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ENVIRONMENTAL

Ms. Carolyn Daniels, PG
Response and Remediation Program
Georgia Environmental Protection Division (EPD)
2 Martin Luther King, Jr., Drive, SE
Floyd Towers East, Suite 1462
Atlanta, GA 30334

Subject:
Voluntary Remediation Plan Application
Hercules Savannah Facility, HSI Site No. 10696
3000 Louisville Road
Savannah, Chatham Co., Georgia

Date:
April 9, 2012

Contact:
David Wilderman

Phone:
404.952.1635

Email:
david.wilderman@arcadis-us.com

Our ref:
OH005000.GA60.00003

Dear Ms. Daniels:

ARCADIS U.S., Inc. (ARCADIS), on behalf of Hercules Incorporated (Hercules), is pleased to submit the enclosed Voluntary Remediation Plan (VRP) Application for your review and approval. The enclosed document has been prepared in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101) and associated guidance documents. One paper copy and two electronic copies on compact disc are enclosed as requested in the VRP checklist.

Thank you in advance for your review of the enclosed VRP application and please contact Tim Hassett at (602) 995-3456 or me with any questions or comments that you have during your review. I look forward to receiving your approval of the investigation and remediation plan and gaining acceptance into the VRP.

Sincerely,

ARCADIS U.S., Inc.



David Wilderman, PG
Principal Hydrogeologist, Project Manager

Copies:
Mr. David Reuland, EPD
Mr. Tim Hassett, Hercules Incorporated

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**Hercules Incorporated**

# Voluntary Investigation and Remediation Plan

Hercules Incorporated
3000 Louisville Road
Savannah, Georgia

April 9, 2012

# Voluntary Investigation and Remediation Plan Application Form and Checklist

| VRP APPLICANT INFORMATION | | | | | |
|---|---|---|---|---|---|
| COMPANY NAME | HERCULES INCORPORATED | | | | |
| CONTACT PERSON/TITLE | Tim Hassett | | | | |
| ADDRESS | 500 Hercules Rd., Wilmington, DE 19808-1599 | | | | |
| PHONE | (302) 995-3456 | FAX | (302) 995-3485 | E-MAIL | tdhassett@ashland.com |

| GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP | | | | | |
|---|---|---|---|---|---|
| NAME | David M. Wilderman, PG | | | GA PE/PG NUMBER | Georgia Registration No. 978 |
| COMPANY | ARCADIS U.S., Inc. | | | | |
| ADDRESS | 1000 Cobb Place Blvd., Bldg. 500-A, Kennesaw, GA 30144 | | | | |
| PHONE | (404) 952-1635 | FAX | (770) 428-4004 | E-MAIL | david.wilderman@arcadis-us.com |

## APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

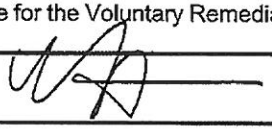
(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently 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.

(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.
(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.

In order to be considered a participant under the VRP:
(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.
(2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

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.

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.

| | | | |
|---|---|---|---|
| APPLICANT'S SIGNATURE |  | | |
| APPLICANT'S NAME/TITLE (PRINT) | **Tim Hassett P.E. /EH&S Remediation Project Manager** | DATE | 4/9/12 |

| QUALIFYING PROPERTY INFORMATION (For additional qualifying properties, please refer to the last page of application form) | | | |
|---|---|---|---|
| **HAZARDOUS SITE INVENTORY INFORMATION (if applicable)** | | | |
| HSI Number | 10696 | Date HSI Site listed | 3/22/2001 |
| HSI Facility Name | Hercules Incorporated | NAICS CODE | 325998 - All Other Miscellaneous Chemical Product Manufacturing |
| **PROPERTY INFORMATION** | | | |
| TAX PARCEL ID | 2-0734-01-001 | PROPERTY SIZE (ACRES) | 13.3 |
| PROPERTY ADDRESS | 3000 Louisville Road | | |
| CITY | Savannah | COUNTY | Chatham |
| STATE | Georgia | ZIPCODE | 31415 |
| LATITUDE (decimal format) | 32 ° 5' 7" N | LONGITUDE (decimal format) | 81° 9' 10" W |
| **PROPERTY OWNER INFORMATION** | | | |
| PROPERTY OWNER(S) | Hercules Incorporated | PHONE # | 800-832-6825 |
| MAILING ADDRESS | P.O. Box 14000 | | |
| CITY | Lexington | STATE/ZIPCODE | KY 40512 |

| 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.) | **Inside Binder Cover** | |
| 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 B** | |
| 4. | **ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF). | **Appendix F** | |
| 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 | **Inside binder cover. Project Milestone Schedule is Figure 17.** | |

| | | | |
|---|---|---|---|
| | during the preceding period. A Gantt chart format is preferred for the milestone schedule.<br><br>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: | | |
| **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; | **Pending** | |
| **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; | **Pending** | |
| **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 | **Pending** | |
| **5.d.** | Within 60 months after enrollment, the participant must submit the compliance status report required under the VRP, including the requisite certifications. | **Pending** | |
| **6.** | **SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION:<br><br>"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, et seq.). 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.<br><br>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.<br><br>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."<br><br>David Wilderman, PG Georgia#978<br>Printed Name and GA PE/PG Number<br><br>4.9.2012<br>Date<br><br>Signature and Stamp<br><br>DAVID M. WILDERMAN ★ GEORGIA REGISTERED PROFESSIONAL GEOLOGIST ★ No. 978 4/9/12 | | |

## ADDITIONAL QUALIFYING PROPERTIES (COPY THIS PAGE AS NEEDED)

| PROPERTY INFORMATION | | | |
|---|---|---|---|
| TAX PARCEL ID | 2-0734-03-001 | PROPERTY SIZE (ACRES) | 7.8 |
| PROPERTY ADDRESS | 3000 Louisville Road | | |
| CITY | Savannah | COUNTY | Chatham |
| STATE | Georgia | ZIPCODE | 31415 |
| LATITUDE (decimal format) | 32 ° 5' 7" N | LONGITUDE (decimal format) | 81° 9' 10" W |
| **PROPERTY OWNER INFORMATION** | | | |
| PROPERTY OWNER(S) | Hercules Incorporated | PHONE # | 302-594-5000 |
| MAILING ADDRESS | 500 Hercules Road/8145 Blazer Parkway | | |
| CITY | Wilmington | STATE/ZIPCODE | DE 19808 |

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER. Check Security Watermark – Hold to light to verify watermark on back of check.

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Covington KY 41012

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ARCADIS



Holly English
Staff Scientist



David Wilderman, PG
Project Manager

**Voluntary Investigation and Remediation Plan**

Hercules Incorporated
3000 Louisville Road
Savannah, Georgia

Prepared for:
Hercules Incorporated

Prepared by:
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Tel 770 428 9009
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Our Ref.:
OH005000.GA60

Date:
April 9, 2012

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ARCADIS

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## 1. Objectives and Summary of Work Scope

This Voluntary Investigation and Remediation Plan (VIRP) has been prepared to meet requirements outlined in the Georgia Voluntary Remediation Program Act (VRPA). Information and data contained in this VIRP are provided in a streamlined format and additional information, if required, can be provided to the Georgia Environmental Protection Division (EPD) upon request.

Hercules Incorporated (Hercules), a wholly owned subsidiary of Ashland Inc., owns and operates a facility in Savannah, Georgia that produces chemicals used in the paper processing industry. The Hercules facility (site) is located at 3000 Louisville Road, Savannah, Georgia. Figure 1 provides the location of the site superimposed on a topographic map of the area. The property is comprised of 14 separately deeded parcels of land (approximately 32.5 acres) bordered by railroad tracks, wetlands, and industrial and residential properties. Two of the 14 property parcels (Parcel ID 2-0734-01-001 and Parcel ID 2-0734-03-001), comprising approximately 20 acres, are currently included on the Hazardous Site Inventory (HSI) as ID No. 10696 and are considered to be the "site." Figure 2 provides an aerial view of the site, and Figure 3 illustrates the site layout and monitoring well locations. The Warranty Deed for the site is provided in Appendix A, and an illustration of the Tax Plat that shows the site, abutting properties, and tax parcel identification numbers is provided in Appendix B.

## 2. Site History

The property was first developed in 1922 by Paper Makers Chemical Corporation for pulp and paper chemical manufacturing and was purchased by Hercules in 1931. Historical site operations have included distillation of crude tall oil (CTO) and production of sizing, release agents, emulsifiers, coating agents, defoamers, fatty acid esters, disproportionated rosin, and polyamides. The tall oil distillation and rosin production operations have ceased and the plant currently only produces chemicals used in the paper processing industry.

Georgia EPD determined on March 9, 2001 that a release exceeding a reportable quantity had occurred at the facility based upon information provided in release notifications dated June 15, 2000 (caustic release in the Size Tank Farm Area), July 13, 2000 (asbestos and benzene in the 50s Tank Area), and August 11, 2000 (acrolein release in the Hard Resins Area), and the plant was placed on the Georgia HSI. Hercules submitted an amended release notification on March 9, 2001, documenting removal actions completed in the Hard Resins Area for acrolein-

contaminated soil and providing additional analytical data gathered during the 2001 Phase II investigation.

Various subsurface investigations have been conducted at the site since the late 1990s. Results have been reported in various documents including the Hazardous Site Response Act (HSRA) release notifications discussed above, multiple Compliance Status Report (CSR) documents submitted between 2002 and 2009, the draft 2008 Corrective Action Plan (CAP), and most recently the response to Georgia EPD comments on the March 2009 CSR Addendum No. 2 [February 2011 EPD response submittal] (ARCADIS, 2011). A comprehensive groundwater monitoring event was conducted in July 2011 as proposed in the February 2011 submittal and the results from this event are summarized in the following section.

Georgia EPD issued a letter dated December 8, 2011 in response to the February 2011 submittal that requested a number of actions including additional sampling and delineation, revisions to the calculated risk reduction standards (RRSs), and preparation of a CAP pursuant to the Georgia Hazardous Sites Response Rules. This VIRP is being submitted in lieu of the aforementioned CAP.

## 3. July 2011 Groundwater Monitoring Event

The groundwater data summarized in the February 2011 EPD response submittal were comprised of samples collected over a period of several years. To conduct a comprehensive evaluation of current groundwater conditions, samples were collected from all existing and accessible site monitoring wells (37 wells) during one sampling event in July 2011. Table 1 provides a summary of well construction details. Prior to sampling the monitoring wells, static water levels were measured from each well within a 24-hour period using an electronic water level probe that was decontaminated between each measurement. Following collection of water level measurements, each well was purged and sampled in accordance the U.S. Environmental Protection Agency's (USEPA's) Region 4 Science and Ecosystem Support Division's (SESD's) operating procedure document titled *Groundwater Sampling Operating Procedure* (SESDPROC-301-R1, effective November 1, 2007).

The samples were collected for analysis of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) for each well. Additional samples were collected from monitoring wells MW-F8, MW-F9, MW-13, and MW-F21 for formaldehyde analysis, and samples from wells MW-F8 and MW-F9 were also collected and analyzed for asbestos. During the July 2011 event, monitoring well

MW-F10 was not sampled as planned because it was not located and is presumed to have been destroyed during paving activities at the site. All purge water was containerized and shipped offsite for disposal following waste profiling.

Water level and analytical data collected during this event are presented in the tables and figures referenced in the following sections. To maintain brevity of this initial VIRP, the detailed purging and sampling procedures performed during the July 2011 groundwater sampling event will be included in the first Semiannual Status Update.

## 4. Preliminary Conceptual Site Model

### 4.1 Introduction

The site (Parcel ID 2-0734-01-001 and Parcel ID 2-0734-03-001) consists of approximately 20 acres located in the Coastal Plain physiographic province. Site surface water is convergent toward Dundee Canal, which flows southwest to northeast and bisects the site. The groundwater surface elevation, measured during a synoptic groundwater sampling event performed in July 2011, ranges from 2.02 feet below ground surface (bgs) to 11.09 feet bgs in wells screened in the shallow interval, and up to 33.50 feet bgs in wells screened in the deep interval (Figure 4). Surface and shallow soils consist of fine-grained, silty, clayey, sands that occur to a depth of up to 25 feet bgs. Below this interval is a bluish-green, high-plasticity clay, which serves as a semi-confining layer. Site investigations of soil and groundwater have occurred since 2000 to identify potential source areas of hazardous constituents, and to provide horizontal and vertical delineation of impacts. Groundwater impacts are delineated horizontally and vertically and impacts are confined to the site. Delineation of impacts in soil is not yet complete but impacts appear to be confined to isolated areas of the site. Low source-area concentrations and low hydraulic conductivity have resulted in minimal vertical and lateral areas of hazardous constituent impacts. Geologic cross sections have been prepared to illustrate subsurface conditions at the site and transect locations are provided on Figure 5. The cross-sectional geologic interpretations of subsurface conditions provided on Figure 6 (along the groundwater flow direction) and Figure 7 (perpendicular to site-wide groundwater flow) include historical soil and July 2011 groundwater analytical results. Figure 8 provides a graphical Conceptual Site Model (CSM) that illustrates media at the Site that may be subject to environmental impact and provide potentially complete exposure pathways to receptors.

### 4.2 Topography

The Hercules facility is located in the Coastal Plain physiographic province. The Coastal Plain is characterized by low topographic relief with extensive marshy tracts. Surface runoff in the Savannah area is less than 10 inches annually due to the combined effects of the flat surface topography, abundant marshy areas, and sandy soils.

The site is divided by a surface water feature, Dundee Canal, which flows from the southwest to northeast. The portion of Dundee Canal that traverses the site is entirely contained in a below-grade culvert except for a small portion of open canal near the MW-F17 and MWD-F3 area (see Figure 2). Site surface water drainage is convergent to the canal with ground surface elevations becoming lower approaching the canal. Ground surface elevations at the site range from 5.30 feet above mean sea level (amsl) in the north-central portion of the site close to Dundee Canal, to 15.66 feet amsl in the southwest portion of the site upstream and farther away from the canal.

### 4.3 Local and Regional Geology

Southeastern Chatham County is underlain by approximately 4,000 feet of sedimentary Coastal Plain sediments ranging in age from Holocene to Cretaceous. From land surface to a depth of approximately 500 feet, these sediments are generally unconsolidated to somewhat indurated beds of sand and clay of Recent (Holocene) age to indurated limestones of Oligocene and Eocene age. The Oligocene and Eocene limestones comprise what is commonly referred to as the Upper Floridan aquifer.

Recent sediments consist of clayey sand of Pliocene age; Post-Miocene sediments generally consist of marginal to shallow marine beds overlain by a series of sandy, marine terrace deposits that are capped by a thin layer of fluvial sand or residuum. The uppermost stratigraphic unit, the Satilla Formation, is Late Pleistocene to Holocene in age and consists of coastal marine deposits. It is a heterogeneous unit of fossiliferous, shelly sands and clays overlaying the late Pliocene Cypresshead Formation (pebbly, coarse-grained sand with some gravel, mica, shells, and localized clay beds) in some areas and the Coosawatchie Formation (sandy clay with subordinate amounts of dolomite, mica, claystone, and chert) in other areas. Satilla Formation sand is typically fine to medium grained and well sorted.

Shallow groundwater is generally encountered within the Pleistocene sands, occurring under both unconfined and confined conditions in the coastal zone. In places, a basal

Pleistocene sand, typically about 15 feet to as much as 40 feet thick, is separated from an upper fine-grained sand by a low-permeability dark-gray clay.

The soils in the area of the site are classified as Wahee Series soils by the Natural Resources Conservation Service (NRCS). These soils are characterized as poorly drained, occurring in areas with less than a 2 percent slope, and generally have low organic matter and acidic pH (4.5 to 5.0). The soil profile is comprised of a sandy loam approximately 12 inches thick underlain by approximately 4 feet of sandy loam and clay.

### 4.4 Local and Regional Hydrogeology

Four major water-bearing zones are present in the Savannah area: surficial zone (surficial aquifer), Upper Brunswick aquifer, Upper Floridan aquifer, and Lower Floridan aquifer. Monitoring wells installed at the site are within the surficial saturated zone. This zone typically consists of layers of clay, thin limestone beds, and sand, which yield small quantities of water.

The subsurface geology at the site consists predominantly of silt and clay and exhibits very low permeability. Elsewhere in the Savannah area, the surficial aquifer is approximately 70 feet thick with the deeper portions composed of more coarse-grained materials that yield sufficient water to wells to be utilized as the principal shallow water-bearing unit. Regionally and locally, this surficial aquifer exists mainly under unconfined conditions. However, past reports indicate that local clay lenses can cause semi-confined conditions in the aquifer.

Previous investigations at the site indicated a brown silty clay unit with minor amounts of fine-grained sand observed at most shallow soil boring locations to approximately 10 feet bgs. A fine- to medium-grained sand with 0 percent to 30 percent silt and clay was present at the 10- to 20-foot-bgs depth interval. A distinctive, bluish-green clay with abundant shell fragments was encountered approximately 20 feet bgs. This unit exhibits very low hydraulic conductivity and does not yield appreciable amounts of groundwater. Below the 20-foot-bgs horizon, alternating clayey and sandy intervals were encountered to a total depth of 100 feet bgs. The deep monitoring wells at the site are screened in this interval.

The lithologies discussed above form the surficial aquifer for the plant. Beneath the surficial aquifer are clay aquitard units. Within these latter units, the Brunswick

aquifer (125 to 150 feet bgs) can be present. The Upper Floridian aquifer is present beneath the site at approximately 240 feet bgs (Clark, 1990).

### 4.5 Hydraulic Conductivity

The hydraulic conductivity at the site in the shallow and deep groundwater intervals was determined in 2008 by performing rising-head slug tests in monitoring wells MWD-F1, MWD-29, MW-F3R, MW-F5, and MW-F6. The data collected during these tests were used to calculate hydraulic conductivity and the results indicated values between 0.061 feet/day and 0.497 feet/day in shallow wells, and approximately 0.0058 feet/day in deep wells (ARCADIS, 2011).

These results are generally consistent with regional values; however, after performing a review of the field data, concerns were identified in the methodology used to collect the data. Additional slug tests will be conducted on the wells outlined above and several other site wells while onsite for the first semiannual groundwater sampling event (discussed in Section 6). These data will be used to determine the revised site hydraulic conductivity values and the results will be included in the first Semiannual Status Update.

### 4.6 Hydraulic Gradient

The static depth to water was measured in all accessible site wells on July 19, 2011. These measurements were used to develop a potentiometric surface contour map for the shallow water unit and to calculate a hydraulic gradient. The general groundwater flow direction based on these measurements was convergent toward Dundee Canal, which is consistent with historical data. The hydraulic gradient was calculated from potentiometric surface elevations of wells located perpendicular to groundwater flow from both sides of Dundee Canal. The average hydraulic gradient is 0.005 ft/ft, which is typical of shallow aquifers in the Coastal Plain depositional environment. The hydraulic gradient was calculated to be 0.006 ft/ft on the west side of Dundee Canal based on water level measurements from MW-26 and MW-F17. On the east side of Dundee Canal, the hydraulic gradient is 0.005 ft/ft as calculated from monitoring wells MW-F9 and MW-F5. A summary of water level elevations is included as Table 2, and a potentiometric surface contour map is provided as Figure 4.

### 4.7 Constituents of Potential Concern

During the various subsurface investigations, regulated substances have been detected in site groundwater and soil. In addition, trace concentrations of regulated

substances have been detected in surface water and sediment samples collected from Dundee Canal downstream of the site. Historic soil, groundwater, sediment, and surface water sampling locations and current groundwater monitoring well locations are illustrated on Figure 9, and comprehensive data tables are provided as Tables 3 through 6. A list of regulated substances detected at the site along with the applicable delineation standards is included as Table 7. Finally, RRSs have been revised based on the EPD comment letter dated December 8, 2011. The RRS calculations are included as Appendix C, and Table 8 provides a summary of the calculated RRSs.

### 4.8 Operational Areas and Formerly Identified Potential Source Areas

As illustrated on Figure 9, the facility includes a number of current and former operational areas including:

- Hard Resins Area: This area, located within the central portion of the plant, is used for resin production. Formerly this area was also used for rosin processing but the rosins process was discontinued in 2006. This area is contained by a concrete secondary structure. A release of acrolein to groundwater was reported to have occurred in this area in the August 11, 2000 release notification.

- Former Tall Oil Plant Area: This area, located in the eastern portion of the plant, is used for CTO processing and tall oil production. This area is contained by a concrete secondary structure. The Tall Oil Plant was decommissioned/demolished in 2004.

- Former Dry Size Tank Area: This area, located west of the Resin Area, contains alkaline storage tanks. These tanks are surrounded by concrete containment structures. The Dry Size Area converted CTO and wood rosin into sodium and potassium salts to form dry size and paste size for the paper industry. A historical release of sodium hydroxide and potassium hydroxide to groundwater was reported to have occurred at this location in the June 15, 2000 release notification. The Dry Size Plant was decommissioned/demolished in 2006.

- Former Fatty Acid 50s and 60s Tank Areas: Prior to 1950, these adjoining areas were used for onsite storage of demolition debris from maintenance and construction, including rosin dross (wood rosin), pipe insulation, and siding. Tanks were removed from this area in 2006. Seven of the eight tanks were contained by a concrete secondary structure. A release of asbestos and benzene to soil and

groundwater was reported to have occurred here in the July 13, 2000 release notification.

- 30s Tank Area: This area, located in the central portion of the plant, includes aboveground storage tanks (ASTs) for the storage of manufactured product (currently Hercobond$^{TM}$), hydrochloric acid, and sodium hydroxide. Formerly this area was used for the storage of fatty acids. This area is contained by a concrete secondary structure.

- Former Crude Tall Oil Tank Area: This area, located within an earthen dike in the north-central portion of the plant, formerly included four ASTs, three CTO tanks, and one Pitch Unit. These tanks were removed from this area in 2004.

- Primary Oil/Water Separator: This facility is located in the northern portion of the plant. Process water from various portions of the plant and runoff from the southern portion of the plant area are treated at this separator before being discharged to the Wastewater Treatment Facility – Secondary Units.

- Electrical Substations: There are two electrical substations at the plant. The main one is located main one is located on the south side of Warehouses 1 through 3 (No.8526). A second substation is located in the vicinity of the former Tall Oil Plan (No. 8527). Both substations are non-polychlorinated-biphenyl (PCB) type. PCB-containing transformers/capacitors were historically used at substation No. 8526 and were removed and disposed of in 1990.

### 4.9 Migration Pathway Assessment and Potential Receptors

The Conceptual Site Exposure Model (CSEM) provides the framework of a risk assessment (RA). The CSEM is an iterative tool that is modified over the course of time as additional environmental data and risk assessment results are generated. The CSEM provides the problem definition; aids in the identification of data gaps; and assists in the identification of appropriate remedial technologies, if necessary (American Society of Testing and Materials [ASTM] E 1689-95, 2008). This CSEM was prepared in accordance with the approaches of the USEPA risk guidelines for both human health risk assessment (HHRA; USEPA 1989) and ecological risk assessment (ERA; USEPA 1997).

The contents of the documents listed in Section 2 were reviewed during preparation of this VIRP to ensure that the CSEM for the site accurately identifies the potential for

human and ecological exposures and supports the identification and selection of the appropriate investigation and remedial approach.

#### 4.9.1 Summary of Important Site Characteristics

The site is surrounded primarily by parcels zoned for industrial, heavy industrial, and heavy commercial use; some residential properties are located northeast of the site on the east side of Dundee Canal (see Appendix B and Figure 2). The nearest recreational area is the Mary Calder golf course situated approximately 1,800 feet northeast of the site.

The site is currently occupied by the active Hercules facility, which makes chemicals used in paper manufacturing processes. Shipments of chemicals are delivered to the facility via truck and railroad car. The majority of the site is covered with buildings, concrete, asphalt, and gravel. Small portions of the site are covered with landscaping and grass. Figure 2 illustrates the layout of buildings, loading and unloading areas, ASTs, parking areas, and rail lines that exist at the facility. Access to the site is tightly controlled by 24-hour surveillance and a 6-foot-tall, barbed-wire-topped fence that encircles the operational areas of the facility. Future site use is expected to remain industrial.

The site subsurface is composed of fill underlain by silty/clayey sand, underlain by high-plasticity clay. First encountered groundwater at the site occurs at a depth of 3 to 7 feet. Groundwater in the shallow zone (i.e., upper saturated zone from ground surface to approximately 40 feet bgs) is not used for irrigation or drinking water at the site. Groundwater from deeper zones of the Floridan aquifer system, drawn from depths of more than 240 feet bgs, is pumped for production water and is also used to supply potable water for the facility. Several laterally continuous, high-plasticity clay confining layers exist between the upper saturated zone and the Floridan aquifer as shown on Figure 8. Potable water in proximity to the site is supplied by the City of Savannah Water Department.

Dundee Canal, which is a manmade structure that extends through the City of Savannah, traverses the facility and eventually discharges into the Savannah River approximately 13,000 feet northeast of the site. Onsite, Dundee Canal exists mostly below grade within a metal or concrete culvert with the exception of a short portion (approximately 30 feet in length) that is exposed on the western portion of the site as shown on Figure 2.

Hercules submitted a revised National Pollutant Discharge Elimination System (NPDES) permit renewal application for Permit Number GA0026867 to EPD on June 23, 2006 that eliminated the discharge of treated process wastewater to Outfall 002. The permit renewal application retained capacity to discharge non-contact cooling water, stormwater, water from freeze/scald protection and testing of fire protection equipment, and softener blowdown water to Outfall 001. Dundee Canal conveys stormwater from not only the Louisville Road facility, but also the surrounding heavily industrialized area.

There are several former water treatment ponds and one water storage reservoir used for fire protection on the Hercules property. The former wastewater treatment units located southwest of the two parcels that make up the site are being addressed under the direction of the Watershed Protection Division with concurrence of Georgia EPD and are scheduled to be closed in the 2012/2013 time frame.

Three environmental release notifications have been reported to EPD for this site as discussed in Section 2. The numerous historical investigation activities that have occurred since 2000 have identified other potential source areas but no specific spill events. Incidental releases may have occurred over time in these areas as evidenced by positive detections of target analytes in soil and groundwater samples collected in those areas. No historical investigation has identified elevated concentrations of inorganic constituents so metals are not addressed further in this CSEM.

The following site characterization activities are planned at the site:

- Surface and subsurface soil sampling at potential source areas that have not been characterized in historical investigations

- Surface and subsurface soil sampling to delineate positive detections of constituents of potential concern (COPCs) where concentrations or historical sample method detection limits exceed the Type 1 RRSs

- Offsite upgradient and downgradient sediment and surface water sampling in Dundee Canal to address EPD concerns as referenced in its December 8, 2011 response to comments letter

Data collected from these additional sampling efforts will be added to the database and compared to the RRSs developed and discussed in Section 4.7. Details of proposed sampling are discussed in Section 6.

*4.9.1.1 Human Health Conceptual Site Exposure Model*

The human health CSEM identifies the sources of potential impact and constituent fate and transport mechanisms, primary receptors, exposure points, and exposure routes. Combined, these five elements (source, transport mechanism, receptors, exposure points, and exposure routes) are used to identify exposure pathways at the site. All five elements must be present for an exposure pathway to be considered complete. This section is organized by the elements of an exposure pathway and concludes with identification of complete exposure pathways at the site.

4.9.1.1.1 Sources

Site-related constituents have been detected in soil, groundwater, sediment, and surface water at the site. The sources of these constituents may be related to releases and spills that have occurred at the site.

4.9.1.1.2 Transport Mechanisms

The mechanisms affecting the distribution and migration of constituents from the release source and their ultimate fate in the environment were identified during the development of the CSR and the associated CSR revisions and CSR addendums (see Section 2). The primary site fate and transport mechanisms identified included:

- Volatilization of constituents from soil and groundwater
- Erosion of particulate-bound constituents from soil
- Leaching from soil with infiltrating water
- Transport of constituents with water flow

4.9.1.1.3 Potential Human Receptors

As mentioned previously, zoning at the site is industrial and is expected to continue to remain as such. Further the site is fenced with controlled access. Therefore, the only onsite human receptors identified are limited to current and potential future industrial workers and excavation/construction workers. Outside of the fenced area, the only potential human receptors are recreational receptors that may come in contact with

sediment and surface water contained in Dundee Canal, provided that site-related constituents have migrated offsite.

#### 4.9.1.1.4 Exposure Pathways

In general, a receptor may come in contact with constituents in groundwater, soil, sediment, and surface water via direct contact (incidental ingestion, dermal contact, and inhalation of particulates) or inhalation of vapors volatilizing from the subsurface. Exposure pathways for each environmental medium and the justification/rationale for further consideration are presented below. The CSEM delineating the exposure pathways is presented on Figure 10.

Groundwater

Potable water for the facility and surrounding areas is provided by the City of Savannah Water Department. Existing City of Savannah ordinance prohibits the use of private potable wells within the city limits. Therefore, no private potable wells can be installed either at, or adjacent to, the site. This ordinance, coupled with the extremely low water yield of the shallow geology, effectively eliminates the potential for developing local shallow groundwater resources for potable use.

A potable well survey was performed in March 2012 to identify registered public and private water wells that exist within a one-mile radius of the site. A summary of the survey results is provided in Appendix D. Four production wells were identified within the one-mile search radius in addition to the wells owned and operated by Hercules at the site. Data provided in the Environmental Data Resources, Inc. (EDR) report indicate that the wells identified, with the potential exception of the Roger Wood Packing well (for which well construction data were unavailable), draw water from the Floridan aquifer and are likely hydraulically separated by several confining units from any impact in the shallow saturated zone.

Potable water is obtained by the City of Savannah from the pumping of municipal wells screened in the Floridian aquifer system. No municipal public supply wells were identified with a one-mile radius of the site. No offsite groundwater withdrawal points (e.g., municipal supply wells) were identified that could potentially influence groundwater flow in the surficial aquifer at the Louisville Road facility.

The shallow groundwater table is likely tidally influenced in this area and may not be suitable for potable use based on salinity and other water quality parameters.

Consequently, the drinking water exposure pathway was not considered complete for the site.

Soil

The site is almost completely covered, therefore, direct exposure to soil (ingestion, dermal contact, and inhalation of dust) by the current industrial worker is an incomplete exposure pathway. Exposure to soil is a complete exposure pathway for the current/future onsite construction/excavation worker. Further, in the case of site redevelopment, direct exposure to soil could be a complete exposure pathway for a future industrial worker. Exposure to vapors from constituents in the vadose zone soil is a complete exposure pathway for all current and future receptors. In summary, potentially complete exposure pathways for soil include the following:

- Current Onsite Industrial Worker – inhalation of vapors from the subsurface.
- Future Onsite Industrial Worker – incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.
- Current/Future Onsite Construction/Excavation Worker – incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.

Surface Water

Dundee Canal crosses the site and exits toward the east where it eventually joins the Savannah River approximately 13,000 feet northeast of the site. Dundee Canal is a manmade structure that extends through the City of Savannah. No industrial discharge from the Hercules facility other than storm drainage and non-contact waters referenced previously in this report enters Dundee Canal, and industrial wastewater is discharged to the City of Savannah sanitary sewer system under Industrial Discharge Permit 25348-15. Onsite surface water consists of overland flow during precipitation events and surface water that flows through the underground conduit portion of Dundee Canal.

Surface water was collected from four locations within Dundee Canal (SW-F2, SW-F3, SW-F4, and SW-F5) during a Phase II investigation performed in 2000 (Table 5). These locations were approximately 200, 700, 1,200, and 3,000 feet downstream (north) of the plant outfall, respectively (see inset on Figure 9). The surface water samples were analyzed for a range of constituents including VOCs, SVOCs, metals,

pesticides, and herbicides. The results indicated that regulated substances (1-4-dioxane, ammonia, and fluoride) were present at concentrations below the in-stream water quality standards (IWQSs) and the Type 1 RRS (EPD, 2012). Figure 12 provides a graphical representation of the regulated compounds detected in surface water. The surface water laboratory analytical data is provided in Appendix E as requested by EPD in the December 8, 2011 comment letter.

As described in Section 6.6, additional surface water samples will be collected to assess current conditions and these new data will be utilized to evaluate impacts to surface water.

Onsite Sediment

The potential for exposure to constituents in onsite sediment is considered low for the industrial worker receptor under current conditions due to the remote location of the impacted areas. Landscaping activities do not occur in or adjacent to the piped sections of Dundee Canal or in areas where Dundee Canal is open-air (western portion of the facility). Therefore, exposure to onsite sediment is not considered a complete exposure pathway for onsite industrial workers. Exposure to onsite sediment is a complete exposure pathway for the construction worker receptor. In summary, the only potentially complete exposure pathway for exposure to onsite sediment is:

- Current/Future Onsite Construction/Excavation Worker: incidental ingestion of and dermal contact with sediment.

Offsite Sediment

Similar to onsite sediment, the potential for exposure to sediment in the offsite ditch and canal is low due to the infrequent use of the ditch in this area by potential receptors. The recreational value of the canal immediately upgradient and downgradient of the site is low as it is a manmade drainage feature with limited potential to support recreational activities (boating, fishing, swimming, etc.). Potentially complete exposure pathways include the following:

- Current/Future Offsite Youth Trespasser: incidental ingestion of and dermal contact with sediment and inhalation of sediment-derived particulates.

Sediment samples (SD-F2, SD-F3, SD-F4, SD-F5, and composite sample SD-F2/F3/F4/F5) were collected from four locations within Dundee Canal during a Phase II

investigation performed in 2000 (Table 6). These locations were approximately 200, 700, 1,200, and 3,000 feet downstream (north) of the plant outfall, respectively (see inset on Figure 9). The discrete samples were analyzed for a range of constituents including VOCs, SVOCs, and metals. The composite sample was analyzed for pesticides, herbicides, PCBs, and dioxans/furans. The results indicated that regulated substances (acetone, benzo(a)pyrene and bis(2-ethylhexyl)phthalate) were present in sediment at concentrations below calculated RRSs. Additionally, trace concentrations of several dioxins and furans were detected in the composite sample but none exceeded RRSs. Figure 11 provides a graphical representation of the regulated compounds detected in sediment. The sediment laboratory analytical data are provided in Appendix E as requested by EPD in the December 8, 2011 comment letter. Note that the laboratory report also includes data for Dundee Canal berm soil samples (SD-F6, SD-F7, SD-F8, and SD-F6/F7/F8) collected during the same 2000 event.

As described in Section 6.6, sediment samples will be collected to assess current conditions and these new data will be utilized to evaluate impacts to sediment.

#### *4.9.1.2 Ecological Conceptual Site Exposure Model*

The site is developed with structures and parking lots, and soil is almost completely covered; therefore, no suitable onsite ecological habitat was identified at the site. Dundee Canal and wetlands in the offsite area may provide suitable ecological habitat and could be a source of exposure to site-related constituents if they should be present in surface water or sediment. Exposure to offsite ecological receptors associated with Dundee Canal will be evaluated via a screening-level ecological risk assessment (SLERA) as requested by Georgia EPD in the December 8, 2011 response letter.

## 5. Delineation Status – Groundwater and Soil

The comprehensive dataset was compared to the Type 1 RRS to evaluate the need for additional delineation of regulated substances. The following is a list of regulated (or soon to be regulated) substances detected at concentrations above the Type 1 RRS:

| Groundwater | Soil |
|---|---|
| Benzene | Acrolein |
| Bis(2-ethylhexyl)phthalate | 1,1'- Biphenyl |
| Naphthalene | Aniline |

### 5.1 Groundwater

Data from groundwater samples collected in July 2011 (as well as historical data for select constituents as described below) were compared to the Type 1 RRS to evaluate whether delineation was complete. Laboratory analytical reports for the July 2011 event are included in Appendix E. During the July 2011 sampling event, benzene, naphthalene, and bis(2-ethylhexyl)phthalate were detected at concentrations greater than the Type 1 RRS. These detections were confined to monitoring well MW-F21, which is screened in the shallow aquifer. Nearby deep well MWD-30 had no detections of any analyzed VOCs or SVOCs.

Regulated substances endrin aldehyde, ammonia, and fluoride were the only historically detected regulated compounds not analyzed in July 2011, therefore, the maximum historical concentrations for each of these analytes was compared to the Type 1 RRS as part of the contaminant evaluation. Samples for analysis of asbestos fibers were collected from wells MW-F8 and MW-F9, and the results showed less than 0.2 million fibers per liter (MFL). However, the historical maximum of 6.7 MFL was utilized for the comparison to Type 1 RRSs because this historical result is associated with temporary well location TMW-5, which could not be re-sampled for comparison. Figures 13a through 13f provide a graphical representation of contaminant distribution of these COPCs in the shallow and deep aquifers.

### 5.2 Soil

All detections of regulated compounds in the historical soil dataset (1998 to 2008) were compared to the Type 1 RRSs to evaluate whether additional delineation in soil will be required (Table 7). Figures 14a through 14c provide a graphical representation of the

contaminant distribution of these COPCs in soil. Based on the historical dataset, concentrations of acrolein, 1-1'-biphenyl, and aniline are present in soil at concentrations greater than the Type 1 RRS and the Type 4 RRS.

Trace concentrations of acrolein (0.11 mg/kg and 0.13 mg/kg, respectively) were detected at one sample location (Confirmation_Sample at [0–3 ft bgs] and [3-6 ft bgs]). As documented in the February 2011 EPD response submittal, these detections could not be substantiated with field notes or laboratory data and were likely reported in error; however, in the December 2011 response letter EPD requested that soil samples be collected in this area for confirmation of current conditions. Additionally, analytical results for a number of "non-detect" historical soil sample locations across the site had reporting limits above the Type 1 RRS for acrolein.

Similarly, aniline was detected at one sample location at concentrations above the Type 1 RRS (SB-F3 [0-2 ft bgs] at 3.3 mg/kg). Analytical results for a number of "non-detect" historical soil sample locations across the site had reporting limits above the Type 1 RRS for aniline.

