste drum	5-5-15	10:58	✓	SO	J									*Please hold until further notice	
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION								RECEIPT			
1: Chemways		5/5/15 12:15	1: Latoya Reeves	5/5/15 12:15	PROJECT NAME: BS365-001								Total # of Containers	2		
2:		2:			PROJECT #: _____								Turnaround Time Request			
3:		3:			SITE ADDRESS: City of Duluth								Standard 5 Business Days			
					SEND REPORT TO: _____								2 Business Day Rush			
													Next Business Day Rush			
													Same Day Rush (auth req.)			
													Other _____			
													STATE PROGRAM (if any): _____			
													E-mail? Y/N; Fax? Y/N			
													DATA PACKAGE: I II III IV			
SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.																

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

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PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Client: Wenck Associates
Project: B5365-001
Lab ID: 1505348

Case Narrative

Sample Receiving Nonconformance:

The collection time listed on the vials of sample "GW-SB1-01" was listed as 10:30AM. The sample was logged in according to the information provided on the Chain of Custody.

Volatile Organic Compounds Analysis by Method 8260B:

Sample 1505348-009 as received did not meet method specified preservation requirements of pH <2.

Analytical Environmental Services, Inc
Date: 11-May-15

Client: Wenck Associates		Client Sample ID: S-SB1-18-20						
Project Name: B5365-001		Collection Date: 5/3/2015 10:30:00 AM						
Lab ID: 1505348-001		Matrix: Soil						
<hr/>								
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B			(SW5035)					
1,1,1-Trichloroethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,1,2,2-Tetrachloroethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,1,2-Trichloroethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,1-Dichloroethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,1-Dichloroethene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,2,4-Trichlorobenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,2-Dibromo-3-chloropropane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,2-Dibromoethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,2-Dichlorobenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,2-Dichloroethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,2-Dichloropropane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,3-Dichlorobenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
1,4-Dichlorobenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
2-Butanone	BRL	47		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
2-Hexanone	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
4-Methyl-2-pentanone	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Acetone	BRL	93		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Benzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Bromodichloromethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Bromoform	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Bromomethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Carbon disulfide	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Carbon tetrachloride	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Chlorobenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Chloroethane	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Chloroform	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Chloromethane	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
cis-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
cis-1,3-Dichloropropene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Cyclohexane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Dibromochloromethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Dichlorodifluoromethane	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Ethylbenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Freon-113	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Isopropylbenzene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
m,p-Xylene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Methyl acetate	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Methyl tert-butyl ether	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Methylcyclohexane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Methylene chloride	BRL	19		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
o-Xylene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB1-18-20
Project Name:	B5365-001	Collection Date:	5/3/2015 10:30:00 AM
Lab ID:	1505348-001	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Tetrachloroethene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Toluene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
trans-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
trans-1,3-Dichloropropene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Trichloroethene	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Trichlorofluoromethane	BRL	4.7		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Vinyl chloride	BRL	9.3		ug/Kg-dry	207044	1	05/06/2015 14:35	MD
Surr: 4-Bromofluorobenzene	97.6	70-128		%REC	207044	1	05/06/2015 14:35	MD
Surr: Dibromofluoromethane	108	78.2-128		%REC	207044	1	05/06/2015 14:35	MD
Surr: Toluene-d8	94.6	76.5-116		%REC	207044	1	05/06/2015 14:35	MD
PERCENT MOISTURE D2216								
Percent Moisture	27.4	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB1-28-30
Project Name:	B5365-001	Collection Date:	5/3/2015 12:45:00 PM
Lab ID:	1505348-002	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,1,2,2-Tetrachloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,1,2-Trichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,1-Dichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,1-Dichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,2,4-Trichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,2-Dibromo-3-chloropropane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,2-Dibromoethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,2-Dichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,2-Dichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,2-Dichloropropane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,3-Dichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
1,4-Dichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
2-Butanone	BRL	52		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
2-Hexanone	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
4-Methyl-2-pentanone	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Acetone	BRL	100		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Benzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Bromodichloromethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Bromoform	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Bromomethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Carbon disulfide	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Carbon tetrachloride	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Chlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Chloroethane	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Chloroform	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Chloromethane	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
cis-1,2-Dichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
cis-1,3-Dichloropropene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Cyclohexane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Dibromochloromethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Dichlorodifluoromethane	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Ethylbenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Freon-113	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Isopropylbenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
m,p-Xylene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Methyl acetate	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Methyl tert-butyl ether	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Methylcyclohexane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Methylene chloride	BRL	21		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
o-Xylene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc**Date:** 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB1-28-30
Project Name: B5365-001	Collection Date: 5/3/2015 12:45:00 PM
Lab ID: 1505348-002	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Tetrachloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Toluene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
trans-1,2-Dichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
trans-1,3-Dichloropropene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Trichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Trichlorofluoromethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Vinyl chloride	BRL	10		ug/Kg-dry	207044	1	05/06/2015 14:59	MD
Surr: 4-Bromofluorobenzene	86.1	70-128		%REC	207044	1	05/06/2015 14:59	MD
Surr: Dibromofluoromethane	103	78.2-128		%REC	207044	1	05/06/2015 14:59	MD
Surr: Toluene-d8	96.7	76.5-116		%REC	207044	1	05/06/2015 14:59	MD
PERCENT MOISTURE D2216								
Percent Moisture	29.6	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB4-4-6
Project Name:	B5365-001	Collection Date:	5/3/2015 12:50:00 PM
Lab ID:	1505348-003	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
2-Butanone	BRL	40		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
2-Hexanone	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
4-Methyl-2-pentanone	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Acetone	BRL	80		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Benzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Bromodichloromethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Bromoform	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Bromomethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Carbon disulfide	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Chlorobenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Chloroethane	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Chloroform	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Chloromethane	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Cyclohexane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Dibromochloromethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Dichlorodifluoromethane	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Ethylbenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Freon-113	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Isopropylbenzene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
m,p-Xylene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Methyl acetate	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Methylcyclohexane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Methylene chloride	BRL	16		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
o-Xylene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB4-4-6
Project Name:	B5365-001	Collection Date:	5/3/2015 12:50:00 PM
Lab ID:	1505348-003	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Tetrachloroethene	39	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Toluene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Trichloroethene	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Vinyl chloride	BRL	8.0		ug/Kg-dry	207044	1	05/06/2015 15:23	MD
Surr: 4-Bromofluorobenzene	79.7	70-128		%REC	207044	1	05/06/2015 15:23	MD
Surr: Dibromofluoromethane	100	78.2-128		%REC	207044	1	05/06/2015 15:23	MD
Surr: Toluene-d8	96.6	76.5-116		%REC	207044	1	05/06/2015 15:23	MD
PERCENT MOISTURE D2216								
Percent Moisture	17.7	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB4-28-30
Project Name:	B5365-001	Collection Date:	5/3/2015 1:00:00 PM
Lab ID:	1505348-004	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,1,2,2-Tetrachloroethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,1,2-Trichloroethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,1-Dichloroethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,1-Dichloroethene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,2,4-Trichlorobenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,2-Dibromo-3-chloropropane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,2-Dibromoethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,2-Dichlorobenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,2-Dichloroethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,2-Dichloropropane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,3-Dichlorobenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
1,4-Dichlorobenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
2-Butanone	BRL	38		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
2-Hexanone	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
4-Methyl-2-pentanone	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Acetone	BRL	77		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Benzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Bromodichloromethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Bromoform	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Bromomethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Carbon disulfide	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Carbon tetrachloride	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Chlorobenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Chloroethane	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Chloroform	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Chloromethane	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
cis-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
cis-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Cyclohexane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Dibromochloromethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Dichlorodifluoromethane	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Ethylbenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Freon-113	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Isopropylbenzene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
m,p-Xylene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Methyl acetate	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Methyl tert-butyl ether	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Methylcyclohexane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Methylene chloride	BRL	15		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
o-Xylene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB4-28-30
Project Name:	B5365-001	Collection Date:	5/3/2015 1:00:00 PM
Lab ID:	1505348-004	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Tetrachloroethene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Toluene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
trans-1,2-Dichloroethene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
trans-1,3-Dichloropropene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Trichloroethene	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Trichlorofluoromethane	BRL	3.8		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Vinyl chloride	BRL	7.7		ug/Kg-dry	207044	1	05/06/2015 15:47	MD
Surr: 4-Bromofluorobenzene	97.9	70-128		%REC	207044	1	05/06/2015 15:47	MD
Surr: Dibromofluoromethane	98.6	78.2-128		%REC	207044	1	05/06/2015 15:47	MD
Surr: Toluene-d8	105	76.5-116		%REC	207044	1	05/06/2015 15:47	MD
PERCENT MOISTURE D2216								
Percent Moisture	17.7	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB2-18-20
Project Name: B5365-001	Collection Date: 5/3/2015 3:10:00 PM
Lab ID: 1505348-005	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,1,2,2-Tetrachloroethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,1,2-Trichloroethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,1-Dichloroethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,1-Dichloroethene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,2,4-Trichlorobenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,2-Dibromo-3-chloropropane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,2-Dibromoethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,2-Dichlorobenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,2-Dichloroethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,2-Dichloropropane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,3-Dichlorobenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
1,4-Dichlorobenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
2-Butanone	BRL	43		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
2-Hexanone	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
4-Methyl-2-pentanone	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Acetone	BRL	86		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Benzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Bromodichloromethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Bromoform	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Bromomethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Carbon disulfide	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Carbon tetrachloride	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Chlorobenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Chloroethane	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Chloroform	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Chloromethane	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
cis-1,2-Dichloroethene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
cis-1,3-Dichloropropene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Cyclohexane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Dibromochloromethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Dichlorodifluoromethane	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Ethylbenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Freon-113	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Isopropylbenzene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
m,p-Xylene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Methyl acetate	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Methyl tert-butyl ether	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Methylcyclohexane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Methylene chloride	BRL	17		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
o-Xylene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB2-18-20
Project Name:	B5365-001	Collection Date:	5/3/2015 3:10:00 PM
Lab ID:	1505348-005	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Tetrachloroethene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Toluene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
trans-1,2-Dichloroethene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
trans-1,3-Dichloropropene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Trichloroethene	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Trichlorofluoromethane	BRL	4.3		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Vinyl chloride	BRL	8.6		ug/Kg-dry	207044	1	05/06/2015 16:11	MD
Surr: 4-Bromofluorobenzene	85.3	70-128		%REC	207044	1	05/06/2015 16:11	MD
Surr: Dibromofluoromethane	98.7	78.2-128		%REC	207044	1	05/06/2015 16:11	MD
Surr: Toluene-d8	96.4	76.5-116		%REC	207044	1	05/06/2015 16:11	MD
PERCENT MOISTURE D2216								
Percent Moisture	17.2	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB2-30-32
Project Name:	B5365-001	Collection Date:	5/3/2015 3:15:00 PM
Lab ID:	1505348-006	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,1,2,2-Tetrachloroethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,1,2-Trichloroethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,1-Dichloroethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,1-Dichloroethene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,2,4-Trichlorobenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,2-Dibromo-3-chloropropane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,2-Dibromoethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,2-Dichlorobenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,2-Dichloroethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,2-Dichloropropane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,3-Dichlorobenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
1,4-Dichlorobenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
2-Butanone	BRL	39		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
2-Hexanone	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
4-Methyl-2-pentanone	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Acetone	BRL	78		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Benzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Bromodichloromethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Bromoform	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Bromomethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Carbon disulfide	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Carbon tetrachloride	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Chlorobenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Chloroethane	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Chloroform	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Chloromethane	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
cis-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
cis-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Cyclohexane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Dibromochloromethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Dichlorodifluoromethane	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Ethylbenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Freon-113	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Isopropylbenzene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
m,p-Xylene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Methyl acetate	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Methyl tert-butyl ether	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Methylcyclohexane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Methylene chloride	BRL	16		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
o-Xylene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB2-30-32
Project Name:	B5365-001	Collection Date:	5/3/2015 3:15:00 PM
Lab ID:	1505348-006	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Tetrachloroethene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Toluene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
trans-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
trans-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Trichloroethene	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Trichlorofluoromethane	BRL	3.9		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Vinyl chloride	BRL	7.8		ug/Kg-dry	207044	1	05/06/2015 16:34	MD