Finally, 1-1' biphenyl was detected at seven historical sample locations at concentrations above the Type 1 RRS, with the highest concentration being reported at EX-19 (700 mg/kg) from the 0-2 ft bgs interval near the Former Dowtherm Unit No. 2028. Additionally, results for a number of "non-detect" historical soil sample locations across the site had reporting limits above the Type 1 RRS for 1-1' biphenyl.

## 6. Investigation Plan

This section provides a summary of actions that are proposed to address regulated substance delineation data gaps and collect the information needed to evaluate site risk and hazard to potentially-exposed present and potential future receptors.

### 6.1 Confirmatory Groundwater Sampling

No additional delineation of regulated substances in groundwater is required. As discussed previously, the detections of bis(2-ethylhexyl)phthalate in groundwater are believed to be erroneous and will be confirmed during planned field activities. Groundwater samples will be collected from all wells with positive detections of bis(2-ethylhexyl)phthalate (see Figures 13e and 13f).

### 6.2 Slug Testing

Slug tests will be conducted on selected wells in the shallow and deeper portions of the upper aquifer during the first semiannual sampling event to verify previously reported site hydraulic conductivity values. A total of 10 wells will be selected for slug testing to allow evaluation of variability between wells screened in similar saturated zones. Results will be included in the first Semiannual Status Update.

### 6.3 Confirmation Sampling at Composite Sample Locations

In its October 25, 2010 response letter to the 2009 CSR Addendum No. 2, Georgia EPD indicated that several historical soil samples collected within the Hard Resin, CTO Plant, CTO Release, Fatty Acid AST (30s tanks), and 50s and 60s Tank (landfill) areas were collected using a composite sampling methodology. These samples were collected during a Phase II investigation conducted in 2000 and during sampling in 2000 associated with planned soil removal during plant upgrades in the 50s and 60s Tank (landfill) Area. Since composite soil samples are not acceptable for demonstrating the extent of regulated substances in soil, additional grab soil samples will be collected at the former sample locations listed below and analyzed as indicated to confirm current soil conditions at said locations. Samples will be collected in 2-foot intervals from land surface to the water table as follows:

- Pesticides, Dioxins, and Furans: SB-F3, SB-F4, SB-F6, SB-F12, SB-F14, SB-F15, and SB-F27

- PCBs: SB-F12 and SB-14

The results of these soil samples will be evaluated to assess completeness of delineation and to determine whether remediation will be needed to demonstrate compliance with site-specific RRSs. As described in the February 2011 response to Georgia EPD comments submittal, additional grab soil sampling for VOCs and SVOCs will not be completed for the aforementioned sample locations in the 50s and 60s Tank Area due to accessibility issues (these areas are covered by concrete containment pads). In lieu of additional sampling in this area, Hercules will likely propose Type 5 RRSs for the area.

### 6.4 Additional Delineation of Detected Regulated Substances

Additional delineation of the following regulated substances in soil will be performed to identify the extent of concentrations exceeding the Type 1 RRSs:

- Acrolein
- Aniline
- 1,1-Biphenyl

EPD stated in its October 25, 2010 response letter that Hercules did not excavate soils to a depth of 3 feet bgs in the Fatty Acid 50s Tank Area (primarily tanks TO-50 through TO-53; *aka* former landfill area) prior to construction of the existing concrete containment dike as initially planned and referenced in the June 2000 release notification submitted for the site. Therefore, potential asbestos-containing material (ACM) identified during June 2000 site improvement activities remains buried beneath the concrete pad constructed in the Former Fatty Acid 50s Tank Area. As stated in response to Comment 4 of the comment letter (February 2011 EPD response submittal), due to accessibility issues (these areas are covered by concrete containment pads), Hercules will assume that ACMs remain buried beneath the concrete caps located within the former landfill area and will propose Type 5 RRSs for ACMs in soil. Implementation of a monitoring and maintenance program and a Uniform Environmental Covenant will be proposed.

### 6.5 Investigation of Additional Potential Source Areas

As outlined in the December 2011 response letter, the following additional potential source areas were identified by EPD based on a review of the "October 28, 1998 Plot Plan and October 23, 2000 Phase II Environmental Site Sampling Map." Hercules will confirm whether these areas have been previously investigated and will conduct additional sampling as needed to identify the presence or absence of applicable regulated substances in soil. These potential source areas are illustrated on Figure 15. Hercules does not believe that any additional potential sources of regulated substances exist within the current boundaries of the site (Tax Parcels 2-0734-01-001 and 2-0734-03-001).

- Current and Former Shop Buildings: This source area includes a shop building formerly located in the contractor yard (Austin Shop) on Parcel 2-0734-03-001, and

the current plant maintenance shop (Building 8106) and adjacent gasoline storage area on Parcel 2-0734-01-001 near the northern site property line. Soil samples will be collected in these areas and analyzed for the presence or absence of regulated VOCs and SVOCs.

- Current and Former Quality Control Laboratories: Soil samples will be collected and analyzed for SVOCs, VOCs, and formaldehyde, at a minimum, at all current and former quality control laboratories and their storage areas. The above-referenced plot map indicates the existence of said areas on Parcel 2-0734-01-001 as follows: 1) a laboratory (Building 8102) and laboratory annex northwest of the former Dry Size Building, 2) an air compressor and laboratory storage area in Building 8502 immediately west of the former Dry Size Building, and 3) and ink laboratory west/southwest of the former Tall Oil ASTs/Release Area.

- Additional Potential Dowtherm Oil Storage/Handling Areas: The referenced plot map indicates that Dowtherm oil may have potentially been stored and/or used in the following areas in addition to those areas noted in ARCADIS' responses to comments: 1) inside the Pilot Plant (Building 2014) where an "open egg" label is shown, 2) an area or structure immediately east of the referenced building where "Dowtherm" is written on the plot, and 3) an area labeled "Dowtherm Drum" east of the main site office building (Building 8100) and west of the Tall Oil Release Area. Soil samples will be collected in the referenced area and analyzed for the presence of SVOCs, VOCs, and PCBs at a minimum.

- Historical Benzene Storage Areas: The referenced Phase II Environmental Site Assessment (ESA) figure indicates that benzene has been historically stored at an AST location, labeled K-22, and near ASTs labeled H-107 and H-103 on the plot map. These areas will be investigated for the presence of benzene in soil.

- Historical Formaldehyde Storage Area: Six former ASTs are shown located northwest of production/drinking water well #1 and immediately south of the former Tall Oil Plant. The above-referenced Phase II ESA map indicates that two ASTs, the westernmost AST near boring GP-2 and the second or third AST east of it, formerly stored formaldehyde. Soil samples will be collected from these specific locations, since the ASTs are no longer present, and analyzed for the presence of formaldehyde.

Additionally, EPD requested investigation of the following areas based on the current and/or former use of dielectric fluids and Dowtherm/heat transfer oils (Figure 16):

- Electrical Substations (Current and Former) and Former Locations of PCB-Containing Capacitors: The presence or absence of PCBs in soil will be assessed at all of the locations where equipment containing dielectric fluids have historically been stored or used.

  - Two electrical substations (8526 [Western] and 8527 [Eastern]) are currently in use at the facility. One electrical substation was formerly located near the Contractor Yard.
  - PCB-containing transformers/capacitors were historically used at substation 8526 and samples will be collected in this area to assess the presence of PCBs.

- Defoamer Dowtherm Vaporizer Unit 2024: Soil surrounding the unit will be sampled and analyzed for PCBs, SVOCs, and VOCs to determine the presence or absence of constituents of Dowtherm/heat transfer oils (including 1,1'-biphenyl).

- Former Dowtherm Unit (Dowtherm Heat Transfer Unit- DHTU) 2051 and Soil Boring/Sample Locations Labeled SS-62 and "Confirmation_Sample" (a known heat transfer release area): At a minimum, grab soil samples will be collected beneath the former location of DHTU 2051, at former soil sample location SS-62. Access issues have reportedly prevented direct sampling in the area where the soil sample referred to as "Confirmation Sample" was collected (where an unsubstantiated concentration of acrolein equal to the reporting limit was reported in 2000 as documented in the February 2011 response to EPD comments on the 2009 CSR Addendum No. 2), therefore, additional sampling may not be feasible in this area. However, an additional attempt will be made to access the confirmed release area for sampling.

- DHTU 2028, CTO Plant, CTO Release Area (Tanks TO-1 through TO-3): As documented by EPD in the October 2010 response letter, said area is considered to be a potential source area for PCBs as several heat transfer oil constituents (specifically several polyaromatic hydrocarbons [PAHs], 1,1'-biphenyl, diphenyl ether, etc.) were detected at elevated concentrations in soil samples collected during an investigation conducted by S&ME in July 2007. Therefore, additional soil samples will be collected at the location of DHTU 2028 (S&ME sample location EX-19) and S&ME sample locations GP-6 and GP-8 for PCBs, SVOCs, and VOCs.

- Former Dry Size Area ("DS" series soil boring/sample locations): As documented by EPD in the October 2010 response letter, this area must be investigated as a

potential source area for PCBs because several heat transfer oil constituents were detected at elevated concentrations at several of the "DS"-series soil samples at or near the Dry Size Area. Therefore, soil samples will be collected at boring/sample location DS-9 and boring/sample locations DS-13 and DS-17 for PCB analysis.

### 6.6 Sediment and Surface Water Sampling

In order to assess current conditions within the Dundee Canal, surface water and sediment samples will be collected upgradient, within, and downgradient of the site. Surface water samples will be analyzed for VOCs, SVOCs, ammonia, and fluoride (based on the results of previously detected regulated substances). Sediment samples will be analyzed for VOCs, SVOCs, and dioxins/furans (based on the results of previously detected regulated substances).

#### 6.6.1 Risk Assessment Approach

Upon the completion of site characterization, both a HHRA and an ERA will be conducted. Prior to conducting the RAs, the CSEM will be reviewed and revised if necessary based on the results of planned site characterization activities.

##### *6.6.1.1 Data Evaluation*

Upon completion of the planned final site characterization activities, site data will be evaluated and an RA dataset will be developed. Only data that are representative of current site conditions will be used in the RA. Site concentrations will be based on exposure point concentration (EPCs). The EPC is the representative concentration of a constituent in an environmental medium that is potentially contacted by the receptor (USEPA 1989). The EPC is defined as "the arithmetic average of the concentration that is contacted over the exposure period" (USEPA 1989). Consistent with USEPA methodology, the lower of the maximum concentration and the upper confidence limit on the mean (UCL) will be identified as the EPC (USEPA 1989, 2002). The UCL is a statistical number calculated to represent the mean concentration with a high percentage of confidence that the true arithmetic mean concentration for a site will be less than the UCL. The high level of confidence (e.g., 95 percent) is used to compensate for the uncertainty involved in representing site conditions with a finite number of samples. The most current version of USEPA's ProUCL software - version 4.1 (USEPA 2011a) will be used to calculate UCLs when sufficient data are available (a minimum of five detections and eight samples).

*6.6.1.2 Human Health Risk Assessment Approach*

A HHRA will be conducted consistent with GAEPD and USEPA risk assessment guidance (USEPA 1989). The purpose of the HHRA will be to evaluate potential exposures and risks to site related constituents detected in the soil, groundwater, surface water, and sediments at the site. For the direct contact pathways, risk will be evaluated by comparing site concentrations to the appropriate risk based screening levels. Risk from inhalation of vapors in indoor air will be evaluated based on the latest recommendations by USEPA (USEPA 2012).

A screening HHRA was conducted as part of this CSEM. The purpose of the screening HHRA was to define the scope of the HHRA and identify any data gaps. The first step in the screening HHRA was to identify COPCs for each medium at the site. COPCs are expected to contribute the majority of potential exposure and risk, consistent with USEPA (1989) guidance. COPC identification constitutes a conservative, risk-based screening evaluation. Under USEPA (1989) guidelines, COPCs can be identified based on criteria such as frequency of detection, toxicity, comparison with background concentrations, or whether a chemical can be considered a common laboratory contaminant. COPCs for direct contact with soil and sediment were identified based on a comparison with Type 3 Risk Reduction Standards (Type 3 RRS) for an industrial scenario; while surface water COPCs were identified based on comparison to GA In-stream Water Quality Standards (IWQS).

When soil concentrations (surface and subsurface to evaluate the potential for soil redistribution) were compared to Type 3 RRS, only two constituents (1,1'-biphenyl and acrolein) were present at maximum concentrations in soil that exceeded the RRS. 1,1-biphenyl was detected in 9 samples out of a total of 93 samples at a maximum concentration of 700 mg/kg. While the maximum concentration of 1,1-biphenyl exceeds the Type 3 RRS (93 mg/g), the exposure point concentration (EPC) of 21.5 mg/kg was below Type 3 RRS, therefore 1,1-biphenyl was not identified as a COPC. Acrolein was detected in 2 out of 75 samples (0.11 and 0.13 mg/kg) and both were above the type 3 RRS (0.065 mg/kg). An EPC could not be calculated for acrolein because of the low frequency of detection. Despite the low frequency of detection, acrolein was retained as a COPC because many of the detection limits for the non-detect samples were higher than the Type 3 RRS, therefore, the presence of acrolein will be delineated further.

To evaluate direct contact with soil pathways, surface soil data (0 to 2 feet) and vadose zone data will be used. The evaluation of exposure to surface soil data will be conducted to evaluate a future scenario in which the site is redeveloped (without soil redistribution) and portions are left uncovered. An evaluation of exposure to vadose zone soil will be conducted to determine the risk to the construction worker and also the future industrial worker if redevelopment involves soil redistribution and again portions of the site are left uncovered.

Risk from inhalation of vapors in indoor air will be evaluated using USEPA spreadsheets that calculate risk based on indoor air concentration predicted using the Johnson and Ettinger vapor intrusion model (USEPA 2004b) per the User's Guide (USEPA 2004a). The USEPA spreadsheets, which were built to evaluate a home-bound resident only, will be adjusted for an industrial scenario. Further, toxicity values and chemical/physical parameters will be based on the latest available USEPA recommended values (USEPA 2011b) in accordance with Georgia EPD recommendations.

If the risk estimates exceed Georgia EPD and USEPA acceptable risk levels, appropriate risk management alternatives (e.g., remedial measures and/or institutional controls) will be proposed.

#### *6.6.1.3 Ecological Risk Assessment Approach*

A SLERA for Dundee Canal downstream of the site will be conducted in response to agency request. The SLERA will be conducted according to methods outlined by Georgia EPD in the guidelines for a CSR under HSRA. The methods recommended by EPD are consistent with USEPA Ecological Risk Assessment Guidance (USEPA 1997). The objective of the SLERA is to evaluate whether ecological receptors may be adversely affected by exposure to constituents detected in surface water and sediment samples collected from Dundee Canal downstream and to the northeast of the site.

The SLERA will evaluate the potential risk to aquatic ecological receptors exposed to detected constituents identified in proposed surface water and sediment samples discussed in Section 6.6. The SLERA will also consider the proposed/planned samples to be collected in Dundee Canal upstream of the site. The habitat will be evaluated through a review of aerial maps and well-documented ground-level photographs provided by the ARCADIS project team. A desktop review of the potential presence of threatened and endangered species in the area will be conducted by searching the Georgia Department of Natural Resources database (GADNR 2012) and the U.S. Fish and Wildlife database (USFW 2012).

Consistent with USEPA (1997) guidance, the SLERA for Dundee Canal will be comprised of the following steps:

- Screening-Level Problem Formation
- Screening-Level Ecological Effects Evaluation
- Screening-Level Exposure Estimate and Risk Calculation
- Refined Exposure Estimate and Risk Calculation (hazard quotients and food chain modeling calculations for representative feeding guild receptors if necessary)
- Scientific Management Decision Point, Uncertainties, and Recommendations

Ecological effect screening levels (ESLs) will be identified from the Georgia In-stream standard (EPD 2012), or from USEPA Region IV or Region V guidance (USEPA 2001; 2003). When ESLs are not available from those sources, ESLs will be located from other acceptable sources (e.g., the Oak Ridge National Laboratory) and the open literature or be estimated based on USEPA methods (USEPA 2008; 2009).

### 6.7 Groundwater Modeling

Groundwater modeling will be completed to demonstrate compliance with site-specific cleanup standards at the downgradient point of exposure in accordance with Section 12-8-108 of the VRPA. An analytical solute transport model with sequential first-order decay (BIOCHLOR v2.2) will be used to simulate in-situ biotransformation and predict the maximum extent of dissolved-phase plume migration. The constituents subject to the model include benzene and naphthalene. This model using a sequential first-order decay process will be completed following the submittal of this VIRP and will be included in the first Semiannual Status Update.

### 6.8 Vapor Intrusion

Due to the presence of VOCs in soil and groundwater at the site, volatile constituents have the potential to migrate from the subsurface into indoor air of site buildings. A vapor intrusion pathway risk evaluation will be completed following the submittal of this VIRP to assess the potential exposure of site workers to constituents migrating from the subsurface into indoor air and thus establishing a point of exposure. Results of this assessment will be provided in the first Semiannual Status Update.

# 7. Initial Remediation Plan

## 7.1 Institutional Controls

### 7.1.1 Groundwater

Once delineation of COCs and the exposure pathways evaluation is complete, institution controls will be developed and utilized at the site to mitigate risk and hazards from completed exposure pathways. A Uniform Environmental Covenant will be prepared and a deed notice will be placed on the site to include the following:

- Direct use or extraction of groundwater from anywhere onsite will be prohibited.
- The removal, destruction, or alteration of the concrete floor in the site buildings in such a way as to make any of the underlying impacted soil accessible will be prohibited, unless such controls are replaced in a manner so as to constitute a functionally equivalent engineering control.
- Excavation, construction, utility installation or maintenance, and similar land disturbing activities in soil below the water table will be prohibited in the areas where groundwater is impacted, unless such work is performed by informed and properly trained contractors such that human exposure to potentially hazardous materials does not occur.
- Residential use on the ground level of any existing or future buildings onsite will be prohibited.
- All improvements located in whole or in part on any portion of the subject property must comply with the institutional controls.

### 7.1.2 Soil

As discussed in Section 6.4, due to restricted access in the vicinity of the Former Fatty Acid 50s Tank Area, Hercules will mitigate risk associated with ACM located beneath the concrete caps located within the former landfill area using Type 5 RRSs for ACM in soil. Implementation of a monitoring and maintenance program and a Uniform Environmental Covenant will be proposed. Following the delineation efforts discussed previously in this section, Hercules will evaluate any remedial action required for other regulated compounds in soils.

Once the aforementioned soil delineation investigation has been completed, remediation for any soils existing above the calculated RRS (Table 8 and Appendix C) will be proposed.

### 7.2 Semiannual Groundwater Monitoring

To monitor groundwater impacts and to ensure that no exposure pathways develop, groundwater sampling will be conducted semiannually until compliance with final cleanup standards is demonstrated for a period of two years or as to be determined by the director of the VRPA and to be agreed upon by Hercules. Semiannual monitoring will consist of the collection of water-level measurements from 37 onsite wells and the collection of groundwater samples from the following 7 monitoring wells: MW-F21, MW-F3R, MW-F5, MW-F7, MW-27, MW-29, and MWD-30. These groundwater samples will be analyzed for VOCs by USEPA Method 8260B and SVOCs by USEPA Method 8270C.

### 7.3 Completion of the VIRP

If at the end of two years of semiannual groundwater sampling no exposure pathways exist and proper engineering and institutional controls are in place, the corrective action portion of the VIRP will be considered complete for the site. Upon completion of the corrective action, a CSR will be prepared by Hercules confirming the consistency of the corrective action with the provisions, purposes, standards, and policies of the VIRP. Within 90 days of the director's written concurrence of the CSR, the director shall remove the property from the Hazardous Site Inventory.

## 8. Cost Estimate

An initial cost estimate for elements of the work proposed under this VIRP is provided in Table 9. Costs for any future out of scope investigative activities at the site are not included in the preliminary estimate.

## 9. Schedule

A project schedule for work elements outlined in this VIRP is provided on Figure 17. The actual date for the start of work outlined in this schedule will depend on the receipt date of EPD VIRP approval, and the schedule may either advance or extend based upon that date.

## 10. Reporting

Semiannual status reports will be submitted to the director to provide updates of the progress and implementation of the VIRP throughout the program. The semiannual status reports may include an updated CSM if warranted by site data. Additionally, the projected milestone schedule will be updated to show progress on VIRP objectives.

A CSR Update will be prepared for submittal to EPD following the conclusion of data collection and interpretation activities outlined in this VIRP. The CSR will confirm the completion of the corrective action specified in the VIRP and certify compliance of the site with the applicable cleanup standards.

## 11. References

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**Tables**

Table 1
Well Construction
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| Well Id | Install Date | Total Depth (btoc)[1] | Approximate Total Depth (bgs)[2] | Casing Length (bgs) | Screen Interval (bgs) | | Well Completion | Site Area | Installer | Ground Elevation (Historical) | Top of Casing Elevation (Historical) | Ground Elevation (2011) | Top of Casing Elevation (2011) | Well Diameter | Construction Material |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Shallow Monitoring Wells** | | | | | | | | | | | | | | | |
| MWA* | – | – | 10.4 | – | – | 10.4 | – | Resin Areas | – | – | – | – | – | – | – |
| MWB* | -- | -- | 10.2 | -- | -- | 10.2 | -- | Resin Areas | -- | -- | -- | -- | -- | -- | -- |
| MWC* | -- | -- | 10.2 | -- | -- | 10.2 | -- | Resin Areas | -- | -- | -- | -- | -- | -- | -- |
| MWD* | -- | -- | 8.8 | -- | -- | 8.8 | -- | Resin Areas | -- | -- | -- | -- | -- | -- | -- |
| MW-F1 | 10/19/2000 | 22.58 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 8.1 | 10.62 | 7.13 | 9.55 | 2 | PVC |
| MW-F2 | 10/24/2000 | 11.82 | 10 | 5 | 5 | 10 | -- | Resin Areas | AGM | 8.89 | 8.58 | 7.70 | 7.51 | 2 | PVC |
| MW-F3* | 10/19/2000 | -- | 20 | 10 | 10 | 20 | -- | Resin Areas | AGM | 10 | 9.94 | -- | -- | 2 | PVC |
| MW-F3R | 11/6/2008 | 22.90 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | WPC | 9.36 | 13.63 | 8.32 | 12.53 | 2 | PVC |
| MW-F4* | 10/18/2000 | -- | 20 | 10 | 10 | 20 | -- | Resin Areas | AGM | 9.6 | 12.09 | -- | -- | 2 | PVC |
| MW-F5 | 10/18/2000 | 22.26 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 10.01 | 12.62 | 9.07 | 11.49 | 2 | PVC |
| MW-F6 | 10/19/2000 | 19.73 | 20 | 10 | 10 | 20 | Flush mount | Resin Areas | AGM | 10.01 | 10.03 | 8.97 | 8.59 | 2 | PVC |
| MW-F7 | 10/18/2000 | 23.14 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 11.59 | 14.03 | 10.70 | 13.23 | 2 | PVC |
| MW-F8 | 10/20/2000 | 20.60 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 12.25 | 12.5 | 11.22 | 12.59 | 2 | PVC |
| MW-F9 | 10/17/2000 | NM | 20 | 10 | 10 | 20 | -- | Resin Areas | AGM | 13 | 12.84 | 12.00 | 11.78 | 2 | PVC |
| MW-F10* | 10/17/2000 | NM | 20 | 10 | 10 | 20 | -- | Resin Areas | AGM | 10.56 | 10.5 | -- | -- | 2 | PVC |
| MW-F11 | 10/18/2000 | 19.66 | 20 | 10 | 10 | 20 | Flush mount | Resin Areas | AGM | 9.83 | 9.3 | 8.80 | 8.58 | 2 | PVC |
| MW-F12 | 10/18/2000 | 20.47 | 20 | 10 | 10 | 20 | Flush mount | Resin Areas | AGM | 10.54 | 10.1 | 9.47 | 9.34 | 2 | PVC |
| MW-F13 | 10/17/2000 | 23.32 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 16.34 | 19.46 | 15.66 | 18.47 | 2 | PVC |
| MW-F14 | 10/16/2000 | 22.52 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 6.93 | 9.33 | 6.05 | 8.38 | 2 | PVC |
| MW-F15 | 10/19/2000 | 19.98 | 20 | 10 | 10 | 20 | Flush mount | Resin Areas | AGM | 10.61 | 10.7 | 9.87 | 9.79 | 2 | PVC |
| MW-F16 | 10/16/2000 | 22.42 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 6.83 | 9.46 | 6.03 | 8.51 | 2 | PVC |
| MW-F17 | 10/17/2000 | 22.83 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 9.59 | 12.34 | 8.93 | 11.36 | 2 | PVC |
| MW-F19 | 10/16/2000 | 22.84 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 8.6 | 11.46 | 7.68 | 10.47 | 2 | PVC |
| MW-F20* | 10/23/2000 | -- | 13 | 3 | 3 | 13 | -- | Resin Areas | AGM | 10.07 | 9.89 | -- | -- | 2 | PVC |
| MW-F21 | 10/23/2000 | 23.33 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | AGM | 11.11 | 13.54 | 9.96 | 12.46 | 2 | PVC |
| MW-22 | 10/29/2002 | 21.39 | 20 | 10 | 10 | 20 | Stick-up | Shallow Background Well | MACTEC | 8.69 | 7.8 | 7.36 | 10.06 | 2 | PVC |
| MW-23 | 10/28/2002 | 23.41 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | MACTEC | 7.31 | 9.64 | 7.08 | 9.4 | 2 | PVC |
| MW-24 | 10/28/2002 | 22.95 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | MACTEC | 8.02 | 10.52 | 7.71 | 10.23 | 2 | PVC |
| MW-25 | 10/29/2002 | 21.34 | 20 | 10 | 10 | 20 | Stick-up | Shallow Background Well | MACTEC | 10.99 | 13.17 | 10.32 | 12.72 | 2 | PVC |
| MW-26 | 10/30/2002 | 24.01 | 20 | 10 | 10 | 20 | Stick-up | Size Tank Farm | MACTEC | 13.4 | 15.98 | 13.69 | 15.69 | 2 | PVC |
| MW-27 | 12/17/2002 | 19.99 | 20 | 10 | 10 | 20 | Flush mount | Resin Areas | MACTEC | 11.39 | 10.52 | 10.36 | 10.23 | 2 | PVC |
| MW-28 | 12/17/2002 | 24.54 | 20 | 10 | 10 | 20 | Stick-up | Shallow Background Well | MACTEC | 7.909 | 10.801 | 7.60 | 10.5 | 2 | PVC |
| MW-29 | 11/6/2008 | 22.50 | 20 | 10 | 10 | 20 | Stick-up | Resin Areas | WPC | 10.65 | 13.85 | 9.58 | 12.8 | 2 | PVC |
| MW-32 | 11/18/2008 | 21.98 | 20 | 10 | 10 | 20 | Stick-up | Shallow Background Well | WPC | 5.72 | 7.9 | 5.30 | 7.05 | 2 | PVC |

Table 1
Well Construction
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| Well Id | Install Date | Total Depth (btoc)[1] | Approximate Total Depth (bgs)[2] | Casing Length (bgs) | Screen Interval (bgs) | | Well Completion | Site Area | Installer | Ground Elevation (Historical) | Top of Casing Elevation (Historical) | Ground Elevation (2011) | Top of Casing Elevation (2011) | Well Diameter | Construction Material |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Deep Monitoring Wells** | | | | | | | | | | | | | | | |
| MWD-22 | 10/29/2002 | 42.61 | 50 | 40 | 40 | 50 | Stick-up | Resin Areas | MACTEC | 7.8 | 10.15 | 7.71 | 10.05 | 2 | PVC |
| MWD-23 | 11/1/2002 | 48.98 | 50 | 40 | 40 | 50 | Stick-up | Resin Areas | MACTEC | 7.13 | 9.46 | 6.83 | 9.27 | 2 | PVC |
| MWD-24 | 10/29/2002 | 47.43 | 50 | 40 | 40 | 50 | Stick-up | Deep Background Well | MACTEC | 8.05 | 10.6 | 7.67 | 10.34 | 2 | PVC |
| MWD-25 | 10/30/2002 | 48.07 | 50 | 40 | 40 | 50 | Stick-up | Deep Background Well | MACTEC | 10.89 | 8.11 | 10.26 | 12.58 | 2 | PVC |
| MWD-27 | 12/17/2002 | 45.02 | 50 | 40 | 40 | 50 | Flush mount | Resin Areas | MACTEC | | 10.404 | 10.25 | 10.09 | 2 | PVC |
| MWD-28 | 12/17/2002 | 49.05 | 50 | 40 | 40 | 50 | Stick-up | Deep Background Well | MACTEC | 8.217 | 11.089 | 7.27 | 10.66 | 2 | PVC |
| MWD-29 | 11/10/2008 | 51.10 | 50 | 40 | 40 | 50 | Stick-up | Resin Areas | WPC | 10.65 | 14.59 | 9.51 | 13.56 | 2 | PVC |
| MWD-30 | 11/11/2008 | 52.78 | 50 | 40 | 40 | 50 | Stick-up | Resin Areas | WPC | 11.11 | 14.48 | 10.06 | 13.41 | 2 | PVC |
| MWD-F1 | 10/17/2000 | 103.30 | 100 | 80 | 80 | 100 | Stick-up | Resin Areas | AGM | 7.99 | 10.39 | 6.92 | 9.25 | 2 | PVC |
| MWD-F2 | 10/17/2000 | 103.25 | 100 | 80 | 80 | 100 | Stick-up | Resin Areas | AGM | 8.7 | 11.5 | 7.80 | 10.52 | 2 | PVC |
| MWD-F3 | 10/18/2000 | 90.22 | 87 | 67 | 67 | 87 | Stick-up | Resin Areas | AGM | 9.58 | 12.21 | 8.77 | 11.23 | 2 | PVC |
| **Temporary Wells** | | | | | | | | | | | | | | | |
| Well-1 | 1/7/1998 | -- | 19 | -- | -- | 19 | -- | Size Tank Farm | Ferguson-Harbour | -- | -- | | | -- | -- |
| Well-2 | 1/7/1998 | -- | 17 | -- | -- | 17 | -- | Size Tank Farm | Ferguson-Harbour | -- | -- | | | -- | -- |
| Well-3 | 1/7/1998 | -- | 17 | -- | -- | 17 | -- | Size Tank Farm | Ferguson-Harbour | -- | -- | | | -- | -- |
| TMW-5 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-6 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-7 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-10 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-11 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-12 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-13 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-14 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-15 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-16 | 7/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| TMW-17 | 6/6/2000 | -- | ~12-16 | -- | -- | ~12-16 | -- | 50s Tank and Hard Resin Area | S&ME | -- | -- | | | -- | -- |
| **Onsite Production Wells** | | | | | | | | | | | | | | | |
| Well 1 (12") | ~1955 | -- | 1000 | 270 | open borehole | | -- | -- | -- | -- | -- | | | 12 | -- |
| Well 2 (10") | ~1950 | -- | 750 | 250 | open borehole | | -- | -- | -- | -- | -- | | | 10 | -- |
| Well 3 (8") | Before January 1956 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | | 8 | -- |

-- Unknown or not applicable
MWA*–= Abandoned Well; MW-F10 was destroyed
[1] - Total depth below top of casing (btoc) measured on January 26, 2011. Wells MW-F2, MW-F9, and MW-F10 could not be located. Water level tape not long enough to measure total depth btoc of MWD-F2 and MWD-F3.
[2] - Total depth below ground surface for wells with riser aboveground is approximated based on limited well construction/boring log information. The length of aboveground risers will be measured during next field event for confirmation of total depth bgs.
[3] - The riser length is approximated based on historical survey data. The length of aboveground risers will be measured during the next field event.

**Table 2**
**Groundwater Elevation Data**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah, GA**

| Well ID | Date of Measurement | Ground Elevation (ft amsl) | Top of Casing Elevation (ft amsl) | Depth to Water (ft BTOC) | GW Elevation (ft amsl) | Depth to Water Table (ft bgs) |
|---|---|---|---|---|---|---|
| MWA | 10/23/2000 | NM | NM | 5.71 | NM | NM |
| MWB | 10/23/2000 | NM | NM | 5.06 | NM | NM |
| MWC | 10/23/2000 | NM | NM | 5.53 | NM | NM |
| MWD | 10/23/2000 | NM | NM | 7.00 | NM | NM |
| MW-F1 | 10/23/2000 | 8.10 | 10.62 | 4.94 | 5.68 | 2.42 |
| MW-F1 | 11/1/2000 | 8.10 | 10.62 | 4.98 | 5.64 | 2.46 |
| MW-F1 | 6/30/2004 | 8.10 | 10.62 | 4.35 | 6.27 | 1.83 |
| MW-F1 | 1/26/2011 | 8.10 | 10.62 | 4.14 | 6.48 | 1.62 |
| MW-F1 | 7/21/2011 | 7.13 | 9.55 | 4.39 | 5.16 | 1.97 |
| MW-F2 | 11/1/2000 | 8.89 | 8.58 | 5.62 | 2.96 | 5.93 |
| MW-F2 | 6/30/2004 | 8.89 | 8.58 | 5.55 | 3.03 | 5.86 |
| MW-F2 | 11/19/2008 | 8.89 | 8.58 | 5.46 | 3.12 | 5.77 |
| MW-F2 | 1/26/2011 | 8.89 | 8.58 | NM | NM | NM |
| MW-F2 | 7/21/2011 | 7.70 | 7.51 | 5.46 | 2.05 | 5.65 |
| MW-F3 | 10/23/2000 | 10.00 | 9.94 | 2.51 | 7.43 | 2.57 |
| MW-F3 | 11/1/2000 | 10.00 | 9.94 | 2.53 | 7.41 | 2.59 |
| MW-F3 | 7/3/2004 | 10.00 | 9.94 | 1.42 | 8.52 | 1.48 |
| MW-F3 | 8/16/2006 | 10.00 | 9.94 | 2.04 | 7.90 | 2.10 |
| MW-F3R | 11/19/2008 | 9.36 | 13.63 | 6.76 | 6.87 | 2.49 |
| MW-F3R | 1/26/2011 | 9.36 | 13.63 | 6.60 | 7.03 | 2.33 |
| MW-F3R | 7/21/2011 | 8.32 | 12.53 | 6.80 | 5.73 | 2.59 |
| MW-F4 | 10/23/2000 | 9.60 | 12.09 | 5.99 | 6.10 | 3.50 |
| MW-F4 | 11/1/2000 | 9.60 | 12.09 | 6.04 | 6.05 | 3.55 |
| MW-F5 | 10/23/2000 | 10.01 | 12.62 | 6.47 | 6.15 | 3.86 |
| MW-F5 | 11/1/2000 | 10.01 | 12.62 | 6.61 | 6.01 | 4.00 |
| MW-F5 | 7/2/2004 | 10.01 | 12.62 | 6.00 | 6.62 | 3.39 |
| MW-F5 | 8/16/2006 | 10.01 | 12.62 | 6.36 | 6.26 | 3.75 |
| MW-F5 | 7/30/2008 | 10.01 | 12.62 | 5.73 | 6.89 | 3.12 |
| MW-F5 | 11/19/2008 | 10.01 | 12.62 | 5.79 | 6.83 | 3.18 |
| MW-F5 | 1/26/2011 | 10.01 | 12.62 | 5.61 | 7.01 | 3.00 |
| MW-F5 | 7/21/2011 | 9.07 | 11.49 | 5.59 | 5.90 | 3.17 |
| MW-F6 | 10/23/2000 | 10.10 | 10.03 | 3.89 | 6.14 | 3.96 |
| MW-F6 | 11/1/2000 | 10.10 | 10.03 | 3.99 | 6.04 | 4.06 |
| MW-F6 | 7/2/2004 | 10.10 | 10.03 | 3.40 | 6.63 | 3.47 |
| MW-F6 | 1/26/2011 | 10.10 | 10.03 | 2.79 | 7.24 | 2.86 |
| MW-F6 | 7/21/2011 | 8.97 | 8.59 | 2.91 | 5.68 | 3.29 |
| MW-F7 | 10/23/2000 | 11.59 | 14.03 | 6.18 | 7.85 | 3.74 |
| MW-F7 | 11/1/2000 | 11.59 | 14.03 | 6.29 | 7.74 | 3.85 |
| MW-F7 | 8/16/2006 | 11.59 | 14.03 | 6.00 | 8.03 | 3.56 |
| MW-F7 | 7/30/2008 | 11.59 | 14.03 | 5.58 | 8.45 | 3.14 |
| MW-F7 | 11/19/2008 | 11.59 | 14.03 | 4.76 | 9.27 | 2.32 |
| MW-F7 | 1/26/2011 | 11.59 | 14.03 | 4.65 | 9.38 | 2.21 |
| MW-F7 | 7/21/2011 | 10.70 | 13.23 | 5.16 | 8.07 | 2.63 |
| MW-F8 | 10/23/2000 | 12.25 | 12.50 | 4.78 | 7.72 | 4.53 |
| MW-F8 | 11/1/2000 | 12.25 | 12.50 | 5.06 | 7.44 | 4.81 |
| MW-F8 | 1/26/2011 | 12.25 | 12.50 | 4.21 | 8.29 | 3.96 |
| MW-F8 | 7/21/2011 | 11.22 | 12.59 | 4.63 | 7.96 | 3.26 |
| MW-F9 | 10/23/2000 | 13.00 | 12.84 | 4.72 | 8.12 | 4.88 |
| MW-F9 | 11/1/2000 | 13.00 | 12.84 | 4.85 | 7.99 | 5.01 |
| MW-F9 | 1/26/2011 | 13.00 | 12.84 | NM | NM | NM |
| MW-F9 | 7/21/2011 | 12.00 | 11.78 | 3.64 | 8.14 | 3.86 |
| MW-F10 | 10/23/2000 | 10.56 | 10.50 | 4.32 | 6.18 | 4.38 |
| MW-F10 | 11/1/2000 | 10.56 | 10.50 | 4.39 | 6.11 | 4.45 |
| MW-F10 | 1/26/2011 | 10.56 | 10.50 | NM | NM | NM |
| MW-F11 | 10/23/2000 | 9.83 | 9.30 | 3.19 | 6.11 | 3.72 |
| MW-F11 | 11/1/2000 | 9.83 | 9.30 | 3.23 | 6.07 | 3.76 |
| MW-F11 | 1/26/2011 | 9.83 | 9.30 | 2.32 | 6.98 | 2.85 |

**Table 2**
**Groundwater Elevation Data**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah, GA**

| Well ID | Date of Measurement | Ground Elevation (ft amsl) | Top of Casing Elevation (ft amsl) | Depth to Water (ft BTOC) | GW Elevation (ft amsl) | Depth to Water Table (ft bgs) |
|---|---|---|---|---|---|---|
| MW-F11 | 7/21/2011 | 8.80 | 8.58 | 2.22 | 6.36 | 2.44 |
| MW-F12 | 10/23/2000 | 10.54 | 10.10 | 4.40 | 5.70 | 4.84 |
| MW-F12 | 11/1/2000 | 10.54 | 10.10 | 4.16 | 5.94 | 4.60 |
| MW-F12 | 7/3/2004 | 10.54 | 10.10 | 2.98 | 7.12 | 3.42 |
| MW-F12 | 1/26/2011 | 10.54 | 10.10 | 3.67 | 6.43 | 4.11 |
| MW-F12 | 7/21/2011 | 9.47 | 9.34 | 3.15 | 6.19 | 3.28 |
| MW-F13 | 10/23/2000 | 16.34 | 19.46 | 10.35 | 9.11 | 7.23 |
| MW-F13 | 11/1/2000 | 16.34 | 19.46 | 10.82 | 8.64 | 7.70 |
| MW-F13 | 7/1/2004 | 16.34 | 19.46 | 12.45 | 7.01 | 9.33 |
| MW-F13 | 1/26/2011 | 16.34 | 19.46 | 10.30 | 9.16 | 7.18 |
| MW-F13 | 7/21/2011 | 15.66 | 18.47 | 11.09 | 7.38 | 8.28 |
| MW-F14 | 10/23/2000 | 6.93 | 9.33 | 4.80 | 4.53 | 2.40 |
| MW-F14 | 11/1/2000 | 6.93 | 9.33 | 4.72 | 4.61 | 2.32 |
| MW-F14 | 7/1/2004 | 6.93 | 9.33 | 4.20 | 5.13 | 1.80 |
| MW-F14 | 8/16/2006 | 6.93 | 9.33 | 4.56 | 4.77 | 2.16 |
| MW-F14 | 1/26/2011 | 6.93 | 9.33 | 2.51 | 6.82 | 0.11 |
| MW-F14 | 7/21/2011 | 6.05 | 8.38 | 2.91 | 5.47 | 0.58 |
| MW-F15 | 10/23/2000 | 10.61 | 10.70 | 4.94 | 5.76 | 4.85 |
| MW-F15 | 11/1/2000 | 10.61 | 10.70 | 5.11 | 5.59 | 5.02 |
| MW-F15 | 1/26/2011 | 10.61 | 10.70 | 4.38 | 6.32 | 4.29 |
| MW-F15 | 7/21/2011 | 9.87 | 9.79 | 4.43 | 5.36 | 4.51 |
| MW-F16 | 10/23/2000 | 6.83 | 9.46 | 4.17 | 5.29 | 1.54 |
| MW-F16 | 11/1/2000 | 6.83 | 9.46 | 4.50 | 4.96 | 1.87 |
| MW-F16 | 7/1/2004 | 6.83 | 9.46 | 3.15 | 6.31 | 0.52 |
| MW-F16 | 1/26/2011 | 6.83 | 9.46 | 2.19 | 7.27 | -0.44 |
| MW-F16 | 7/21/2011 | 6.03 | 8.51 | 2.73 | 5.78 | 0.25 |
| MW-F17 | 10/23/2000 | 9.59 | 12.34 | 6.45 | 5.89 | 3.70 |
| MW-F17 | 11/1/2000 | 9.59 | 12.34 | 6.54 | 5.80 | 3.79 |
| MW-F17 | 1/26/2011 | 9.59 | 12.34 | 5.46 | 6.88 | 2.71 |
| MW-F17 | 7/21/2011 | 8.93 | 11.36 | 5.68 | 5.68 | 3.25 |
| MW-F19 | 10/23/2000 | 8.60 | 11.46 | 5.17 | 6.29 | 2.31 |
| MW-F19 | 11/1/2000 | 8.60 | 11.46 | 5.50 | 5.96 | 2.64 |
| MW-F19 | 6/30/2004 | 8.60 | 11.46 | 4.59 | 6.87 | 1.73 |
| MW-F19 | 1/26/2011 | 8.60 | 11.46 | 4.61 | 6.85 | 1.75 |
| MW-F19 | 7/21/2011 | 7.68 | 10.47 | 4.75 | 5.72 | 1.96 |
| MW-F20 | 11/1/2000 | 10.07 | 9.89 | 3.90 | 5.99 | 4.08 |
| MW-F20 | 8/17/2006 | 10.07 | 9.89 | 3.71 | 6.18 | 3.89 |
| MW-F20 | 1/26/2011 | 10.07 | 9.89 | NM | NM | NM |
| MW-F21 | 11/1/2000 | 11.11 | 13.54 | 7.02 | 6.52 | 4.59 |
| MW-F21 | 8/16/2006 | 11.11 | 13.54 | 6.27 | 7.27 | 3.84 |
| MW-F21 | 7/30/2008 | 11.11 | 13.54 | 5.94 | 7.60 | 3.51 |
| MW-F21 | 11/19/2008 | 11.11 | 13.54 | 5.67 | 7.87 | 3.24 |
| MW-F21 | 1/26/2011 | 11.11 | 13.54 | 5.77 | 7.77 | 3.34 |
| MW-F21 | 7/21/2011 | 9.96 | 12.46 | 5.68 | 6.78 | 3.18 |
| MW-22 | 7/1/2004 | 8.69 | 7.80 | 3.15 | 4.65 | 4.04 |
| MW-22 | 1/26/2011 | 8.69 | 7.80 | 2.24 | 5.56 | 3.13 |
| MW-22 | 7/21/2011 | 7.36 | 10.06 | 2.90 | 7.16 | 0.20 |
| MW-23 | 7/1/2004 | 7.31 | 9.64 | 6.30 | 3.34 | 3.97 |
| MW-23 | 1/26/2011 | 7.31 | 9.64 | 5.70 | 3.94 | 3.37 |
| MW-23 | 7/21/2011 | 7.08 | 9.40 | 6.12 | 3.28 | 3.80 |
| MW-24 | 6/30/2004 | 8.02 | 10.52 | 4.80 | 5.72 | 2.30 |
| MW-24 | 1/26/2011 | 8.02 | 10.52 | 4.62 | 5.90 | 2.12 |
| MW-24 | 7/21/2011 | 7.71 | 10.23 | 4.85 | 5.38 | 2.33 |
| MW-25 | 7/1/2004 | 10.99 | 13.17 | 7.10 | 6.07 | 4.92 |
| MW-25 | 1/26/2011 | 10.99 | 13.17 | 5.76 | 7.41 | 3.58 |
| MW-25 | 7/21/2011 | 10.32 | 12.72 | 6.63 | 6.09 | 4.23 |

**Table 2**
**Groundwater Elevation Data**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah, GA**

| Well ID | Date of Measurement | Ground Elevation (ft amsl) | Top of Casing Elevation (ft amsl) | Depth to Water (ft BTOC) | GW Elevation (ft amsl) | Depth to Water Table (ft bgs) |
|---|---|---|---|---|---|---|
| MW-26 | 1/26/2011 | 13.40 | 15.98 | 7.81 | 8.17 | 5.23 |
| MW-26 | 7/21/2011 | 13.69 | 15.69 | 7.73 | 7.96 | 5.73 |
| MW-27 | 8/16/2006 | 11.39 | 10.52 | 2.85 | 7.67 | 3.72 |
| MW-27 | 11/19/2008 | 11.39 | 10.52 | 1.58 | 8.94 | 2.45 |
| MW-27 | 1/26/2011 | 11.39 | 10.52 | 1.41 | 9.11 | 2.28 |
| MW-27 | 7/21/2011 | 10.36 | 10.23 | 2.02 | 8.21 | 2.15 |
| MW-28 | 1/26/2011 | 7.90 | 10.80 | 6.15 | 4.65 | 3.25 |
| MW-28 | 7/21/2011 | 7.60 | 10.50 | 6.96 | 3.54 | 4.06 |
| MW-29 | 11/19/2008 | 10.65 | 13.85 | 4.22 | 9.63 | 1.02 |
| MW-29 | 1/26/2011 | 10.65 | 13.85 | 4.38 | 9.47 | 1.18 |
| MW-29 | 7/21/2011 | 9.58 | 12.80 | 4.77 | 8.03 | 1.55 |
| MW-32 | 11/19/2008 | 5.72 | 7.90 | 2.87 | 5.03 | 0.69 |
| MW-32 | 1/26/2011 | 5.72 | 7.90 | 2.55 | 5.35 | 0.37 |
| MW-32 | 7/21/2011 | 5.30 | 7.05 | 3.19 | 3.86 | 1.44 |
| MWD-F1 | 10/23/2000 | 7.99 | 10.39 | 49.58 | -39.19 | 47.18 |
| MWD-F1 | 11/1/2000 | 7.99 | 10.39 | 41.98 | -31.59 | 39.58 |
| MWD-F1 | 6/30/2004 | 7.99 | 10.39 | 36.06 | -25.67 | 33.66 |
| MWD-F1 | 1/26/2011 | 7.99 | 10.39 | 33.00 | -22.61 | 30.60 |
| MWD-F1 | 7/21/2011 | 6.92 | 9.25 | 33.50 | -24.25 | 31.17 |
| MWD-F2 | 10/23/2000 | 8.70 | 11.50 | 33.09 | -21.59 | 30.29 |
| MWD-F2 | 11/1/2000 | 8.70 | 11.50 | 28.30 | -16.80 | 25.50 |
| MWD-F2 | 6/30/2004 | 8.70 | 11.50 | 25.19 | -13.69 | 22.39 |
| MWD-F2 | 1/26/2011 | 8.70 | 11.50 | 23.40 | -11.90 | 20.60 |
| MWD-F2 | 7/21/2011 | 7.80 | 10.52 | 23.00 | -12.48 | 20.28 |
| MWD-F3 | 10/23/2000 | 9.58 | 12.21 | 23.78 | -11.57 | 21.15 |
| MWD-F3 | 11/1/2000 | 9.58 | 12.21 | 21.87 | -9.66 | 19.24 |
| MWD-F3 | 1/26/2011 | 9.58 | 12.21 | 18.65 | -6.44 | 16.02 |
| MWD-F3 | 7/21/2011 | 8.77 | 11.23 | 18.55 | -7.32 | 16.09 |
| MWD-22 | 7/1/2004 | 7.80 | 10.15 | 3.43 | 6.72 | 1.08 |
| MWD-22 | 1/26/2011 | 7.80 | 10.15 | 2.56 | 7.59 | 0.21 |
| MWD-22 | 7/21/2011 | 7.71 | 10.05 | 3.26 | 6.79 | 0.92 |
| MWD-23 | 6/30/2004 | 7.13 | 9.46 | 7.10 | 2.36 | 4.77 |
| MWD-23 | 1/26/2011 | 7.13 | 9.46 | 6.60 | 2.86 | 4.27 |
| MWD-23 | 7/21/2011 | 6.83 | 9.27 | 7.04 | 2.23 | 4.60 |
| MWD-24 | 1/26/2011 | 8.05 | 10.60 | 4.47 | 6.13 | 1.92 |
| MWD-24 | 7/21/2011 | 7.67 | 10.34 | 4.69 | 5.65 | 2.02 |
| MWD-25 | 7/1/2004 | 10.89 | 8.11 | 6.05 | 2.06 | 8.83 |
| MWD-25 | 1/26/2011 | 10.89 | 8.11 | 5.44 | 2.67 | 8.22 |
| MWD-25 | 7/21/2011 | 10.26 | 12.58 | 5.64 | 6.94 | 3.32 |
| MWD-27 | 8/16/2006 | NM | 10.40 | 3.74 | 6.66 | NM |
| MWD-27 | 1/26/2011 | NM | 10.40 | 2.55 | 7.85 | NM |
| MWD-27 | 7/21/2011 | 10.25 | 10.09 | 3.00 | 7.09 | 3.16 |
| MWD-28 | 7/1/2004 | 8.22 | 11.09 | 6.60 | 4.49 | 3.73 |
| MWD-28 | 1/26/2011 | 8.22 | 11.09 | 5.15 | 5.94 | 2.28 |
| MWD-28 | 7/21/2011 | 7.27 | 10.66 | 5.54 | 5.12 | 2.15 |
| MWD-29 | 11/19/2008 | 10.65 | 14.59 | 6.48 | 8.11 | 2.54 |
| MWD-29 | 1/26/2011 | 10.65 | 14.59 | 6.22 | 8.37 | 2.28 |
| MWD-29 | 7/21/2011 | 9.51 | 13.56 | 6.72 | 6.84 | 2.67 |
| MWD-30 | 11/19/2008 | 11.11 | 14.48 | 7.75 | 6.73 | 4.38 |
| MWD-30 | 1/26/2011 | 11.11 | 14.48 | 7.85 | 6.63 | 4.48 |
| MWD-30 | 7/21/2011 | 10.06 | 13.41 | 8.11 | 5.30 | 4.76 |

Note: On July 19, 2011 MW-F10 could not be located for measurement of water level