Surr: 4-Bromofluorobenzene	87.3	70-128		%REC	207044	1	05/06/2015 16:34	MD
Surr: Dibromofluoromethane	100	78.2-128		%REC	207044	1	05/06/2015 16:34	MD
Surr: Toluene-d8	98.7	76.5-116		%REC	207044	1	05/06/2015 16:34	MD
PERCENT MOISTURE D2216								
Percent Moisture	13.4	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB5-12-14
Project Name:	B5365-001	Collection Date:	5/3/2015 3:35:00 PM
Lab ID:	1505348-007	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,1,2,2-Tetrachloroethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,1,2-Trichloroethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,1-Dichloroethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,1-Dichloroethene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,2,4-Trichlorobenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,2-Dibromo-3-chloropropane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,2-Dibromoethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,2-Dichlorobenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,2-Dichloroethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,2-Dichloropropane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,3-Dichlorobenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
1,4-Dichlorobenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
2-Butanone	BRL	36		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
2-Hexanone	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
4-Methyl-2-pentanone	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Acetone	BRL	72		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Benzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Bromodichloromethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Bromoform	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Bromomethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Carbon disulfide	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Carbon tetrachloride	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Chlorobenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Chloroethane	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Chloroform	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Chloromethane	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
cis-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
cis-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Cyclohexane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Dibromochloromethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Dichlorodifluoromethane	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Ethylbenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Freon-113	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Isopropylbenzene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
m,p-Xylene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Methyl acetate	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Methyl tert-butyl ether	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Methylcyclohexane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Methylene chloride	BRL	14		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
o-Xylene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB5-12-14
Project Name:	B5365-001	Collection Date:	5/3/2015 3:35:00 PM
Lab ID:	1505348-007	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Tetrachloroethene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Toluene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
trans-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
trans-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Trichloroethene	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Trichlorofluoromethane	BRL	3.6		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Vinyl chloride	BRL	7.2		ug/Kg-dry	207044	1	05/06/2015 19:47	MD
Surr: 4-Bromofluorobenzene	94.6	70-128		%REC	207044	1	05/06/2015 19:47	MD
Surr: Dibromofluoromethane	107	78.2-128		%REC	207044	1	05/06/2015 19:47	MD
Surr: Toluene-d8	96	76.5-116		%REC	207044	1	05/06/2015 19:47	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.4	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB5-28-30
Project Name:	B5365-001	Collection Date:	5/3/2015 3:40:00 PM
Lab ID:	1505348-008	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,1,2,2-Tetrachloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,1,2-Trichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,1-Dichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,1-Dichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,2,4-Trichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,2-Dibromo-3-chloropropane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,2-Dibromoethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,2-Dichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,2-Dichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,2-Dichloropropane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,3-Dichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
1,4-Dichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
2-Butanone	BRL	48		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
2-Hexanone	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
4-Methyl-2-pentanone	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Acetone	BRL	97		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Benzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Bromodichloromethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Bromoform	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Bromomethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Carbon disulfide	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Carbon tetrachloride	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Chlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Chloroethane	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Chloroform	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Chloromethane	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
cis-1,2-Dichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
cis-1,3-Dichloropropene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Cyclohexane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Dibromochloromethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Dichlorodifluoromethane	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Ethylbenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Freon-113	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Isopropylbenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
m,p-Xylene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Methyl acetate	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Methyl tert-butyl ether	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Methylcyclohexane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Methylene chloride	BRL	19		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
o-Xylene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc**Date:** 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB5-28-30
Project Name: B5365-001	Collection Date: 5/3/2015 3:40:00 PM
Lab ID: 1505348-008	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Tetrachloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Toluene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
trans-1,2-Dichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
trans-1,3-Dichloropropene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Trichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Trichlorofluoromethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Vinyl chloride	BRL	9.7		ug/Kg-dry	207044	1	05/06/2015 20:11	MD
Surr: 4-Bromofluorobenzene	101	70-128		%REC	207044	1	05/06/2015 20:11	MD
Surr: Dibromofluoromethane	103	78.2-128		%REC	207044	1	05/06/2015 20:11	MD
Surr: Toluene-d8	106	76.5-116		%REC	207044	1	05/06/2015 20:11	MD
PERCENT MOISTURE D2216								
Percent Moisture	28.9	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB1-01
Project Name:	B5365-001	Collection Date:	5/3/2015 10:35:00 AM
Lab ID:	1505348-009	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								(SW5030B)
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
2-Butanone	BRL	50		ug/L	207026	1	05/06/2015 19:55	GK
2-Hexanone	BRL	10		ug/L	207026	1	05/06/2015 19:55	GK
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/06/2015 19:55	GK
Acetone	BRL	50		ug/L	207026	1	05/06/2015 19:55	GK
Benzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Bromoform	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Bromomethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Chloroethane	BRL	10		ug/L	207026	1	05/06/2015 19:55	GK
Chloroform	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Chloromethane	BRL	10		ug/L	207026	1	05/06/2015 19:55	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Cyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/06/2015 19:55	GK
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Freon-113	BRL	10		ug/L	207026	1	05/06/2015 19:55	GK
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Methyl acetate	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Methylene chloride	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
o-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB1-01
Project Name:	B5365-001	Collection Date:	5/3/2015 10:35:00 AM
Lab ID:	1505348-009	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Tetrachloroethene	190	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Toluene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Trichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:55	GK
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/06/2015 19:55	GK
Surr: 4-Bromofluorobenzene	92.5	70.6-123	%REC		207026	1	05/06/2015 19:55	GK
Surr: Dibromofluoromethane	105	78.7-124	%REC		207026	1	05/06/2015 19:55	GK
Surr: Toluene-d8	102	81.3-120	%REC		207026	1	05/06/2015 19:55	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-050315-02
Project Name:	B5365-001	Collection Date:	5/3/2015
Lab ID:	1505348-010	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
2-Butanone	BRL	50		ug/L	207026	1	05/06/2015 20:18	GK
2-Hexanone	BRL	10		ug/L	207026	1	05/06/2015 20:18	GK
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/06/2015 20:18	GK
Acetone	BRL	50		ug/L	207026	1	05/06/2015 20:18	GK
Benzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Bromoform	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Bromomethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Chloroethane	BRL	10		ug/L	207026	1	05/06/2015 20:18	GK
Chloroform	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Chloromethane	BRL	10		ug/L	207026	1	05/06/2015 20:18	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Cyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/06/2015 20:18	GK
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Freon-113	BRL	10		ug/L	207026	1	05/06/2015 20:18	GK
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Methyl acetate	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Methylene chloride	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
o-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-050315-02
Project Name:	B5365-001	Collection Date:	5/3/2015
Lab ID:	1505348-010	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Tetrachloroethene	110	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Toluene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Trichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/06/2015 20:18	GK
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/06/2015 20:18	GK
Surr: 4-Bromofluorobenzene	90.8	70.6-123	%REC		207026	1	05/06/2015 20:18	GK
Surr: Dibromofluoromethane	103	78.7-124	%REC		207026	1	05/06/2015 20:18	GK
Surr: Toluene-d8	99.4	81.3-120	%REC		207026	1	05/06/2015 20:18	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB4-03
Project Name:	B5365-001	Collection Date:	5/3/2015 3:15:00 PM
Lab ID:	1505348-011	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
2-Butanone	BRL	50		ug/L	207026	1	05/06/2015 18:01	CH
2-Hexanone	BRL	10		ug/L	207026	1	05/06/2015 18:01	CH
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/06/2015 18:01	CH
Acetone	BRL	50		ug/L	207026	1	05/06/2015 18:01	CH
Benzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Bromoform	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Bromomethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Chloroethane	BRL	10		ug/L	207026	1	05/06/2015 18:01	CH
Chloroform	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Chloromethane	BRL	10		ug/L	207026	1	05/06/2015 18:01	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Cyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/06/2015 18:01	CH
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Freon-113	BRL	10		ug/L	207026	1	05/06/2015 18:01	CH
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Methyl acetate	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Methylene chloride	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
o-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB4-03
Project Name:	B5365-001	Collection Date:	5/3/2015 3:15:00 PM
Lab ID:	1505348-011	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Tetrachloroethene	33	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Toluene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Trichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:01	CH
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/06/2015 18:01	CH
Surr: 4-Bromofluorobenzene	76	70.6-123	%REC		207026	1	05/06/2015 18:01	CH
Surr: Dibromofluoromethane	113	78.7-124	%REC		207026	1	05/06/2015 18:01	CH
Surr: Toluene-d8	102	81.3-120	%REC		207026	1	05/06/2015 18:01	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB5-04
Project Name:	B5365-001	Collection Date:	5/3/2015 3:25:00 PM
Lab ID:	1505348-012	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
2-Butanone	BRL	50		ug/L	207026	1	05/07/2015 18:48	TH
2-Hexanone	BRL	10		ug/L	207026	1	05/07/2015 18:48	TH
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/07/2015 18:48	TH
Acetone	BRL	50		ug/L	207026	1	05/07/2015 18:48	TH
Benzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Bromoform	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Bromomethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Chloroethane	BRL	10		ug/L	207026	1	05/07/2015 18:48	TH
Chloroform	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Chloromethane	BRL	10		ug/L	207026	1	05/07/2015 18:48	TH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Cyclohexane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/07/2015 18:48	TH
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Freon-113	BRL	10		ug/L	207026	1	05/07/2015 18:48	TH
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Methyl acetate	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Methylene chloride	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
o-Xylene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB5-04
Project Name:	B5365-001	Collection Date:	5/3/2015 3:25:00 PM
Lab ID:	1505348-012	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Tetrachloroethene	190	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Toluene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Trichloroethene	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/07/2015 18:48	TH
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/07/2015 18:48	TH
Surr: 4-Bromofluorobenzene	87.1	70.6-123	%REC		207026	1	05/07/2015 18:48	TH
Surr: Dibromofluoromethane	105	78.7-124	%REC		207026	1	05/07/2015 18:48	TH
Surr: Toluene-d8	94.2	81.3-120	%REC		207026	1	05/07/2015 18:48	TH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB3-8-10
Project Name:	B5365-001	Collection Date:	5/4/2015 3:16:00 PM
Lab ID:	1505348-013	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,1,2,2-Tetrachloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,1,2-Trichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,1-Dichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,1-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,2,4-Trichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,2-Dibromo-3-chloropropane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,2-Dibromoethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,2-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,2-Dichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,2-Dichloropropane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,3-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
1,4-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
2-Butanone	BRL	41		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
2-Hexanone	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
4-Methyl-2-pentanone	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Acetone	BRL	81		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Benzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Bromodichloromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Bromoform	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Bromomethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Carbon disulfide	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Carbon tetrachloride	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Chlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Chloroethane	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Chloroform	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Chloromethane	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
cis-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
cis-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Cyclohexane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Dibromochloromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Dichlorodifluoromethane	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Ethylbenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Freon-113	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Isopropylbenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
m,p-Xylene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Methyl acetate	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Methyl tert-butyl ether	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Methylcyclohexane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Methylene chloride	BRL	16		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
o-Xylene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB3-8-10
Project Name:	B5365-001	Collection Date:	5/4/2015 3:16:00 PM
Lab ID:	1505348-013	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Tetrachloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Toluene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
trans-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
trans-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Trichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Trichlorofluoromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Vinyl chloride	BRL	8.1		ug/Kg-dry	207044	1	05/06/2015 20:34	MD
Surr: 4-Bromofluorobenzene	101	70-128		%REC	207044	1	05/06/2015 20:34	MD
Surr: Dibromofluoromethane	101	78.2-128		%REC	207044	1	05/06/2015 20:34	MD
Surr: Toluene-d8	103	76.5-116		%REC	207044	1	05/06/2015 20:34	MD
PERCENT MOISTURE D2216								
Percent Moisture	16.8	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB3-16-18
Project Name:	B5365-001	Collection Date:	5/4/2015 3:25:00 PM
Lab ID:	1505348-014	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
				(SW5035)				
1,1,1-Trichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,1,2,2-Tetrachloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,1,2-Trichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,1-Dichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,1-Dichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,2,4-Trichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,2-Dibromo-3-chloropropane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,2-Dibromoethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,2-Dichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,2-Dichloroethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,2-Dichloropropane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,3-Dichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
1,4-Dichlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
2-Butanone	BRL	52		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
2-Hexanone	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
4-Methyl-2-pentanone	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Acetone	BRL	100		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Benzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Bromodichloromethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Bromoform	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Bromomethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Carbon disulfide	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Carbon tetrachloride	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Chlorobenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Chloroethane	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Chloroform	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Chloromethane	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
cis-1,2-Dichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
cis-1,3-Dichloropropene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Cyclohexane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Dibromochloromethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Dichlorodifluoromethane	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Ethylbenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Freon-113	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Isopropylbenzene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
m,p-Xylene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Methyl acetate	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Methyl tert-butyl ether	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Methylcyclohexane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Methylene chloride	BRL	21		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
o-Xylene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB3-16-18
Project Name:	B5365-001	Collection Date:	5/4/2015 3:25:00 PM
Lab ID:	1505348-014	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Tetrachloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Toluene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
trans-1,2-Dichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
trans-1,3-Dichloropropene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Trichloroethene	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Trichlorofluoromethane	BRL	5.2		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Vinyl chloride	BRL	10		ug/Kg-dry	207044	1	05/06/2015 20:58	MD
Surr: 4-Bromofluorobenzene	100	70-128		%REC	207044	1	05/06/2015 20:58	MD
Surr: Dibromofluoromethane	101	78.2-128		%REC	207044	1	05/06/2015 20:58	MD