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | | Analyte | 1,1-Biphenyl | 1,2,3,4,6,7,8-Heptachlorodibenzofuran | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin | 1,2,3,4,7,8,9-Heptachlorodibenzofuran | 1,2,3,4,7,8-Hexachlorodibenzofuran | 1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin | 1,2,3,6,7,8-Hexachlorodibenzofuran | 1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin | 1,2,3,7,8,9-Hexachlorodibenzofuran | 1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin | 1,2,3,7,8-Pentachlorodibenzofuran | 1,2,3,7,8-Pentachlorodibenzo-p-Dioxin | 2,3,4,6,7,8-Hexachlorodibenzofuran | 2,3,4,7,8-Pentachlorodibenzofuran | 2,3,7,8-Tetrachlorodibenzofuran | 2,3,7,8-Tetrachlorodibenzo-p-dioxin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 92-52-4 | 67562-39-4 | 35822-46-9 | 55673-89-7 | 70648-26-9 | 39227-28-6 | 57117-44-9 | 57653-85-7 | 72918-21-9 | 19408-74-3 | 57117-41-6 | 40321-76-4 | 60851-34-5 | 57117-31-4 | 51207-31-9 | 1746-01-6 |
| | | | | | Method | SW8270C | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| 50-CC Com | 50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-EC Com | 50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-NC Com | 50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-NE Com | 50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-SC Com | 50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-SE Com | 50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-NW Com | 50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-SW Com | 50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-WC Com | 50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(1-3)GRAB_NM | 1 - 3 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(4-6)GRAB_NM | 4 - 6 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F1 | SB-F1_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | 1.3 | 0.00000785 J | 0.000101 J | 0.0000005 J | 0.000000567 J | 0.0000134 J | 0.000000469 J | 0.000000712 J | 0.000000129 J | 0.00000675 J | 0.000000165 J | 0.000000893 J | 0.000000588 J | 0.000000628 J | 0.00000113 J | 0.000000142 J |
| SB-F3 | SB-F3_10/24/00_(0-2)GRAB_NM | 0 - 2 | 10/24/2000 | N | < 4.1 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F4 | SB-F4_10/19/00_(0.5-2)GRAB_NM | 0.5 - 2 | 10/19/2000 | N | < 0.77 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F6 | SB-F6_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.77 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F6/F4/F | SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMPOSITE | 0.5 - 3 | 10/20/2000 | N | NA | 0.00000685 J | 0.0000754 J | 0.000000537 J | 0.000000721 J | 0.00000379 J | 0.000000602 J | 0.000000935 J | 0.000000208 J | 0.00000298 J | 0.000000238 J | < 0.000000262 UJ | 0.000000833 J | 0.00000112 J | 0.000000659 J | 0.000000118 J |
| SB-F12 | SB-F12_10/20/00_(1-3)GRAB_NM | 1 - 3 | 10/20/2000 | N | < 0.72 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SD-F12/F13 | SD-F12/F13/F14/F15_10/26/00_(0-0.5)COMPOSITE | 0 - 0.5 | 10/26/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F14 | SB-F14_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.78 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F14/F12 | SB-F14/F12_10/20/00_(1-3)COMPOSITE | 1 - 3 | 10/20/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F14/F12 | SB-F14/F12/F3_10/19/00_(0-3)COMPOSITE | 0 - 3 | 10/19/2000 | N | NA | 0.0000301 | 0.0000853 | 0.0000013 | 0.00000172 | 0.00000377 | 0.00000146 | 0.00000111 | 0.000000466 | 0.00000238 | 0.000000538 | 0.000000743 | 0.00000208 | 0.00000225 | 0.00000145 | 0.000000203 |
| SB-F15 | SB-F15_10/18/00_(0-3)GRAB_NM | 0 - 3 | 10/18/2000 | N | < 0.74 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F19 | SB-F19_10/17/00_(0-3)GRAB_NM | 0 - 3 | 10/17/2000 | N | < 0.78 U | 0.00000321 J | 0.0000399 J | 0.000000284 J | 0.000000433 J | 0.00000168 J | 0.000000265 J | < 0.00000082 UJ | 0.00000012 J | 0.00000115 J | 0.000000154 J | < 0.000000262 UJ | 0.000000297 J | 0.000000388 J | 0.000000618 J | 0.000000106 J |
| SB-F27 | SB-F27_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.75 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Confirmatio | CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM | 0 - 3 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Confirmatio | CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM | 3 - 6 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F3A | SB-F3A_11/8/02_(0-1)GRAB_NM | 0 - 1 | 11/8/2002 | N | < 0.78 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-1 | SS-1_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-2 | SS-2_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-3 | SS-3_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-4 | SS-4_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-30 | SS-30_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.86 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-31 | SS-31_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.89 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-32 | SS-32_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.82 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-33 | SS-33_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.8 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-34 | SS-34_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.8 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-35 | SS-35_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.84 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-43 | SS-43_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.75 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-43 | SS-43_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-44 | SS-44_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.76 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-44 | SS-44_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-45 | SS-45_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.74 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-45 | SS-45_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-46 | SS-46_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-46 | SS-46_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.74 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-47 | SS-47_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.75 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-47 | SS-47_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-48 | SS-48_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.77 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-48 | SS-48_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-49 | SS-49_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.8 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-49 | SS-49_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-50 | SS-50_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.84 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-50 | SS-50_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-51 | SS-51_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.76 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-51 | SS-51_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-52 | SS-52_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.78 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-52 | SS-52_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-53 | SS-53_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.72 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-54 | SS-54_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.75 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-55 | SS-55_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.76 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-55 | SS-55_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-56 | SS-56_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.72 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-57 | SS-57_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.78 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-58 | SS-58_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.77 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-59 | SS-59_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.89 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-60 | SS-60_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.85 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-61 | SS-61_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.75 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-61 | SS-61_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-62 | SS-62_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.78 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-63 | SS-63_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.76 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F3RE | SB-F3RE_12/19/02_(0-2)GRAB_NM | 0 - 2 | 12/19/2002 | N | < 0.78 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-74 | SS-74_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-74 | SS-74_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | | Analyte | 1,1-Biphenyl | 1,2,3,4,6,7,8-Heptachlorodibenzofuran | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin | 1,2,3,4,7,8,9-Heptachlorodibenzofuran | 1,2,3,4,7,8-Hexachlorodibenzofuran | 1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin | 1,2,3,6,7,8-Hexachlorodibenzofuran | 1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin | 1,2,3,7,8,9-Hexachlorodibenzofuran | 1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin | 1,2,3,7,8-Pentachlorodibenzofuran | 1,2,3,7,8-Pentachlorodibenzo-p-Dioxin | 2,3,4,6,7,8-Hexachlorodibenzofuran | 2,3,4,7,8-Pentachlorodibenzofuran | 2,3,7,8-Tetrachlorodibenzofuran | 2,3,7,8-Tetrachlorodibenzo-p-dioxin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 92-52-4 | 67562-39-4 | 35822-46-9 | 55673-89-7 | 70648-26-9 | 39227-28-6 | 57117-44-9 | 57653-85-7 | 72918-21-9 | 19408-74-3 | 57117-41-6 | 40321-76-4 | 60851-34-5 | 57117-31-4 | 51207-31-9 | 1746-01-6 |
| | | | | | Method | SW8270C | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| SS-75 | SS-75_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 1_8/15/06_(0-2)GRAB_DUP | 0 - 2 | 8/15/2006 | FD | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 2_8/15/06_(2-4)GRAB_DUP | 2 - 4 | 8/15/2006 | FD | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 A_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 B_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-80 | SS-80_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-82 | SS-82_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-83 | SS-83_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-84 | SS-84_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-85 | SS-85_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-86 | SS-86_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-87 | SS-87_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-88 | SS-88_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-89 | SS-89_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-90 | SS-90_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-93 | SS-93_11/6/08_(0-4)GRAB_NM | 0 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | DUP-2_11/6/08_(0-2)GRAB_DUP | 0 - 2 | 11/6/2008 | FD | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | SS-94_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-95 | SS-95_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-96 | SS-96_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-97 | DUP-4_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-97 | SS-97_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-98 | DUP-3_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-98 | SB-98_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-98 | SB-98_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-99 | SB-99_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-99 | SB-99_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-100 | DUP-1_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-100 | SB-100_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-100 | SB-100_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-101 | SB-101_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-101 | SB-101_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-102 | SB-102_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-102 | SB-102_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-103 | SB-103_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-103 | SB-103_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-103 | SB-103_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-105 | SB-105_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-105 | SB-105_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-107 | SB-107_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-107 | SB-107_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-107 | SB-107_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-108 | SS-108_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-1 | DS-1_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.35 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-1 | DS-1_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.35 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-2 | DS-2_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.36 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-2 | DS-2_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.38 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-3 | DS-3_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 3.9 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-3 | DS-3_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 3.8 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-4 | DS-4_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.36 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-4 | DS-4_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.36 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-5 | DS-5_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | 0.021 J | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-5 | DS-5_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 1.9 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-6 | DS-6_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | 0.64 JD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-6 | DS-6_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 4.1 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-7 | DS-7_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.37 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-7 | DS-7_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.38 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-8 | DS-8_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 3.7 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-9 | DS-9_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.45 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-9 | DS-9_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | 9 D | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-10 | DS-10_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | 0.055 J | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-10 | DS-10_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.38 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-11 | DS-11_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-11 | DS-11_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-12 | DS-12_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.4 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-12 | DS-12_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Table 3
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| | | | | Analyte | 1,1-Biphenyl | 1,2,3,4,6,7,8-Heptachlorodibenzofuran | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin | 1,2,3,4,7,8,9-Heptachlorodibenzofuran | 1,2,3,4,7,8-Hexachlorodibenzofuran | 1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin | 1,2,3,6,7,8-Hexachlorodibenzofuran | 1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin | 1,2,3,7,8,9-Hexachlorodibenzofuran | 1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin | 1,2,3,7,8-Pentachlorodibenzofuran | 1,2,3,7,8-Pentachlorodibenzo-p-Dioxin | 2,3,4,6,7,8-Hexachlorodibenzofuran | 2,3,4,7,8-Pentachlorodibenzofuran | 2,3,7,8-Tetrachlorodibenzofuran | 2,3,7,8-Tetrachlorodibenzo-p-dioxin |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 92-52-4 | 67562-39-4 | 35822-46-9 | 55673-89-7 | 70648-26-9 | 39227-28-6 | 57117-44-9 | 57653-85-7 | 72918-21-9 | 19408-74-3 | 57117-41-6 | 40321-76-4 | 60851-34-5 | 57117-31-4 | 51207-31-9 | 1746-01-6 |
| | | | | Method | SW8270C | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 | SW8280 |
| Location ID | SampleID | Depth | Sample Date | Sample Type | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| DS-13 | DS-13_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.7 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-13 | DS-13_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 3.8 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-14 | DS-14_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.9 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-14 | DS-14_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 4.1 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-15 | DS-15_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.9 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-15 | DS-15_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 2 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-16 | DS-16_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.7 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-16 | DS-16_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 4 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-17 | DS-17_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 2 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-17 | DS-17_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 3.9 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-18 | DS-18_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 1.9 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-18 | DS-18_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 2 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-18 | DUP-5_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | < 2 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-2 | GP-2 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-5 | GP-5 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.38 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-6 | GP-6 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 7.8 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-7 | GP-7 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-8 | GP-8 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 490 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-10 | GP-10 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 2 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-11 | GP-11 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.38 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-13 | GP-13 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 2 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-14 | GP-14 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-15 | GP-15 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-16 | GP-16 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 1.9 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| GP-18 | GP-18 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 0.38 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-19 | EX-19 0-2(07272007) | 0 - 2 | 7/27/2007 | N | 700 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-21 | EX-21 0-2(07272007) | 0 - 2 | 7/27/2007 | N | 6.4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-22 | EX-22 0-2(07272007) | 0 - 2 | 7/27/2007 | N | 1.1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-23 | EX-23 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 0.37 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-26 | EX-26 0-2(07272007) | 0 - 2 | 7/27/2007 | N | 44 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-27 | EX-27 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 2 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| EX-27 | DUP-1(07272007) | 0 - 2 | 7/27/2007 | FD | < 1.9 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Table 3
Detected Compounds in Soil
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| | | | | Analyte | 2-Butanone | 2-Methyl-1-Propanol | 4-Methyl-2-Pentanone | 4,4-DDT | Acenaphthene | Acenaphthylene | Acetone | Acetonitrile | Acrolein | Aniline | Anthracene | Aroclor 1254 | Aroclor 1260 | Asbestos | Benzene | Benzo(a)Anthracene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 78-93-3 | 78-83-1 | 108-10-1 | 50-29-3 | 83-32-9 | 208-96-8 | 67-64-1 | 75-05-8 | 107-02-8 | 62-53-3 | 120-12-7 | 11097-69-1 | 11096-82-5 | 1332-21-4 | 71-43-2 | 56-55-3 |
| | | | | Method | SW8260 | SW8260B | SW8260B | 8081 | SW8270C | SW8270C | SW8260B | SW8260B | SW8260B | SW8270C | SW8270C | SW8082 | SW8082 | EPA 600/R-93-116 | SW8260B | SW8270C |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | % | mg/kg | mg/kg |
| 50-CC Composite | 50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | < 0.1 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.02 U | NA |
| 50-EC Composite | 50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | < 0.1 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.032 | NA |
| 50-NC Composite | 50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.11 | NA |
| 50-NE Composite | 50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0067 U | NA |
| 50-SC Composite | 50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.082 | NA |
| 50-SE Composite | 50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.013 | NA |
| 50-NW Composite | 50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0082 U | NA |
| 50-SW Composite | 50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | NA |
| 50-WC Composite | 50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | < 0.1 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.02 U | NA |
| Hard Resins | HARD RESINS_6/5/00_(1-3)GRAB_NM | 1 - 3 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | < 0.11 U | NA | NA | NA | NA | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(4-6)GRAB_NM | 4 - 6 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | < 0.13 U | NA | NA | NA | NA | NA | NA | NA |
| SB-F1 | SB-F1_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | 0.035 | < 0.23 U | < 0.029 U | < 0.0038 U | < 0.37 U | < 0.37 U | 0.44 | < 0.23 U | < 0.12 U | < 0.37 U | < 0.37 U | < 0.038 U | < 0.038 U | NA | < 0.0058 U | < 0.37 U |
| SB-F3 | SB-F3_10/24/00_(0-2)GRAB_NM | 0 - 2 | 10/24/2000 | N | < 1.2 U | < 49 U | < 1.2 U | NA | < 2 U | < 2 U | 4.1 | < 9.9 U | < 4.9 U | 3.3 | < 2 U | NA | NA | NA | < 0.25 U | < 2 U |
| SB-F4 | SB-F4_10/19/00_(0.5-2)GRAB_NM | 0.5 - 2 | 10/19/2000 | N | < 0.026 U | < 0.21 U | < 0.026 U | NA | < 0.38 U | < 0.38 U | 0.28 | < 0.21 U | < 0.1 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0053 U | < 0.38 U |
| SB-F6 | SB-F6_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | 0.037 | < 0.23 U | < 0.029 U | NA | < 0.38 U | < 0.38 U | 0.24 | < 0.23 U | < 0.12 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0058 U | < 0.38 U |
| SB-F6/F4/F15/F27 | SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H | 0.5 - 3 | 10/20/2000 | N | NA | NA | NA | 0.0078 J | NA | NA | NA | NA | NA | NA | NA | 0.043 J | < 0.038 U | NA | NA | NA |
| SB-F12 | SB-F12_10/20/00_(1-3)GRAB_NM | 1 - 3 | 10/20/2000 | N | < 0.028 U | < 0.23 U | < 0.028 U | NA | < 0.36 U | < 0.36 U | < 0.057 U | < 0.23 U | < 0.11 U | < 0.36 U | < 0.36 U | NA | NA | NA | < 0.0057 U | < 0.36 U |
| SD-F12/F13/F14/F15 | SD-F12/F13/F14/F15_10/26/00_(0-0.5)COMP | 0 - 0.5 | 10/26/2000 | N | NA | NA | NA | < 0.013 U | NA | NA | NA | NA | NA | NA | NA | < 0.13 U | < 0.13 U | NA | NA | NA |
| SB-F14 | SB-F14_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.031 U | < 0.25 U | < 0.031 U | NA | < 0.39 U | < 0.39 U | < 0.093 U | < 0.25 U | < 0.12 U | < 0.39 U | < 0.39 U | NA | NA | NA | < 0.0062 U | < 0.39 U |
| SB-F14/F12 | SB-F14/F12_10/20/00_(1-3)COMP_H_NM | 1 - 3 | 10/20/2000 | N | NA | NA | NA | < 0.0035 U | NA | NA | NA | NA | NA | NA | NA | 0.054 | < 0.035 U | NA | NA | NA |
| SB-F14/F12/F3 | SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM | 0 - 3 | 10/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F15 | SB-F15_10/18/00_(0-3)GRAB_NM | 0 - 3 | 10/18/2000 | N | < 0.029 U | < 0.23 U | < 0.029 U | NA | < 0.37 U | < 0.37 U | 0.22 | < 0.23 U | < 0.11 U | < 0.37 U | < 0.37 U | NA | NA | NA | < 0.0057 U | < 0.37 U |
| SB-F19 | SB-F19_10/17/00_(0-3)GRAB_NM | 0 - 3 | 10/17/2000 | N | < 0.026 U | < 0.21 U | < 0.026 U | < 0.0039 U | < 0.39 U | < 0.39 U | < 0.052 U | < 0.21 U | < 0.1 U | < 0.39 U | < 0.39 U | < 0.039 U | < 0.039 U | NA | < 0.0052 U | < 0.39 U |
| SB-F27 | SB-F27_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.028 U | < 0.22 U | < 0.028 U | NA | < 0.38 U | < 0.38 U | < 0.056 U | < 0.22 U | < 0.11 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0056 U | < 0.38 U |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM | 0 - 3 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | 0.11 | NA | NA | NA | NA | NA | NA | NA |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM | 3 - 6 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | 0.13 | NA | NA | NA | NA | NA | NA | NA |
| SB-F3A | SB-F3A_11/8/02_(0-1)GRAB_NM | 0 - 1 | 11/8/2002 | N | < 0.035 U | NA | NA | NA | NA | NA | < 0.07 U | NA | NA | < 0.39 U | NA | NA | NA | NA | < 0.007 U | NA |
| SS-1 | SS-1_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.029 U | < 0.24 U | < 0.029 U | NA | < 0.39 U | < 0.39 U | < 0.059 U | < 0.24 U | < 0.12 U | < 0.39 U | < 0.39 U | NA | NA | NA | < 0.0059 U | < 0.39 U |
| SS-2 | SS-2_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.028 U | < 0.23 U | < 0.028 U | NA | < 0.38 U | < 0.38 U | 0.065 | < 0.23 U | < 0.11 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0057 U | < 0.38 U |
| SS-3 | SS-3_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.028 U | < 0.22 U | < 0.028 U | NA | < 0.37 U | < 0.37 U | 0.16 | < 0.22 U | < 0.11 U | < 0.37 U | < 0.37 U | NA | NA | NA | < 0.0056 U | < 0.37 U |
| SS-4 | SS-4_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.03 U | < 0.24 U | NA | NA | < 0.4 U | < 0.4 U | 0.072 | < 0.24 U | < 0.12 U | < 0.4 U | < 0.4 U | NA | NA | NA | < 0.006 U | < 0.4 U |
| SS-30 | SS-30_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.034 U | NA | NA | NA | NA | NA | 0.19 | NA | NA | < 0.43 U | NA | NA | NA | NA | < 0.0068 U | NA |
| SS-31 | SS-31_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | 0.049 | NA | NA | NA | NA | NA | 0.14 | NA | NA | < 0.44 U | NA | NA | NA | NA | < 0.0064 U | NA |
| SS-32 | SS-32_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | 0.029 | NA | NA | NA | NA | NA | 0.28 | NA | NA | < 0.41 U | NA | NA | NA | NA | < 0.0056 U | NA |
| SS-33 | SS-33_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.033 U | NA | NA | NA | NA | NA | < 0.065 U | NA | NA | < 0.4 U | NA | NA | NA | NA | < 0.0065 U | NA |
| SS-34 | SS-34_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.034 U | NA | NA | NA | NA | NA | < 0.068 U | NA | NA | < 0.4 U | NA | NA | NA | NA | < 0.0068 U | NA |
| SS-35 | SS-35_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | 0.034 | NA | NA | NA | NA | NA | 0.35 | NA | NA | < 0.42 U | NA | NA | NA | NA | < 0.0067 U | NA |
| SS-43 | SS-43_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-43 | SS-43_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.028 U | NA | NA | NA | NA | NA | < 0.057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-44 | SS-44_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-44 | SS-44_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | < 0.057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-45 | SS-45_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA | NA | NA | NA |
| SS-45 | SS-45_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.028 U | NA | NA | NA | NA | NA | 0.12 | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | NA |
| SS-46 | SS-46_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA | NA | NA | NA |
| SS-46 | SS-46_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.028 U | NA | NA | NA | NA | NA | < 0.056 U | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | NA |
| SS-47 | SS-47_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-47 | SS-47_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.028 U | NA | NA | NA | NA | NA | 0.12 | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-48 | SS-48_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-48 | SS-48_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | 0.055 | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | NA |
| SS-49 | SS-49_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.4 U | NA | NA | NA | NA | NA | NA |
| SS-49 | SS-49_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.03 U | NA | NA | NA | NA | NA | < 0.06 U | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | NA |
| SS-50 | SS-50_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.42 U | NA | NA | NA | NA | NA | NA |
| SS-50 | SS-50_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.032 U | NA | NA | NA | NA | NA | < 0.063 U | NA | NA | NA | NA | NA | NA | NA | < 0.0063 U | NA |
| SS-51 | SS-51_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-51 | SS-51_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | 0.061 | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-52 | SS-52_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | NA | NA | NA | NA |
| SS-52 | SS-52_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.03 U | NA | NA | NA | NA | NA | 0.14 | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | NA |
| SS-53 | SS-53_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.027 U | NA | NA | NA | NA | NA | 0.08 | NA | NA | < 0.36 U | NA | NA | NA | NA | < 0.0055 U | NA |
| SS-54 | SS-54_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.028 U | NA | NA | NA | NA | NA | < 0.057 U | NA | NA | < 0.38 U | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-55 | SS-55_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-55 | SS-55_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | 0.051 | NA | NA | NA | NA | NA | 1 | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-56 | SS-56_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.027 U | NA | NA | NA | NA | NA | < 0.055 U | NA | NA | < 0.36 U | NA | NA | NA | NA | < 0.0055 U | NA |
| SS-57 | SS-57_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | < 0.059 U | NA | NA | < 0.39 U | NA | NA | NA | NA | < 0.0059 U | NA |
| SS-58 | SS-58_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | 0.45 | NA | NA | < 0.38 U | NA | NA | NA | NA | < 0.0058 U | NA |
| SS-59 | SS-59_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.034 U | NA | NA | NA | NA | NA | 0.11 | NA | NA | < 0.44 U | NA | NA | NA | NA | < 0.0068 U | NA |
| SS-60 | SS-60_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.032 U | NA | NA | NA | NA | NA | 0.086 | NA | NA | < 0.42 U | NA | NA | NA | NA | < 0.0064 U | NA |
| SS-61 | SS-61_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | NA |
| SS-61 | SS-61_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | < 0.028 U | NA | NA | NA | NA | NA | 0.067 | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-62 | SS-62_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | < 0.059 U | NA | NA | < 0.39 U | NA | NA | NA | NA | < 0.0059 U | NA |
| SS-63 | SS-63_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.029 U | NA | NA | NA | NA | NA | 0.074 | NA | NA | < 0.38 U | NA | NA | NA | NA | < 0.0057 U | NA |
| SB-F3RE | SB-F3RE_12/19/02_(0-2)GRAB_NM | 0 - 2 | 12/19/2002 | N | < 0.03 U | NA | NA | NA | NA | NA | 0.068 | NA | NA | < 0.39 U | NA | NA | NA | NA | < 0.006 U | NA |
| SS-74 | SS-74_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-74 | SS-74_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | Analyte | 2-Butanone | 2-Methyl-1-Propanol | 4-Methyl-2-Pentanone | 4,4-DDT | Acenaphthene | Acenaphthylene | Acetone | Acetonitrile | Acrolein | Aniline | Anthracene | Aroclor 1254 | Aroclor 1260 | Asbestos | Benzene | Benzo(a)Anthracene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 78-93-3 | 78-83-1 | 108-10-1 | 50-29-3 | 83-32-9 | 208-96-8 | 67-64-1 | 75-05-8 | 107-02-8 | 62-53-3 | 120-12-7 | 11097-69-1 | 11096-82-5 | 1332-21-4 | 71-43-2 | 56-55-3 |
| | | | | Method | SW8260 | SW8260B | SW8260B | 8081 | SW8270C | SW8270C | SW8260B | SW8260B | SW8260B | SW8270C | SW8270C | SW8082 | SW8082 | EPA 600/R-93-116 | SW8260B | SW8270C |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | % | mg/kg | mg/kg |
| SS-75 | SS-75_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 1_8/15/06_(0-2)GRAB_DUP | 0 - 2 | 8/15/2006 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 2_8/15/06_(2-4)GRAB_DUP | 2 - 4 | 8/15/2006 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 A_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 B_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-80 | SS-80_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | < 0.029 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA |
| SS-82 | SS-82_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-83 | SS-83_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-84 | SS-84_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-85 | SS-85_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-86 | SS-86_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | 0.0061 J | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-87 | SS-87_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | < 0.036 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-88 | SS-88_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.78 | 0.25 | NA | NA | NA |
| SS-89 | SS-89_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-90 | SS-90_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | < 0.0036 U | NA | NA | NA | NA | NA | NA | NA | 0.055 | < 0.036 U | NA | NA | NA |
| SS-93 | SS-93_11/6/08_(0-4)GRAB_NM | 0 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | < 0.092 U | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | DUP-2_11/6/08_(0-2)GRAB_DUP | 0 - 2 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | < 0.078 U | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | SS-94_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | < 0.095 U | NA | NA | NA | NA | NA | NA | NA |
| SS-95 | SS-95_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | < 0.022 U | NA | NA | < 0.0038 U | NA | NA | NA | NA | NA | NA | NA | 0.18 | 0.094 | NA | < 0.0043 U | NA |
| SS-96 | SS-96_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | < 0.023 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0046 U | NA |
| SS-97 | DUP-4_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0046 U | NA |
| SS-97 | SS-97_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0047 U | NA |
| SB-98 | DUP-3_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U | NA |
| SB-98 | SB-98_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0048 U | NA |
| SB-98 | SB-98_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.005 U | NA |
| SB-99 | SB-99_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.96 UD | NA |
| SB-99 | SB-99_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.097 JD | NA |
| SB-100 | DUP-1_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0032 J | NA |
| SB-100 | SB-100_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0042 U | NA |
| SB-100 | SB-100_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0049 U | NA |
| SB-101 | SB-101_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0048 U | NA |
| SB-101 | SB-101_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0044 U | NA |
| SB-102 | SB-102_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0042 U | NA |
| SB-102 | SB-102_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0045 U | NA |
| SB-103 | SB-103_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0041 U | NA |
| SB-103 | SB-103_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <1 | < 1.6 UD | NA |
| SB-103 | SB-103_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <1 | < 1.7 UD | NA |
| SB-105 | SB-105_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <1 | < 0.004 U | NA |
| SB-105 | SB-105_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <1 | < 0.0043 U | NA |
| SB-107 | SB-107_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0044 U | NA |
| SB-107 | SB-107_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0043 U | NA |
| SB-107 | SB-107_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | < 0.0048 U | NA |
| SS-108 | SS-108_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | NA | NA |
| DS-1 | DS-1_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.025 U | < 0.2 U | < 0.025 U | NA | < 0.35 U | 0.18 J | 0.075 | < 0.2 U | < 0.099 U | < 0.69 U | 0.11 J | NA | NA | NA | < 0.005 U | 0.11 J |
| DS-1 | DS-1_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.012 J | < 0.2 U | < 0.025 U | NA | 0.073 J | 0.033 J | 0.1 | < 0.2 U | < 0.099 U | < 0.7 U | 0.037 J | NA | NA | NA | < 0.0049 U | 0.078 J |
| DS-2 | DS-2_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.0088 J | < 0.2 U | < 0.026 U | NA | < 0.36 U | < 0.36 U | 0.1 | < 0.2 U | < 0.1 U | < 0.73 U | < 0.36 U | NA | NA | NA | < 0.0051 U | < 0.36 U |
| DS-2 | DS-2_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.029 U | < 0.23 U | < 0.029 U | NA | < 0.38 U | < 0.38 U | 0.048 J | < 0.23 U | < 0.12 U | < 0.76 U | < 0.38 U | NA | NA | NA | < 0.0058 U | < 0.38 U |
| DS-3 | DS-3_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.85 UD | < 6.8 UD | < 0.85 UD | NA | < 3.9 UD | < 3.9 UD | 0.56 JD | < 6.8 UD | < 3.4 UD | < 7.7 UD | 0.21 JD | NA | NA | NA | < 0.17 UD | < 3.9 UD |
| DS-3 | DS-3_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.023 J | < 0.2 U | < 0.026 U | NA | < 3.8 UD | < 3.8 UD | 0.53 | < 0.2 U | < 0.1 U | < 7.7 UD | < 3.8 UD | NA | NA | NA | 0.0018 J | < 3.8 UD |
| DS-4 | DS-4_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.015 J | < 0.17 U | < 0.021 U | NA | 0.019 J | 0.019 J | 0.31 | < 0.17 U | < 0.086 U | < 0.72 U | 0.038 J | NA | NA | NA | < 0.0043 U | 0.07 J |
| DS-4 | DS-4_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.0099 J | < 0.16 U | < 0.02 U | NA | < 0.36 U | 0.093 J | 0.18 | < 0.16 U | < 0.081 U | < 0.72 U | 0.11 J | NA | NA | NA | < 0.0041 U | 0.28 J |
| DS-5 | DS-5_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.0034 J | < 0.23 U | < 0.028 U | NA | < 0.37 U | < 0.37 U | 0.11 | < 0.23 U | < 0.11 U | < 0.74 U | < 0.37 U | NA | NA | NA | < 0.0057 U | < 0.37 U |
| DS-5 | DS-5_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.017 J | < 0.22 U | < 0.027 U | NA | < 1.9 UD | < 1.9 UD | 0.35 | < 0.22 U | < 0.11 U | < 3.7 UD | < 1.9 UD | NA | NA | NA | < 0.0054 U | < 1.9 UD |
| DS-6 | DS-6_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.023 J | < 0.19 U | < 0.024 U | NA | < 3.9 UD | < 3.9 UD | 0.51 | < 0.19 U | < 0.097 U | < 7.8 UD | < 3.9 UD | NA | NA | NA | 0.0011 J | < 3.9 UD |
| DS-6 | DS-6_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.0087 J | < 0.24 U | < 0.03 U | NA | < 4.1 UD | < 4.1 UD | 0.24 | < 0.24 U | < 0.12 U | < 8.1 UD | < 4.1 UD | NA | NA | NA | 0.0039 J | < 4.1 UD |
| DS-7 | DS-7_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.046 | < 0.19 U | < 0.024 U | NA | < 0.37 U | 0.11 J | 0.38 | < 0.19 U | < 0.096 U | < 0.73 U | 0.1 J | NA | NA | NA | 0.0018 J | 0.37 |
| DS-7 | DS-7_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.028 | < 0.18 U | < 0.022 U | NA | < 0.38 U | < 0.38 U | 0.41 | < 0.18 U | < 0.089 U | < 0.75 U | < 0.38 U | NA | NA | NA | 0.0019 J | < 0.38 U |
| DS-8 | DS-8_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.0057 J | < 0.17 U | < 0.021 U | NA | < 3.7 UD | < 3.7 UD | 0.068 | < 0.17 U | < 0.084 U | < 7.4 UD | < 3.7 UD | NA | NA | NA | < 0.0042 U | < 3.7 UD |
| DS-9 | DS-9_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.038 | < 0.23 U | < 0.028 U | NA | < 0.45 U | < 0.45 U | 0.32 | < 0.23 U | < 0.11 U | < 0.9 U | < 0.45 U | NA | NA | NA | 0.037 | < 0.45 U |
| DS-9 | DS-9_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.037 | < 0.18 U | < 0.023 U | NA | < 0.79 UD | < 0.79 UD | 0.44 | < 0.18 U | < 0.091 U | < 1.6 UD | 0.079 JD | NA | NA | NA | 0.0039 J | < 0.79 UD |
| DS-10 | DS-10_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.0026 J | < 0.16 U | < 0.021 U | NA | 0.054 J | 0.059 J | 0.057 | < 0.16 U | < 0.082 U | < 0.7 U | 0.11 J | NA | NA | NA | < 0.0041 U | 0.4 |
| DS-10 | DS-10_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.0094 J | < 0.2 U | < 0.025 U | NA | < 0.38 U | < 0.38 U | 0.12 | < 0.2 U | < 0.099 U | < 0.76 U | < 0.38 U | NA | NA | NA | 0.0015 J | < 0.38 U |
| DS-11 | DS-11_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.019 J | < 0.19 U | 0.007 J | NA | < 0.39 U | < 0.39 U | 0.37 | < 0.19 U | < 0.096 U | < 0.78 U | < 0.39 U | NA | NA | NA | 0.00085 J | < 0.39 U |
| DS-11 | DS-11_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.016 J | < 0.23 U | 0.0043 J | NA | < 0.39 U | < 0.39 U | 0.33 | < 0.23 U | < 0.11 U | < 0.78 U | < 0.39 U | NA | NA | NA | 0.00094 J | < 0.39 U |
| DS-12 | DS-12_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.008 J | < 0.2 U | < 0.025 U | NA | < 0.4 U | < 0.4 U | 0.15 | < 0.2 U | < 0.1 U | < 0.81 U | < 0.4 U | NA | NA | NA | < 0.005 U | < 0.4 U |
| DS-12 | DS-12_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.0038 J | < 0.2 U | < 0.025 U | NA | < 0.39 U | < 0.39 U | 0.11 | < 0.2 U | < 0.1 U | < 0.77 U | < 0.39 U | NA | NA | NA | < 0.005 U | < 0.39 U |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | Analyte | 2-Butanone | 2-Methyl-1-Propanol | 4-Methyl-2-Pentanone | 4,4-DDT | Acenaphthene | Acenaphthylene | Acetone | Acetonitrile | Acrolein | Aniline | Anthracene | Aroclor 1254 | Aroclor 1260 | Asbestos | Benzene | Benzo(a)Anthracene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 78-93-3 | 78-83-1 | 108-10-1 | 50-29-3 | 83-32-9 | 208-96-8 | 67-64-1 | 75-05-8 | 107-02-8 | 62-53-3 | 120-12-7 | 11097-69-1 | 11096-82-5 | 1332-21-4 | 71-43-2 | 56-55-3 |
| | | | | Method | SW8260 | SW8260B | SW8260B | 8081 | SW8270C | SW8270C | SW8260B | SW8260B | SW8260B | SW8270C | SW8270C | SW8082 | SW8082 | EPA 600/R-93-116 | SW8260B | SW8270C |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | % | mg/kg | mg/kg |
| DS-13 | DS-13_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.012 J | 0.17 | < 0.021 U | NA | < 3.7 UD | < 3.7 UD | 0.12 | < 0.17 U | < 0.083 U | < 7.4 UD | < 3.7 UD | NA | NA | NA | < 0.0042 U | < 3.7 UD |
| DS-13 | DS-13_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | 0.016 J | < 0.2 U | < 0.025 U | NA | < 3.8 UD | < 3.8 UD | 0.25 | < 0.2 U | < 0.1 U | < 7.6 UD | < 3.8 UD | NA | NA | NA | < 0.0051 U | < 3.8 UD |
| DS-14 | DS-14_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.035 | < 0.19 U | 0.0099 J | NA | < 3.9 UD | < 3.9 UD | 0.84 | < 0.19 U | < 0.096 U | < 7.8 UD | < 3.9 UD | NA | NA | NA | 0.0019 J | < 3.9 UD |
| DS-14 | DS-14_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | 0.04 | < 0.21 U | 0.0087 J | NA | < 4.1 UD | < 4.1 UD | 10 D | < 0.21 U | < 0.11 U | < 8.1 UD | < 4.1 UD | NA | NA | NA | 0.011 | < 4.1 UD |
| DS-15 | DS-15_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.0084 J | < 0.17 U | < 0.021 U | NA | < 3.9 UD | < 3.9 UD | 0.31 | < 0.17 U | < 0.086 U | < 7.8 UD | < 3.9 UD | NA | NA | NA | < 0.0043 U | < 3.9 UD |
| DS-15 | DS-15_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 0.028 U | < 0.22 U | < 0.028 U | NA | < 2 UD | < 2 UD | 0.052 J | < 0.22 U | < 0.11 U | < 3.9 UD | < 2 UD | NA | NA | NA | < 0.0055 U | < 2 UD |
| DS-16 | DS-16_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.0057 J | < 0.19 U | < 0.024 U | NA | < 3.7 UD | < 3.7 UD | 0.087 | < 0.19 U | < 0.096 U | < 7.3 UD | < 3.7 UD | NA | NA | NA | < 0.0048 U | < 3.7 UD |
| DS-16 | DS-16_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | 0.011 J | < 0.2 U | < 0.024 U | NA | < 4 UD | < 4 UD | 0.25 | < 0.2 U | < 0.098 U | < 7.9 UD | < 4 UD | NA | NA | NA | < 0.0049 U | < 4 UD |
| DS-17 | DS-17_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.012 J | < 0.18 U | < 0.023 U | NA | < 2 UD | < 2 UD | 0.24 | < 0.18 U | < 0.09 U | < 4 UD | < 2 UD | NA | NA | NA | < 0.0045 U | < 2 UD |
| DS-17 | DS-17_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 0.026 U | < 0.21 U | < 0.026 U | NA | < 3.9 UD | < 3.9 UD | 0.31 | < 0.21 U | < 0.1 U | < 7.7 UD | < 3.9 UD | NA | NA | NA | < 0.0051 U | < 3.9 UD |
| DS-18 | DS-18_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.02 J | < 0.2 U | < 0.025 U | NA | < 1.9 UD | < 1.9 UD | 0.32 | 0.075 J | < 0.1 U | < 3.9 UD | < 1.9 UD | NA | NA | NA | < 0.005 U | 0.34 JD |
| DS-18 | DS-18_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | 0.01 J | < 0.2 U | < 0.025 U | NA | < 2 UD | < 2 UD | 0.35 | < 0.2 U | < 0.099 U | < 3.9 UD | < 2 UD | NA | NA | NA | < 0.005 U | < 2 UD |
| DS-18 | DUP-5_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | < 0.026 U | < 0.21 U | < 0.026 U | NA | < 2 UD | < 2 UD | 0.23 | < 0.21 U | < 0.1 U | < 3.9 UD | < 2 UD | NA | NA | NA | < 0.0052 U | < 2 UD |
| GP-2 | GP-2 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.5 U | < 12 U | < 1.5 U | NA | < 0.39 U | < 0.39 U | < 3 U | < 12 U | < 5.9 U | < 0.78 U | < 0.39 U | NA | NA | NA | < 0.3 U | < 0.39 U |
| GP-5 | GP-5 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.2 U | < 9.7 U | < 1.2 U | NA | < 0.38 U | < 0.38 U | < 2.4 U | < 9.7 U | < 4.9 U | < 0.76 U | < 0.38 U | NA | NA | NA | < 0.24 U | < 0.38 U |
| GP-6 | GP-6 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.1 U | < 8.8 U | < 1.1 U | NA | < 7.8 U | < 7.8 U | < 2.2 U | < 8.8 U | < 4.4 U | < 16 U | < 7.8 U | NA | NA | NA | < 0.22 U | < 7.8 U |
| GP-7 | GP-7 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.2 U | < 9.8 U | < 1.2 U | NA | < 0.39 U | < 0.39 U | < 2.4 U | < 9.8 U | < 4.9 U | < 0.78 U | < 0.39 U | NA | NA | NA | < 0.24 U | < 0.39 U |
| GP-8 | GP-8 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.7 U | < 14 U | < 1.7 U | NA | < 490 U | < 490 U | < 3.4 U | < 14 U | < 6.8 U | < 980 U | < 490 U | NA | NA | NA | < 0.34 U | < 490 U |
| GP-10 | GP-10 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.2 U | < 9.7 U | < 1.2 U | NA | < 2 U | < 2 U | < 2.4 U | < 9.7 U | < 4.8 U | < 4 U | < 2 U | NA | NA | NA | < 0.24 U | < 2 U |
| GP-11 | GP-11 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1 U | < 8 U | < 1 U | NA | < 0.38 U | < 0.38 U | < 2 U | < 8 U | < 4 U | < 0.75 U | < 0.38 U | NA | NA | NA | < 0.2 U | < 0.38 U |
| GP-13 | GP-13 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 1.3 U | < 10 U | < 1.3 U | NA | < 2 U | < 2 U | < 2.5 U | < 10 U | < 5.1 U | < 3.9 U | < 2 U | NA | NA | NA | < 0.25 U | < 2 U |
| GP-14 | GP-14 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.83 U | < 6.7 U | < 0.83 U | NA | < 0.39 U | < 0.39 U | < 1.7 U | < 6.7 U | < 3.3 U | < 0.78 U | < 0.39 U | NA | NA | NA | < 0.17 U | < 0.39 U |
| GP-15 | GP-15 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.86 U | < 6.9 U | < 0.86 U | NA | < 0.39 U | < 0.39 U | < 1.7 U | < 6.9 U | < 3.4 U | < 0.77 U | < 0.39 U | NA | NA | NA | < 0.17 U | < 0.39 U |
| GP-16 | GP-16 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 3.3 U | < 27 U | < 3.3 U | NA | < 1.9 U | < 1.9 U | < 6.7 U | < 27 U | < 13 U | < 3.7 U | < 1.9 U | NA | NA | NA | < 0.67 U | < 1.9 U |
| GP-18 | GP-18 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 0.036 U | < 0.29 U | < 0.036 U | NA | < 0.38 U | < 0.38 U | 0.13 | < 0.29 U | < 0.14 U | < 0.76 U | < 0.38 U | NA | NA | NA | < 0.0072 U | < 0.38 U |
| EX-19 | EX-19 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 3.4 U | < 27 U | < 3.4 U | NA | < 210 U | < 210 U | < 6.8 U | < 27 U | < 14 U | < 420 U | < 210 U | NA | NA | NA | < 0.68 U | < 210 U |
| EX-21 | EX-21 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 0.032 U | < 0.26 U | < 0.032 U | NA | < 3.8 U | < 3.8 U | 0.18 | < 0.26 U | < 0.13 U | < 7.6 U | < 3.8 U | NA | NA | NA | < 0.0064 U | < 3.8 U |
| EX-22 | EX-22 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 5.6 U | < 45 U | < 5.6 U | NA | < 0.74 U | < 0.74 U | < 11 U | < 45 U | < 23 U | < 1.5 U | < 0.74 U | NA | NA | NA | < 1.1 U | < 0.74 U |
| EX-23 | EX-23 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 19 U | < 150 U | < 19 U | NA | < 0.37 U | < 0.37 U | < 37 U | < 150 U | < 74 U | < 0.73 U | < 0.37 U | NA | NA | NA | < 3.7 U | < 0.37 U |
| EX-26 | EX-26 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 1.2 U | < 9.5 U | < 1.2 U | NA | < 16 U | < 16 U | < 2.4 U | < 9.5 U | < 4.8 U | < 32 U | < 16 U | NA | NA | NA | < 0.24 U | < 16 U |
| EX-27 | EX-27 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 3.2 U | < 26 U | < 3.2 U | NA | < 2 U | < 2 U | < 6.4 U | < 26 U | < 13 U | < 4 U | < 2 U | NA | NA | NA | < 0.64 U | < 2 U |
| EX-27 | DUP-1(07272007) | 0 - 2 | 7/27/2007 | FD | < 1.8 U | < 15 U | < 1.8 U | NA | < 1.9 U | < 1.9 U | < 3.6 U | < 15 U | < 7.3 U | < 3.8 U | < 1.9 U | NA | NA | NA | < 0.36 U | < 1.9 U |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | | Analyte | Benzo(a)Pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)Perylene | Benzo(k)Fluoranthene | Benzyl Alcohol | Benzyl Butyl Phthalate | Bis(2-Ethylhexyl)phthalate | Carbon Disulfide | Chrysene | Dibenzo(a,h)Anthracene | Dibenzofuran | Di-n-Octyl Phthalate | Diphenyl Ether | Endrin | Endrin Aldehyde | Ethylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 50-32-8 | 205-99-2 | 191-24-2 | 207-08-9 | 100-51-6 | 85-68-7 | 117-81-7 | 75-15-0 | 218-01-9 | 53-70-3 | 132-64-9 | 117-84-0 | 101-84-8 | 72-20-8 | 7421-93-4 | 100-41-4 |
| | | | | | Method | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8270C | SW8270 | 8081 | SW8081 | SW8260B |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| 50-CC Composite | 50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-EC Composite | 50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.01 U |
| 50-NC Composite | 50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.025 |
| 50-NE Composite | 50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0067 U |
| 50-SC Composite | 50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.13 |
| 50-SE Composite | 50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.023 |
| 50-NW Composite | 50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0082 U |
| 50-SW Composite | 50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U |
| 50-WC Composite | 50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0062 U |
| Hard Resins | HARD RESINS_6/5/00_(1-3)GRAB_NM | 1 - 3 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(4-6)GRAB_NM | 4 - 6 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F1 | SB-F1_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.0058 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | 5.4 | < 0.0038 U | < 0.0038 U | < 0.0058 U |
| SB-F3 | SB-F3_10/24/00_(0-2)GRAB_NM | 0 - 2 | 10/24/2000 | N | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 0.25 U | < 2 U | < 2 U | < 2 U | < 2 U | < 4.1 U | NA | NA | < 0.25 U |
| SB-F4 | SB-F4_10/19/00_(0.5-2)GRAB_NM | 0.5 - 2 | 10/19/2000 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.0053 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | 0.86 | NA | NA | < 0.0053 U |
| SB-F6 | SB-F6_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | 0.0076 | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | 0.012 |
| SB-F6/F4/F15/F27 | SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H | 0.5 - 3 | 10/20/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0038 U | < 0.0038 U | NA |
| SB-F12 | SB-F12_10/20/00_(1-3)GRAB_NM | 1 - 3 | 10/20/2000 | N | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.0057 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | NA | NA | < 0.0057 U |
| SD-F12/F13/F14/F15 | SD-F12/F13/F14/F15_10/26/00_(0-0.5)COMP | 0 - 0.5 | 10/26/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.023 J | 0.038 J | NA |
| SB-F14 | SB-F14_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.0062 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | NA | NA | < 0.0062 U |
| SB-F14/F12 | SB-F14/F12_10/20/00_(1-3)COMP_H_NM | 1 - 3 | 10/20/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0035 U | < 0.0035 U | NA |
| SB-F14/F12/F3 | SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM | 0 - 3 | 10/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F15 | SB-F15_10/18/00_(0-3)GRAB_NM | 0 - 3 | 10/18/2000 | N | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.0057 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | NA | NA | < 0.0057 U |
| SB-F19 | SB-F19_10/17/00_(0-3)GRAB_NM | 0 - 3 | 10/17/2000 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.0052 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.0039 U | < 0.0039 U | < 0.0052 U |
| SB-F27 | SB-F27_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.0056 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | < 0.0056 U |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM | 0 - 3 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM | 3 - 6 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F3A | SB-F3A_11/8/02_(0-1)GRAB_NM | 0 - 1 | 11/8/2002 | N | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | < 0.007 U | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.007 U |
| SS-1 | SS-1_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.0059 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | NA | NA | NA | < 0.0059 U |
| SS-2 | SS-2_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.0057 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0057 U |
| SS-3 | SS-3_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.0056 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | NA | NA | NA | < 0.0056 U |
| SS-4 | SS-4_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.006 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | NA | NA | NA | < 0.006 U |
| SS-30 | SS-30_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.43 U | NA | NA | NA | NA | NA | 1.2 | < 0.0068 U | NA | NA | NA | NA | < 0.43 U | NA | NA | < 0.0068 U |
| SS-31 | SS-31_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.44 U | NA | NA | NA | NA | NA | 1 | < 0.0064 U | NA | NA | NA | NA | < 0.44 U | NA | NA | < 0.0064 U |
| SS-32 | SS-32_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.41 U | NA | NA | NA | NA | NA | 2.2 | < 0.0056 U | NA | NA | NA | NA | < 0.41 U | NA | NA | < 0.0056 U |
| SS-33 | SS-33_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.4 U | NA | NA | NA | NA | NA | 0.5 | < 0.0065 U | NA | NA | NA | NA | < 0.4 U | NA | NA | < 0.0065 U |
| SS-34 | SS-34_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.4 U | NA | NA | NA | NA | NA | 1.7 | < 0.0068 U | NA | NA | NA | NA | < 0.4 U | NA | NA | < 0.0068 U |
| SS-35 | SS-35_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | < 0.42 U | NA | NA | NA | NA | NA | 1.3 | < 0.0067 U | NA | NA | NA | NA | < 0.42 U | NA | NA | < 0.0067 U |
| SS-43 | SS-43_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | 0.57 | NA | NA | NA |
| SS-43 | SS-43_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-44 | SS-44_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-44 | SS-44_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-45 | SS-45_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA |
| SS-45 | SS-45_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U |
| SS-46 | SS-46_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA |
| SS-46 | SS-46_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U |
| SS-47 | SS-47_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-47 | SS-47_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-48 | SS-48_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-48 | SS-48_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U |
| SS-49 | SS-49_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.4 U | NA | NA | NA | NA | NA | < 0.4 U | NA | NA | NA | NA | NA | < 0.4 U | NA | NA | NA |
| SS-49 | SS-49_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | NA | NA | NA | NA | NA | NA | NA | < 0.006 U |
| SS-50 | SS-50_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.42 U | NA | NA | NA | NA | NA | < 0.42 U | NA | NA | NA | NA | NA | < 0.42 U | NA | NA | NA |
| SS-50 | SS-50_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0063 U | NA | NA | NA | NA | NA | NA | NA | < 0.0063 U |
| SS-51 | SS-51_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | 0.5 | NA | NA | NA |
| SS-51 | SS-51_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-52 | SS-52_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | NA |
| SS-52 | SS-52_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | NA | NA | NA | NA | NA | NA | NA | < 0.006 U |
| SS-53 | SS-53_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.36 U | NA | NA | NA | NA | NA | < 0.36 U | < 0.0055 U | NA | NA | NA | NA | < 0.36 U | NA | NA | < 0.0055 U |
| SS-54 | SS-54_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | < 0.0057 U | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.0057 U |
| SS-55 | SS-55_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-55 | SS-55_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-56 | SS-56_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.36 U | NA | NA | NA | NA | NA | < 0.36 U | < 0.0055 U | NA | NA | NA | NA | < 0.36 U | NA | NA | < 0.0055 U |
| SS-57 | SS-57_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | < 0.0059 U | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.0059 U |
| SS-58 | SS-58_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | < 0.0058 U | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.0058 U |
| SS-59 | SS-59_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.44 U | NA | NA | NA | NA | NA | < 0.44 U | < 0.0068 U | NA | NA | NA | NA | < 0.44 U | NA | NA | < 0.0068 U |
| SS-60 | SS-60_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.42 U | NA | NA | NA | NA | NA | < 0.42 U | < 0.0064 U | NA | NA | NA | NA | < 0.42 U | NA | NA | < 0.0064 U |
| SS-61 | SS-61_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-61 | SS-61_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-62 | SS-62_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | 0.72 | NA | NA | NA | NA | NA | < 0.39 U | < 0.0059 U | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.0059 U |
| SS-63 | SS-63_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | < 0.0057 U | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.0057 U |
| SB-F3RE | SB-F3RE_12/19/02_(0-2)GRAB_NM | 0 - 2 | 12/19/2002 | N | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | < 0.006 U | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.006 U |
| SS-74 | SS-74_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-74 | SS-74_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | Analyte | Benzo(a)Pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)Perylene | Benzo(k)Fluoranthene | Benzyl Alcohol | Benzyl Butyl Phthalate | Bis(2-Ethylhexyl)phthalate | Carbon Disulfide | Chrysene | Dibenzo(a,h)Anthracene | Dibenzofuran | Di-n-Octyl Phthalate | Diphenyl Ether | Endrin | Endrin Aldehyde | Ethylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 50-32-8 | 205-99-2 | 191-24-2 | 207-08-9 | 100-51-6 | 85-68-7 | 117-81-7 | 75-15-0 | 218-01-9 | 53-70-3 | 132-64-9 | 117-84-0 | 101-84-8 | 72-20-8 | 7421-93-4 | 100-41-4 |
| | | | | Method | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8270C | SW8270 | 8081 | SW8081 | SW8260B |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| SS-75 | SS-75_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 1_8/15/06_(0-2)GRAB_DUP | 0 - 2 | 8/15/2006 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 2_8/15/06_(2-4)GRAB_DUP | 2 - 4 | 8/15/2006 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 A_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 B_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-80 | SS-80_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U |
| SS-82 | SS-82_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-83 | SS-83_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-84 | SS-84_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-85 | SS-85_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-86 | SS-86_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-87 | SS-87_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-88 | SS-88_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | < 0.084 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-89 | SS-89_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 0.075 UD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-90 | SS-90_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-93 | SS-93_11/6/08_(0-4)GRAB_NM | 0 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | DUP-2_11/6/08_(0-2)GRAB_DUP | 0 - 2 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | SS-94_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-95 | SS-95_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U |
| SS-96 | SS-96_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0046 U |
| SS-97 | DUP-4_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0046 U |
| SS-97 | SS-97_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0047 U |
| SB-98 | DUP-3_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U |
| SB-98 | SB-98_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0048 U |
| SB-98 | SB-98_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0009 J |
| SB-99 | SB-99_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 10 D |
| SB-99 | SB-99_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.3 D |
| SB-100 | DUP-1_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.002 J |
| SB-100 | SB-100_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0042 U |
| SB-100 | SB-100_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0049 U |
| SB-101 | SB-101_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0023 J |
| SB-101 | SB-101_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0063 |
| SB-102 | SB-102_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0042 U |
| SB-102 | SB-102_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.00087 J |
| SB-103 | SB-103_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0041 U |
| SB-103 | SB-103_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.1 D |
| SB-103 | SB-103_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1.3 JD |
| SB-105 | SB-105_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.004 U |
| SB-105 | SB-105_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U |
| SB-107 | SB-107_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0044 U |
| SB-107 | SB-107_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U |
| SB-107 | SB-107_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0048 U |
| SS-108 | SS-108_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-1 | DS-1_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.16 J | 0.42 | 0.19 J | < 0.35 U | < 0.35 U | < 0.35 U | < 0.35 U | < 0.005 U | 0.2 J | < 0.35 U | < 0.35 U | < 0.35 U | NA | NA | NA | < 0.005 U |
| DS-1 | DS-1_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.1 J | 0.19 J | 0.11 J | < 0.35 U | < 0.35 U | < 0.35 U | < 0.35 U | 0.0022 J | 0.12 J | < 0.35 U | < 0.35 U | < 0.35 U | NA | NA | NA | < 0.0049 U |
| DS-2 | DS-2_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | 0.12 J | < 0.0051 U | < 0.36 U | < 0.36 U | < 0.36 U | < 0.36 U | NA | NA | NA | < 0.0051 U |
| DS-2 | DS-2_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.0058 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0058 U |
| DS-3 | DS-3_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | 1.9 JD | < 3.9 UD | < 3.9 UD | < 0.17 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | NA | NA | NA | < 0.17 UD |
| DS-3 | DS-3_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 0.0051 U | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | NA | NA | NA | 0.0049 J |
| DS-4 | DS-4_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.063 J | 0.17 J | 0.058 J | < 0.36 U | < 0.36 U | < 0.36 U | 0.2 J | < 0.0043 U | 0.11 J | < 0.36 U | < 0.36 U | < 0.36 U | NA | NA | NA | < 0.0043 U |
| DS-4 | DS-4_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.27 J | 0.71 | 0.22 J | < 0.36 U | < 0.36 U | < 0.36 U | 0.06 J | 0.0016 J | 0.52 | < 0.36 U | 0.019 J | < 0.36 U | NA | NA | NA | < 0.0041 U |
| DS-5 | DS-5_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | 0.12 J | < 0.0057 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | NA | NA | NA | < 0.0057 U |
| DS-5 | DS-5_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 0.0054 U | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 1.9 UD | NA | NA | NA | < 0.0054 U |
| DS-6 | DS-6_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | 2.3 JD | < 3.9 UD | < 3.9 UD | < 0.0048 U | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | NA | NA | NA | 0.0021 J |
| DS-6 | DS-6_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | 1.8 JD | < 4.1 UD | < 4.1 UD | 0.0017 J | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | NA | NA | NA | 0.0028 J |
| DS-7 | DS-7_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.4 | 0.77 | 0.3 J | 0.45 | < 0.37 U | 0.047 J | 0.09 J | 0.0025 J | 0.65 | < 0.37 U | < 0.37 U | < 0.37 U | NA | NA | NA | < 0.0048 U |
| DS-7 | DS-7_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | 0.0011 J | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.0044 U |
| DS-8 | DS-8_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 3.7 UD | 0.39 JD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 0.0042 U | 0.3 JD | < 3.7 UD | < 3.7 UD | < 3.7 UD | NA | NA | NA | 0.002 J |
| DS-9 | DS-9_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.45 U | < 0.45 U | < 0.45 U | < 0.45 U | < 0.45 U | < 0.45 U | < 0.45 U | < 0.0057 U | < 0.45 U | < 0.45 U | < 0.45 U | < 0.45 U | NA | NA | NA | 0.003 J |
| DS-9 | DS-9_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.79 UD | < 0.79 UD | < 0.79 UD | < 0.79 UD | < 0.79 UD | < 0.79 UD | < 0.79 UD | 0.0083 | < 0.79 UD | < 0.79 UD | < 0.79 UD | < 0.79 UD | NA | NA | NA | 0.0039 J |
| DS-10 | DS-10_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.36 | 0.64 | 0.25 J | 0.29 J | < 0.35 U | 0.072 J | 0.13 J | < 0.0041 U | 0.63 | < 0.35 U | 0.024 J | 0.062 J | NA | NA | NA | < 0.0041 U |
| DS-10 | DS-10_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.005 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | NA | < 0.005 U |
| DS-11 | DS-11_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.0048 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | NA | NA | NA | 0.00088 J |
| DS-11 | DS-11_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.0057 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | NA | NA | NA | < 0.0057 U |
| DS-12 | DS-12_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.4 U | 0.047 J | 0.032 J | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.005 U | < 0.4 U | < 0.4 U | < 0.4 U | < 0.4 U | NA | NA | NA | < 0.005 U |
| DS-12 | DS-12_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.005 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | NA | NA | NA | < 0.005 U |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | Analyte | Benzo(a)Pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)Perylene | Benzo(k)Fluoranthene | Benzyl Alcohol | Benzyl Butyl Phthalate | Bis(2-Ethylhexyl)phthalate | Carbon Disulfide | Chrysene | Dibenzo(a,h)Anthracene | Dibenzofuran | Di-n-Octyl Phthalate | Diphenyl Ether | Endrin | Endrin Aldehyde | Ethylbenzene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 50-32-8 | 205-99-2 | 191-24-2 | 207-08-9 | 100-51-6 | 85-68-7 | 117-81-7 | 75-15-0 | 218-01-9 | 53-70-3 | 132-64-9 | 117-84-0 | 101-84-8 | 72-20-8 | 7421-93-4 | 100-41-4 |
| | | | | Method | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8270C | SW8270 | 8081 | SW8081 | SW8260B |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| DS-13 | DS-13_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.7 UD | 0.26 JD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | 0.0011 J | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | NA | NA | NA | < 0.0042 U |
| DS-13 | DS-13_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 0.0051 U | < 3.8 UD | < 3.8 UD | < 3.8 UD | < 3.8 UD | NA | NA | NA | < 0.0051 U |
| DS-14 | DS-14_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | 0.0028 J | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | NA | NA | NA | 0.0013 J |
| DS-14 | DS-14_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 0.0053 U | < 4.1 UD | < 4.1 UD | < 4.1 UD | < 4.1 UD | NA | NA | NA | 0.0092 |
| DS-15 | DS-15_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 0.0043 U | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | NA | NA | NA | < 0.0043 U |
| DS-15 | DS-15_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 2 UD | < 2 UD | < 2 UD | < 2 UD | 4.5 D | < 2 UD | < 2 UD | < 0.0055 U | < 2 UD | < 2 UD | < 2 UD | < 2 UD | NA | NA | NA | < 0.0055 U |
| DS-16 | DS-16_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 0.0048 U | < 3.7 UD | < 3.7 UD | < 3.7 UD | < 3.7 UD | NA | NA | NA | < 0.0048 U |
| DS-16 | DS-16_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 4 UD | < 4 UD | < 4 UD | < 4 UD | < 4 UD | < 4 UD | < 4 UD | < 0.0049 U | < 4 UD | < 4 UD | < 4 UD | < 4 UD | NA | NA | NA | < 0.0049 U |
| DS-17 | DS-17_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 2 UD | 0.13 JD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 0.0045 U | 0.1 JD | < 2 UD | < 2 UD | < 2 UD | NA | NA | NA | < 0.0045 U |
| DS-17 | DS-17_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 3.9 UD | < 3.9 UD | 0.58 JD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 3.9 UD | < 0.0051 U | < 3.9 UD | 0.56 JD | < 3.9 UD | < 3.9 UD | NA | NA | NA | < 0.0051 U |
| DS-18 | DS-18_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 1.9 UD | 0.54 JD | 0.31 JD | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 1.9 UD | < 0.005 U | 0.33 JD | 0.23 JD | < 1.9 UD | < 1.9 UD | NA | NA | NA | < 0.005 U |
| DS-18 | DS-18_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 0.005 U | < 2 UD | < 2 UD | < 2 UD | < 2 UD | NA | NA | NA | < 0.005 U |
| DS-18 | DUP-5_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | < 2 UD | 0.13 JD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 2 UD | < 0.0052 U | < 2 UD | < 2 UD | < 2 UD | < 2 UD | NA | NA | NA | < 0.0052 U |
| GP-2 | GP-2 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | 0.44 | 0.45 | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.3 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | 4.7 | NA | NA | < 0.3 U |
| GP-5 | GP-5 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.24 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | < 0.24 U |
| GP-6 | GP-6 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 7.8 U | < 7.8 U | < 7.8 U | < 7.8 U | < 7.8 U | < 7.8 U | < 7.8 U | < 0.22 U | < 7.8 U | < 7.8 U | < 7.8 U | < 7.8 U | 120 | NA | NA | < 0.22 U |
| GP-7 | GP-7 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | 0.69 | < 0.24 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | 0.6 | NA | NA | < 0.24 U |
| GP-8 | GP-8 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 490 U | < 490 U | < 490 U | < 490 U | < 490 U | < 490 U | < 490 U | < 0.34 U | < 490 U | < 490 U | < 490 U | < 490 U | 6900 | NA | NA | 0.67 |
| GP-10 | GP-10 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 0.24 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | NA | NA | 0.97 |
| GP-11 | GP-11 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.2 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | < 0.2 U |
| GP-13 | GP-13 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 0.25 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | NA | NA | < 0.25 U |
| GP-14 | GP-14 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.17 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | 4.1 | NA | NA | < 0.17 U |
| GP-15 | GP-15 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.17 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | < 0.39 U | NA | NA | < 0.17 U |
| GP-16 | GP-16 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 0.67 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | NA | NA | < 0.67 U |
| GP-18 | GP-18 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.0072 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | < 0.38 U | NA | NA | < 0.0072 U |
| EX-19 | EX-19 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 210 U | < 210 U | < 210 U | < 210 U | < 210 U | < 210 U | < 210 U | < 0.68 U | < 210 U | < 210 U | < 210 U | < 210 U | 2900 | NA | NA | 3.3 |
| EX-21 | EX-21 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 3.8 U | < 3.8 U | < 3.8 U | < 3.8 U | < 3.8 U | < 3.8 U | < 3.8 U | < 0.0064 U | < 3.8 U | < 3.8 U | < 3.8 U | < 3.8 U | 44 | NA | NA | < 0.0064 U |
| EX-22 | EX-22 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 0.74 U | < 0.74 U | < 0.74 U | < 0.74 U | < 0.74 U | < 0.74 U | < 0.74 U | < 1.1 U | < 0.74 U | < 0.74 U | < 0.74 U | < 0.74 U | 8.5 | NA | NA | < 1.1 U |
| EX-23 | EX-23 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 3.7 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | < 0.37 U | NA | NA | < 3.7 U |
| EX-26 | EX-26 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 16 U | < 16 U | < 16 U | < 16 U | < 16 U | < 16 U | < 16 U | < 0.24 U | < 16 U | < 16 U | < 16 U | < 16 U | 180 | NA | NA | < 0.24 U |
| EX-27 | EX-27 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 2 U | < 0.64 U | < 2 U | < 2 U | < 2 U | < 2 U | 9.5 | NA | NA | < 0.64 U |
| EX-27 | DUP-1(07272007) | 0 - 2 | 7/27/2007 | FD | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | < 0.36 U | < 1.9 U | < 1.9 U | < 1.9 U | < 1.9 U | 2.2 | NA | NA | < 0.36 U |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | | Analyte | Fluoranthene | Fluorene | Formaldehyde | Heptachlorodibenzofurans | Heptachlorodibenzo-p-dioxins | Hexachlorodibenzofurans | Hexachlorodibenzo-p-dioxins | Indeno(1,2,3-cd)Pyrene | m,p-Xylene | Methoxychlor | Methyl N-Butyl Ketone | m-Xylene | Naphthalene | Octachlorodibenzofuran | Octachlorodibenzo-p-Dioxin | o-Xylene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 206-44-0 | 86-73-7 | 50-00-0 | 38998-75-3 | 37871-00-4 | 55684-94-1 | 34465-46-8 | 193-39-5 | ARC-mpXyl | 72-43-5 | 591-78-6 | 108-38-3 | 91-20-3 | 39001-02-0 | 3268-87-9 | 95-47-6 |
| | | | | | Method | SW8270C | SW8270C | SW8315A | SW8280 | SW8280 | SW8280 | SW8280 | SW8270C | SW8021 | 8081 | SW8260B | SW8260 | 8270 | SW8280 | SW8280 | SW8260 |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| 50-CC Composite | 50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-EC Composite | 50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | 0.042 | NA | NA | NA | NA | NA | NA | < 0.01 U |
| 50-NC Composite | 50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | 0.099 | NA | NA | NA | NA | NA | NA | < 0.0094 U |
| 50-NE Composite | 50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0067 U | NA | NA | NA | NA | NA | NA | < 0.0067 U |
| 50-SC Composite | 50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | 0.076 | NA | NA | NA | NA | NA | NA | 0.035 |
| 50-SE Composite | 50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | 0.044 | NA | NA | NA | NA | NA | NA | < 0.0074 U |
| 50-NW Composite | 50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0082 U | NA | NA | NA | NA | NA | NA | < 0.0082 U |
| 50-SW Composite | 50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | NA | NA | NA | NA | NA | NA | < 0.0058 U |
| 50-WC Composite | 50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0062 U | NA | NA | NA | NA | NA | NA | < 0.0062 U |
| Hard Resins | HARD RESINS_6/5/00_(1-3)GRAB_NM | 1 - 3 | 6/5/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(4-6)GRAB_NM | 4 - 6 | 6/5/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F1 | SB-F1_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | | < 0.37 U | < 0.37 U | NA | 0.0000268 J | 0.000244 J | 0.0000116 J | 0.000115 J | < 0.37 U | NA | < 0.002 U | < 0.029 U | NA | < 0.37 U | 0.0000178 J | 0.0018 J | NA |
| SB-F3 | SB-F3_10/24/00_(0-2)GRAB_NM | 0 - 2 | 10/24/2000 | N | | < 2 U | < 2 U | NA | NA | NA | NA | NA | < 2 U | NA | NA | < 1.2 U | NA | < 2 U | NA | NA | NA |
| SB-F4 | SB-F4_10/19/00_(0.5-2)GRAB_NM | 0.5 - 2 | 10/19/2000 | N | | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.026 U | NA | < 0.38 U | NA | NA | NA |
| SB-F6 | SB-F6_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.029 U | NA | < 0.38 U | NA | NA | NA |
| SB-F6/F4/F15/F27 | SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H | 0.5 - 3 | 10/20/2000 | N | | NA | NA | NA | 0.0000198 J | 0.00017 J | 0.000013 J | 0.0000445 J | NA | NA | < 0.002 U | NA | NA | NA | 0.0000191 J | 0.00139 J | NA |
| SB-F12 | SB-F12_10/20/00_(1-3)GRAB_NM | 1 - 3 | 10/20/2000 | N | | < 0.36 U | < 0.36 U | NA | NA | NA | NA | NA | < 0.36 U | NA | NA | < 0.028 U | NA | < 0.36 U | NA | NA | NA |
| SD-F12/F13/F14/F15 | SD-F12/F13/F14/F15_10/26/00_(0-0.5)COMP | 0 - 0.5 | 10/26/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | 0.16 J | NA | NA | NA | NA | NA | NA | NA |
| SB-F14 | SB-F14_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.031 U | NA | < 0.39 U | NA | NA | NA |
| SB-F14/F12 | SB-F14/F12_10/20/00_(1-3)COMP_H_NM | 1 - 3 | 10/20/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0018 U | NA | NA | NA | NA | NA | NA |
| SB-F14/F12/F3 | SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM | 0 - 3 | 10/19/2000 | N | | NA | NA | NA | 0.0000762 | 0.000266 | 0.0000345 | 0.0000419 | NA | NA | NA | NA | NA | NA | 0.0000672 | 0.00108 | NA |
| SB-F15 | SB-F15_10/18/00_(0-3)GRAB_NM | 0 - 3 | 10/18/2000 | N | | < 0.37 U | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | < 0.029 U | NA | < 0.37 U | NA | NA | NA |
| SB-F19 | SB-F19_10/17/00_(0-3)GRAB_NM | 0 - 3 | 10/17/2000 | N | | < 0.39 U | < 0.39 U | NA | 0.0000109 J | 0.000121 J | 0.00000454 J | 0.0000197 J | < 0.39 U | NA | < 0.02 U | < 0.026 U | NA | < 0.39 U | 0.0000107 J | 0.00464 J | NA |
| SB-F27 | SB-F27_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.028 U | NA | < 0.38 U | NA | NA | NA |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM | 0 - 3 | 12/1/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM | 3 - 6 | 12/1/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F3A | SB-F3A_11/8/02_(0-1)GRAB_NM | 0 - 1 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.007 U | < 0.39 U | NA | NA | < 0.007 U |
| SS-1 | SS-1_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.029 U | NA | < 0.39 U | NA | NA | NA |
| SS-2 | SS-2_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.028 U | NA | < 0.38 U | NA | NA | NA |
| SS-3 | SS-3_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | | < 0.37 U | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | < 0.028 U | NA | < 0.37 U | NA | NA | NA |
| SS-4 | SS-4_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | | < 0.4 U | < 0.4 U | NA | NA | NA | NA | NA | < 0.4 U | NA | NA | < 0.03 U | NA | < 0.4 U | NA | NA | NA |
| SS-30 | SS-30_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0068 U | < 0.43 U | NA | NA | < 0.0068 U |
| SS-31 | SS-31_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.024 | < 0.44 U | NA | NA | < 0.0064 U |
| SS-32 | SS-32_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | < 0.41 U | NA | NA | < 0.0056 U |
| SS-33 | SS-33_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0065 U | < 0.4 U | NA | NA | < 0.0065 U |
| SS-34 | SS-34_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.022 | < 0.4 U | NA | NA | < 0.0068 U |
| SS-35 | SS-35_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.016 | < 0.42 U | NA | NA | < 0.0067 U |
| SS-43 | SS-43_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-43 | SS-43_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | < 0.0057 U |
| SS-44 | SS-44_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-44 | SS-44_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | < 0.0057 U |
| SS-45 | SS-45_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA |
| SS-45 | SS-45_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.022 | NA | NA | NA | 0.0084 |
| SS-46 | SS-46_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | NA |
| SS-46 | SS-46_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | NA | NA | NA | < 0.0056 U |
| SS-47 | SS-47_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-47 | SS-47_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | < 0.0057 U |
| SS-48 | SS-48_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-48 | SS-48_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | NA | NA | NA | < 0.0058 U |
| SS-49 | SS-49_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.4 U | NA | NA | NA |
| SS-49 | SS-49_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | NA | NA | NA | < 0.006 U |
| SS-50 | SS-50_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.42 U | NA | NA | NA |
| SS-50 | SS-50_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0063 U | NA | NA | NA | < 0.0063 U |
| SS-51 | SS-51_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-51 | SS-51_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | < 0.0057 U |
| SS-52 | SS-52_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | NA |
| SS-52 | SS-52_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.017 | NA | NA | NA | 0.0099 |
| SS-53 | SS-53_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0055 U | < 0.36 U | NA | NA | < 0.0055 U |
| SS-54 | SS-54_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.38 U | NA | NA | < 0.0057 U |
| SS-55 | SS-55_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-55 | SS-55_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | < 0.0057 U |
| SS-56 | SS-56_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0055 U | < 0.36 U | NA | NA | < 0.0055 U |
| SS-57 | SS-57_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0059 U | < 0.39 U | NA | NA | < 0.0059 U |
| SS-58 | SS-58_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | < 0.38 U | NA | NA | < 0.0058 U |
| SS-59 | SS-59_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0068 U | < 0.44 U | NA | NA | < 0.0068 U |
| SS-60 | SS-60_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0064 U | < 0.42 U | NA | NA | < 0.0064 U |
| SS-61 | SS-61_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | NA |
| SS-61 | SS-61_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | NA | NA | NA | < 0.0057 U |
| SS-62 | SS-62_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0059 U | < 0.39 U | NA | NA | < 0.0059 U |
| SS-63 | SS-63_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.38 U | NA | NA | < 0.0057 U |
| SB-F3RE | SB-F3RE_12/19/02_(0-2)GRAB_NM | 0 - 2 | 12/19/2002 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | < 0.39 U | NA | NA | < 0.006 U |
| SS-74 | SS-74_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | 0.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-74 | SS-74_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | < 0.11 U | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | | NA | NA | 0.32 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | | NA | NA | 0.48 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | Analyte | Fluoranthene | Fluorene | Formaldehyde | Heptachlorodibenzofurans | Heptachlorodibenzo-p-dioxins | Hexachlorodibenzofurans | Hexachlorodibenzo-p-dioxins | Indeno(1,2,3-cd)Pyrene | m,p-Xylene | Methoxychlor | Methyl N-Butyl Ketone | m-Xylene | Naphthalene | Octachlorodibenzofuran | Octachlorodibenzo-p-Dioxin | o-Xylene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CAS | 206-44-0 | 86-73-7 | 50-00-0 | 38998-75-3 | 37871-00-4 | 55684-94-1 | 34465-46-8 | 193-39-5 | ARC-mpXyl | 72-43-5 | 591-78-6 | 108-38-3 | 91-20-3 | 39001-02-0 | 3268-87-9 | 95-47-6 |
| | | | | Method | SW8270C | SW8270C | SW8315A | SW8280 | SW8280 | SW8280 | SW8280 | SW8270C | SW8021 | 8081 | SW8260B | SW8260 | 8270 | SW8280 | SW8280 | SW8260 |
| SS-76 | SS-76_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | 0.34 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | 0.26 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 1_8/15/06_(0-2)GRAB_DUP | 0 - 2 | 8/15/2006 | FD | NA | NA | 0.56 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 2_8/15/06_(2-4)GRAB_DUP | 2 - 4 | 8/15/2006 | FD | NA | NA | 0.94 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | 0.34 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | 0.44 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 A_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | 1.6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 B_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | 1.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | 1.9 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | 0.69 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-80 | SS-80_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | 1.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-82 | SS-82_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 54 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-83 | SS-83_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 0.32 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-84 | SS-84_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 0.25 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-85 | SS-85_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 0.29 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-86 | SS-86_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-87 | SS-87_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | 1.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-88 | SS-88_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 1.1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-89 | SS-89_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | 0.15 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-90 | SS-90_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 0.1 J | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-93 | SS-93_11/6/08_(0-4)GRAB_NM | 0 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | DUP-2_11/6/08_(0-2)GRAB_DUP | 0 - 2 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | SS-94_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-95 | SS-95_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 0.18 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-96 | SS-96_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | 0.13 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-97 | DUP-4_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-97 | SS-97_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-98 | DUP-3_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-98 | SB-98_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-98 | SB-98_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-99 | SB-99_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-99 | SB-99_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-100 | DUP-1_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-100 | SB-100_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-100 | SB-100_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-101 | SB-101_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-101 | SB-101_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-102 | SB-102_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-102 | SB-102_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-103 | SB-103_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-103 | SB-103_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-103 | SB-103_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-105 | SB-105_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-105 | SB-105_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-107 | SB-107_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-107 | SB-107_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-107 | SB-107_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-108 | SS-108_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-1 | DS-1_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.27 J | < 0.35 U | NA | NA | NA | NA | NA | 0.15 J | NA | NA | < 0.025 U | NA | < 0.35 U | NA | NA | NA |
| DS-1 | DS-1_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.21 J | 0.04 J | NA | NA | NA | NA | NA | 0.085 J | NA | NA | < 0.025 U | NA | < 0.35 U | NA | NA | NA |
| DS-2 | DS-2_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.042 J | < 0.36 U | NA | NA | NA | NA | NA | < 0.36 U | NA | NA | < 0.026 U | NA | < 0.36 U | NA | NA | NA |
| DS-2 | DS-2_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.029 U | NA | < 0.38 U | NA | NA | NA |
| DS-3 | DS-3_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.4 JD | < 3.9 UD | NA | NA | NA | NA | NA | < 3.9 UD | NA | NA | < 0.85 UD | NA | < 3.9 UD | NA | NA | NA |
| DS-3 | DS-3_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.64 JD | < 3.8 UD | NA | NA | NA | NA | NA | < 3.8 UD | NA | NA | < 0.026 U | NA | < 3.8 UD | NA | NA | NA |
| DS-4 | DS-4_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.26 J | < 0.36 U | NA | NA | NA | NA | NA | 0.045 J | NA | NA | < 0.021 U | NA | < 0.36 U | NA | NA | NA |
| DS-4 | DS-4_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 1.2 | 0.045 J | NA | NA | NA | NA | NA | 0.18 J | NA | NA | < 0.02 U | NA | < 0.36 U | NA | NA | NA |
| DS-5 | DS-5_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.062 J | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | < 0.028 U | NA | < 0.37 U | NA | NA | NA |
| DS-5 | DS-5_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 1.9 UD | < 1.9 UD | NA | NA | NA | NA | NA | < 1.9 UD | NA | NA | < 0.027 U | NA | < 1.9 UD | NA | NA | NA |
| DS-6 | DS-6_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.32 JD | < 3.9 UD | NA | NA | NA | NA | NA | < 3.9 UD | NA | NA | < 0.024 U | NA | < 3.9 UD | NA | NA | NA |
| DS-6 | DS-6_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 4.1 UD | < 4.1 UD | NA | NA | NA | NA | NA | < 4.1 UD | NA | NA | < 0.03 U | NA | < 4.1 UD | NA | NA | NA |
| DS-7 | DS-7_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 1.3 | < 0.37 U | NA | NA | NA | NA | NA | 0.24 J | NA | NA | 0.0028 J | NA | < 0.37 U | NA | NA | NA |
| DS-7 | DS-7_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.055 J | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.022 U | NA | < 0.38 U | NA | NA | NA |
| DS-8 | DS-8_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.6 JD | < 3.7 UD | NA | NA | NA | NA | NA | < 3.7 UD | NA | NA | < 0.021 U | NA | < 3.7 UD | NA | NA | NA |
| DS-9 | DS-9_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.45 U | < 0.45 U | NA | NA | NA | NA | NA | < 0.45 U | NA | NA | < 0.028 U | NA | < 0.45 U | NA | NA | NA |
| DS-9 | DS-9_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | 0.73 JD | < 0.79 UD | NA | NA | NA | NA | NA | < 0.79 UD | NA | NA | < 0.023 U | NA | < 0.79 UD | NA | NA | NA |
| DS-10 | DS-10_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 1.5 | 0.043 J | NA | NA | NA | NA | NA | 0.15 J | NA | NA | < 0.021 U | NA | < 0.35 U | NA | NA | NA |
| DS-10 | DS-10_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.025 U | NA | < 0.38 U | NA | NA | NA |
| DS-11 | DS-11_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.046 J | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.024 U | NA | < 0.39 U | NA | NA | NA |
| DS-11 | DS-11_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | 0.0027 J | NA | < 0.39 U | NA | NA | NA |
| DS-12 | DS-12_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | 0.18 J | < 0.4 U | NA | NA | NA | NA | NA | < 0.4 U | NA | NA | < 0.025 U | NA | < 0.4 U | NA | NA | NA |
| DS-12 | DS-12_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.025 U | NA | < 0.39 U | NA | NA | NA |
| DS-13 | DS-13_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.24 JD | < 3.7 UD | NA | NA | NA | NA | NA | < 3.7 UD | NA | NA | < 0.021 U | NA | < 3.7 UD | NA | NA | NA |
| DS-13 | DS-13_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 3.8 UD | < 3.8 UD | NA | NA | NA | NA | NA | < 3.8 UD | NA | NA | < 0.025 U | NA | < 3.8 UD | NA | NA | NA |
| DS-14 | DS-14_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.9 UD | < 3.9 UD | NA | NA | NA | NA | NA | < 3.9 UD | NA | NA | 0.0054 J | NA | < 3.9 UD | NA | NA | NA |
| DS-14 | DS-14_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 4.1 UD | < 4.1 UD | NA | NA | NA | NA | NA | < 4.1 UD | NA | NA | 0.0048 J | NA | < 4.1 UD | NA | NA | NA |
| DS-15 | DS-15_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.9 UD | < 3.9 UD | NA | NA | NA | NA | NA | < 3.9 UD | NA | NA | < 0.021 U | NA | < 3.9 UD | NA | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | Analyte<br>CAS<br>Method | Fluoranthene<br>206-44-0<br>SW8270C | Fluorene<br>86-73-7<br>SW8270C | Formaldehyde<br>50-00-0<br>SW8315A | Heptachlorodibenzofurans<br>38998-75-3<br>SW8280 | Heptachlorodibenzo-p-dioxins<br>37871-00-4<br>SW8280 | Hexachlorodibenzofurans<br>55684-94-1<br>SW8280 | Hexachlorodibenzo-p-dioxins<br>34465-46-8<br>SW8280 | Indeno(1,2,3-cd)Pyrene<br>193-39-5<br>SW8270C | m,p-Xylene<br>ARC-mpXyl<br>SW8021 | Methoxychlor<br>72-43-5<br>8081 | Methyl N-Butyl Ketone<br>591-78-6<br>SW8260B | m-Xylene<br>108-38-3<br>SW8260 | Naphthalene<br>91-20-3<br>8270 | Octachlorodibenzofuran<br>39001-02-0<br>SW8280 | Octachlorodibenzo-p-Dioxin<br>3268-87-9<br>SW8280 | o-Xylene<br>95-47-6<br>SW8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DS-15 | DS-15_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 2 UD | < 2 UD | NA | NA | NA | NA | NA | < 2 UD | NA | NA | < 0.028 U | NA | < 2 UD | NA | NA | NA |
| DS-16 | DS-16_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 3.7 UD | < 3.7 UD | NA | NA | NA | NA | NA | < 3.7 UD | NA | NA | < 0.024 U | NA | < 3.7 UD | NA | NA | NA |
| DS-16 | DS-16_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 4 UD | < 4 UD | NA | NA | NA | NA | NA | < 4 UD | NA | NA | < 0.024 U | NA | < 4 UD | NA | NA | NA |
| DS-17 | DS-17_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | 0.26 JD | < 2 UD | NA | NA | NA | NA | NA | < 2 UD | NA | NA | < 0.023 U | NA | < 2 UD | NA | NA | NA |
| DS-17 | DS-17_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 3.9 UD | < 3.9 UD | NA | NA | NA | NA | NA | 0.51 JD | NA | NA | < 0.026 U | NA | < 3.9 UD | NA | NA | NA |
| DS-18 | DS-18_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | < 1.9 UD | < 1.9 UD | NA | NA | NA | NA | NA | 0.24 JD | NA | NA | < 0.025 U | NA | < 1.9 UD | NA | NA | NA |
| DS-18 | DS-18_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | < 2 UD | < 2 UD | NA | NA | NA | NA | NA | < 2 UD | NA | NA | < 0.025 U | NA | < 2 UD | NA | NA | NA |
| DS-18 | DUP-5_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | < 2 UD | < 2 UD | NA | NA | NA | NA | NA | < 2 UD | NA | NA | < 0.026 U | NA | < 2 UD | NA | NA | NA |
| GP-2 | GP-2 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | 0.92 | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 1.5 U | NA | < 0.39 U | NA | NA | NA |
| GP-5 | GP-5 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 1.2 U | NA | < 0.38 U | NA | NA | NA |
| GP-6 | GP-6 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 7.8 U | < 7.8 U | NA | NA | NA | NA | NA | < 7.8 U | NA | NA | < 1.1 U | NA | < 7.8 U | NA | NA | NA |
| GP-7 | GP-7 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 1.2 U | NA | < 0.39 U | NA | NA | NA |
| GP-8 | GP-8 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 490 U | < 490 U | NA | NA | NA | NA | NA | < 490 U | NA | NA | < 1.7 U | NA | < 490 U | NA | NA | NA |
| GP-10 | GP-10 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 2 U | < 2 U | NA | NA | NA | NA | NA | < 2 U | NA | NA | < 1.2 U | NA | < 2 U | NA | NA | NA |
| GP-11 | GP-11 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 1 U | NA | < 0.38 U | NA | NA | NA |
| GP-13 | GP-13 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 2 U | < 2 U | NA | NA | NA | NA | NA | < 2 U | NA | NA | < 1.3 U | NA | < 2 U | NA | NA | NA |
| GP-14 | GP-14 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.83 U | NA | < 0.39 U | NA | NA | NA |
| GP-15 | GP-15 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | < 0.39 U | < 0.39 U | NA | NA | NA | NA | NA | < 0.39 U | NA | NA | < 0.86 U | NA | < 0.39 U | NA | NA | NA |
| GP-16 | GP-16 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 1.9 U | < 1.9 U | NA | NA | NA | NA | NA | < 1.9 U | NA | NA | < 3.3 U | NA | < 1.9 U | NA | NA | NA |
| GP-18 | GP-18 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | < 0.38 U | < 0.38 U | NA | NA | NA | NA | NA | < 0.38 U | NA | NA | < 0.036 U | NA | < 0.38 U | NA | NA | NA |
| EX-19 | EX-19 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 210 U | < 210 U | NA | NA | NA | NA | NA | < 210 U | NA | NA | < 3.4 U | NA | < 210 U | NA | NA | NA |
| EX-21 | EX-21 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 3.8 U | < 3.8 U | NA | NA | NA | NA | NA | < 3.8 U | NA | NA | < 0.032 U | NA | < 3.8 U | NA | NA | NA |
| EX-22 | EX-22 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 0.74 U | < 0.74 U | NA | NA | NA | NA | NA | < 0.74 U | NA | NA | < 5.6 U | NA | < 0.74 U | NA | NA | NA |
| EX-23 | EX-23 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 0.37 U | < 0.37 U | NA | NA | NA | NA | NA | < 0.37 U | NA | NA | < 19 U | NA | < 0.37 U | NA | NA | NA |
| EX-26 | EX-26 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 16 U | < 16 U | NA | NA | NA | NA | NA | < 16 U | NA | NA | < 1.2 U | NA | < 16 U | NA | NA | NA |
| EX-27 | EX-27 0-2(07272007) | 0 - 2 | 7/27/2007 | N | < 2 U | < 2 U | NA | NA | NA | NA | NA | < 2 U | NA | NA | < 3.2 U | NA | < 2 U | NA | NA | NA |
| EX-27 | DUP-1(07272007) | 0 - 2 | 7/27/2007 | FD | < 1.9 U | < 1.9 U | NA | NA | NA | NA | NA | < 1.9 U | NA | NA | < 1.8 U | NA | < 1.9 U | NA | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
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| | | | | | Analyte | Parathion | Pentachlorodibenzo furans, Total | Pentachlorodibenzo-p-dioxins, Total | Phenanthrene | pH | Pyrene | Styrene (Monomer) | Styrene (Monomer) | Tetrachlorodibenzo furans, Total | Tetrachlorodibenzo-p-dioxins, Total | Toluene | Total Xylenes | Toxicity Equivalent Quotient | trans-1,4-Dichlorobutene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 56-38-2 | 30402-15-4 | 36088-22-9 | 85-01-8 | | 129-00-0 | 100-42-5 | 100-42-5 | 55722-27-5 | 41903-57-5 | 108-88-3 | 1330-20-7 | ARC-TEC | 110-57-6 |
| | | | | | Method | SW8270C | SW8280 | SW8280 | SW8270C | | SW8270C | SW8260 | SW8260B | SW8280 | SW8280 | SW8260 | SW8260B | NA | SW8260B |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| 50-CC Composite | 50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 50-EC Composite | 50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.01 U | NA | NA | NA |
| 50-NC Composite | 50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.029 | NA | NA | NA |
| 50-NE Composite | 50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM | 1 - 9 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0067 U | NA | NA | NA |
| 50-SC Composite | 50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.038 | NA | NA | NA |
| 50-SE Composite | 50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM | 1 - 6 | 1/19/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0074 U | NA | NA | NA |
| 50-NW Composite | 50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0082 U | NA | NA | NA |
| 50-SW Composite | 50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | NA | NA | NA |
| 50-WC Composite | 50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM | 1 - 6 | 1/24/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0062 U | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(1-3)GRAB_NM | 1 - 3 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Hard Resins | HARD RESINS_6/5/00_(4-6)GRAB_NM | 4 - 6 | 6/5/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F1 | SB-F1_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.37 U | 0.00000877 J | 0.00000992 J | < 0.37 U | 8.06 | < 0.37 U | < 0.0058 U | NA | 0.00000827 J | 0.00000377 J | < 0.0058 U | < 0.012 U | 0.0000062 J | < 0.0038 U | |
| SB-F3 | SB-F3_10/24/00_(0-2)GRAB_NM | 0 - 2 | 10/24/2000 | N | < 2 U | NA | NA | < 2 U | 7.58 | < 2 U | < 0.25 U | NA | NA | NA | < 0.25 U | < 0.49 U | NA | NA | |
| SB-F4 | SB-F4_10/19/00_(0.5-2)GRAB_NM | 0.5 - 2 | 10/19/2000 | N | < 0.38 U | NA | NA | < 0.38 U | 6.9 | < 0.38 U | < 0.0053 U | NA | NA | NA | < 0.0053 U | < 0.01 U | NA | NA | |
| SB-F6 | SB-F6_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | 2.1 | NA | NA | < 0.38 U | 7.27 | < 0.38 U | < 0.0058 U | NA | NA | NA | 0.012 | 0.079 | NA | NA | |
| SB-F6/F4/F15/F27 | SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H | 0.5 - 3 | 10/20/2000 | N | NA | 0.0000155 J | 0.00000461 J | NA | NA | NA | NA | NA | 0.0000104 J | 0.00000208 J | NA | NA | 0.000004 J | 0.0078 J | |
| SB-F12 | SB-F12_10/20/00_(1-3)GRAB_NM | 1 - 3 | 10/20/2000 | N | < 0.36 U | NA | NA | < 0.36 U | 7.71 | < 0.36 U | < 0.0057 U | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SD-F12/F13/F14/F15 | SD-F12/F13/F14/F15_10/26/00_(0-0.5)COMP | 0 - 0.5 | 10/26/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.013 U | |
| SB-F14 | SB-F14_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | 1.4 | NA | NA | < 0.39 U | 6.34 | < 0.39 U | < 0.0062 U | NA | NA | NA | < 0.0062 U | < 0.012 U | NA | NA | |
| SB-F14/F12 | SB-F14/F12_10/20/00_(1-3)COMP_H_NM | 1 - 3 | 10/20/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0035 U | |
| SB-F14/F12/F3 | SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM | 0 - 3 | 10/19/2000 | N | NA | 0.0000288 | 0.00000685 | NA | NA | NA | NA | NA | 0.0000205 | 0.00000366 | NA | NA | 0.0000055 | NA | |
| SB-F15 | SB-F15_10/18/00_(0-3)GRAB_NM | 0 - 3 | 10/18/2000 | N | < 0.37 U | NA | NA | < 0.37 U | 4.66 | < 0.37 U | < 0.0057 U | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SB-F19 | SB-F19_10/17/00_(0-3)GRAB_NM | 0 - 3 | 10/17/2000 | N | < 0.39 U | 0.00000352 J | 0.00000175 J | < 0.39 U | 7.39 | < 0.39 U | < 0.0052 U | NA | 0.00000377 J | 0.000000303 J | < 0.0052 U | < 0.01 U | 0.0000058 J | < 0.0039 U | |
| SB-F27 | SB-F27_10/19/00_(1-3)GRAB_NM | 1 - 3 | 10/19/2000 | N | < 0.38 U | NA | NA | < 0.38 U | 4.56 | < 0.38 U | < 0.0056 U | NA | NA | NA | < 0.0056 U | < 0.011 U | NA | NA | |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM | 0 - 3 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Confirmation_Sample | CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM | 3 - 6 | 12/1/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SB-F3A | SB-F3A_11/8/02_(0-1)GRAB_NM | 0 - 1 | 11/8/2002 | N | NA | NA | NA | NA | 4.8 | NA | NA | NA | NA | NA | < 0.007 U | < 0.014 U | NA | NA | |
| SS-1 | SS-1_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | 0.46 | NA | < 0.39 U | < 0.0059 U | NA | NA | NA | < 0.0059 U | < 0.012 U | NA | NA | |
| SS-2 | SS-2_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | < 0.38 U | NA | < 0.38 U | < 0.0057 U | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-3 | SS-3_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | < 0.37 U | NA | < 0.37 U | < 0.0056 U | NA | NA | NA | < 0.0056 U | < 0.011 U | NA | NA | |
| SS-4 | SS-4_7/2/04_(0-2)GRAB_NM | 0 - 2 | 7/2/2004 | N | NA | NA | NA | < 0.4 U | NA | < 0.4 U | < 0.006 U | NA | NA | NA | < 0.006 U | < 0.012 U | NA | NA | |
| SS-30 | SS-30_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | NA | NA | NA | NA | 7.6 | NA | NA | NA | NA | NA | < 0.0068 U | < 0.014 U | NA | NA | |
| SS-31 | SS-31_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | NA | NA | NA | NA | 6.1 | NA | NA | NA | NA | NA | < 0.0064 U | 0.024 | NA | NA | |
| SS-32 | SS-32_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | NA | NA | NA | NA | 6.5 | NA | NA | NA | NA | NA | < 0.0056 U | < 0.011 U | NA | NA | |
| SS-33 | SS-33_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | NA | NA | NA | NA | 7.2 | NA | NA | NA | NA | NA | < 0.0065 U | < 0.013 U | NA | NA | |
| SS-34 | SS-34_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | NA | NA | NA | NA | 5.8 | NA | NA | NA | NA | NA | < 0.0068 U | 0.022 | NA | NA | |
| SS-35 | SS-35_11/8/02_(0-2)GRAB_NM | 0 - 2 | 11/8/2002 | N | NA | NA | NA | NA | 6.1 | NA | NA | NA | NA | NA | < 0.0067 U | 0.016 | NA | NA | |
| SS-43 | SS-43_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 7.7 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-43 | SS-43_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-44 | SS-44_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 5.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-44 | SS-44_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-45 | SS-45_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 7 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-45 | SS-45_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | 0.03 | NA | NA | |
| SS-46 | SS-46_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 6.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-46 | SS-46_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0056 U | < 0.011 U | NA | NA | |
| SS-47 | SS-47_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 6.6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-47 | SS-47_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-48 | SS-48_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 5.2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-48 | SS-48_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0058 U | < 0.012 U | NA | NA | |
| SS-49 | SS-49_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 5.4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-49 | SS-49_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | < 0.012 U | NA | NA | |
| SS-50 | SS-50_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 5 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-50 | SS-50_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0063 U | < 0.013 U | NA | NA | |
| SS-51 | SS-51_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 7.4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-51 | SS-51_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-52 | SS-52_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 6.7 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-52 | SS-52_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.006 U | 0.027 | NA | NA | |
| SS-53 | SS-53_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 7.2 | NA | NA | NA | NA | NA | < 0.0055 U | < 0.011 U | NA | NA | |
| SS-54 | SS-54_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 6.9 | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-55 | SS-55_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 6.9 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| SS-55 | SS-55_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA | |
| SS-56 | SS-56_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 7.4 | NA | NA | NA | NA | NA | < 0.0055 U | < 0.011 U | NA | NA | |
| SS-57 | SS-57_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 7.3 | NA | NA | NA | NA | NA | < 0.0059 U | < 0.012 U | NA | NA | |
| SS-58 | SS-58_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 7.6 | NA | NA | NA | NA | NA | < 0.0058 U | < 0.012 U | NA | NA | |
| SS-59 | SS-59_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 6.8 | NA | NA | NA | NA | NA | < 0.0068 U | < 0.014 U | NA | NA | |

Table 3
Detected Compounds in Soil
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| | | | | | Analyte | Parathion | Pentachlorodibenzo furans, Total | Pentachlorodibenzo-p-dioxins, Total | Phenanthrene | pH | Pyrene | Styrene (Monomer) | Styrene (Monomer) | Tetrachlorodibenzo furans, Total | Tetrachlorodibenzo-p-dioxins, Total | Toluene | Total Xylenes | Toxicity Equivalent Quotient | trans-1,4-Dichlorobutene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 56-38-2 | 30402-15-4 | 36088-22-9 | 85-01-8 | | 129-00-0 | 100-42-5 | 100-42-5 | 55722-27-5 | 41903-57-5 | 108-88-3 | 1330-20-7 | ARC-TEC | 110-57-6 |
| | | | | | Method | SW8270C | SW8280 | SW8280 | SW8270C | | SW8270C | SW8260 | SW8260B | SW8280 | SW8280 | SW8260 | SW8260B | NA | SW8260B |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| SS-60 | SS-60_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 7.5 | NA | NA | NA | NA | NA | < 0.0064 U | < 0.013 U | NA | NA |
| SS-61 | SS-61_12/17/02_(1-2)GRAB_NM | 1 - 2 | 12/17/2002 | N | NA | NA | NA | NA | 6.9 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-61 | SS-61_12/20/02_(1-2)GRAB_NM | 1 - 2 | 12/20/2002 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA |
| SS-62 | SS-62_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 6.4 | NA | NA | NA | NA | NA | < 0.0059 U | < 0.012 U | NA | NA |
| SS-63 | SS-63_12/19/02_(1-2)GRAB_NM | 1 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 6.9 | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA |
| SB-F3RE | SB-F3RE_12/19/02_(0-2)GRAB_NM | 0 - 2 | 12/19/2002 | N | NA | NA | NA | NA | 7.3 | NA | NA | NA | NA | NA | < 0.006 U | < 0.012 U | NA | NA |
| SS-74 | SS-74_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-74 | SS-74_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-75 | SS-75_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-76 | SS-76_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 1_8/15/06_(0-2)GRAB_DUP | 0 - 2 | 8/15/2006 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | DUP # 2_8/15/06_(2-4)GRAB_DUP | 2 - 4 | 8/15/2006 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-77 | SS-77_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 A_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-78 | SS-78 B_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(0-2)GRAB_NM | 0 - 2 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-79 | SS-79_8/15/06_(2-4)GRAB_NM | 2 - 4 | 8/15/2006 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-80 | SS-80_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0057 U | < 0.011 U | NA | NA |
| SS-82 | SS-82_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-83 | SS-83_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-84 | SS-84_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-85 | SS-85_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-86 | SS-86_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-87 | SS-87_11/19/08_(0-2)GRAB_NM | 0 - 2 | 11/19/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-88 | SS-88_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-89 | SS-89_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-90 | SS-90_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0036 U |
| SS-93 | SS-93_11/6/08_(0-4)GRAB_NM | 0 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | DUP-2_11/6/08_(0-2)GRAB_DUP | 0 - 2 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-94 | SS-94_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SS-95 | SS-95_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0028 J | 0.0033 J | NA | < 0.0038 U |
| SS-96 | SS-96_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.00075 J | < 0.0091 U | NA | NA |
| SS-97 | DUP-4_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0046 U | < 0.0093 U | NA | NA |
| SS-97 | SS-97_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0047 U | < 0.0095 U | NA | NA |
| SB-98 | DUP-3_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U | < 0.0086 U | NA | NA |
| SB-98 | SB-98_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0048 U | < 0.0096 U | NA | NA |
| SB-98 | SB-98_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.005 U | 0.0037 J | NA | NA |
| SB-99 | SB-99_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 8.9 D | 83 D | NA | NA |
| SB-99 | SB-99_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 3.1 D | 19 D | NA | NA |
| SB-100 | DUP-1_11/6/08_(2-4)GRAB_DUP | 2 - 4 | 11/6/2008 | FD | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.011 | 0.014 | NA | NA |
| SB-100 | SB-100_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.00071 J | < 0.0085 U | NA | NA |
| SB-100 | SB-100_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0049 U | < 0.0099 U | NA | NA |
| SB-101 | SB-101_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0015 J | 0.02 | NA | NA |
| SB-101 | SB-101_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0048 | 0.057 | NA | NA |
| SB-102 | SB-102_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0011 J | < 0.0083 U | NA | NA |
| SB-102 | SB-102_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0046 | 0.008 J | NA | NA |
| SB-103 | SB-103_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.00068 J | < 0.0081 U | NA | NA |
| SB-103 | SB-103_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 2.2 D | 15 D | NA | NA |
| SB-103 | SB-103_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1.5 JD | 9.1 D | NA | NA |
| SB-105 | SB-105_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.004 U | < 0.008 U | NA | NA |
| SB-105 | SB-105_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.00077 J | < 0.0086 U | NA | NA |
| SB-107 | SB-107_11/6/08_(0-2)GRAB_NM | 0 - 2 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0044 U | < 0.0088 U | NA | NA |
| SB-107 | SB-107_11/6/08_(2-4)GRAB_NM | 2 - 4 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.0043 U | < 0.0086 U | NA | NA |
| SB-107 | SB-107_11/6/08_(4-6)GRAB_NM | 4 - 6 | 11/6/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.00089 J | < 0.0097 U | NA | NA |
| SS-108 | SS-108_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DS-1 | DS-1_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.35 U | NA | NA | 0.031 J | 8.60 | 0.2 J | NA | < 0.005 U | NA | NA | < 0.005 U | < 0.0099 U | NA | NA |
| DS-1 | DS-1_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.35 U* | NA | NA | 0.17 J | 8.30 | 0.2 J | NA | < 0.0049 U | NA | NA | < 0.0049 U | < 0.0099 U | NA | NA |
| DS-2 | DS-2_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.36 U | NA | NA | < 0.36 U | 7.88 | 0.019 J | NA | < 0.0051 U | NA | NA | 0.00088 J | < 0.01 U | NA | NA |
| DS-2 | DS-2_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.38 U* | NA | NA | < 0.38 U | 7.06 | < 0.38 U | NA | < 0.0058 U | NA | NA | < 0.0058 U | < 0.012 U | NA | NA |
| DS-3 | DS-3_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 3.9 UD | NA | NA | < 3.9 UD | 8.91 | < 3.9 UD | NA | < 0.17 UD | NA | NA | < 0.17 UD | < 0.34 UD | NA | NA |
| DS-3 | DS-3_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 3.8 UD | NA | NA | < 3.8 UD | 8.53 | < 3.8 UD | NA | < 0.0051 U | NA | NA | 0.0048 J | 0.025 | NA | NA |
| DS-4 | DS-4_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.36 U | NA | NA | 0.11 J | 8.72 | 0.16 J | NA | < 0.0043 U | NA | NA | < 0.0043 U | < 0.0086 U | NA | NA |
| DS-4 | DS-4_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 0.36 U | NA | NA | 0.31 J | 9.19 | 1 | NA | < 0.0041 U | NA | NA | 0.00078 J | < 0.0081 U | NA | NA |
| DS-5 | DS-5_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 0.37 U | NA | NA | 0.021 J | 7.31 | 0.023 J | NA | < 0.0057 U | NA | NA | 0.0012 J | < 0.011 U | NA | NA |
| DS-5 | DS-5_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | < 1.9 UD | NA | NA | < 1.9 UD | 7.69 | < 1.9 UD | NA | < 0.0054 U | NA | NA | 0.0011 J | 0.0054 J | NA | NA |
| DS-6 | DS-6_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | < 3.9 UD | NA | NA | < 3.9 UD | 8.86 | < 3.9 UD | NA | < 0.0048 U | NA | NA | 0.029 | 0.0066 J | NA | NA |