Surr: Toluene-d8	106	76.5-116		%REC	207044	1	05/06/2015 20:58	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.8	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB3-22-24
Project Name:	B5365-001	Collection Date:	5/4/2015 3:30:00 PM
Lab ID:	1505348-015	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								(SW5035)
1,1,1-Trichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,1,2,2-Tetrachloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,1,2-Trichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,1-Dichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,1-Dichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,2,4-Trichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,2-Dibromo-3-chloropropane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,2-Dibromoethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,2-Dichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,2-Dichloroethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,2-Dichloropropane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,3-Dichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
1,4-Dichlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
2-Butanone	BRL	48		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
2-Hexanone	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
4-Methyl-2-pentanone	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Acetone	BRL	96		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Benzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Bromodichloromethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Bromoform	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Bromomethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Carbon disulfide	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Carbon tetrachloride	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Chlorobenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Chloroethane	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Chloroform	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Chloromethane	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
cis-1,2-Dichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
cis-1,3-Dichloropropene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Cyclohexane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Dibromochloromethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Dichlorodifluoromethane	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Ethylbenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Freon-113	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Isopropylbenzene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
m,p-Xylene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Methyl acetate	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Methyl tert-butyl ether	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Methylcyclohexane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Methylene chloride	BRL	19		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
o-Xylene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc**Date:** 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB3-22-24
Project Name: B5365-001	Collection Date: 5/4/2015 3:30:00 PM
Lab ID: 1505348-015	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Tetrachloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Toluene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
trans-1,2-Dichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
trans-1,3-Dichloropropene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Trichloroethene	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Trichlorofluoromethane	BRL	4.8		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Vinyl chloride	BRL	9.6		ug/Kg-dry	207044	1	05/06/2015 21:22	MD
Surr: 4-Bromofluorobenzene	98.9	70-128		%REC	207044	1	05/06/2015 21:22	MD
Surr: Dibromofluoromethane	99	78.2-128		%REC	207044	1	05/06/2015 21:22	MD
Surr: Toluene-d8	109	76.5-116		%REC	207044	1	05/06/2015 21:22	MD
PERCENT MOISTURE D2216								
Percent Moisture	22.2	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB8-14-16
Project Name:	B5365-001	Collection Date:	5/4/2015 10:35:00 AM
Lab ID:	1505348-016	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,1,2,2-Tetrachloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,1,2-Trichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,1-Dichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,1-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,2,4-Trichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,2-Dibromo-3-chloropropane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,2-Dibromoethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,2-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,2-Dichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,2-Dichloropropane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,3-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
1,4-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
2-Butanone	BRL	41		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
2-Hexanone	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
4-Methyl-2-pentanone	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Acetone	BRL	82		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Benzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Bromodichloromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Bromoform	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Bromomethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Carbon disulfide	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Carbon tetrachloride	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Chlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Chloroethane	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Chloroform	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Chloromethane	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
cis-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
cis-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Cyclohexane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Dibromochloromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Dichlorodifluoromethane	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Ethylbenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Freon-113	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Isopropylbenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
m,p-Xylene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Methyl acetate	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Methyl tert-butyl ether	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Methylcyclohexane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Methylene chloride	BRL	16		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
o-Xylene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB8-14-16
Project Name:	B5365-001	Collection Date:	5/4/2015 10:35:00 AM
Lab ID:	1505348-016	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Tetrachloroethene	6.6	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Toluene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
trans-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
trans-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Trichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Trichlorofluoromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Vinyl chloride	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 21:46	MD
Surr: 4-Bromofluorobenzene	88.1	70-128		%REC	207044	1	05/06/2015 21:46	MD
Surr: Dibromofluoromethane	96.5	78.2-128		%REC	207044	1	05/06/2015 21:46	MD
Surr: Toluene-d8	96.6	76.5-116		%REC	207044	1	05/06/2015 21:46	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.9	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB8-28-30
Project Name:	B5365-001	Collection Date:	5/4/2015 10:45:00 AM
Lab ID:	1505348-017	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,1,2,2-Tetrachloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,1,2-Trichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,1-Dichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,1-Dichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,2,4-Trichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,2-Dibromo-3-chloropropane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,2-Dibromoethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,2-Dichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,2-Dichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,2-Dichloropropane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,3-Dichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
1,4-Dichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
2-Butanone	BRL	44		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
2-Hexanone	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
4-Methyl-2-pentanone	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Acetone	BRL	88		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Benzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Bromodichloromethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Bromoform	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Bromomethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Carbon disulfide	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Carbon tetrachloride	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Chlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Chloroethane	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Chloroform	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Chloromethane	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
cis-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
cis-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Cyclohexane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Dibromochloromethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Dichlorodifluoromethane	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Ethylbenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Freon-113	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Isopropylbenzene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
m,p-Xylene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Methyl acetate	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Methyl tert-butyl ether	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Methylcyclohexane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Methylene chloride	BRL	18		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
o-Xylene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB8-28-30
Project Name:	B5365-001	Collection Date:	5/4/2015 10:45:00 AM
Lab ID:	1505348-017	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Tetrachloroethene	24	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Toluene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
trans-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
trans-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Trichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Trichlorofluoromethane	BRL	4.4		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Vinyl chloride	BRL	8.8		ug/Kg-dry	207044	1	05/06/2015 22:10	MD
Surr: 4-Bromofluorobenzene	94.1	70-128		%REC	207044	1	05/06/2015 22:10	MD
Surr: Dibromofluoromethane	105	78.2-128		%REC	207044	1	05/06/2015 22:10	MD
Surr: Toluene-d8	93.7	76.5-116		%REC	207044	1	05/06/2015 22:10	MD
PERCENT MOISTURE D2216								
Percent Moisture	19.6	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB7-2-4
Project Name:	B5365-001	Collection Date:	5/4/2015 3:35:00 PM
Lab ID:	1505348-018	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,1,2,2-Tetrachloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,1,2-Trichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,1-Dichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,1-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,2,4-Trichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,2-Dibromo-3-chloropropane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,2-Dibromoethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,2-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,2-Dichloroethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,2-Dichloropropane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,3-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
1,4-Dichlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
2-Butanone	BRL	41		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
2-Hexanone	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
4-Methyl-2-pentanone	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Acetone	BRL	82		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Benzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Bromodichloromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Bromoform	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Bromomethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Carbon disulfide	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Carbon tetrachloride	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Chlorobenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Chloroethane	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Chloroform	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Chloromethane	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
cis-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
cis-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Cyclohexane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Dibromochloromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Dichlorodifluoromethane	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Ethylbenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Freon-113	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Isopropylbenzene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
m,p-Xylene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Methyl acetate	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Methyl tert-butyl ether	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Methylcyclohexane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Methylene chloride	BRL	16		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
o-Xylene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB7-2-4
Project Name:	B5365-001	Collection Date:	5/4/2015 3:35:00 PM
Lab ID:	1505348-018	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Tetrachloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Toluene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
trans-1,2-Dichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
trans-1,3-Dichloropropene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Trichloroethene	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Trichlorofluoromethane	BRL	4.1		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Vinyl chloride	BRL	8.2		ug/Kg-dry	207044	1	05/06/2015 22:34	MD
Surr: 4-Bromofluorobenzene	226	70-128	S	%REC	207044	1	05/06/2015 22:34	MD
Surr: Dibromofluoromethane	102	78.2-128		%REC	207044	1	05/06/2015 22:34	MD
Surr: Toluene-d8	106	76.5-116		%REC	207044	1	05/06/2015 22:34	MD
PERCENT MOISTURE D2216								
Percent Moisture	23.8	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB7-4-6
Project Name: B5365-001	Collection Date: 5/4/2015 3:40:00 PM
Lab ID: 1505348-019	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,1,2,2-Tetrachloroethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,1,2-Trichloroethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,1-Dichloroethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,1-Dichloroethene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,2,4-Trichlorobenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,2-Dibromo-3-chloropropane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,2-Dibromoethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,2-Dichlorobenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,2-Dichloroethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,2-Dichloropropane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,3-Dichlorobenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
1,4-Dichlorobenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
2-Butanone	BRL	53		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
2-Hexanone	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
4-Methyl-2-pentanone	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Acetone	130	110		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Benzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Bromodichloromethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Bromoform	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Bromomethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Carbon disulfide	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Carbon tetrachloride	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Chlorobenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Chloroethane	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Chloroform	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Chloromethane	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
cis-1,2-Dichloroethene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
cis-1,3-Dichloropropene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Cyclohexane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Dibromochloromethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Dichlorodifluoromethane	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Ethylbenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Freon-113	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Isopropylbenzene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
m,p-Xylene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Methyl acetate	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Methyl tert-butyl ether	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Methylcyclohexane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Methylene chloride	BRL	21		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
o-Xylene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB7-4-6
Project Name:	B5365-001	Collection Date:	5/4/2015 3:40:00 PM
Lab ID:	1505348-019	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Tetrachloroethene	42	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Toluene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
trans-1,2-Dichloroethene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
trans-1,3-Dichloropropene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Trichloroethene	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Trichlorofluoromethane	BRL	5.3		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Vinyl chloride	BRL	11		ug/Kg-dry	207044	1	05/06/2015 22:58	MD
Surr: 4-Bromofluorobenzene	276	70-128	S	%REC	207044	1	05/06/2015 22:58	MD
Surr: Dibromofluoromethane	97.9	78.2-128		%REC	207044	1	05/06/2015 22:58	MD
Surr: Toluene-d8	83.1	76.5-116		%REC	207044	1	05/06/2015 22:58	MD
PERCENT MOISTURE D2216								
Percent Moisture	18.9	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB7-14-16
Project Name:	B5365-001	Collection Date:	5/4/2015 3:45:00 PM
Lab ID:	1505348-020	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,1,2,2-Tetrachloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,1,2-Trichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,1-Dichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,1-Dichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,2,4-Trichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,2-Dibromo-3-chloropropane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,2-Dibromoethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,2-Dichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,2-Dichloroethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,2-Dichloropropane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,3-Dichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
1,4-Dichlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
2-Butanone	BRL	44		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
2-Hexanone	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
4-Methyl-2-pentanone	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Acetone	BRL	87		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Benzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Bromodichloromethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Bromoform	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Bromomethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Carbon disulfide	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Carbon tetrachloride	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Chlorobenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Chloroethane	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Chloroform	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Chloromethane	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
cis-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
cis-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Cyclohexane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Dibromochloromethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Dichlorodifluoromethane	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Ethylbenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Freon-113	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Isopropylbenzene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
m,p-Xylene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Methyl acetate	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Methyl tert-butyl ether	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Methylcyclohexane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Methylene chloride	BRL	17		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
o-Xylene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc**Date:** 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB7-14-16
Project Name: B5365-001	Collection Date: 5/4/2015 3:45:00 PM
Lab ID: 1505348-020	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Tetrachloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Toluene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
trans-1,2-Dichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
trans-1,3-Dichloropropene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Trichloroethene	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Trichlorofluoromethane	BRL	4.4		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Vinyl chloride	BRL	8.7		ug/Kg-dry	207044	1	05/07/2015 12:26	MD
Surr: 4-Bromofluorobenzene	82.7	70-128		%REC	207044	1	05/07/2015 12:26	MD
Surr: Dibromofluoromethane	95.6	78.2-128		%REC	207044	1	05/07/2015 12:26	MD
Surr: Toluene-d8	95.6	76.5-116		%REC	207044	1	05/07/2015 12:26	MD
PERCENT MOISTURE D2216								
Percent Moisture	16.2	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 11-May-15

Client: Wenck Associates	Client Sample ID: S-SB6-4-6
Project Name: B5365-001	Collection Date: 5/4/2015 4:00:00 PM
Lab ID: 1505348-021	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
2-Butanone	BRL	40		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
2-Hexanone	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
4-Methyl-2-pentanone	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Acetone	BRL	81		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Benzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Bromodichloromethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Bromoform	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Bromomethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Carbon disulfide	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Chlorobenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Chloroethane	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Chloroform	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Chloromethane	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Cyclohexane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Dibromochloromethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Dichlorodifluoromethane	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Ethylbenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Freon-113	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Isopropylbenzene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
m,p-Xylene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Methyl acetate	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Methylcyclohexane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Methylene chloride	BRL	16		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
o-Xylene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB6-4-6
Project Name:	B5365-001	Collection Date:	5/4/2015 4:00:00 PM
Lab ID:	1505348-021	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Tetrachloroethene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Toluene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Trichloroethene	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Vinyl chloride	BRL	8.1		ug/Kg-dry	207045	1	05/07/2015 12:50	MD
Surr: 4-Bromofluorobenzene	84.4	70-128		%REC	207045	1	05/07/2015 12:50	MD
Surr: Dibromofluoromethane	94.7	78.2-128		%REC	207045	1	05/07/2015 12:50	MD
Surr: Toluene-d8	94.7	76.5-116		%REC	207045	1	05/07/2015 12:50	MD
PERCENT MOISTURE D2216								
Percent Moisture	17.0	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB6-18-20
Project Name:	B5365-001	Collection Date:	5/4/2015 4:15:00 PM
Lab ID:	1505348-022	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								(SW5035)
1,1,1-Trichloroethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,1,2,2-Tetrachloroethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,1,2-Trichloroethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,1-Dichloroethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,1-Dichloroethene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,2,4-Trichlorobenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,2-Dibromo-3-chloropropane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,2-Dibromoethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,2-Dichlorobenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,2-Dichloroethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,2-Dichloropropane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,3-Dichlorobenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
1,4-Dichlorobenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
2-Butanone	BRL	39		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
2-Hexanone	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
4-Methyl-2-pentanone	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Acetone	BRL	78		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Benzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Bromodichloromethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Bromoform	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Bromomethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Carbon disulfide	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Carbon tetrachloride	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Chlorobenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Chloroethane	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Chloroform	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Chloromethane	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
cis-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
cis-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Cyclohexane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Dibromochloromethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Dichlorodifluoromethane	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Ethylbenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Freon-113	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Isopropylbenzene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
m,p-Xylene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Methyl acetate	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Methyl tert-butyl ether	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Methylcyclohexane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Methylene chloride	BRL	16		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
o-Xylene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB6-18-20
Project Name:	B5365-001	Collection Date:	5/4/2015 4:15:00 PM
Lab ID:	1505348-022	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Tetrachloroethene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Toluene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
trans-1,2-Dichloroethene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
trans-1,3-Dichloropropene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Trichloroethene	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Trichlorofluoromethane	BRL	3.9		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Vinyl chloride	BRL	7.8		ug/Kg-dry	207045	1	05/07/2015 00:09	MD
Surr: 4-Bromofluorobenzene	94	70-128		%REC	207045	1	05/07/2015 00:09	MD
Surr: Dibromofluoromethane	89.7	78.2-128		%REC	207045	1	05/07/2015 00:09	MD
Surr: Toluene-d8	100	76.5-116		%REC	207045	1	05/07/2015 00:09	MD
PERCENT MOISTURE D2216								
Percent Moisture	15.8	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB8-05
Project Name:	B5365-001	Collection Date:	5/4/2015 10:50:00 AM
Lab ID:	1505348-023	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
2-Butanone	BRL	50		ug/L	207026	1	05/06/2015 18:25	CH
2-Hexanone	BRL	10		ug/L	207026	1	05/06/2015 18:25	CH
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/06/2015 18:25	CH
Acetone	BRL	50		ug/L	207026	1	05/06/2015 18:25	CH
Benzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Bromoform	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Bromomethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Chloroethane	BRL	10		ug/L	207026	1	05/06/2015 18:25	CH
Chloroform	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Chloromethane	BRL	10		ug/L	207026	1	05/06/2015 18:25	CH
cis-1,2-Dichloroethene	410	50		ug/L	207026	10	05/07/2015 17:59	TH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Cyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/06/2015 18:25	CH
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Freon-113	BRL	10		ug/L	207026	1	05/06/2015 18:25	CH
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Methyl acetate	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Methylene chloride	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
o-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB8-05
Project Name:	B5365-001	Collection Date:	5/4/2015 10:50:00 AM
Lab ID:	1505348-023	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Tetrachloroethene	4000	500		ug/L	207026	100	05/07/2015 16:44	TH
Toluene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Trichloroethene	48	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/06/2015 18:25	CH
Vinyl chloride	13	2.0		ug/L	207026	1	05/06/2015 18:25	CH
Surr: 4-Bromofluorobenzene	80.3	70.6-123		%REC	207026	1	05/06/2015 18:25	CH
Surr: 4-Bromofluorobenzene	88	70.6-123		%REC	207026	10	05/07/2015 17:59	TH
Surr: 4-Bromofluorobenzene	88.5	70.6-123		%REC	207026	100	05/07/2015 16:44	TH
Surr: Dibromofluoromethane	103	78.7-124		%REC	207026	10	05/07/2015 17:59	TH
Surr: Dibromofluoromethane	111	78.7-124		%REC	207026	1	05/06/2015 18:25	CH
Surr: Dibromofluoromethane	111	78.7-124		%REC	207026	100	05/07/2015 16:44	TH
Surr: Toluene-d8	92.9	81.3-120		%REC	207026	10	05/07/2015 17:59	TH
Surr: Toluene-d8	98	81.3-120		%REC	207026	1	05/06/2015 18:25	CH
Surr: Toluene-d8	98.3	81.3-120		%REC	207026	100	05/07/2015 16:44	TH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