Table 3
Detected Compounds in Soil
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, GA

| | | | | | Analyte | Parathion | Pentachlorodibenzo furans, Total | Pentachlorodibenzo-p-dioxins, Total | Phenanthrene | pH | Pyrene | Styrene (Monomer) | Styrene (Monomer) | Tetrachlorodibenzo furans, Total | Tetrachlorodibenzo-p-dioxins, Total | Toluene | Total Xylenes | Toxicity Equivalent Quotient | trans-1,4-Dichlorobutene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CAS | 56-38-2 | 30402-15-4 | 36088-22-9 | 85-01-8 | | 129-00-0 | 100-42-5 | 100-42-5 | 55722-27-5 | 41903-57-5 | 108-88-3 | 1330-20-7 | ARC-TEC | 110-57-6 |
| | | | | | Method | SW8270C | SW8280 | SW8280 | SW8270C | | SW8270C | SW8260 | SW8260B | SW8280 | SW8280 | SW8260 | SW8260B | NA | SW8260B |
| Location ID | SampleID | Depth | Sample Date | Sample Type | | | | | | | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| DS-6 | DS-6_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 4.1 UD | NA | NA | < 4.1 UD | 9.5 | < 4.1 UD | NA | 0.0029 J | NA | NA | 0.11 | 0.0031 J | NA | NA |
| DS-7 | DS-7_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.37 U | NA | NA | 0.14 J | 9.64 | 0.81 | NA | < 0.0048 U | NA | NA | < 0.0048 U | < 0.0096 U | NA | NA |
| DS-7 | DS-7_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.38 U | NA | NA | < 0.38 U | 8.24 | 0.023 J | NA | < 0.0044 U | NA | NA | 0.0012 J | < 0.0089 U | NA | NA |
| DS-8 | DS-8_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 3.7 UD | NA | NA | 0.28 JD | 9.95 | 0.49 JD | NA | < 0.0042 U | NA | NA | 0.0046 | 0.017 | NA | NA |
| DS-9 | DS-9_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.45 U | NA | NA | < 0.45 U | 8.8 | < 0.45 U | NA | < 0.0057 U | NA | NA | 0.001 J | 0.0057 J | NA | NA |
| DS-9 | DS-9_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.79 UD | NA | NA | 0.16 JD | 8.96 | 0.081 JD | NA | < 0.0046 U | NA | NA | 0.0065 | 0.012 | NA | NA |
| DS-10 | DS-10_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.35 U | NA | NA | 0.39 | 10.3 | 0.8 | NA | < 0.0041 U | NA | NA | < 0.0041 U | < 0.0082 U | NA | NA |
| DS-10 | DS-10_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.38 U | NA | NA | < 0.38 U | 10.5 | < 0.38 U | NA | < 0.005 U | NA | NA | 0.0015 J | < 0.0099 U | NA | NA |
| DS-11 | DS-11_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.39 U | NA | NA | < 0.39 U | 11.4 | < 0.39 U | NA | < 0.0048 U | NA | NA | 0.0024 J | 0.0064 J | NA | NA |
| DS-11 | DS-11_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.39 U | NA | NA | < 0.39 U | <12 | < 0.39 U | NA | < 0.0057 U | NA | NA | 0.0011 J | < 0.011 U | NA | NA |
| DS-12 | DS-12_11/7/08_(0-2)GRAB_NM | 0 - 2 | 11/7/2008 | N | | < 0.4 U* | NA | NA | 0.035 J | 7.72 | 0.025 J | NA | < 0.005 U | NA | NA | < 0.005 U | < 0.01 U | NA | NA |
| DS-12 | DS-12_11/7/08_(2-4)GRAB_NM | 2 - 4 | 11/7/2008 | N | | < 0.39 U* | NA | NA | < 0.39 U | 5.34 | < 0.39 U | NA | < 0.005 U | NA | NA | < 0.005 U | < 0.01 U | NA | NA |
| DS-13 | DS-13_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | < 3.7 UD | NA | NA | < 3.7 UD | 7.52 | < 3.7 UD | NA | < 0.0042 U | NA | NA | < 0.0042 U | < 0.0083 U | NA | NA |
| DS-13 | DS-13_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | | < 3.8 UD | NA | NA | < 3.8 UD | 6.65 | < 3.8 UD | NA | < 0.0051 U | NA | NA | 0.004 J | < 0.01 U | NA | NA |
| DS-14 | DS-14_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | < 3.9 UD | NA | NA | 0.41 JD | 9.47 | 0.39 JD | NA | < 0.0048 U | NA | NA | 0.0063 | 0.0046 J | NA | NA |
| DS-14 | DS-14_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | | < 4.1 UD | NA | NA | < 4.1 UD | 11.2 | < 4.1 UD | NA | < 0.0053 U | NA | NA | 0.044 | 0.004 J | NA | NA |
| DS-15 | DS-15_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | < 3.9 UD | NA | NA | < 3.9 UD | 8.17 | 0.21 JD | NA | < 0.0043 U | NA | NA | 0.0049 | 0.0048 J | NA | NA |
| DS-15 | DS-15_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | | < 2 UD | NA | NA | < 2 UD | 5.35 | < 2 UD | NA | < 0.0055 U | NA | NA | < 0.0055 U | < 0.011 U | NA | NA |
| DS-16 | DS-16_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | < 3.7 UD | NA | NA | < 3.7 UD | 7.51 | < 3.7 UD | NA | < 0.0048 U | NA | NA | < 0.0048 U | < 0.0096 U | NA | NA |
| DS-16 | DS-16_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | | < 4 UD | NA | NA | < 4 UD | 4.96 | < 4 UD | NA | < 0.0049 U | NA | NA | < 0.0049 U | < 0.0098 U | NA | NA |
| DS-17 | DS-17_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | < 2 UD | NA | NA | 0.18 JD | 8.44 | 0.14 JD | NA | < 0.0045 U | NA | NA | < 0.0045 U | 0.0029 J | NA | NA |
| DS-17 | DS-17_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | | < 3.9 UD | NA | NA | < 3.9 UD | 7.93 | < 3.9 UD | NA | < 0.0051 U | NA | NA | < 0.0051 U | 0.0093 J | NA | NA |
| DS-18 | DS-18_11/10/08_(0-2)GRAB_NM | 0 - 2 | 11/10/2008 | N | | < 1.9 UD | NA | NA | 0.43 JD | 6.23 | 0.48 JD | NA | < 0.005 U | NA | NA | 0.0017 J | < 0.01 U | NA | NA |
| DS-18 | DS-18_11/10/08_(2-4)GRAB_NM | 2 - 4 | 11/10/2008 | N | | < 2 UD | NA | NA | < 2 UD | 6.04 | < 2 UD | NA | < 0.005 U | NA | NA | < 0.005 U | < 0.0099 U | NA | NA |
| DS-18 | DUP-5_11/10/08_(0-2)GRAB_DUP | 0 - 2 | 11/10/2008 | FD | | < 2 UD | NA | NA | < 2 UD | 7.1 | < 2 UD | NA | < 0.0052 U | NA | NA | < 0.0052 U | < 0.01 U | NA | NA |
| GP-2 | GP-2 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 0.39 U | NA | NA | 0.42 | NA | 0.45 | NA | < 0.3 U | NA | NA | < 0.3 U | < 0.59 U | NA | NA |
| GP-5 | GP-5 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 0.38 U | NA | NA | < 0.38 U | NA | < 0.38 U | NA | < 0.24 U | NA | NA | < 0.24 U | < 0.49 U | NA | NA |
| GP-6 | GP-6 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 7.8 U | NA | NA | < 7.8 U | NA | < 7.8 U | NA | < 0.22 U | NA | NA | < 0.22 U | < 0.44 U | NA | NA |
| GP-7 | GP-7 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 0.39 U | NA | NA | < 0.39 U | NA | < 0.39 U | NA | < 0.24 U | NA | NA | < 0.24 U | 0.89 | NA | NA |
| GP-8 | GP-8 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 490 U | NA | NA | < 490 U | NA | < 490 U | NA | < 0.34 U | NA | NA | < 0.34 U | 1.3 | NA | NA |
| GP-10 | GP-10 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 2 U | NA | NA | < 2 U | NA | < 2 U | NA | < 0.24 U | NA | NA | 0.43 | 8.1 | NA | NA |
| GP-11 | GP-11 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 0.38 U | NA | NA | < 0.38 U | NA | < 0.38 U | NA | < 0.2 U | NA | NA | < 0.2 U | < 0.4 U | NA | NA |
| GP-13 | GP-13 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 2 U | NA | NA | < 2 U | NA | < 2 U | NA | < 0.25 U | NA | NA | < 0.25 U | 1.1 | NA | NA |
| GP-14 | GP-14 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 0.39 U | NA | NA | < 0.39 U | NA | < 0.39 U | NA | < 0.17 U | NA | NA | < 0.17 U | < 0.33 U | NA | NA |
| GP-15 | GP-15 0-2FT(07262007) | 0 - 2 | 7/26/2007 | N | | < 0.39 U | NA | NA | < 0.39 U | NA | < 0.39 U | NA | < 0.17 U | NA | NA | < 0.17 U | < 0.34 U | NA | NA |
| GP-16 | GP-16 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | | < 1.9 U | NA | NA | < 1.9 U | NA | < 1.9 U | NA | < 0.67 U | NA | NA | 0.79 | 4 | NA | NA |
| GP-18 | GP-18 0-2FT(07272007) | 0 - 2 | 7/27/2007 | N | | < 0.38 U | NA | NA | < 0.38 U | NA | < 0.38 U | NA | < 0.0072 U | NA | NA | < 0.0072 U | < 0.014 U | NA | NA |
| EX-19 | EX-19 0-2(07272007) | 0 - 2 | 7/27/2007 | N | | < 210 U | NA | NA | < 210 U | NA | < 210 U | NA | < 0.68 U | NA | NA | 2.8 | 14 | NA | NA |
| EX-21 | EX-21 0-2(07272007) | 0 - 2 | 7/27/2007 | N | | < 3.8 U | NA | NA | < 3.8 U | NA | < 3.8 U | NA | < 0.0064 U | NA | NA | < 0.0064 U | < 0.013 U | NA | NA |
| EX-22 | EX-22 0-2(07272007) | 0 - 2 | 7/27/2007 | N | | < 0.74 U | NA | NA | < 0.74 U | NA | < 0.74 U | NA | < 1.1 U | NA | NA | < 1.1 U | 2.3 | NA | NA |
| EX-23 | EX-23 0-2(07272007) | 0 - 2 | 7/27/2007 | N | | < 0.37 U | NA | NA | < 0.37 U | NA | < 0.37 U | NA | < 3.7 U | NA | NA | < 3.7 U | < 7.4 U | NA | NA |
| EX-26 | EX-26 0-2(07272007) | 0 - 2 | 7/27/2007 | N | | < 16 U | NA | NA | < 16 U | NA | < 16 U | NA | < 0.24 U | NA | NA | < 0.24 U | < 0.48 U | NA | NA |
| EX-27 | EX-27 0-2(07272007) | 0 - 2 | 7/27/2007 | N | | < 2 U | NA | NA | < 2 U | NA | < 2 U | NA | < 0.64 U | NA | NA | < 0.64 U | 2.6 | NA | NA |
| EX-27 | DUP-1(07272007) | 0 - 2 | 7/27/2007 | FD | | < 1.9 U | NA | NA | < 1.9 U | NA | < 1.9 U | NA | < 0.36 U | NA | NA | < 0.36 U | < 0.73 U | NA | NA |

NA - Not analyzed for particluar constituent
Results are provided only for those compounds detected in at least one sample
FD = Field Duplicate
U = Not detected
D = Dilution
J = Estimated

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | | Analyte | 1,2-Dichloropropane | 1,3-Dinitrobenzene | 1,4-Dioxane | 2,4-Dimethylphenol | 2-Methyl-1-Propanol | 2-Methylnaphthalene | 4-Methylphenol | Acenaphthene | Acetone | Acetonitrile | Acetophenone | Acrolein | Ammonia Nitrogen | Asbestos | Benzene | Benzyl Butyl Phthalate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CAS | 78-87-5 | 99-65-0 | 123-91-1 | 105-67-9 | 78-83-1 | 91-57-6 | 106-44-5 | 83-32-9 | 67-64-1 | 75-05-8 | 98-86-2 | 107-02-8 | 7664-41-7 | | 71-43-2 | 85-68-7 |
| | | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | MFL | ug/l | ug/l |
| | | | Method | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8260B | E350.1 | A 600/R-93-1 | SW8260B | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | | |
| MW-F1 | MW-F1_10/31/00_NM | 10/31/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 130 | | < 1 U | < 10 U |
| MW-F1 | MW-F1_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F1 | MW-F1_1/20/04_DUP | 1/20/2004 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F1 | MW-F1_1/20/04_NM | 1/20/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F1 | MW-6_6/30/04_DUP | 6/30/2004 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F1 | MW-6_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F1 | MW-F1 (071911) | 7/19/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MWD-F1 | MWD-F1_11/4/00_NM | 11/4/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 170 | | < 1 U | < 10 U |
| MWD-F1 | MWD-F1_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MWD-F1 | MWD-F1_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-F1 | MWD-F1_1/23/04_NM | 1/23/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-F1 | MW-1_6/30/04_NM | 6/30/2004 | N | < 1 U | < 20 U | < 20 U | < 20 U | < 40 U | < 20 U | < 20 U | < 20 U | < 25 U | < 40 U | < 20 U | < 20 U | | | < 1 U | 190 |
| MWD-F1 | MWD-F1 (072211) | 7/22/2011 | N | < 1.0 U | < 0.98 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.98 U | < 20 U | | | < 1.0 U | < 0.98 U |
| MW-F2 | MW-F2_10/31/00_NM | 10/31/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | 22 | 170 | | < 1 U | < 10 U |
| MW-F2 | MW-F2_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | < 20 U | | | | |
| MW-F2 | MW-F2_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F2 | MW-F2_1/20/04_NM | 1/20/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F2 | MW-7_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | 14 | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F2 | MW-F2_11/19/08_NM | 11/19/2008 | N | | | | | | | | 0.032 J | | | | | | | | |
| MW-F2 | MW-F2 (071911) | 7/19/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MWD-F2 | MWD-F2_11/3/00_NM | 11/3/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | < 0.03 U | | < 1 U | < 10 U |
| MWD-F2 | MWD-F2_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MWD-F2 | MWD-F2_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-F2 | MWD-F2_1/23/04_NM | 1/23/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-F2 | MW-2_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | 150 |
| MWD-F2 | MWD-F2 (072211) | 7/22/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-F3 | MW-F3_10/30/00_DUP | 10/30/2000 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | < 0.03 U | | < 1 U | < 10 U |
| MW-F3 | MW-F3_10/30/00_NM | 10/30/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | < 0.03 U | | < 1 U | < 10 U |
| MW-F3 | MW-F3_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | |
| MW-F3 | MW-F3_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MW-F3 | MW-F3_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F3 | MW-F3_1/21/04_NM | 1/21/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F3 | MW-27_7/3/04_NM | 7/3/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F3 | DUP # 5_8/16/06_DUP | 8/16/2006 | FD | | < 9.6 U | | | | | | | | | | | | | < 1 U | |
| MW-F3 | MW-F3_8/16/06_NM | 8/16/2006 | N | | < 9.6 U | | | | | | | | | | | | | < 1 U | |
| MW-F3R | MW-F3R_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-F3R | MW-F3R (072011) | 7/20/2011 | N | < 1.0 U | < 0.95 U | < 1.9 U | < 1.9 U | < 40 U | < 0.19 U | | 0.43 | < 25 U | < 40 U | < 0.95 U | < 20 U | | | < 1.0 U | < 0.95 U |
| MWD-F3 | MWD-F3_11/3/00_NM | 11/3/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 180 | | < 1 U | < 10 U |
| MWD-F3 | MWD-F3_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-F3 | MWD-F3_1/23/04_NM | 1/23/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-F3 | MWD-F3 (072211) | 7/22/2011 | N | < 1.0 U | < 1.0 U | 2.5 | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MW-F4 | MW-F4_10/30/00_NM | 10/30/2000 | N | < 1 U | 13 | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 230 | | < 1 U | < 10 U |
| MW-F4 | MW-F4_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | |
| MW-F4 | MW-F4_7/26/02_NM | 7/26/2002 | N | | < 10 U | | | | | | | | | | | | | | |
| MW-F5 | MW-F5_10/31/00_NM | 10/31/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | 15 | < 25 U | < 40 U | < 10 U | < 20 U | 200 | | < 1 U | < 10 U |
| MW-F5 | MW-F5_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F5 | MW-F5_1/21/04_NM | 1/21/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F5 | MW-23_7/2/04_NM | 7/2/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | 14 | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F5 | MW-F5_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | < 1 U | |
| MW-F5 | MW-F5_7/30/08_NM | 7/30/2008 | N | | | | | | | | 13 | | | | | | | | |
| MW-F5 | MW-F5_11/19/08_NM | 11/19/2008 | N | | | | | | | | 20 D | | | | | | | | |
| MW-F5 | MW-F5 (072011) | 7/20/2011 | N | < 1.0 U | < 0.97 U | < 1.9 U | < 1.9 U | < 40 U | < 0.19 U | | 4.9 | < 25 U | < 40 U | < 0.97 U | < 20 U | | | < 1.0 U | < 0.97 U |
| MW-F6 | MW-F6_10/28/00_NM | 10/28/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 1700 | | < 1 U | 10 |
| MW-F6 | MW-F6_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | < 10 U |
| MW-F6 | MW-F6_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F6 | MW-F6_1/21/04_NM | 1/21/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F6 | MW-24_7/2/04_NM | 7/2/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F6 | MW-F6 (072011) | 7/20/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MW-F7 | MW-F7_10/30/00_NM | 10/30/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | < 0.03 U | | 6.2 | < 10 U |
| MW-F7 | MW-F7_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | < 50 U | |
| MW-F7 | MW-F7_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F7 | MW-F7_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F7 | MW-F7_1/20/04_NM | 1/20/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F7 | MW-21_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F7 | MW-F7_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | < 1 U | |
| MW-F7 | MW-F7_7/30/08_NM | 7/30/2008 | N | | | | | | | | | | | | | | | | |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | Analyte | 1,2-Dichloropropane | 1,3-Dinitrobenzene | 1,4-Dioxane | 2,4-Dimethylphenol | 2-Methyl-1-Propanol | 2-Methylnaphthalene | 4-Methylphenol | Acenaphthene | Acetone | Acetonitrile | Acetophenone | Acrolein | Ammonia Nitrogen | Asbestos | Benzene | Benzyl Butyl Phthalate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CAS | 78-87-5 | 99-65-0 | 123-91-1 | 105-67-9 | 78-83-1 | 91-57-6 | 106-44-5 | 83-32-9 | 67-64-1 | 75-05-8 | 98-86-2 | 107-02-8 | 7664-41-7 | | 71-43-2 | 85-68-7 |
| | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | MFL | ug/l | ug/l |
| | | Method | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8260B | E350.1 | PA 600/R-93-1 | SW8260B | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | |
| MW-F7 | MW-F7_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | |
| MW-F7 | MW-F7 (072211) | 7/22/2011 | N | < 1.0 U | < 0.95 U | < 1.9 U | < 1.9 U | < 40 U | < 0.19 U | | < 0.19 U | < 25 U | < 40 U | < 0.95 U | < 20 U | | | < 1.0 U | < 0.95 U |
| MW-F8 | MW-F8_10/27/00_NM | 10/27/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 34 U | < 40 U | < 10 U | < 20 U | 690 | | < 1 U | < 10 U |
| MW-F8 | MW-F8_1/25/01_NM | 1/25/2001 | N | | | | | | | | | 53 | | | | | | | |
| MW-F8 | MW-F8_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F8 | MW-F8_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F8 | MW-F8_1/22/04_NM | 1/22/2004 | N | < 5 U | < 10 U | < 10 U | < 10 U | < 200 U | < 10 U | < 10 U | < 10 U | < 120 U | < 200 U | 61 | < 100 U | | | < 5 U | < 10 U |
| MW-F8 | MW-F8 (072111) | 7/21/2011 | N | < 1.0 U | < 0.98 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.98 U | < 20 U | | < 0.2 U | < 1.0 U | < 0.98 U |
| MW-F9 | MW-F9_10/27/00_NM | 10/27/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | < 0.03 U | | < 1 U | < 10 U |
| MW-F9 | MW-F9_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F9 | MW-F9_1/22/04_NM | 1/22/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F9 | MW-20_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F9 | MW-F9 (072111) | 7/21/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | < 0.2 U | < 1.0 U | < 1.0 U |
| MW-F10 | MW-F10_10/30/00_NM | 10/30/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 110 | | < 1 U | < 10 U |
| MW-F10 | MW-F10_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F10 | MW-F10_1/22/04_NM | 1/22/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F10 | MW-19_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F11 | MW-F11_10/28/00_NM | 10/28/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 40 | | < 1 U | < 10 U |
| MW-F11 | MW-F11_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F11 | MW-F11_1/21/04_DUP | 1/21/2004 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F11 | MW-F11_1/21/04_NM | 1/21/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F11 | MW-30_7/4/04_DUP | 7/4/2004 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F11 | MW-30_7/4/04_NM | 7/4/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F11 | MW-F11 (071911) | 7/19/2011 | N | < 1.0 U | < 9.9 U | < 20 U | < 20 U | < 40 U | < 2.0 U | | < 2.0 U | < 25 U | < 40 U | < 9.9 U | < 20 U | | | < 1.0 U | < 9.9 U |
| MW-F12 | MW-F12_10/31/00_NM | 10/31/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 30 | | < 1 U | < 10 U |
| MW-F12 | MW-F12_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F12 | MW-F12_1/21/04_NM | 1/21/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F12 | MW-29_7/3/04_NM | 7/3/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | 49 | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F12 | MW-F12 (071911) | 7/19/2011 | N | < 1.0 U | < 10 U | < 20 U | < 20 U | < 40 U | < 2.0 U | | < 2.0 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1.0 U | < 10 U |
| MW-F13 | MW-F13_10/27/00_NM | 10/27/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 120 | | < 1 U | < 10 U |
| MW-F13 | MW-F13_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F13 | MW-F13_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F13 | MW-F13_1/22/04_NM | 1/22/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F13 | MW-18_7/1/04_DUP | 7/1/2004 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F13 | MW-18_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F13 | MW-F13_7/6/06_NM | 7/6/2006 | N | < 1 U | | < 9.6 U * | < 9.6 U | | < 9.6 U | | < 9.6 U | < 25 U | | < 9.6 U * | | | | < 1 U | < 9.6 U |
| MW-F13 | MW-F13 (072111) | 7/21/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-F14 | MW-F14_10/27/00_NM | 10/27/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 59 U | < 40 U | < 10 U | < 20 U | 200 | | 10 | < 10 U |
| MW-F14 | MW-F14_1/25/01_NM | 1/25/2001 | N | | | < 10 U | | | | | | < 50 U | | | | | | 5.4 | |
| MW-F14 | MW-F14_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | 5.3 | < 10 U |
| MW-F14 | MW-F14_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | 9.4 | < 10 U |
| MW-F14 | MW-F14_1/23/04_NM | 1/23/2004 | N | 2.1 | < 10 U | 22 | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | 14 | < 10 U |
| MW-F14 | MW-17_7/1/04_NM | 7/1/2004 | N | 1.9 | < 10 U | 25 | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | 9.2 | < 10 U |
| MW-F14 | MW-F14_7/6/06_NM | 7/6/2006 | N | < 1 U | | 23 * | < 9.5 U | | < 9.5 U | | < 9.5 U | < 25 U | | < 9.5 U * | | | | 2.2 | < 9.5 U |
| MW-F14 | MW-F14_8/17/06_NM | 8/17/2006 | N | | | | | | | | | | | | | | | 3.4 | |
| MW-F14 | MW-F14 (072111) | 7/21/2011 | N | < 1.0 U | < 0.97 U | 18 | < 1.9 U | < 40 U | < 0.19 U | | < 0.19 U | < 25 U | < 40 U | < 0.97 U | < 20 U | | | 3.1 | < 0.97 U |
| MW-F15 | MW-F15_10/30/00_NM | 10/30/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 210 | | < 1 U | < 10 U |
| MW-F15 | MW-F15_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F15 | MW-F15_1/22/04_NM | 1/22/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F15 | MW-F15 (072211) | 7/22/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-F16 | MW-F16_10/26/00_NM | 10/26/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 200 | | < 1 U | < 10 U |
| MW-F16 | MW-F16_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F16 | MW-F16_1/23/04_DUP | 1/23/2004 | FD | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F16 | MW-F16_1/23/04_NM | 1/23/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F16 | MW-14_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F16 | MW-F16_7/6/06_NM | 7/6/2006 | N | < 1 U | | < 9.5 U * | < 9.5 U | | < 9.5 U | | < 9.5 U | < 25 U | | < 9.5 U * | | | | < 1 U | < 9.5 U |
| MW-F16 | MW-F16 (072011) | 7/20/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-F17 | MW-F17_11/1/00_NM | 11/1/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 50 | | < 1 U | < 10 U |
| MW-F17 | MW-F17_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F17 | MW-F17_1/22/04_NM | 1/22/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F17 | MW-F17 (072211) | 7/22/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-F19 | MW-F19_10/31/00_NM | 10/31/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 50 | | < 1 U | < 10 U |
| MW-F19 | MW-F19_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F19 | MW-F19_1/20/04_NM | 1/20/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F19 | MW-3_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F19 | MW-F19 (071911) | 7/19/2011 | N | < 1.0 U | < 0.98 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.98 U | < 20 U | | | < 1.0 U | < 0.98 U |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | Analyte | 1,2-Dichloropropane | 1,3-Dinitrobenzene | 1,4-Dioxane | 2,4-Dimethylphenol | 2-Methyl-1-Propanol | 2-Methylnaphthalene | 4-Methylphenol | Acenaphthene | Acetone | Acetonitrile | Acetophenone | Acrolein | Ammonia Nitrogen | Asbestos | Benzene | Benzyl Butyl Phthalate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CAS | 78-87-5 | 99-65-0 | 123-91-1 | 105-67-9 | 78-83-1 | 91-57-6 | 106-44-5 | 83-32-9 | 67-64-1 | 75-05-8 | 98-86-2 | 107-02-8 | 7664-41-7 | | 71-43-2 | 85-68-7 |
| | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | MFL | ug/l | ug/l |
| | | Method | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8260B | E350.1 | PA 600/R-93-1 | SW8260B | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | |
| MW-F20 | MW-F20_11/1/00_NM | 11/1/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | 920 | | < 1 U | < 10 U |
| MW-F20 | MW-F20_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F20 | MW-F20_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-F20 | MW-F20_1/21/04_NM | 1/21/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F20 | MW-22_7/2/04_NM | 7/2/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-F20 | MW-F20_8/17/06_NM | 8/17/2006 | N | | | | | | | | | | | | | | | < 1 U | |
| MW-F21 | MW-F21_11/1/00_NM | 11/1/2000 | N | < 1 U | < 10 U | < 10 U | < 10 U | 140 | < 10 U | < 10 U | < 10 U | < 93 U | < 40 U | < 10 U | < 20 U | < 0.03 U | | 32 | < 10 U |
| MW-F21 | MW-F21_1/25/01_NM | 1/25/2001 | N | | | | | < 200 U | | | | < 50 U | | | | | | 40 | |
| MW-F21 | MW-F21_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | 42 | < 10 U |
| MW-F21 | MW-F21_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | 37 | < 10 U |
| MW-F21 | MW-F21_1/22/04_NM | 1/22/2004 | N | < 1 U | < 10 U | < 10 U | 16 | < 40 U | < 10 U | 36 | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | 24 | < 10 U |
| MW-F21 | MW-28_7/3/04_NM | 7/3/2004 | N | < 1 U | < 10 U | < 10 U | 13 | < 40 U | < 10 U | 38 | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | 25 | < 10 U |
| MW-F21 | MW-F21_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | 27 | |
| MW-F21 | MW-F21_7/30/08_NM | 7/30/2008 | N | | | | | | | | | | | | | | | | |
| MW-F21 | MW-F21_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-F21 | DUP-02 (072111) | 7/21/2011 | FD | < 1.0 U | < 9.5 U | 21 | < 19 U | < 40 U | 23 | | 6.2 | < 25 U | < 40 U | < 9.5 U | < 20 U | | | 16 | < 9.5 U |
| MW-F21 | MW-F21 (072111) | 7/21/2011 | N | < 1.0 U | < 48 U | < 96 U | < 96 U | < 40 U | 15 | | < 9.6 U | < 25 U | < 40 U | < 48 U | < 20 U | | | 14 | < 48 U |
| MW-22 | MW-22_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-22 | MW-11_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-22 | MW-22 (072111) | 7/21/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MWD-22 | MWD-22_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-22 | MW-10_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-22 | MWD-22 (072111) | 7/21/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MW-23 | MW-23_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-23 | MW-9_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-23 | MW-23 (072011) | 7/20/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MWD-23 | MWD-23_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-23 | MW-8_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-23 | MWD-23 (072011) | 7/20/2011 | N | < 1.0 U | < 0.97 U | < 1.9 U | < 1.9 U | < 40 U | < 0.19 U | | < 0.19 U | < 25 U | < 40 U | < 0.97 U | < 20 U | | | < 1.0 U | < 0.97 U |
| MW-24 | MW-24_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-24 | MW-5_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-24 | MW-24 (072011) | 7/20/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MWD-24 | MWD-24_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-24 | MW-4_6/30/04_NM | 6/30/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | 100 |
| MWD-24 | MWD-24 (072011) | 7/20/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MW-25 | MW-25_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-25 | MW-13_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-25 | MW-25 (072011) | 7/20/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MWD-25 | MWD-25_11/1/02_NM | 11/1/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-25 | MW-12_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-25 | MWD-25 (072011) | 7/20/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-27 | MW-27_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-27 | MW-25_7/2/04_NM | 7/2/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-27 | MW-27_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | < 1 U | |
| MW-27 | DUP-1_11/19/08_DUP | 11/19/2008 | FD | | | | | | | | | | | | | | | | |
| MW-27 | MW-27_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-27 | MW-27 (072211) | 7/22/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MWD-27 | MWD-27_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-27 | MW-26_7/3/04_NM | 7/3/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-27 | MWD-27_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | < 1 U | |
| MWD-27 | MWD-27 (072211) | 7/22/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-28 | MW-28_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MW-28 | MW-16_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MW-28 | MW-28 (072111) | 7/21/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MWD-28 | MWD-28_12/19/02_NM | 12/19/2002 | N | | < 10 U | | | < 200 U | | | < 10 U | < 50 U | | | < 100 U | | | < 5 U | < 10 U |
| MWD-28 | MW-15_7/1/04_NM | 7/1/2004 | N | < 1 U | < 10 U | < 10 U | < 10 U | < 40 U | < 10 U | < 10 U | < 10 U | < 25 U | < 40 U | < 10 U | < 20 U | | | < 1 U | < 10 U |
| MWD-28 | MWD-28 (072211) | 7/22/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| MW-29 | MW-29_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-29 | MW-29 (072111) | 7/21/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |

Table 4
Detected Compounds in Groundwater
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| | | Analyte | 1,2-Dichloropropane | 1,3-Dinitrobenzene | 1,4-Dioxane | 2,4-Dimethylphenol | 2-Methyl-1-Propanol | 2-Methylnaphthalene | 4-Methylphenol | Acenaphthene | Acetone | Acetonitrile | Acetophenone | Acrolein | Ammonia Nitrogen | Asbestos | Benzene | Benzyl Butyl Phthalate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CAS | 78-87-5 | 99-65-0 | 123-91-1 | 105-67-9 | 78-83-1 | 91-57-6 | 106-44-5 | 83-32-9 | 67-64-1 | 75-05-8 | 98-86-2 | 107-02-8 | 7664-41-7 | | 71-43-2 | 85-68-7 |
| | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | MFL | ug/l | ug/l |
| | | Method | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8270C | SW8260B | SW8270C | SW8270C | SW8260B | E350.1 | PA 600/R-93-1 | SW8260B | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | |
| MWD-29 | MWD-29_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | |
| MWD-29 | MWD-29 (072111) | 7/21/2011 | N | < 1.0 U | < 1.0 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 1.0 U | < 20 U | | | < 1.0 U | < 1.0 U |
| MWD-30 | MWD-30_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | |
| MWD-30 | MWD-30 (072211) | 7/22/2011 | N | < 1.0 U | < 0.96 U | < 2.0 U | < 1.9 U | < 40 U | < 0.19 U | | < 0.19 U | < 25 U | < 40 U | < 0.96 U | < 20 U | | | < 1.0 U | < 0.96 U |
| MW-32 | MW-32_11/19/08_NM | 11/19/2008 | N | | | | | | | | < 0.19 U | | | | | | | | |
| MW-32 | MW-32 (072111) | 7/21/2011 | N | < 1.0 U | < 0.99 U | < 2.0 U | < 2.0 U | < 40 U | < 0.20 U | | < 0.20 U | < 25 U | < 40 U | < 0.99 U | < 20 U | | | < 1.0 U | < 0.99 U |
| TMW-5 | TMW-5_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-5 | TMW-5_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | 6.7 | | |
| TMW-6 | TMW-6_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-6 | TMW-6_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | < 1.34 U | | |
| TMW-7 | TMW-7_6/5/00_NM | 6/5/2000 | N | | | | | | | | | | | | | | | | |
| TMW-7 | TMW-7_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | < 20 U | | | | | |
| TMW-7 | TMW-7_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | |
| TMW-10 | TMW-10_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-10 | TMW-10_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | |
| TMW-11 | TMW-11_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-11 | TMW-11_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | < 6.7 U | | |
| TMW-12 | TMW-12_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | 13 | |
| TMW-12 | TMW-12_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | |
| TMW-13 | TMW-13_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-13 | TMW-13_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | |
| TMW-14 | TMW-14_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-14 | TMW-14_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | |
| TMW-15 | TMW-15_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-15 | TMW-15_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | |
| TMW-16 | TMW-16_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | < 5 U | |
| TMW-16 | TMW-16_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | < 1.34 U | | |
| TMW-17 Hard Resins | TMW-17 HARD RESINS | 6/6/2000 | N | | | | | | | | | | | 48 | | | | | |