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E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB7-06
Project Name:	B5365-001	Collection Date:	5/4/2015 1:50:00 PM
Lab ID:	1505348-024	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
2-Butanone	BRL	50		ug/L	207026	1	05/06/2015 19:37	CH
2-Hexanone	BRL	10		ug/L	207026	1	05/06/2015 19:37	CH
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/06/2015 19:37	CH
Acetone	BRL	50		ug/L	207026	1	05/06/2015 19:37	CH
Benzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Bromoform	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Bromomethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Chloroethane	BRL	10		ug/L	207026	1	05/06/2015 19:37	CH
Chloroform	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Chloromethane	BRL	10		ug/L	207026	1	05/06/2015 19:37	CH
cis-1,2-Dichloroethene	170	5.0		ug/L	207026	1	05/06/2015 19:37	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Cyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/06/2015 19:37	CH
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Freon-113	BRL	10		ug/L	207026	1	05/06/2015 19:37	CH
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Methyl acetate	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Methylene chloride	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
o-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB7-06
Project Name:	B5365-001	Collection Date:	5/4/2015 1:50:00 PM
Lab ID:	1505348-024	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Tetrachloroethene	4300	500		ug/L	207026	100	05/07/2015 17:09	TH
Toluene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Trichloroethene	24	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/06/2015 19:37	CH
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/06/2015 19:37	CH
Surr: 4-Bromofluorobenzene	82.8	70.6-123		%REC	207026	1	05/06/2015 19:37	CH
Surr: 4-Bromofluorobenzene	85.2	70.6-123		%REC	207026	100	05/07/2015 17:09	TH
Surr: Dibromofluoromethane	103	78.7-124		%REC	207026	100	05/07/2015 17:09	TH
Surr: Dibromofluoromethane	112	78.7-124		%REC	207026	1	05/06/2015 19:37	CH
Surr: Toluene-d8	92.1	81.3-120		%REC	207026	100	05/07/2015 17:09	TH
Surr: Toluene-d8	102	81.3-120		%REC	207026	1	05/06/2015 19:37	CH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB9-4-6
Project Name:	B5365-001	Collection Date:	5/5/2015 9:50:00 AM
Lab ID:	1505348-025	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,1,2,2-Tetrachloroethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,1,2-Trichloroethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,1-Dichloroethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,1-Dichloroethene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,2,4-Trichlorobenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,2-Dibromo-3-chloropropane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,2-Dibromoethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,2-Dichlorobenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,2-Dichloroethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,2-Dichloropropane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,3-Dichlorobenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
1,4-Dichlorobenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
2-Butanone	BRL	47		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
2-Hexanone	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
4-Methyl-2-pentanone	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Acetone	BRL	94		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Benzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Bromodichloromethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Bromoform	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Bromomethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Carbon disulfide	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Carbon tetrachloride	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Chlorobenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Chloroethane	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Chloroform	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Chloromethane	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
cis-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
cis-1,3-Dichloropropene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Cyclohexane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Dibromochloromethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Dichlorodifluoromethane	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Ethylbenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Freon-113	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Isopropylbenzene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
m,p-Xylene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Methyl acetate	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Methyl tert-butyl ether	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Methylcyclohexane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Methylene chloride	BRL	19		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
o-Xylene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB9-4-6
Project Name:	B5365-001	Collection Date:	5/5/2015 9:50:00 AM
Lab ID:	1505348-025	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Tetrachloroethene	5.2	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Toluene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
trans-1,2-Dichloroethene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
trans-1,3-Dichloropropene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Trichloroethene	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Trichlorofluoromethane	BRL	4.7		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Vinyl chloride	BRL	9.4		ug/Kg-dry	207045	1	05/07/2015 00:33	MD
Surr: 4-Bromofluorobenzene	90.4	70-128		%REC	207045	1	05/07/2015 00:33	MD
Surr: Dibromofluoromethane	95.6	78.2-128		%REC	207045	1	05/07/2015 00:33	MD
Surr: Toluene-d8	92.4	76.5-116		%REC	207045	1	05/07/2015 00:33	MD
PERCENT MOISTURE D2216								
Percent Moisture	20.0	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB9-16-18
Project Name:	B5365-001	Collection Date:	5/5/2015 9:45:00 AM
Lab ID:	1505348-026	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
					(SW5035)			
1,1,1-Trichloroethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,1,2,2-Tetrachloroethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,1,2-Trichloroethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,1-Dichloroethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,1-Dichloroethene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,2,4-Trichlorobenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,2-Dibromo-3-chloropropane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,2-Dibromoethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,2-Dichlorobenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,2-Dichloroethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,2-Dichloropropane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,3-Dichlorobenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
1,4-Dichlorobenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
2-Butanone	BRL	36		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
2-Hexanone	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
4-Methyl-2-pentanone	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Acetone	BRL	71		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Benzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Bromodichloromethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Bromoform	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Bromomethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Carbon disulfide	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Carbon tetrachloride	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Chlorobenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Chloroethane	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Chloroform	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Chloromethane	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
cis-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
cis-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Cyclohexane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Dibromochloromethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Dichlorodifluoromethane	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Ethylbenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Freon-113	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Isopropylbenzene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
m,p-Xylene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Methyl acetate	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Methyl tert-butyl ether	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Methylcyclohexane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Methylene chloride	BRL	14		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
o-Xylene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	S-SB9-16-18
Project Name:	B5365-001	Collection Date:	5/5/2015 9:45:00 AM
Lab ID:	1505348-026	Matrix:	Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
Styrene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Tetrachloroethene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Toluene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
trans-1,2-Dichloroethene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
trans-1,3-Dichloropropene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Trichloroethene	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Trichlorofluoromethane	BRL	3.6		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Vinyl chloride	BRL	7.1		ug/Kg-dry	207045	1	05/07/2015 00:57	MD
Surr: 4-Bromofluorobenzene	92.1	70-128		%REC	207045	1	05/07/2015 00:57	MD
Surr: Dibromofluoromethane	92.1	78.2-128		%REC	207045	1	05/07/2015 00:57	MD
Surr: Toluene-d8	99.4	76.5-116		%REC	207045	1	05/07/2015 00:57	MD
PERCENT MOISTURE D2216								
Percent Moisture	17.8	0		wt%	R291535	1	05/11/2015 10:00	PF

Qualifiers: * Value exceeds maximum contaminant level

E Estimated (value above quantitation range)

BRL Below reporting limit

S Spike Recovery outside limits due to matrix

H Holding times for preparation or analysis exceeded

Narr See case narrative

N Analyte not NELAC certified

NC Not confirmed

B Analyte detected in the associated method blank

< Less than Result value

> Greater than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB9-07
Project Name:	B5365-001	Collection Date:	5/5/2015 9:42:00 AM
Lab ID:	1505348-027	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
2-Butanone	BRL	50		ug/L	207026	1	05/07/2015 19:13	TH
2-Hexanone	BRL	10		ug/L	207026	1	05/07/2015 19:13	TH
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/07/2015 19:13	TH
Acetone	BRL	50		ug/L	207026	1	05/07/2015 19:13	TH
Benzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Bromoform	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Bromomethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Chloroethane	BRL	10		ug/L	207026	1	05/07/2015 19:13	TH
Chloroform	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Chloromethane	BRL	10		ug/L	207026	1	05/07/2015 19:13	TH
cis-1,2-Dichloroethene	5.7	5.0		ug/L	207026	1	05/07/2015 19:13	TH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Cyclohexane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/07/2015 19:13	TH
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Freon-113	BRL	10		ug/L	207026	1	05/07/2015 19:13	TH
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Methyl acetate	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Methylene chloride	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
o-Xylene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	GW-SB9-07
Project Name:	B5365-001	Collection Date:	5/5/2015 9:42:00 AM
Lab ID:	1505348-027	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Tetrachloroethene	450	50		ug/L	207026	10	05/07/2015 18:23	TH
Toluene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Trichloroethene	12	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/07/2015 19:13	TH
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/07/2015 19:13	TH
Surr: 4-Bromofluorobenzene	83.8	70.6-123		%REC	207026	1	05/07/2015 19:13	TH
Surr: 4-Bromofluorobenzene	89.4	70.6-123		%REC	207026	10	05/07/2015 18:23	TH
Surr: Dibromofluoromethane	102	78.7-124		%REC	207026	10	05/07/2015 18:23	TH
Surr: Dibromofluoromethane	107	78.7-124		%REC	207026	1	05/07/2015 19:13	TH
Surr: Toluene-d8	95.1	81.3-120		%REC	207026	1	05/07/2015 19:13	TH
Surr: Toluene-d8	94.7	81.3-120		%REC	207026	10	05/07/2015 18:23	TH

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	TRIP BLANK
Project Name:	B5365-001	Collection Date:	5/5/2015
Lab ID:	1505348-028	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B							(SW5030B)	
1,1,1-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,1,2-Trichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,1-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,1-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,2-Dibromoethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,2-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,2-Dichloroethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,2-Dichloropropane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,3-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
1,4-Dichlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
2-Butanone	BRL	50		ug/L	207026	1	05/06/2015 15:47	GK
2-Hexanone	BRL	10		ug/L	207026	1	05/06/2015 15:47	GK
4-Methyl-2-pentanone	BRL	10		ug/L	207026	1	05/06/2015 15:47	GK
Acetone	BRL	50		ug/L	207026	1	05/06/2015 15:47	GK
Benzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Bromodichloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Bromoform	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Bromomethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Carbon disulfide	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Carbon tetrachloride	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Chlorobenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Chloroethane	BRL	10		ug/L	207026	1	05/06/2015 15:47	GK
Chloroform	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Chloromethane	BRL	10		ug/L	207026	1	05/06/2015 15:47	GK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Cyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Dibromochloromethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Dichlorodifluoromethane	BRL	10		ug/L	207026	1	05/06/2015 15:47	GK
Ethylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Freon-113	BRL	10		ug/L	207026	1	05/06/2015 15:47	GK
Isopropylbenzene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
m,p-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Methyl acetate	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Methyl tert-butyl ether	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Methylcyclohexane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Methylene chloride	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
o-Xylene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

H Holding times for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

> Greater than Result value

E Estimated (value above quantitation range)

S Spike Recovery outside limits due to matrix

Narr See case narrative

NC Not confirmed

< Less than Result value

J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 11-May-15

Client:	Wenck Associates	Client Sample ID:	TRIP BLANK
Project Name:	B5365-001	Collection Date:	5/5/2015
Lab ID:	1505348-028	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B								
							(SW5030B)	
Styrene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Tetrachloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Toluene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Trichloroethene	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Trichlorofluoromethane	BRL	5.0		ug/L	207026	1	05/06/2015 15:47	GK
Vinyl chloride	BRL	2.0		ug/L	207026	1	05/06/2015 15:47	GK
Surr: 4-Bromofluorobenzene	93.9	70.6-123	%REC		207026	1	05/06/2015 15:47	GK
Surr: Dibromofluoromethane	102	78.7-124	%REC		207026	1	05/06/2015 15:47	GK
Surr: Toluene-d8	98.2	81.3-120	%REC		207026	1	05/06/2015 15:47	GK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client WENCKWork Order Number 1505348Checklist completed by Meliam Fawar Date 05/05/2015
SignatureCarrier name: FedEx UPS Courier Client US Mail Other _____Shipping container/cooler in good condition? Yes No Not Present Custody seals intact on shipping container/cooler? Yes No Not Present Custody seals intact on sample bottles? Yes No Not Present Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No Cooler #1 3.4°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____Chain of custody present? Yes No Chain of custody signed when relinquished and received? Yes No Chain of custody agrees with sample labels? Yes No Samples in proper container/bottle? Yes No Sample containers intact? Yes No Sufficient sample volume for indicated test? Yes No All samples received within holding time? Yes No Was TAT marked on the COC? Yes No Proceed with Standard TAT as per project history? Yes No Not Applicable Water - VOA vials have zero headspace? No VOA vials submitted Yes No Water - pH acceptable upon receipt? Yes No Not Applicable Adjusted? _____ Checked by _____
Sample Condition: Good Other(Explain) _____(For diffusive samples or AIHA lead) Is a known blank included? Yes No **See Case Narrative for resolution of the Non-Conformance.**

* Samples do not have to comply with the given range for certain parameters.