Table 4
Detected Compounds in Groundwater
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| | | | Analyte CAS | Bis(2-Ethylhexyl)phthalate 117-81-7 | Caprolactam 105-60-2 | Carbon Dioxide 124-38-9 | Carbon Disulfide 75-15-0 | Chloride 16887-00-6 | Chlorobenzene 108-90-7 | Chrysene 218-01-9 | Dibenzofuran 132-64-9 | Diesel Range Organics ARC-DRO | Diphenyl Ether 101-84-8 | Endrin Aldehyde 7421-93-4 | Ethylbenzene 100-41-4 | Fluoranthene 206-44-0 | Fluorene 86-73-7 | Fluoride (F-, Anion) 16984-48-8 | Formaldehyde 50-00-0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Unit | ug/l | ug/l | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | | Method | SW8270C | SW8270C | SW8260B | SW8260B | E325.1 | SW8260B | SW8270C | SW8270C | SW8015 | SW8270C | SW8081 | SW8260B | SW8270C | SW8270C | E340.2 | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | | |
| MW-F1 | MW-F1_10/31/00_NM | 10/31/2000 | N | 17 | | | < 1 U | 43 | < 1 U | < 10 U | < 10 U | 170 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F1 | MW-F1_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F1 | MW-F1_1/20/04_DUP | 1/20/2004 | FD | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F1 | MW-F1_1/20/04_NM | 1/20/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F1 | MW-6_6/30/04_DUP | 6/30/2004 | FD | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F1 | MW-6_6/30/04_NM | 6/30/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F1 | MW-F1 (071911) | 7/19/2011 | N | 22 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-F1 | MWD-F1_11/4/00_NM | 11/4/2000 | N | < 10 UJ | | | < 1 U | 4.2 | < 1 U | < 10 U | < 10 U | 700 | < 10 U | 0.01 | < 1 U | < 10 U | < 10 U | 610 | < 50 U |
| MWD-F1 | MWD-F1_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MWD-F1 | MWD-F1_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-F1 | MWD-F1_1/23/04_NM | 1/23/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 UJ | | | < 1 U | < 10 U | < 10 U | | |
| MWD-F1 | MW-1_6/30/04_NM | 6/30/2004 | N | < 20 U | | | < 1 U | | < 1 U | < 20 U | < 20 U | | | | < 1 U | < 20 U | < 20 U | | |
| MWD-F1 | MWD-F1 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.98 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F2 | MW-F2_10/31/00_NM | 10/31/2000 | N | < 10 UJ | | | < 1 U | 10 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | 470 | < 50 U |
| MW-F2 | MW-F2_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | |
| MW-F2 | MW-F2_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F2 | MW-F2_1/20/04_NM | 1/20/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 120 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F2 | MW-7_6/30/04_NM | 6/30/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | 11 | | | | < 1 U | < 10 U | 14 | | |
| MW-F2 | MW-F2_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | < 0.19 U | | |
| MW-F2 | MW-F2 (071911) | 7/19/2011 | N | 18 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-F2 | MWD-F2_11/3/00_NM | 11/3/2000 | N | < 10 UJ | | | < 1 U | 3.6 | < 1 U | < 10 U | < 10 U | 330 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | 660 | < 50 U |
| MWD-F2 | MWD-F2_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MWD-F2 | MWD-F2_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-F2 | MWD-F2_1/23/04_NM | 1/23/2004 | N | < 10 U | | | 2.4 | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MWD-F2 | MW-2_6/30/04_NM | 6/30/2004 | N | 28 | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-F2 | MWD-F2 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F3 | MW-F3_10/30/00_DUP | 10/30/2000 | FD | 21 | | | < 1 U | 13 | < 1 U | < 10 U | < 10 U | 610 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F3 | MW-F3_10/30/00_NM | 10/30/2000 | N | 110 | | | < 1 U | 13 | < 1 U | < 10 U | < 10 U | 230 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F3 | MW-F3_1/25/01_NM | 1/25/2001 | N | < 10 U | | | | | | | | | | | | | | | |
| MW-F3 | MW-F3_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MW-F3 | MW-F3_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F3 | MW-F3_1/21/04_NM | 1/21/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 110 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F3 | MW-27_7/3/04_NM | 7/3/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F3 | DUP # 5_8/16/06_DUP | 8/16/2006 | FD | | | | | | | | | | | | | | | | < 50 U |
| MW-F3 | MW-F3_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | | < 50 U |
| MW-F3R | MW-F3R_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-F3R | MW-F3R (072011) | 7/20/2011 | N | 2.5 B* | | | < 2.0 U | | < 1.0 U | < 0.19 U | < 0.95 U* | | | | < 1.0 U | < 0.19 U | < 0.19 U | | |
| MWD-F3 | MWD-F3_11/3/00_NM | 11/3/2000 | N | < 10 UJ | | | < 1 U | 5.3 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | 750 | < 50 U |
| MWD-F3 | MWD-F3_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-F3 | MWD-F3_1/23/04_NM | 1/23/2004 | N | < 10 U | | | 4.9 | | < 1 U | < 10 U | < 10 U | < 100 UJ | | | < 1 U | < 10 U | < 10 U | | |
| MWD-F3 | MWD-F3 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F4 | MW-F4_10/30/00_NM | 10/30/2000 | N | < 51 UJ | | | < 1 U | 12 | < 1 U | < 10 U | < 10 U | 550 | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F4 | MW-F4_1/25/01_NM | 1/25/2001 | N | < 10 U | | | | | | | | | | | | | | | |
| MW-F4 | MW-F4_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | | |
| MW-F5 | MW-F5_10/31/00_NM | 10/31/2000 | N | < 10 UJ | | | < 1 U | 12 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F5 | MW-F5_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F5 | MW-F5_1/21/04_NM | 1/21/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F5 | MW-23_7/2/04_NM | 7/2/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F5 | MW-F5_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | | < 50 U |
| MW-F5 | MW-F5_7/30/08_NM | 7/30/2008 | N | | | | | | | | | | | | | | | | |
| MW-F5 | MW-F5_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-F5 | MW-F5 (072011) | 7/20/2011 | N | 22 B* | | | < 2.0 U | | < 1.0 U | < 0.19 U | < 0.97 U* | | | | < 1.0 U | < 0.19 U | < 0.19 U | | |
| MW-F6 | MW-F6_10/28/00_NM | 10/28/2000 | N | < 13 UJ | | | < 1 U | 9.3 | < 1 U | 11 | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | 11 | < 10 U | 560 | < 50 U |
| MW-F6 | MW-F6_1/25/01_NM | 1/25/2001 | N | < 10 U | | | | | | | | | | | | | | | |
| MW-F6 | MW-F6_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F6 | MW-F6_1/21/04_NM | 1/21/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F6 | MW-24_7/2/04_NM | 7/2/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F6 | MW-F6 (072011) | 7/20/2011 | N | 24 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F7 | MW-F7_10/30/00_NM | 10/30/2000 | N | 230 | | | < 1 U | 13 | < 1 U | < 10 U | < 10 U | 180 | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F7 | MW-F7_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | |
| MW-F7 | MW-F7_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F7 | MW-F7_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F7 | MW-F7_1/20/04_NM | 1/20/2004 | N | < 10 U | | | < 1 U | | 2.4 | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F7 | MW-21_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | 2.9 | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | | Analyte CAS | Bis(2-Ethylhexyl)phthalate 117-81-7 | Caprolactam 105-60-2 | Carbon Dioxide 124-38-9 | Carbon Disulfide 75-15-0 | Chloride 16887-00-6 | Chlorobenzene 108-90-7 | Chrysene 218-01-9 | Dibenzofuran 132-64-9 | Diesel Range Organics ARC-DRO | Diphenyl Ether 101-84-8 | Endrin Aldehyde 7421-93-4 | Ethylbenzene 100-41-4 | Fluoranthene 206-44-0 | Fluorene 86-73-7 | Fluoride (F-, Anion) 16984-48-8 | Formaldehyde 50-00-0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Unit | ug/l | ug/l | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | | Method | SW8270C | SW8270C | SW8260B | SW8260B | E325.1 | SW8260B | SW8270C | SW8270C | SW8015 | SW8270C | SW8081 | SW8260B | SW8270C | SW8270C | E340.2 | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | | |
| MW-F7 | MW-F7_8/16/06_NM | 8/16/2006 | N | | | | | | 7.1 | | | | | | | | | | < 50 U |
| MW-F7 | MW-F7_7/30/08_NM | 7/30/2008 | N | | | | | | 4 | | | | | | | | | | |
| MW-F7 | MW-F7_11/19/08_NM | 11/19/2008 | N | | | | | | 4.6 | | | | | | | | | | |
| MW-F7 | MW-F7 (072211) | 7/22/2011 | N | < 1.9 U | | | < 2.0 U | | < 1.0 U | < 0.19 U | < 0.95 U | | | | < 1.0 U | < 0.19 U | < 0.19 U | | |
| MW-F8 | MW-F8_10/27/00_NM | 10/27/2000 | N | < 10 UJ | | | < 1 U | 48 | < 1 U | < 10 U | < 10 U | 4900 J | < 10 U | < 0.1 UR | 3.2 | < 10 U | < 10 U | 260 | < 50 U |
| MW-F8 | MW-F8_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | |
| MW-F8 | MW-F8_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F8 | MW-F8_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F8 | MW-F8_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 5 U | | < 5 U | < 10 U | < 10 U | 14000 D | | | < 5 U | < 10 U | < 10 U | | |
| MW-F8 | MW-F8 (072111) | 7/21/2011 | N | 20 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.98 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | < 50 U |
| MW-F9 | MW-F9_10/27/00_NM | 10/27/2000 | N | < 10 UJ | | | < 1 U | 20 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F9 | MW-F9_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F9 | MW-F9_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F9 | MW-20_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F9 | MW-F9 (072111) | 7/21/2011 | N | 3.8 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | < 50 U |
| MW-F10 | MW-F10_10/30/00_NM | 10/30/2000 | N | < 10 U | | | < 1 U | 12 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | 380 | < 50 U |
| MW-F10 | MW-F10_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F10 | MW-F10_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 480 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F10 | MW-19_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F11 | MW-F11_10/28/00_NM | 10/28/2000 | N | < 10 UJ | | | < 1 U | 39 | < 1 U | < 10 U | < 10 U | 940 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | 260 | < 50 U |
| MW-F11 | MW-F11_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F11 | MW-F11_1/21/04_DUP | 1/21/2004 | FD | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 550 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F11 | MW-F11_1/21/04_NM | 1/21/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 680 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F11 | MW-30_7/4/04_DUP | 7/4/2004 | FD | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F11 | MW-30_7/4/04_NM | 7/4/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F11 | MW-F11 (071911) | 7/19/2011 | N | 46 B* | | | < 2.0 U | | < 1.0 U | < 2.0 U | < 9.9 U* | | | | < 1.0 U | < 2.0 U | < 2.0 U | | |
| MW-F12 | MW-F12_10/31/00_NM | 10/31/2000 | N | < 10 UJ | | | < 1 U | 20 | < 1 U | < 10 U | < 10 U | 1200 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F12 | MW-F12_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F12 | MW-F12_1/21/04_NM | 1/21/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 3700 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F12 | MW-29_7/3/04_NM | 7/3/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F12 | MW-F12 (071911) | 7/19/2011 | N | 41 *B | | | < 2.0 U | | < 1.0 U | < 2.0 U | < 10 U* | | | | < 1.0 U | < 2.0 U | < 2.0 U | | |
| MW-F13 | MW-F13_10/27/00_NM | 10/27/2000 | N | < 10 UJ | | | < 1 U | 54 | < 1 U | < 10 U | < 10 U | 200 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | 220 | < 50 U |
| MW-F13 | MW-F13_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F13 | MW-F13_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F13 | MW-F13_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 350 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F13 | MW-18_7/1/04_DUP | 7/1/2004 | FD | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F13 | MW-18_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F13 | MW-F13_7/6/06_NM | 7/6/2006 | N | < 9.6 U | 270 D * | 49 | < 2 U | | < 1 U | < 9.6 U | < 9.6 U | | | | < 1 U | < 9.6 U | < 9.6 U | | 6.7 |
| MW-F13 | MW-F13 (072111) | 7/21/2011 | N | 16 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | < 50 U |
| MW-F14 | MW-F14_10/27/00_NM | 10/27/2000 | N | < 10 UJ | | | < 1 U | 160 | < 1 U | < 10 U | < 10 U | 7900 | < 10 U | < 0.1 UR | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F14 | MW-F14_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | |
| MW-F14 | MW-F14_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F14 | MW-F14_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F14 | MW-F14_1/23/04_NM | 1/23/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 4400 J | | | < 1 U | < 10 U | < 10 U | | |
| MW-F14 | MW-17_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F14 | MW-F14_7/6/06_NM | 7/6/2006 | N | < 9.5 U | 370 D * | 40 | < 2 U | | < 1 U | < 9.5 U | < 9.5 U | | | | < 1 U | < 9.5 U | < 9.5 U | | |
| MW-F14 | MW-F14_8/17/06_NM | 8/17/2006 | N | | | | | | | | | | | | | | | | < 50 U |
| MW-F14 | MW-F14 (072111) | 7/21/2011 | N | 16 B* | | | < 2.0 U | | < 1.0 U | < 0.19 U | < 0.97 U* | | | | < 1.0 U | < 0.19 U | < 0.19 U | | |
| MW-F15 | MW-F15_10/30/00_NM | 10/30/2000 | N | < 10 UJ | | | < 1 U | 28 | < 1 U | < 10 U | < 10 U | 850 | < 10 U | < 0.1 UJ | < 1 U | < 10 U | < 10 U | 510 | < 50 U |
| MW-F15 | MW-F15_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F15 | MW-F15_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F15 | MW-F15 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F16 | MW-F16_10/26/00_NM | 10/26/2000 | N | < 10 UJ | | | < 1 U | 9.1 | < 1 U | < 10 U | < 10 U | < 100 U | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | 260 | < 50 U |
| MW-F16 | MW-F16_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F16 | MW-F16_1/23/04_DUP | 1/23/2004 | FD | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F16 | MW-F16_1/23/04_NM | 1/23/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F16 | MW-14_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F16 | MW-F16_7/6/06_NM | 7/6/2006 | N | < 9.5 U | 570 D * | 10 | < 2 U | | < 1 U | < 9.5 U | < 9.5 U | | | | < 1 U | < 9.5 U | < 9.5 U | | |
| MW-F16 | MW-F16 (072011) | 7/20/2011 | N | 23 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F17 | MW-F17_11/1/00_NM | 11/1/2000 | N | < 10 UJ | | | < 1 U | 190 | < 1 U | < 10 U | < 10 U | 830 | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |
| MW-F17 | MW-F17_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F17 | MW-F17_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 1600 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F17 | MW-F17 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F19 | MW-F19_10/31/00_NM | 10/31/2000 | N | < 10 UJ | | | < 1 U | 14 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | < 200 U | < 50 U |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | | Analyte CAS | Bis(2-Ethylhexyl)phthalate 117-81-7 | Caprolactam 105-60-2 | Carbon Dioxide 124-38-9 | Carbon Disulfide 75-15-0 | Chloride 16887-00-6 | Chlorobenzene 108-90-7 | Chrysene 218-01-9 | Dibenzofuran 132-64-9 | Diesel Range Organics ARC-DRO | Diphenyl Ether 101-84-8 | Endrin Aldehyde 7421-93-4 | Ethylbenzene 100-41-4 | Fluoranthene 206-44-0 | Fluorene 86-73-7 | Fluoride (F-, Anion) 16984-48-8 | Formaldehyde 50-00-0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Unit | ug/l | ug/l | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | | Method | SW8270C | SW8270C | SW8260B | SW8260B | E325.1 | SW8260B | SW8270C | SW8270C | SW8015 | SW8270C | SW8081 | SW8260B | SW8270C | SW8270C | E340.2 | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | | |
| MW-F19 | MW-F19_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F19 | MW-F19_1/20/04_NM | 1/20/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | < 100 U | | | < 1 U | < 10 U | < 10 U | | |
| MW-F19 | MW-3_6/30/04_NM | 6/30/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F19 | MW-F19 (071911) | 7/19/2011 | N | 19 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.98 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-F20 | MW-F20_11/1/00_NM | 11/1/2000 | N | < 10 UJ | | | < 1 U | 9.3 | < 1 U | < 10 U | < 10 U | < 100 UJ | < 10 U | < 0.1 U | < 1 U | < 10 U | < 10 U | 280 | < 50 U |
| MW-F20 | MW-F20_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F20 | MW-F20_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F20 | MW-F20_1/21/04_NM | 1/21/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 150 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F20 | MW-22_7/2/04_NM | 7/2/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F20 | MW-F20_8/17/06_NM | 8/17/2006 | N | | | | | | | | | | | | | | | | < 50 U |
| MW-F21 | MW-F21_11/1/00_NM | 11/1/2000 | N | < 10 UJ | | | < 1 U | 14 | < 1 U | < 10 U | < 10 U | 5800 | 68 | < 0.1 UJ | < 1 U | < 10 U | < 10 U | < 200 U | 310000 |
| MW-F21 | MW-F21_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | | 83000 |
| MW-F21 | MW-F21_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F21 | MW-F21_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-F21 | MW-F21_1/22/04_NM | 1/22/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | 1600 | | | < 1 U | < 10 U | < 10 U | | |
| MW-F21 | MW-28_7/3/04_NM | 7/3/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-F21 | MW-F21_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | | < 50 U |
| MW-F21 | MW-F21_7/30/08_NM | 7/30/2008 | N | | | | | | | | | | | | | | | | |
| MW-F21 | MW-F21_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-F21 | DUP-02 (072111) | 7/21/2011 | FD | < 19 U* | | | < 2.0 U | | < 1.0 U | < 1.9 U | < 9.5 U* | | | | < 1.0 U | < 1.9 U | < 1.9 U | | |
| MW-F21 | MW-F21 (072111) | 7/21/2011 | N | < 96 U* | | | < 2.0 U | | < 1.0 U | < 9.6 U | < 48 U* | | | | < 1.0 U | < 9.6 U | < 9.6 U | | < 50 U |
| MW-22 | MW-22_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-22 | MW-11_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-22 | MW-22 (072111) | 7/21/2011 | N | 3.4 *B | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-22 | MWD-22_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-22 | MW-10_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-22 | MWD-22 (072111) | 7/21/2011 | N | 4.3 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-23 | MW-23_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-23 | MW-9_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-23 | MW-23 (072011) | 7/20/2011 | N | 25 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-23 | MWD-23_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-23 | MW-8_6/30/04_NM | 6/30/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-23 | MWD-23 (072011) | 7/20/2011 | N | 19 B* | | | < 2.0 U | | < 1.0 U | < 0.19 U | < 0.97 U* | | | | < 1.0 U | < 0.19 U | < 0.19 U | | |
| MW-24 | MW-24_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-24 | MW-5_6/30/04_NM | 6/30/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-24 | MW-24 (072011) | 7/20/2011 | N | 30 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-24 | MWD-24_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-24 | MW-4_6/30/04_NM | 6/30/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-24 | MWD-24 (072011) | 7/20/2011 | N | 28 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-25 | MW-25_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-25 | MW-13_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-25 | MW-25 (072011) | 7/20/2011 | N | 20 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-25 | MWD-25_11/1/02_NM | 11/1/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-25 | MW-12_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-25 | MWD-25 (072011) | 7/20/2011 | N | 18 B* | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U* | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-27 | MW-27_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-27 | MW-25_7/2/04_NM | 7/2/2004 | N | < 10 U | | | < 1 U | | 6.7 | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-27 | MW-27_8/16/06_NM | 8/16/2006 | N | | | | | | 7.3 | | | | | | | | | | < 50 U |
| MW-27 | DUP-1_11/19/08_DUP | 11/19/2008 | FD | | | | | | < 1 U | | | | | | | | | | |
| MW-27 | MW-27_11/19/08_NM | 11/19/2008 | N | | | | | | < 1 U | | | | | | | | | | |
| MW-27 | MW-27 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-27 | MWD-27_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-27 | MW-26_7/3/04_NM | 7/3/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-27 | MWD-27_8/16/06_NM | 8/16/2006 | N | | | | | | | | | | | | | | | | < 50 U |
| MWD-27 | MWD-27 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-28 | MW-28_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MW-28 | MW-16_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MW-28 | MW-28 (072111) | 7/21/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MWD-28 | MWD-28_12/19/02_NM | 12/19/2002 | N | < 10 U | | | | | | < 10 U | | | < 10 U | | < 5 U | < 10 U | | | |
| MWD-28 | MW-15_7/1/04_NM | 7/1/2004 | N | < 10 U | | | < 1 U | | < 1 U | < 10 U | < 10 U | | | | < 1 U | < 10 U | < 10 U | | |
| MWD-28 | MWD-28 (072211) | 7/22/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |
| MW-29 | MW-29_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | |
| MW-29 | MW-29 (072111) | 7/21/2011 | N | 3.7 B* | | | < 2.0 U | | 1.1 | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | |

Table 4
Detected Compounds in Groundwater
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| | | | Analyte<br>CAS | Bis(2-Ethylhexyl)phthalate<br>117-81-7 | Caprolactam<br>105-60-2 | Carbon Dioxide<br>124-38-9 | Carbon Disulfide<br>75-15-0 | Chloride<br>16887-00-6 | Chlorobenzene<br>108-90-7 | Chrysene<br>218-01-9 | Dibenzofuran<br>132-64-9 | Diesel Range Organics<br>ARC-DRO | Diphenyl Ether<br>101-84-8 | Endrin Aldehyde<br>7421-93-4 | Ethylbenzene<br>100-41-4 | Fluoranthene<br>206-44-0 | Fluorene<br>86-73-7 | Fluoride (F-, Anion)<br>16984-48-8 | Formaldehyde<br>50-00-0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Unit | ug/l | ug/l | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | | Method | SW8270C | SW8270C | SW8260B | SW8260B | E325.1 | SW8260B | SW8270C | SW8270C | SW8015 | SW8270C | SW8081 | SW8260B | SW8270C | SW8270C | E340.2 | SW8270C |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | | | |
| MWD-29 | MWD-29_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | | |
| MWD-29 | MWD-29 (072111) | 7/21/2011 | N | 2.7 *B | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 1.0 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | | |
| MWD-30 | MWD-30_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | | | |
| MWD-30 | MWD-30 (072211) | 7/22/2011 | N | < 1.9 U | | | < 2.0 U | | < 1.0 U | < 0.19 U | < 0.96 U | | | | < 1.0 U | < 0.19 U | < 0.19 U | | | |
| MW-32 | MW-32_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | < 0.19 U | | | |
| MW-32 | MW-32 (072111) | 7/21/2011 | N | < 2.0 U | | | < 2.0 U | | < 1.0 U | < 0.20 U | < 0.99 U | | | | < 1.0 U | < 0.20 U | < 0.20 U | | | |
| TMW-5 | TMW-5_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-5 | TMW-5_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-6 | TMW-6_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-6 | TMW-6_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-7 | TMW-7_6/5/00_NM | 6/5/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-7 | TMW-7_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-7 | TMW-7_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-10 | TMW-10_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-10 | TMW-10_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-11 | TMW-11_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-11 | TMW-11_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-12 | TMW-12_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-12 | TMW-12_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-13 | TMW-13_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-13 | TMW-13_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-14 | TMW-14_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-14 | TMW-14_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-15 | TMW-15_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-15 | TMW-15_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-16 | TMW-16_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-16 | TMW-16_7/6/00_NM | 7/6/2000 | N | | | | | | | | | | | | | | | | | |
| TMW-17 Hard Resins | TMW-17 HARD RESINS | 6/6/2000 | N | | | | | | | | | | | | | | | | | |

Table 4
Detected Compounds in Groundwater
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| | | Analyte CAS | Gasoline Range Organics ARC-GRO | Naphthalene 91-20-3 | Nitrate/Nitrite ARC-NO3NO2N | N-Nitrosodi-N-Butylamine 924-16-3 | N-Nitroso-N-methylethylamine 10595-95-6 | pH ARC-pH | Phenanthrene 85-01-8 | Pyrene 129-00-0 | Residue, filterable ARC-RESIDUE | Sulfate 14808-79-8 | Sulfide 18496-25-8 | Tetrachloroethene 127-18-4 | Toluene 108-88-3 | Total Organic Carbon ARC-TOC | Total Xylenes 1330-20-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | SU | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | Method | SW8015 | SW8270C | E353.2 | SW8270C | SW8270C | FIELD | SW8270C | SW8270C | E160.1 | E300.0 | SW9030 | SW8260B | SW8260B | SW9060 | SW8260B |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | |
| MW-F1 | MW-F1_10/31/00_NM | 10/31/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 520 | < 2.2 U | < 1000 UJ | < 1 U | < 1 U | 5.1 | < 2 U |
| MW-F1 | MW-F1_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F1 | MW-F1_1/20/04_DUP | 1/20/2004 | FD | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F1 | MW-F1_1/20/04_NM | 1/20/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F1 | MW-6_6/30/04_DUP | 6/30/2004 | FD | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F1 | MW-6_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F1 | MW-F1 (071911) | 7/19/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-F1 | MWD-F1_11/4/00_NM | 11/4/2000 | N | < 50 U | < 10 U | < 0.05 U | 66 | < 10 U | | < 10 U | < 10 U | 270 | 41 | < 1000 UJ | < 1 U | < 1 U | 1.8 | < 2 U |
| MWD-F1 | MWD-F1_7/26/02_NM | 7/26/2002 | N | | | | < 10 U | | | | | | | | | | | |
| MWD-F1 | MWD-F1_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-F1 | MWD-F1_1/23/04_NM | 1/23/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-F1 | MW-1_6/30/04_NM | 6/30/2004 | N | | < 20 U | | < 20 U | < 20 U | | < 20 U | < 20 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-F1 | MWD-F1 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.98 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F2 | MW-F2_10/31/00_NM | 10/31/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 280 | 39 | < 1000 UJ | < 1 U | < 1 U | 3.3 | < 2 U |
| MW-F2 | MW-F2_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F2 | MW-F2_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F2 | MW-F2_1/20/04_NM | 1/20/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F2 | MW-7_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | 28 | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F2 | MW-F2_11/19/08_NM | 11/19/2008 | N | | | | | | | < 0.19 U | | | | | | | | |
| MW-F2 | MW-F2 (071911) | 7/19/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-F2 | MWD-F2_11/3/00_NM | 11/3/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 240 | 13 | < 1000 UJ | < 1 U | < 1 U | 14 | < 2 U |
| MWD-F2 | MWD-F2_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | |
| MWD-F2 | MWD-F2_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-F2 | MWD-F2_1/23/04_NM | 1/23/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-F2 | MW-2_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-F2 | MWD-F2 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F3 | MW-F3_10/30/00_DUP | 10/30/2000 | FD | < 50 U | 140 | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 120 | 27 | 2500 | < 1 U | < 1 U | < 1 U | < 2 U |
| MW-F3 | MW-F3_10/30/00_NM | 10/30/2000 | N | < 50 U | 120 | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 140 | 28 | 1300 | < 1 U | < 1 U | < 1 U | < 2 U |
| MW-F3 | MW-F3_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F3 | MW-F3_7/26/02_NM | 7/26/2002 | N | | 65 | | | | | | | | | | | | | |
| MW-F3 | MW-F3_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F3 | MW-F3_1/21/04_NM | 1/21/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F3 | MW-27_7/3/04_NM | 7/3/2004 | N | | 41 | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F3 | DUP # 5_8/16/06_DUP | 8/16/2006 | FD | | < 5 U | | | | | | | | | | | | | |
| MW-F3 | MW-F3_8/16/06_NM | 8/16/2006 | N | | 67 | | | | | | | | | | | | | |
| MW-F3R | MW-F3R_11/19/08_NM | 11/19/2008 | N | | 0.025 J | | | | | | | | | | | | | |
| MW-F3R | MW-F3R (072011) | 7/20/2011 | N | | < 0.19 U | | < 0.95 U | < 1.9 U | | < 0.19 U | < 0.19 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-F3 | MWD-F3_11/3/00_NM | 11/3/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 300 | 57 | < 1000 UJ | < 1 U | < 1 U | 1.5 | < 2 U |
| MWD-F3 | MWD-F3_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-F3 | MWD-F3_1/23/04_NM | 1/23/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-F3 | MWD-F3 (072211) | 7/22/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F4 | MW-F4_10/30/00_NM | 10/30/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 420 | 24 | < 1000 UJ | < 1 U | < 1 U | 3.8 | < 2 U |
| MW-F4 | MW-F4_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F4 | MW-F4_7/26/02_NM | 7/26/2002 | N | | | | | | | | | | | | | | | |
| MW-F5 | MW-F5_10/31/00_NM | 10/31/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 400 | 21 | < 1000 UJ | < 1 U | < 1 U | 4.5 | < 2 U |
| MW-F5 | MW-F5_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F5 | MW-F5_1/21/04_NM | 1/21/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F5 | MW-23_7/2/04_NM | 7/2/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F5 | MW-F5_8/16/06_NM | 8/16/2006 | N | | < 5 U | | | | | | | | | | | | | |
| MW-F5 | MW-F5_7/30/08_NM | 7/30/2008 | N | | | | | | 6.74 | | | | | | | | | |
| MW-F5 | MW-F5_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | |
| MW-F5 | MW-F5 (072011) | 7/20/2011 | N | | < 0.19 U | | < 0.97 U | < 1.9 U | | < 0.19 U | < 0.19 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F6 | MW-F6_10/28/00_NM | 10/28/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | 16 | 330 | < 1.3 U | < 1000 UJ | < 1 U | < 1 U | 5.3 | < 2 U |
| MW-F6 | MW-F6_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F6 | MW-F6_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F6 | MW-F6_1/21/04_NM | 1/21/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F6 | MW-24_7/2/04_NM | 7/2/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F6 | MW-F6 (072011) | 7/20/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F7 | MW-F7_10/30/00_NM | 10/30/2000 | N | < 50 U | < 10 U | 3800 | < 10 U | < 10 U | | < 10 U | < 10 U | 130 | 39 | < 1000 UJ | < 1 U | < 1 U | < 1 U | < 2 U |
| MW-F7 | MW-F7_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F7 | MW-F7_11/1/02_NM | 11/1/2002 | N | | 73 | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F7 | MW-F7_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F7 | MW-F7_1/20/04_NM | 1/20/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F7 | MW-21_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F7 | MW-F7_8/16/06_NM | 8/16/2006 | N | | < 5 U | | | | | | | | | | | | | |
| MW-F7 | MW-F7_7/30/08_NM | 7/30/2008 | N | | < 0.19 U | | | | 4.42 | | | | | | | | | |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | Analyte CAS | Gasoline Range Organics ARC-GRO | Naphthalene 91-20-3 | Nitrate/Nitrite ARC-NO3NO2N | N-Nitrosodi-N-Butylamine 924-16-3 | N-Nitroso-N-methylethylamine 10595-95-6 | pH ARC-pH | Phenanthrene 85-01-8 | Pyrene 129-00-0 | Residue, filterable ARC-RESIDUE | Sulfate 14808-79-8 | Sulfide 18496-25-8 | Tetrachloroethene 127-18-4 | Toluene 108-88-3 | Total Organic Carbon ARC-TOC | Total Xylenes 1330-20-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | SU | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | Method | SW8015 | SW8270C | E353.2 | SW8270C | SW8270C | FIELD | SW8270C | SW8270C | E160.1 | E300.0 | SW9030 | SW8260B | SW8260B | SW9060 | SW8260B |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | |
| MW-F7 | MW-F7_11/19/08_NM | 11/19/2008 | N | | < 0.19 U | | | | | | | | | | | | |
| MW-F7 | MW-F7 (072211) | 7/22/2011 | N | | < 0.19 U | | < 0.95 U | < 1.9 U | | < 0.19 U | < 0.19 U | | | | 2.9 | < 1.0 U | | < 2.0 U |
| MW-F8 | MW-F8_10/27/00_NM | 10/27/2000 | N | 60 | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 1000 | 19 | < 1000 UJ | < 1 U | 5.8 | 130 | 22 |
| MW-F8 | MW-F8_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F8 | MW-F8_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F8 | MW-F8_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F8 | MW-F8_1/22/04_NM | 1/22/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 5 U | < 5 U | | < 10 U |
| MW-F8 | MW-F8 (072111) | 7/21/2011 | N | | < 0.20 U | | < 0.98 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F9 | MW-F9_10/27/00_NM | 10/27/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 130 | 31 | < 1000 UJ | < 1 U | < 1 U | < 1 U | < 2 U |
| MW-F9 | MW-F9_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F9 | MW-F9_1/22/04_NM | 1/22/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F9 | MW-20_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F9 | MW-F9 (072111) | 7/21/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F10 | MW-F10_10/30/00_NM | 10/30/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 810 | 130 | < 1000 UJ | < 1 U | < 1 U | 31 | < 2 U |
| MW-F10 | MW-F10_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F10 | MW-F10_1/22/04_NM | 1/22/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F10 | MW-19_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F11 | MW-F11_10/28/00_NM | 10/28/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 520 | 23 | < 1000 UJ | < 1 U | < 1 U | 54 | < 2 U |
| MW-F11 | MW-F11_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F11 | MW-F11_1/21/04_DUP | 1/21/2004 | FD | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F11 | MW-F11_1/21/04_NM | 1/21/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F11 | MW-30_7/4/04_DUP | 7/4/2004 | FD | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F11 | MW-30_7/4/04_NM | 7/4/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F11 | MW-F11 (071911) | 7/19/2011 | N | | < 2.0 U | | < 9.9 U | < 20 U | | < 2.0 U | < 2.0 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F12 | MW-F12_10/31/00_NM | 10/31/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 930 | 4.1 | < 1000 UJ | < 1 U | < 1 U | 53 | < 2 U |
| MW-F12 | MW-F12_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F12 | MW-F12_1/21/04_NM | 1/21/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F12 | MW-29_7/3/04_NM | 7/3/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F12 | MW-F12 (071911) | 7/19/2011 | N | | < 2.0 U | | < 10 U | < 20 U | | < 2.0 U | < 2.0 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F13 | MW-F13_10/27/00_NM | 10/27/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 340 | 56 | < 1000 UJ | < 1 U | < 1 U | 8.5 | < 2 U |
| MW-F13 | MW-F13_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F13 | MW-F13_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F13 | MW-F13_1/22/04_NM | 1/22/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F13 | MW-18_7/1/04_DUP | 7/1/2004 | FD | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F13 | MW-18_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F13 | MW-F13_7/6/06_NM | 7/6/2006 | N | | < 9.6 U | | | | | < 9.6 U | < 9.6 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F13 | MW-F13 (072111) | 7/21/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F14 | MW-F14_10/27/00_NM | 10/27/2000 | N | 55 | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 1800 | 22 | < 1000 UJ | < 1 U | 1.1 | 74 | < 2 U |
| MW-F14 | MW-F14_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F14 | MW-F14_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F14 | MW-F14_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F14 | MW-F14_1/23/04_NM | 1/23/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | 1.1 | | 4 |
| MW-F14 | MW-17_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F14 | MW-F14_7/6/06_NM | 7/6/2006 | N | | < 9.5 U | | | | | < 9.5 U | < 9.5 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F14 | MW-F14_8/17/06_NM | 8/17/2006 | N | | < 5 U | | | | | | | | | | | | | |
| MW-F14 | MW-F14 (072111) | 7/21/2011 | N | | < 0.19 U | | < 0.97 U | < 1.9 U | | < 0.19 U | < 0.19 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F15 | MW-F15_10/30/00_NM | 10/30/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 710 | 99 | < 1000 UJ | < 1 U | < 1 U | 28 | < 2 U |
| MW-F15 | MW-F15_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F15 | MW-F15_1/22/04_NM | 1/22/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F15 | MW-F15 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F16 | MW-F16_10/26/00_NM | 10/26/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 270 | 4.2 | < 1000 UJ | < 1 U | < 1 U | < 1 U | < 2 U |
| MW-F16 | MW-F16_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F16 | MW-F16_1/23/04_DUP | 1/23/2004 | FD | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F16 | MW-F16_1/23/04_NM | 1/23/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F16 | MW-14_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F16 | MW-F16_7/6/06_NM | 7/6/2006 | N | | < 9.5 U | | | | | < 9.5 U | < 9.5 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F16 | MW-F16 (072011) | 7/20/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F17 | MW-F17_11/1/00_NM | 11/1/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 1300 | 18 | < 1000 UJ | < 1 U | < 1 U | 59 | < 2 U |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | Analyte CAS | Gasoline Range Organics ARC-GRO | Naphthalene 91-20-3 | Nitrate/Nitrite ARC-NO3NO2N | N-Nitrosodi-N-Butylamine 924-16-3 | N-Nitroso-N-methylethylamine 10595-95-6 | pH ARC-pH | Phenanthrene 85-01-8 | Pyrene 129-00-0 | Residue, filterable ARC-RESIDUE | Sulfate 14808-79-8 | Sulfide 18496-25-8 | Tetrachloroethene 127-18-4 | Toluene 108-88-3 | Total Organic Carbon ARC-TOC | Total Xylenes 1330-20-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | SU | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | Method | SW8015 | SW8270C | E353.2 | SW8270C | SW8270C | FIELD | SW8270C | SW8270C | E160.1 | E300.0 | SW9030 | SW8260B | SW8260B | SW9060 | SW8260B |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | |
| MW-F17 | MW-F17_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | < 5 U | | < 10 U |
| MW-F17 | MW-F17_1/22/04_NM | 1/22/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | < 1 U | < 1 U | | < 2 U |
| MW-F17 | MW-F17 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F19 | MW-F19_10/31/00_NM | 10/31/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 400 | < 2.1 U | < 1000 UJ | < 1 U | < 1 U | 3.8 | < 2 U |
| MW-F19 | MW-F19_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F19 | MW-F19_1/20/04_NM | 1/20/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F19 | MW-3_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F19 | MW-F19 (071911) | 7/19/2011 | N | | < 0.20 U | | < 0.98 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-F20 | MW-F20_11/1/00_NM | 11/1/2000 | N | < 50 U | < 10 U | < 0.05 U | < 10 U | < 10 U | | < 10 U | < 10 U | 300 | < 1 U | < 1000 UJ | < 1 U | < 1 U | 4.2 | < 2 U |
| MW-F20 | MW-F20_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F20 | MW-F20_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F20 | MW-F20_1/21/04_NM | 1/21/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F20 | MW-22_7/2/04_NM | 7/2/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F20 | MW-F20_8/17/06_NM | 8/17/2006 | N | | < 5 U | | | | | | | | | | | | | |
| MW-F21 | MW-F21_11/1/00_NM | 11/1/2000 | N | 76 | 110 | < 0.05 U | < 10 U | 11 | | < 10 U | < 10 U | 790 | < 1 U | < 1000 UJ | < 1 U | < 1 U | 460 | < 2 U |
| MW-F21 | MW-F21_1/25/01_NM | 1/25/2001 | N | | | | | | | | | | | | | | | |
| MW-F21 | MW-F21_11/1/02_NM | 11/1/2002 | N | | 12 | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F21 | MW-F21_12/19/02_NM | 12/19/2002 | N | | 18 | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-F21 | MW-F21_1/22/04_NM | 1/22/2004 | N | | 12 | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F21 | MW-28_7/3/04_NM | 7/3/2004 | N | | 21 | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-F21 | MW-F21_8/16/06_NM | 8/16/2006 | N | | 110 | | | < 10 U | | | | | | | | | | |
| MW-F21 | MW-F21_7/30/08_NM | 7/30/2008 | N | | 27 | | | | 5.82 | | | | | | | | | |
| MW-F21 | MW-F21_11/19/08_NM | 11/19/2008 | N | | 3.6 | | | | | | | | | | | | | |
| MW-F21 | DUP-02 (072111) | 7/21/2011 | FD | | 400 | | < 9.5 U | < 19 U | | < 1.9 U | < 1.9 U | | | | < 1.0 U | < 1.0 U | | 2.2 |
| MW-F21 | MW-F21 (072111) | 7/21/2011 | N | | 430 | | < 48 U | < 96 U | | < 9.6 U | < 9.6 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-22 | MW-22_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-22 | MW-11_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-22 | MW-22 (072111) | 7/21/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-22 | MWD-22_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-22 | MW-10_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-22 | MWD-22 (072111) | 7/21/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-23 | MW-23_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-23 | MW-9_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-23 | MW-23 (072011) | 7/20/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-23 | MWD-23_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-23 | MW-8_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-23 | MWD-23 (072011) | 7/20/2011 | N | | < 0.19 U | | < 0.97 U | < 1.9 U | | < 0.19 U | < 0.19 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-24 | MW-24_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-24 | MW-5_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-24 | MW-24 (072011) | 7/20/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-24 | MWD-24_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-24 | MW-4_6/30/04_NM | 6/30/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-24 | MWD-24 (072011) | 7/20/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-25 | MW-25_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-25 | MW-13_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-25 | MW-25 (072011) | 7/20/2011 | N | | < 0.20 U | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-25 | MWD-25_11/1/02_NM | 11/1/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-25 | MW-12_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-25 | MWD-25 (072011) | 7/20/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-27 | MW-27_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-27 | MW-25_7/2/04_NM | 7/2/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-27 | MW-27_8/16/06_NM | 8/16/2006 | N | | < 5 U | | | | | | | | | | | | | |
| MW-27 | DUP-1_11/19/08_DUP | 11/19/2008 | FD | | | | | | | | | | | | | | | |
| MW-27 | MW-27_11/19/08_NM | 11/19/2008 | N | | | | | | | | | | | | | | | |
| MW-27 | MW-27 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | 2.9 | < 1.0 U | | < 2.0 U |
| MWD-27 | MWD-27_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-27 | MW-26_7/3/04_NM | 7/3/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-27 | MWD-27_8/16/06_NM | 8/16/2006 | N | | < 5 U | | | | | | | | | | | | | |
| MWD-27 | MWD-27 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-28 | MW-28_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MW-28 | MW-16_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MW-28 | MW-28 (072111) | 7/21/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-28 | MWD-28_12/19/02_NM | 12/19/2002 | N | | < 10 U | | < 10 U | < 10 U | | | < 10 U | | | | | < 5 U | | < 10 U |
| MWD-28 | MW-15_7/1/04_NM | 7/1/2004 | N | | < 10 U | | < 10 U | < 10 U | | < 10 U | < 10 U | | | | < 1 U | < 1 U | | < 2 U |
| MWD-28 | MWD-28 (072211) | 7/22/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-29 | MW-29_11/19/08_NM | 11/19/2008 | N | | 0.043 J | | | | | | | | | | | | | |