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207026**

Sample ID: MB-207026	Client ID:				Units: ug/L	Prep Date: 05/05/2015	Run No: 291281				
SampleType: MLBK	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 207026	Analysis Date: 05/05/2015	Seq No: 6197195				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207026**

Sample ID: MB-207026	Client ID:				Units: ug/L	Prep Date: 05/05/2015	Run No: 291281				
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 207026	Analysis Date: 05/05/2015	Seq No: 6197195				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	39.00	0	50.00		78.0	70.6	123				
Surr: Dibromofluoromethane	56.84	0	50.00		114	78.7	124				
Surr: Toluene-d8	47.75	0	50.00		95.5	81.3	120				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207026**

Sample ID: LCS-207026	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/L	Prep Date: 05/05/2015	Run No: 291281							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207026	Analysis Date: 05/05/2015	Seq No: 6197193							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	65.84	5.0	50.00		132	64.2	137				
Benzene	56.05	5.0	50.00		112	72.8	128				
Chlorobenzene	55.65	5.0	50.00		111	72.3	126				
Toluene	56.89	5.0	50.00		114	74.9	127				
Trichloroethene	54.02	5.0	50.00		108	70.5	134				
Surr: 4-Bromofluorobenzene	41.54	0	50.00		83.1	70.6	123				
Surr: Dibromofluoromethane	54.72	0	50.00		109	78.7	124				
Surr: Toluene-d8	50.28	0	50.00		101	81.3	120				
Sample ID: 1505221-002AMS	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/L	Prep Date: 05/05/2015	Run No: 291529							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207026	Analysis Date: 05/11/2015	Seq No: 6203691							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.62	5.0	50.00		111	60.5	156				
Benzene	50.57	5.0	50.00		101	70	135				
Chlorobenzene	52.32	5.0	50.00		105	70.5	132				
Toluene	49.43	5.0	50.00		98.9	70.5	137				
Trichloroethene	52.42	5.0	50.00		105	71.8	139				
Surr: 4-Bromofluorobenzene	39.03	0	50.00		78.1	70.6	123				
Surr: Dibromofluoromethane	45.79	0	50.00		91.6	78.7	124				
Surr: Toluene-d8	42.73	0	50.00		85.5	81.3	120				
Sample ID: 1505221-002AMSD	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/L	Prep Date: 05/05/2015	Run No: 291529							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207026	Analysis Date: 05/11/2015	Seq No: 6203692							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.76	5.0	50.00		116	60.5	156	55.62	3.77	20	
Benzene	51.22	5.0	50.00		102	70	135	50.57	1.28	20	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL		Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J		Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim		Reporting Limit	S	Spike Recovery outside limits due to matrix		Page 65 of 74

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207026**

Sample ID: 1505221-002AMSD	Client ID:				Units: ug/L	Prep Date: 05/05/2015	Run No: 291529				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 207026	Analysis Date: 05/11/2015	Seq No: 6203692				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	51.39	5.0	50.00		103	70.5	132	52.32	1.79	20	
Toluene	50.87	5.0	50.00		102	70.5	137	49.43	2.87	20	
Trichloroethene	51.61	5.0	50.00		103	71.8	139	52.42	1.56	20	
Surr: 4-Bromofluorobenzene	41.92	0	50.00		83.8	70.6	123	39.03	0	0	
Surr: Dibromofluoromethane	46.73	0	50.00		93.5	78.7	124	45.79	0	0	
Surr: Toluene-d8	45.03	0	50.00		90.1	81.3	120	42.73	0	0	

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207044**

Sample ID: MB-207044	Client ID: TestCode: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg	Prep Date: 05/06/2015	Run No: 291285							
SampleType: MBLK		BatchID: 207044	Analysis Date: 05/06/2015	Seq No: 6197491							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207044**

Sample ID: MB-207044	Client ID:	Units: ug/Kg			Prep Date:	05/06/2015	Run No:	291285			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207044			Analysis Date:	05/06/2015	Seq No:	6197491			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	49.85	0	50.00		99.7	70	128				
Surr: Dibromofluoromethane	50.62	0	50.00		101	78.2	128				
Surr: Toluene-d8	51.75	0	50.00		104	76.5	116				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207044**

Sample ID: LCS-207044	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg	Prep Date: 05/06/2015	Run No: 291285							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207044	Analysis Date: 05/06/2015	Seq No: 6197490							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	60.74	5.0	50.00		121	69.9	145				
Benzene	51.80	5.0	50.00		104	72.3	130				
Chlorobenzene	52.22	5.0	50.00		104	69	130				
Toluene	53.21	5.0	50.00		106	71.1	130				
Trichloroethene	54.39	5.0	50.00		109	71.7	136				
Surr: 4-Bromofluorobenzene	49.26	0	50.00		98.5	70	128				
Surr: Dibromofluoromethane	53.38	0	50.00		107	78.2	128				
Surr: Toluene-d8	48.38	0	50.00		96.8	76.5	116				
Sample ID: 1505381-002AMS	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg-dry	Prep Date: 05/06/2015	Run No: 291285							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207044	Analysis Date: 05/06/2015	Seq No: 6197499							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.55	7.0	70.01		79.3	56.6	151				
Benzene	57.58	7.0	70.01		82.2	70.4	130				
Chlorobenzene	60.37	7.0	70.01		86.2	67.5	132				
Toluene	59.69	7.0	70.01		85.3	70.4	130				
Trichloroethene	57.06	7.0	70.01		81.5	70.1	137				
Surr: 4-Bromofluorobenzene	58.56	0	70.01		83.6	70	128				
Surr: Dibromofluoromethane	68.63	0	70.01		98.0	78.2	128				
Surr: Toluene-d8	67.06	0	70.01		95.8	76.5	116				
Sample ID: 1505381-002AMSD	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg-dry	Prep Date: 05/06/2015	Run No: 291285							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207044	Analysis Date: 05/06/2015	Seq No: 6197500							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	63.56	7.0	70.01		90.8	56.6	151	55.55	13.4	20.4	
Benzene	62.82	7.0	70.01		89.7	70.4	130	57.58	8.70	16.9	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL		Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J		Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim		Reporting Limit	S	Spike Recovery outside limits due to matrix		Page 69 of 74

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207044**

Sample ID: 1505381-002AMSD	Client ID:	Units: ug/Kg-dry			Prep Date:	05/06/2015	Run No: 291285				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207044			Analysis Date:	05/06/2015	Seq No: 6197500				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	63.56	7.0	70.01		90.8	67.5	132	60.37	5.15	14.6	
Toluene	64.16	7.0	70.01		91.6	70.4	130	59.69	7.21	16.6	
Trichloroethene	61.32	7.0	70.01		87.6	70.1	137	57.06	7.19	17	
Surr: 4-Bromofluorobenzene	59.33	0	70.01		84.7	70	128	58.56	0	0	
Surr: Dibromofluoromethane	68.80	0	70.01		98.3	78.2	128	68.63	0	0	
Surr: Toluene-d8	68.04	0	70.01		97.2	76.5	116	67.06	0	0	

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207045**

Sample ID: MB-207045	Client ID: TestCode: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg	Prep Date: 05/06/2015	Run No: 291288							
SampleType: MBLK		BatchID: 207045	Analysis Date: 05/06/2015	Seq No: 6197546							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers: > Greater than Result value

< Less than Result value

B Analyte detected in the associated method blank

BRL Below reporting limit

E Estimated (value above quantitation range)

H Holding times for preparation or analysis exceeded

J Estimated value detected below Reporting Limit

N Analyte not NELAC certified

R RPD outside limits due to matrix

Rpt Lim Reporting Limit

S Spike Recovery outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207045**

Sample ID: MB-207045	Client ID:				Units: ug/Kg	Prep Date: 05/06/2015	Run No: 291288				
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 207045	Analysis Date: 05/06/2015	Seq No: 6197546				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	45.81	0	50.00		91.6	70	128				
Surr: Dibromofluoromethane	51.46	0	50.00		103	78.2	128				
Surr: Toluene-d8	48.59	0	50.00		97.2	76.5	116				

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207045**

Sample ID: LCS-207045	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg	Prep Date: 05/06/2015	Run No: 291288							
SampleType: LCS	TestCode: 207045	BatchID: 207045	Analysis Date: 05/06/2015	Seq No: 6197543							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	42.37	5.0	50.00		84.7	69.9	145				
Benzene	37.98	5.0	50.00		76.0	72.3	130				
Chlorobenzene	39.23	5.0	50.00		78.5	69	130				
Toluene	40.98	5.0	50.00		82.0	71.1	130				
Trichloroethene	38.24	5.0	50.00		76.5	71.7	136				
Surr: 4-Bromofluorobenzene	50.53	0	50.00		101	70	128				
Surr: Dibromofluoromethane	49.66	0	50.00		99.3	78.2	128				
Surr: Toluene-d8	50.40	0	50.00		101	76.5	116				
Sample ID: 1505397-002AMS	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg-dry	Prep Date: 05/06/2015	Run No: 291288							
SampleType: MS	TestCode: 207045	BatchID: 207045	Analysis Date: 05/06/2015	Seq No: 6197544							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	61.99	6.7	66.95		92.6	56.6	151				
Benzene	57.82	6.7	66.95		86.4	70.4	130				
Chlorobenzene	58.46	6.7	66.95		87.3	67.5	132				
Toluene	58.62	6.7	66.95		87.6	70.4	130				
Trichloroethene	57.90	6.7	66.95		86.5	70.1	137				
Surr: 4-Bromofluorobenzene	57.86	0	66.95		86.4	70	128				
Surr: Dibromofluoromethane	63.82	0	66.95		95.3	78.2	128				
Surr: Toluene-d8	64.15	0	66.95		95.8	76.5	116				
Sample ID: 1505397-002AMSD	Client ID: TCL VOLATILE ORGANICS SW8260B	Units: ug/Kg-dry	Prep Date: 05/06/2015	Run No: 291288							
SampleType: MSD	TestCode: 207045	BatchID: 207045	Analysis Date: 05/06/2015	Seq No: 6197545							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	58.95	6.7	66.95		88.0	56.6	151	61.99	5.03	20.4	
Benzene	57.10	6.7	66.95		85.3	70.4	130	57.82	1.26	16.9	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL		Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J		Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim		Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Wenck Associates
Project Name: B5365-001
Workorder: 1505348

ANALYTICAL QC SUMMARY REPORT**BatchID: 207045**

Sample ID: 1505397-002AMSD	Client ID:	Units: ug/Kg-dry			Prep Date:	05/06/2015	Run No: 291288				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 207045			Analysis Date:	05/06/2015	Seq No: 6197545				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	58.72	6.7	66.95		87.7	67.5	132	58.46	0.434	14.6	
Toluene	59.05	6.7	66.95		88.2	70.4	130	58.62	0.728	16.6	
Trichloroethene	55.87	6.7	66.95		83.4	70.1	137	57.90	3.58	17	
Surr: 4-Bromofluorobenzene	56.35	0	66.95		84.2	70	128	57.86	0	0	
Surr: Dibromofluoromethane	63.52	0	66.95		94.9	78.2	128	63.82	0	0	
Surr: Toluene-d8	64.29	0	66.95		96.0	76.5	116	64.15	0	0	

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Appendix G

Waste Disposal Manifests

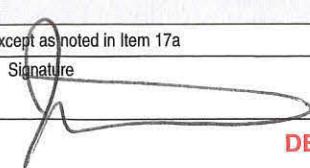
#29485

9

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number CES QG	2. Page 1 of 1	3. Emergency Response Phone (800) 275-6629	4. Waste Tracking Number 096180
5. Generator's Name and Mailing Address 3146 MAIN STREET DULUTH, GA 30096		Generator's Site Address (if different than mailing address) 3146 MAIN STREET DULUTH, GA 30096			
Generator's Phone: 6. Transporter 1 Company Name EQ INDUSTRIAL SERVICES		U.S. EPA ID Number MIK 435 642 742			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address EQIS ATLANTA TRANSFER & PROCESSING 5600 FULTON INDUSTRIAL BLVD, SW ATLANTA, GA 30336		U.S. EPA ID Number GAR 000 039 776			
Facility's Phone: (404) 494-3520					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
1. NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (SOIL)		No.	Type	DM	P
		8		4,000	NONE
2. NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (WATER)		1	DM	55 300	G
3.					
4.					
13. Special Handling Instructions and Additional Information 1. G151643EQATL / IDW SOIL 2. G150854EQATL / DECON WATER					
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste. Generator's/Offeree's Printed/Typed Name <i>James Riker</i> Signature <i>JR</i> Month Day Year 17 28 15					
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter Signature (for exports only): _____ Date leaving U.S.: _____					
16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name <i>Syndell Moreland</i> Signature <i>Syndell Moreland</i> Month Day Year 7 28 15 Transporter 2 Printed/Typed Name _____ Signature _____ Month Day Year _____					
17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____					
17b. Alternate Facility (or Generator) Facility's Phone: _____ U.S. EPA ID Number _____					
17c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a Printed/Typed Name <i>JASON SMITH</i> Signature <i>JASON SMITH</i> Month Day Year 07 28 15					

#31746

(3)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number CES QG	2. Page 1 of 1	3. Emergency Response Phone (800) 275-6629	4. Waste Tracking Number 096438		
	Generator's Site Address (if different than mailing address)					
5. Generator's Name and Mailing Address CITY OF DULUTH 3146 MAIN STREET DULUTH, GA 30096 Generator's Phone:						
6. Transporter 1 Company Name EQ INDUSTRIAL SERVICES		U.S. EPA ID Number MIK 435 642 742				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address EQIS ATLANTA TRANSFER & PROCESSIT 5600 FULTON INDUSTRIAL BLVD, SW ATLANTA, GA 30336 Facility's Phone: (404) 494-3520		U.S. EPA ID Number GAR 000 039 776				
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
		No.	Type			
1. NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (SOIL)		002	DM	800	P	NONE
2. NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (WATER)		001	DM	55	G	NONE
3.						
4.						
13. Special Handling Instructions and Additional Information 1. G151643EQATL / IDW SOIL 2. G150854EQATL / DECON WATER						
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.						
Generator's/Offeree's Printed/Typed Name JAMES RIKER		Signature 		Month	Day	Year
15. International Shipments		<input type="checkbox"/> Import to U.S.	<input type="checkbox"/> Export from U.S.	Port of entry/exit: _____		
Transporter Signature (for exports only):		Date leaving U.S.: _____				
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name Quinton Douglas		Signature 		Month	Day	Year
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy						
17a. Discrepancy Indication Space		<input type="checkbox"/> Quantity	<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
Manifest Reference Number: _____						
17b. Alternate Facility (or Generator)						
U.S. EPA ID Number						
Facility's Phone: _____						
17c. Signature of Alternate Facility (or Generator)						
Month Day Year						
None		LIW				
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name JASON SMITH		Signature 		Month	Day	Year

Appendix H

Risk Reduction Standard Calculations and Data

Table 1.
Type 3 Soil Risk Reduction Standards Summary
Duluth Project

HSRA Regulated Substances	CAS	Appendix 3 Table 2	NC	Type 1 GW	100 x Type 1 GW	Greatest of Appendix 3 Table 2, NC, 100xGW, Leaching Test*	RAGS Part B Eq.6 Adult Non- Resident	RAGS Part B Eq. 7 Adult Non- Resident	Risk-Based Human Health Soil Exposure	Type 3 Soil RRS (< 2 feet bgs)	Type 3 Soil RRS bgs)
		(mg/kg)	(mg/kg)	(mg/L)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Tetrachloroethylene (PCE)	127-18-4	---	0.18	0.005	0.5	0.5	408.786	152	152	0.500	0.500
Dichloroethylene, 1,2-cis-	156-59-2	---	0.53	0.07	7	7	---	4088	4088	7	7
Dichloroethylene, 1,2-trans-	156-60-5	---	0.53	0.1	10	10	---	239	239	10	10
Vinyl Chloride	75-01-4	---	0.04	0.002	0.2	0.2	5.046	83.510	5.046	0.2	0.2
Acetone	67-64-1	---	2.74	4	400	400	---	260025.560	260025.560	400	400
Methyl Ethyl Ketone (2-Butanone)	78-93-3	---	0.79	2	200	200	---	54443.089	54443.089	200	200
Benzo[b]fluoranthene	205-99-2	---	5	0.0002	0.02	5	78	---	78.396	5	5
Pyrene	129-00-0	---	500	1	100	500	---	61320	61320	500.00	500.00
Fluoranthene	206-44-0	---	500	1	100	500	---	81760	81760	500	500

Notes:

HSRA - Hazardous Site Response Act O.C.G.A §12-8-90

RRS - Risk Reduction Standards

NC - Notification Concentration - HSRA Rules Appendix I values

RAGS - Risk Assessment Guidance for Superfund (USEPA)

* - Leaching test not applicable

Type 3 Soil RRS - Lowest of RAGS Equation 6 & 7 values = Greatest of Appendix 3 Table 2, Notification Concentration, & 100*Groundwater Type 1 RRS

Table 2.
Target Risk and Toxicity Summary
Duluth Project

HSRA Regulated Substances	CAS	Target Risk	Target Hazard Index	Oral Cancer Slope Factor	Inhalation Unit Risk	Calculated Inhalation Cancer Slope Factor	Oral Reference Dose	Inhalation Reference Concentration	Calculated Inhalation Reference Dose	Volatilization Factor	Water-to-Air Volatilization Factor
		TR	THI	Sfo	IUR	Sfi	RfDo	RfCl	RfDi	VF	K
				(mg/kg-day) ⁻¹	(ug/m ³) ⁻¹	(mg/kg-day) ⁻¹	mg/kg-day	(mg/m ³)	(mg/kg-day)	(m ³ /kg)	(L/m ³)
Tetrachloroethylene (PCE)	127-18-4	1.00E-05	1	0.0021	2.6E-07	0.00091	0.006	0.04	0.011428571	2639.50	0.5
Dichloroethylene, 1,2-cis-	156-59-2	1.00E-05	1	---	---	---	0.002	---	---	2726.91	0.5
Dichloroethylene, 1,2-trans-	156-60-5	1.00E-05	1	---	---	---	0.02	0.06	0.017142857	2739.27	0.5
Vinyl Chloride	75-01-4	1.00E-05	1	0.72	0.0000044	0.0154	0.003	0.1	0.028571429	579.89	0.5
Acetone	67-64-1	1.00E-05	1	---	---	---	0.9	31	8.857142857	6690.91	0.5
Methyl Ethyl Ketone (2-Butanone)	78-93-3	1.00E-05	1	---	---	---	0.6	5	1.428571429	7804.43	0.5
Benzo[b]fluoranthene	205-99-2	1.00E-05	1	0.73	0.00011	0.385	---	---	---	---	---
Pyrene	129-00-0	1.00E-05	1	---	---	---	0.03	---	---	3407129.48	0.5
Fluoranthene	206-44-0	1.00E-05	1	---	---	---	0.04	---	---	---	---

Notes:

Toxicity values obtained from EPA RSL Tables, updated June 2015

Table 3.
RAGS Default Exposure Assumptions
Duluth Project

Exposure Assumption	Symbol	HSRA Default	Units
Cancerous Averaging Time	AT	70	yr
Adult Body Weight	BW	70	kg
Adult Non-Resident Exposure Duration	ED	25	yr
Adult Non-Resident Water Ingestion Rate	IRw	1	L/day
Adult Non-Resident Air Inhalation Rate	IRair	20	m ³ /day
Adult Non-Resident Soil Ingestion Rate	IRsoil	50	mg/day

RAGS - Risk Assessment Guidance for Superfund (USEPA)

Appendix I

Milestone Schedule

**Appendix I
VRP Project Milestone Schedule
City of Duluth
3146 Main Street
Duluth, GA**



Responsive partner.
Exceptional outcomes.

Toll Free: **800-472-2232**

Email: wenckmp@wenck.com

Web: wenck.com

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970-223-4705

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[Mandan](#)
701-751-3370

SOUTH DAKOTA

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605-222-1826

[Sioux City](#)
712-223-1234

WYOMING

[Cheyenne](#)
307-634-7848

[Sheridan](#)
307-675-1148