Table 4
Detected Compounds in Groundwater
Voluntary Investigation and Remediaiton Plan
Hercules - Savannah, Georgia

| | | | Analyte CAS | Gasoline Range Organics ARC-GRO | Naphthalene 91-20-3 | Nitrate/Nitrite ARC-NO3NO2N | N-Nitrosodi-N-Butylamine 924-16-3 | N-Nitroso-N-methylethylamine 10595-95-6 | pH ARC-pH | Phenanthrene 85-01-8 | Pyrene 129-00-0 | Residue, filterable ARC-RESIDUE | Sulfate 14808-79-8 | Sulfide 18496-25-8 | Tetrachloroethene 127-18-4 | Toluene 108-88-3 | Total Organic Carbon ARC-TOC | Total Xylenes 1330-20-7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Unit | ug/l | ug/l | ug/l | ug/l | ug/l | SU | ug/l | ug/l | mg/l | ug/l | ug/l | ug/l | ug/l | ug/l | ug/l |
| | | | Method | SW8015 | SW8270C | E353.2 | SW8270C | SW8270C | FIELD | SW8270C | SW8270C | E160.1 | E300.0 | SW9030 | SW8260B | SW8260B | SW9060 | SW8260B |
| sys_loc_code | sys_sample_code | Sample Date | Sample Type | | | | | | | | | | | | | | | |
| MW-29 | MW-29 (072111) | 7/21/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-29 | MWD-29_11/19/08_NM | 11/19/2008 | N | | < 0.19 U | | | | | | | | | | | | | |
| MWD-29 | MWD-29 (072111) | 7/21/2011 | N | | 0.22 | | < 1.0 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MWD-30 | MWD-30_11/19/08_NM | 11/19/2008 | N | | 0.059 J | | | | | | | | | | | | | |
| MWD-30 | MWD-30 (072211) | 7/22/2011 | N | | < 0.19 U | | < 0.96 U | < 1.9 U | | < 0.19 U | < 0.19 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| MW-32 | MW-32_11/19/08_NM | 11/19/2008 | N | | | | | | | < 0.19 U | | | | | | | | |
| MW-32 | MW-32 (072111) | 7/21/2011 | N | | < 0.20 U | | < 0.99 U | < 2.0 U | | < 0.20 U | < 0.20 U | | | | < 1.0 U | < 1.0 U | | < 2.0 U |
| TMW-5 | TMW-5_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-5 | TMW-5_7/6/00_NM | 7/6/2000 | N | | | | | | 7.64 | | | | | | | | | |
| TMW-6 | TMW-6_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-6 | TMW-6_7/6/00_NM | 7/6/2000 | N | | | | | | 7.44 | | | | | | | | | |
| TMW-7 | TMW-7_6/5/00_NM | 6/5/2000 | N | | | | | | | | | | | | | | | |
| TMW-7 | TMW-7_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-7 | TMW-7_7/6/00_NM | 7/6/2000 | N | | | | | | 5.99 | | | | | | | | | |
| TMW-10 | TMW-10_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-10 | TMW-10_7/6/00_NM | 7/6/2000 | N | | | | | | 6.83 | | | | | | | | | |
| TMW-11 | TMW-11_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-11 | TMW-11_7/6/00_NM | 7/6/2000 | N | | | | | | 7.18 | | | | | | | | | |
| TMW-12 | TMW-12_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-12 | TMW-12_7/6/00_NM | 7/6/2000 | N | | | | | | 7.54 | | | | | | | | | |
| TMW-13 | TMW-13_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-13 | TMW-13_7/6/00_NM | 7/6/2000 | N | | | | | | 6.78 | | | | | | | | | |
| TMW-14 | TMW-14_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-14 | TMW-14_7/6/00_NM | 7/6/2000 | N | | | | | | 6.7 | | | | | | | | | |
| TMW-15 | TMW-15_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-15 | TMW-15_7/6/00_NM | 7/6/2000 | N | | | | | | 6.63 | | | | | | | | | |
| TMW-16 | TMW-16_6/6/00_NM | 6/6/2000 | N | | | | | | | | | | | | | | | |
| TMW-16 | TMW-16_7/6/00_NM | 7/6/2000 | N | | | | | | 5.72 | | | | | | | | | |
| TMW-17 Hard Resins | TMW-17 HARD RESINS | 6/6/2000 | N | | | | | | | | | | | | | | | |

Blank Cell - Not analyzed for particluar constituent
Results are provided only for those compounds detected in at least one sample
FD = Field Duplicate
U = Not detected
D = Dilution
J = Estimated
B = Compound also detected in blank sample

Table 5
Detected Compounds in Surface Water - Dundee Canal
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| | | | Analyte | 1,4-Dioxane | 2-Butanone | Acetone | Ammonia Nitrogen | Arsenic | Barium | Benzene | Chloride | Diesel Range Organics | Ethylbenzene | Fluoride (F-, Anion) | Lead | Nickel | Phenol | Residue, filterable | Sulfate | Toluene | Total Organic Carbon | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CAS | 123-91-1 | 78-93-3 | 67-64-1 | 7664-41-7 | 7440-38-2 | 7440-39-3 | 71-43-2 | 16887-00-6 | ARC-DRO | 100-41-4 | 16984-48-8 | 7439-92-1 | 7440-02-0 | 108-95-2 | ARC-RESIDUE | 14808-79-8 | 108-88-3 | ARC-TOC | 7440-66-6 |
| | | | Units | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l |
| | | | Method | SW8270 | SW8260 | SW8260 | E350.1 | SW6010 | SW6010 | SW8260 | E325.2 | SW8015 | SW8260 | E340.2 | SW6010 | SW6010 | SW8270 | E160.1 | E300.0 | SW8260 | SW9060 | SW6010 |
| Location | Sample ID | Sample Date | Sample Type | | | | | | | | | | | | | | | | | | | |
| Dundee Canal Surface Water Samples | | | | | | | | | | | | | | | | | | | | | | |
| SW-F2 | SW-F2_11/3/00_NM | 11/3/2000 | N | < 0.01 U | < 0.01 U | < 0.025 U | 0.13 | < 0.01 U | 0.028 | < 0.001 U | 39 | < 0.1 U | < 0.001 U | 0.61 | < 0.005 U | < 0.04 U | < 0.01 U | 310 | 35 | < 0.001 U | 5.5 | 0.023 |
| SW-F3 | SW-F3_11/2/00_NM | 11/2/2000 | N | 0.012 | < 0.01 U | < 0.025 U | 0.53 | < 0.01 U | 0.028 | < 0.001 U | 65 | 0.14 | < 0.001 U | 0.69 | < 0.005 U | < 0.04 U | < 0.01 U | 360 | 38 | < 0.001 U | 6.2 | < 0.027 U |
| SW-F4 | SW-F4_11/2/00_NM | 11/2/2000 | N | 0.012 | < 0.01 U | < 0.025 U | 0.09 | < 0.01 U | 0.028 | < 0.001 U | 89 | < 0.1 U | < 0.001 U | 0.66 | < 0.005 U | < 0.04 U | < 0.01 U | 400 | 32 | < 0.001 U | 5.7 | < 0.025 U |
| SW-F5 | SW-F5_11/2/00_NM | 11/2/2000 | N | 0.01 | < 0.01 U | < 0.025 U | 0.79 | < 0.01 U | 0.027 | < 0.001 U | 400 | 0.11 | < 0.001 U | 0.58 | < 0.005 U | < 0.04 U | < 0.01 U | 1100 | 74 | < 0.001 U | 5.8 | < 0.026 U |

Results are provided only for those compounds detected in at least one sample
U - Not Detected

Table 6
Detected Compounds in Sediment and Berm Soil Samples - Dundee Canal
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| | | | Analyte<br>CAS<br>Unit<br>Method | 1,1-Biphenyl<br>92-52-4<br>mg/kg<br>SW8270 | 1,2,3,4,6,7,8-Heptachlorodibenzofuran<br>67562-39-4<br>mg/kg<br>SW8280 | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin<br>35822-46-9<br>mg/kg<br>SW8280 | 1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin<br>39227-28-6<br>mg/kg<br>SW8280 | 1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin<br>57653-85-7<br>mg/kg<br>SW8280 | 1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin<br>19408-74-3<br>mg/kg<br>SW8280 | 1,2,3,7,8-Pentachlorodibenzo-p-Dioxin<br>40321-76-4<br>mg/kg<br>SW8280 | 2,3,4,7,8-Pentachlorodibenzofuran<br>57117-31-4<br>mg/kg<br>SW8280 | 2-Butanone<br>78-93-3<br>mg/kg<br>SW8260 | Acetone<br>67-64-1<br>mg/kg<br>SW8260 | Antimony<br>7440-36-0<br>mg/kg<br>SW6010 | Arsenic<br>7440-38-2<br>mg/kg<br>SW6010 | Barium<br>7440-39-3<br>mg/kg<br>SW6010 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location | Sample ID | Sample Date | Sample Type | | | | | | | | | | | | | | |
| Dundee Canal Sediment Samples | | | | | | | | | | | | | | | | | |
| SD-F2 | SD-F2_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | < 1 U | NA | NA | NA | NA | NA | NA | NA | < 0.039 U | 0.1 | < 2.6 UJ | 3 | 170 |
| SD-F2/F3/F4/F5 | SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM | 11/2/2000 | N | NA | 0.0000102 | 0.000917 | 0.000027 | < 0.00000198 U | 0.0000839 | 0.00000165 A | 0.000000802 A | NA | NA | NA | NA | NA |
| SD-F3 | SD-F3_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | < 0.94 U | NA | NA | NA | NA | NA | NA | NA | < 0.036 U | 0.22 | < 3.1 UJ | 1.4 | 90 |
| SD-F4 | SD-F4_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | < 0.93 U | NA | NA | NA | NA | NA | NA | NA | < 0.035 U | 0.078 | < 2.6 UJ | 2 | 29 |
| SD-F5 | SD-F5_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | < 1.3 U | NA | NA | NA | NA | NA | NA | NA | < 0.049 U | 0.12 | < 3.9 UJ | 5.2 | 100 |
| Dundee Canal Soil Berm Samples | | | | | | | | | | | | | | | | |
| SD-F6 | SD-F6_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | 0.49 D | 1.4 E | < 2.5 UJ | 1.8 | 39 |
| SD-F6/F7/F8 | SD-F6/F7/F8_11/2/00_(0-0.5)COMP_H_NM | 11/2/2000 | N | NA | 0.00000318 | 0.00138 | 0.0000214 | 0.0000146 | 0.0000522 | 0.00000713 | < 0.000000346 U | NA | NA | NA | NA | NA |
| SD-F7 | SD-F7_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | 0.031 | 0.35 | < 2.2 UJ | 2.5 | 81 |
| SD-F8 | SD-F8_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | NA | NA | NA | NA | NA | < 0.035 U | < 0.07 U | < 2.7 UJ | 3.7 | 42 |

Results are provided only for those compounds detected in at least one sample
NA - Not Analyzed for Particular Constituent
U - Not Detected
A = Amount detected is below method calibration limit
J - Result is Estimated
D - Dilution
E = Compound exceeds the calibration range of the GC/MS instrument

Table 6
Detected Compounds in Sediment and Berm Soil Samples - Dundee Canal
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| | | | | Analyte<br>CAS<br>Unit<br>Method | Benzene<br>71-43-2<br>mg/kg<br>SW8260 | Benzo(a)Pyrene<br>50-32-8<br>mg/kg<br>SW8270 | Beryllium<br>7440-41-7<br>mg/kg<br>SW6010 | Bis(2-Ethylhexyl)phthalate<br>117-81-7<br>mg/kg<br>SW8270 | Cadmium<br>7440-43-9<br>mg/kg<br>SW6010 | Chromium<br>7440-47-3<br>mg/kg<br>SW6010 | Cobalt<br>7440-48-4<br>mg/kg<br>SW6010 | Copper<br>7440-50-8<br>mg/kg<br>SW6010 | Diesel Range Organics<br>ARC-DRO<br>mg/kg<br>SW8015 | Diphenyl Ether<br>101-84-8<br>mg/kg<br>SW8270 | Ethylbenzene<br>100-41-4<br>mg/kg<br>SW8260 | Gasoline Range Organics<br>ARC-GRO<br>mg/kg<br>SW8015 | Heptachlorodibenzofurans<br>38998-75-3<br>mg/kg<br>SW8280 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location | Sample ID | Sample Date | Sample Type | | | | | | | | | | | | | | |
| Dundee Canal Sediment Samples | | | | | | | | | | | | | | | | | |
| SD-F2 | SD-F2_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | < 0.0076 U | < 0.52 U | 0.63 | 0.54 | < 0.71 U | 7.6 | 8.9 | 3.2 | 10 J | < 1 U | < 0.0076 U | < 0.39 U | NA |
| SD-F2/F3/F4/F5 | SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM | 11/2/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0000376 |
| SD-F3 | SD-F3_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | < 0.007 U | < 0.47 U | 0.68 | < 0.47 U | < 0.65 U | 5.5 | 1.8 | 3.7 | 17 J | < 0.94 U | < 0.007 U | < 0.38 U | NA |
| SD-F4 | SD-F4_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | < 0.0069 U | < 0.46 U | < 0.56 U | < 0.46 U | < 0.7 U | 5.2 | 1.3 | 7 | 580 J | 4 | < 0.0069 U | < 0.38 U | NA |
| SD-F5 | SD-F5_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | < 0.01 U | 0.8 | 0.89 | < 0.65 U | < 0.98 U | 15 | 2.3 | 11 | 9.2 J | < 1.3 U | < 0.01 U | < 0.48 U | NA |
| Dundee Canal Soil Berm Samples | | | | | | | | | | | | | | | | | |
| SD-F6 | SD-F6_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | 0.38 D | NA | < 0.5 U | NA | < 0.62 U | 7.9 | 1.4 | 16 | 30000 J | NA | 2.5 D | 22 | NA |
| SD-F6/F7/F8 | SD-F6/F7/F8_11/2/00_(0-0.5)COMP_H_NM | 11/2/2000 | N | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0.0000143 |
| SD-F7 | SD-F7_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | < 0.0051 U | NA | 0.93 | NA | < 0.56 U | 5.9 | 3.3 | < 2.5 U | 220 J | NA | < 0.0051 U | < 0.31 U | NA |
| SD-F8 | SD-F8_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | | < 0.007 U | NA | < 0.55 U | NA | < 0.62 U | 7.9 | 2.3 | < 2.7 U | 5.2 J | NA | < 0.007 U | < 0.34 U | NA |

Results are provided only for those compounds detected in at least one sample
NA - Not Analyzed for Particular Constituent
U - Not Detected
A = Amount detected is below method calibration limit
J - Result is Estimated
D - Dilution
E = Compound exceeds the calibration range of the GC/MS instrument

Table 6
Detected Compounds in Sediment and Berm Soil Samples - Dundee Canal
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| | | | Analyte<br>CAS<br>Unit<br>Method | Heptachlorodibenzo-p-dioxins<br>37871-00-4<br>mg/kg<br>SW8280 | Hexachlorodibenzofurans<br>55684-94-1<br>mg/kg<br>SW8280 | Hexachlorodibenzo-p-dioxins<br>34465-46-8<br>mg/kg<br>SW8280 | Lead<br>7439-92-1<br>mg/kg<br>SW6010 | Mercury<br>7439-97-6<br>mg/kg<br>SW7471 | Naphthalene<br>91-20-3<br>mg/kg<br>SW8270 | Nickel<br>7440-02-0<br>mg/kg<br>SW6010 | Octachlorodibenzofuran<br>39001-02-0<br>mg/kg<br>SW8280 | Octachlorodibenzo-p-Dioxin<br>3268-87-9<br>mg/kg<br>SW8280 | Pentachlorodibenzofurans, Total<br>30402-15-4<br>mg/kg<br>SW8280 | Pentachlorodibenzo-p-dioxins, Total<br>36088-22-9<br>mg/kg<br>SW8280 | pH<br>ARC-pH<br>mg/kg<br>SW9045 | Tetrachlorodibenzofurans, Total<br>55722-27-5<br>mg/kg<br>SW8280 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location | Sample ID | Sample Date | Sample Type | | | | | | | | | | | | | |
| Dundee Canal Sediment Samples | | | | | | | | | | | | | | | | |
| SD-F2 | SD-F2_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 14 | 0.074 | < 0.52 U | < 6.2 U | NA | NA | NA | NA | 6.87 | NA |
| SD-F2/F3/F4/F5 | SD-F2/F3/F4/F5_11/2/00_(0-0.5)COMP_H_NM | 11/2/2000 | N | 0.00147 | 0.0000141 | 0.000534 | NA | NA | NA | NA | 0.0000281 | 0.0219 | 0.000011 | 0.0000592 | NA | 0.0000037 |
| SD-F3 | SD-F3_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 12 | 0.076 | < 0.47 U | < 5.7 U | NA | NA | NA | NA | 7.14 | NA |
| SD-F4 | SD-F4_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 43 | 0.092 | < 0.46 U | < 5.6 U | NA | NA | NA | NA | 7.24 | NA |
| SD-F5 | SD-F5_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 37 | 0.16 | < 0.65 U | < 7.8 U | NA | NA | NA | NA | 6.88 | NA |
| Dundee Canal Soil Berm Samples | | | | | | | | | | | | | | | | |
| SD-F6 | SD-F6_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 37 | 3.6 | < 4.1 U | 8.4 | NA | NA | NA | NA | 5.84 | NA |
| SD-F6/F7/F8 | SD-F6/F7/F8_11/2/00_(0-0.5)COMP_H_NM | 11/2/2000 | N | 0.00419 | 0.00000406 | 0.000936 | NA | NA | NA | NA | 0.00000696 | 0.136 J | 0.00000194 | 0.000136 | NA | 0.00000201 |
| SD-F7 | SD-F7_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 16 | 0.067 | < 0.41 U | < 4.9 U | NA | NA | NA | NA | 6.47 | NA |
| SD-F8 | SD-F8_11/2/00_(0-0.5)GRAB_NM | 11/2/2000 | N | NA | NA | NA | 15 | 0.061 | < 0.45 U | < 5.5 U | NA | NA | NA | NA | 5.13 | NA |

Results are provided only for those compounds detected in at least one sample
NA - Not Analyzed for Particular Constituent
U - Not Detected
A = Amount detected is below method calibration limit
J - Result is Estimated
D - Dilution
E = Compound exceeds the calibration range of the GC/MS instrument

**Table 7**
**Delineation Standards for Soil and Groundwater**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah,GA**

| Detected Regulated Substance | Soil Type 1 RRS (mg/kg) | Groundwater Type 1 RRS (mg/L) |
|---|---|---|
| **Volatile Organic Compounds** | | |
| Acetone | 400 | 4 |
| Acetonitrile | 20 | 0.2 |
| Acetophenone | 400 | 4 |
| Acrolein | 0.1 | 0.7 |
| Benzene | 0.5 | 0.005 |
| Biphenyl | 0.33 | 0.01 |
| Carbon disulfide | 400 | 4 |
| Chlorobenzene | 10 | 0.1 |
| trans-1,4-Dichlorobutene | 0.11 | 0.002 |
| 1,2-Dichloropropane | 0.5 | 0.005 |
| 1,4-dichloro-2-butene | ? | ? |
| Ethylbenzene | 70 | 0.7 |
| Isobutyl alcohol | 1000 | 10 |
| Methyl ethyl ketone | 200 | 2 |
| Methyl isobutyl ketone | 200 | 2 |
| Styrene | 14 | 0.1 |
| Toluene | 100 | 1 |
| Tetrachloroethene | ? | ? |
| Xylenes (total) | 1000 | 10 |
| m-Xylene | 20 | 0.002 |
| o-Xylene | 20 | 0.001 |
| p-Xylene | 20 | 0.001 |
| m & p-Xylenes | 0.01 | 0.002 |
| **Semi Volatile Organic Compounds** | | |
| Aniline | 0.66 | 0.006 |
| Bis(2-ethylhexyl)phthalate | 50 | 0.006 |
| Butyl benzyl phthalate | 50 | 0.1 |
| m & p-Cresols | 13.2 | 0.01 |
| m-Cresol | 3.8 | 0.01 |
| o-Cresol | 3.8 | 0.01 |
| p-Cresol | 3.8 | 0.01 |
| Dibenzofuran | 0.33 | 0.01 |
| 2,4-Dimethylphenol | 70 | 0.7 |
| m-Dinitrobenzene | 1.05 | 0.001 |
| Di-n-octyl phthalate | 70 | 0.7 |
| 1,4-Dioxane | 7 | 0.05 |
| Formaldehyde | 100 | 1 |
| N-Nitrosodi-n-butylamine | 0.33 | 0.000006 |
| N-Nitroso-n-methylethylamine | 0.33 | 0.000002 |
| **Polycyclic Aromatic Hydrocarbons** | | |
| Acenaphthene | 300 | 2 |
| Acenaphthylene | 130 | 0.01 |
| Anthracene | 500 | 0.01 |
| Benzo(a)anthracene | 5 | 0.0001 |
| Benzo(a)pyrene | 1.64 | 0.0002 |
| Benzo(b)fluoranthene | 5 | 0.0002 |
| Benzo(g,h,i)perylene | 500 | 0.01 |
| Benzo(k)fluoranthene | 5 | 0.01 |
| Chrysene | 5 | 0.0002 |
| Dibenzo(a,h)anthracene | 2 | 0.0003 |
| Fluoranthene | 500 | 1 |
| Fluorene | 360 | 1 |
| Indeno(1,2,3-cd)pyrene | 5 | 0.0004 |

**Table 7**
**Delineation Standards for Soil and Groundwater**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah,GA**

| Detected Regulated Substance | Soil Type 1 RRS (mg/kg) | Groundwater Type 1 RRS (mg/L) |
|---|---|---|
| Naphthalene | 100 | 0.02 |
| Phenanthrene | 110 | 0.01 |
| Pyrene | 500 | 1 |
| **Dioxins** | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) | 0.00011 | 0.00000003 |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD) | 0.00011 | 0.000000015 |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | 0.000064 | 0.000000003 |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD) | 0.000064 | 0.000000003 |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD) | 0.000064 | 0.000000003 |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD) | 0.0000064 | 0.000000003 |
| 1,2,3,4,6,7,8-Octachlorodibenzo-p-dioxin (OCDD) | 0.00000019 | 9E-12 |
| 2,3,7,8-Tetrachlorodibenzofuran (TCDF) | 0.000064 | 0.000000003 |
| 1,2,3,7,8-Pentachlorodibenzofuran (PeCDF) | 0.000019 | 0.000000015000 |
| 2,3,4,7,8-Pentachlorodibenzofuran (PeCDF) | 0.00019 | 0.000000015 |
| 1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF) | 0.000064 | 0.000000003 |
| 1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF) | 0.000064 | 0.000000003 |
| 1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF) | 0.000064 | 0.000000003 |
| 2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF) | 0.000064 | 0.000000003 |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF) | 0.0000064 | 3E-10 |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF) | 0.0000064 | 0.000000000 |
| 1,2,3,4,6,7,8-Octachlorodibenzofuran (OCDF) | 0.00000019 | 0.0000000000 |
| Total Tetrachlorodibenzo-p-dioxin (TCDD) | 0.00011 | 0.0000000300 |
| Total Pentachlorodibenzo-p-dioxin (PeCDD) | 0.00011 | 0.000000015000 |
| Total Hexachlorodibenzo-p-dioxin (HxCDD) | 0.000064 | 0.000000003 |
| Total Heptachlordibenzo-p-dioxin (HpCDD) | 0.0000064 | 0.000000003 |
| Total Tetrachlorodibenzofuran (TCDF) | 0.000064 | 0.000000003 |
| Total Pentachlorodibenzofuran (PeCDF) | 0.000019 | 0.000000015 |
| Total Hexachlorodibenzofuran (HxCDF) | 0.000064 | 0.000000003 |
| Total Heptachlorodibenzofuran (HpCDF) | 0.0000064 | 3E-10 |
| Toxicity Equivalent Quotient | 0.0013 | 0.000000030 |
| **Pesticides** | | |
| Endrin | 10 | 0.002 |
| Endrin aldehyde | 10 | 0.0001 |
| 4,4'-DDT | 0.66 | 0.0001 |
| Methoxychlor | 10 | 0.04 |
| Parathion | 20 | 0.2 |
| **Polychlorinated Biphenyls** | | |
| Aroclor 1254 | 0.033 | 0.001 |
| Aroclor 1260 | 0.033 | 0.001 |
| **Inorganics** | | |
| Ammonia (as N) | 3000 | 30 |
| Asbestos | 0.01 | 7 |
| Fluoride | NA | 4 |

**Table 8**
**Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah, GA**

| Detected Constituent | Regulated Substance? | Soil Risk Reduction Standards (RRS) | | | | | | | | | | Groundwater Risk Reduction Standards (RRS) | | | | | | | | Practical Quantitation Limits (PQLs) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Type 1 RRS (mg/kg) | Source of Type 1 Standard | Type 2 RRS (mg/kg) | Source of Type 2 Standard | Type 3 RRS (mg/kg) Surface | Source of Type 3 Standard | Type 3 RRS (mg/kg) Subsurface | Source of Type 3 Standard | Type 4 RRS (mg/kg) | Source of Type 4 Standard | Type 1 RRS (mg/L) | Source of Type 1 Standard | Type 2 RRS (mg/L) | Source of Type 2 Standard | Type 3 RRS (mg/L) | Source of Type 3 Standard | Type 4 RRS (mg/L) | Source of Type 4 Standard | Soil mg/kg | Groundwater mg/L |
| **Volatile Organic Compounds** | | | | | | | | | | | | | | | | | | | | | |
| Acetone | Yes | 400 | GW | 400 | Type 1 | 400 | GW | 400 | GW | 400 | 400 | 4 | A-III | 8 | RRSc | 4 | A-III | 46 | RRS | 0.05 | 0.03 |
| Acetonitrile | Yes | 20 | GW | 20 | Type 1 | 20 | GW | 20 | GW | 20 | 20 | 0.2 | A-III | 0.2 | Type 1 | 0.2 | A-III | 0.2 | Type 3 | 0.20 | 0.04 |
| Acetophenone | Yes | 400 | GW | 400 | Type 1 | 400 | GW | 400 | GW | 400 | 400 | 4 | A-III | 4 | Type 1 | 4 | A-III | 10 | RRS | 0.33 | 0.01 |
| Acrolein | Yes | 0.1 | DL | 0.1 | Type 1 | 0.065 | PRGnc-Ind | 70 | GW | 70 | 70 | 0.7 | A-III | 0.7 | Type 1 | 0.7 | A-III | 0.7 | Type 3 | 0.10 | 0.02 |
| Benzene | Yes | 0.5 | GW | 0.5 | Type 1 | 0.5 | GW | 0.5 | GW | 0.5 | 0.5 | 0.005 | A-III | 0.0054 | RRSa | 0.005 | A-III | 0.0087 | RRS | 0.01 | 0.00 |
| Biphenyl | Soon to be | 0.33 | DL | 2.1 | SSL | 0.33 | PRGnc-Ind | 0.33 | DL | 0 | 0.33 | 0.01 | DL | 0.01 | Type 1 | 0.01 | DL | 0.01 | Type 3 | 0.33 | 0.01 |
| Carbon disulfide | Yes | 400 | GW | 400 | Type 1 | 400 | GW | 400 | GW | 400 | 400 | 4 | A-III | 4 | Type 1 | 4 | A-III | 4 | Type 3 | 0.01 | 0.00 |
| Chlorobenzene | Yes | 10 | GW | 10 | Type 1 | 10 | GW | 10 | GW | 10 | 10 | 0.1 | A-III | 0.1 | Type 1 | 0.1 | A-III | 0.14 | RRS | 0.01 | 0.00 |
| trans-1,4-Dichlorobutene | Yes | 0.113 | DL | 0.11 | Type 1 | 0.141673 | PRGc-Ind | 25 | A-I | 25 | 25 | 0.002 | DL | 0.002 | Type 1 | 0.002 | DL | 0.002 | Type 3 | 0.01 | 0.00 |
| 1,2-Dichloropropane | Yes | 0.5 | GW | 0.5 | Type 1 | 0.5 | GW | 0.5 | GW | 0.5 | 0.5 | 0.005 | A-III | 0.005 | Type 1 | 0.005 | A-III | 0.0074 | RRS | 0.01 | 0.00 |
| 1,4-Dichloro-2-butene | Soon to be | 0.11 | PRGc-Res | 0.11 | Type 1 | 0.141542 | PRGc-Ind | 25 | A-I | 25 | 25 | 0.001 | DL | 0.001 | Type 1 | 0.001 | DL | 0.001 | Type 3 | 0.01 | 0.00 |
| Ethylbenzene | Yes | 70 | GW | 70 | Type 1 | 70 | GW | 70 | GW | 70 | 70 | 0.7 | A-III | 0.7 | Type 1 | 0.7 | A-III | 0.7 | Type 3 | 0.01 | 0.00 |
| Ethyl Methacrylate | Yes | 1000 | A-I | 1,000 | Type 1 | 1,000 | A-I | 1,000 | A-I | 1,000 | 1000 | 3 | A-III | 3 | Type 1 | 3 | A-III | 9.2 | RRS | 0.01 | 0.00 |
| Isobutyl alcohol | Yes | 1000 | GW | 1000 | Type 1 | 1000 | GW | 1000 | GW | 1000 | 1000 | 10 | A-III | 10 | Type 1 | 10 | A-III | 31 | RRS | 0.20 | 0.04 |
| Methyl ethyl ketone | Yes | 200 | GW | 200 | Type 1 | 200 | GW | 200 | GW | 200 | 200 | 2 | A-III | 2.3 | RRSc | 2 | A-III | 12 | RRS | 0.03 | 0.01 |
| Methyl isobutyl ketone | Yes | 200 | GW | 200 | Type 1 | 200 | GW | 200 | GW | 200 | 200 | 2 | A-III | 2 | Type 1 | 2 | A-III | 4.2 | RRS | 0.03 | 0.01 |
| Styrene | Yes | 14 | A-I | 14 | Type 1 | 14 | A-I | 14 | A-I | 14 | 14 | 0.1 | A-III | 0.5 | RRSc | 0.1 | A-III | 2.6 | RRS | 0.01 | 0.00 |
| Tetrachloroethene | Yes | 0.5 | GW | 1 | Type 1 | 1 | GW | 1 | GW | 1 | 0.5 | 0.005 | A-III | 0.019 | RRSc | 0.005 | A-III | 0.098 | RRS | 0.01 | 0.00 |
| Toluene | Yes | 100 | GW | 100 | Type 1 | 100 | GW | 100 | GW | 100 | 100 | 1 | A-III | 1 | Type 1 | 1 | A-III | 5.2 | RRS | 0.01 | 0.00 |
| Xylenes (total) | Yes | 1000 | GW | 1000 | Type 1 | 1000 | GW | 1000 | GW | 1000 | 1000 | 10 | A-III | 10 | Type 1 | 10 | A-III | 10 | Type 3 | 0.01 | 0.00 |
| m-Xylene | Yes | 20 | A-I | 20 | Type 1 | 20 | A-I | 20 | A-I | 20 | 20 | 0.001 | DL | 0.058 | RRSc | 0.001 | DL | 0.29 | RRS | 0.01 | 0.00 |
| o-Xylene | Yes | 20 | A-I | 20 | Type 1 | 20 | A-I | 20 | A-I | 20 | 20 | 0.001 | DL | 0.058 | RRSc | 0.001 | DL | 0.29 | RRS | 0.01 | 0.00 |
| p-Xylene | Yes | 20 | A-I | 20 | Type 1 | 20 | A-I | 20 | A-I | 20 | 20 | 0.001 | DL | 0.058 | RRSc | 0.001 | DL | 0.29 | RRS | 0.01 | 0.00 |
| m & p-Xylenes | Yes | 20 | A-I | 20 | Type 1 | 20 | A-I | 20 | A-I | 20 | 20 | 0.002 | DL | 0.27 | RRSa | 0.002 | DL | 0.29 | RRS | 0.01 | 0.00 |
| **Semi Volatile Organic Compounds** | | | | | | | | | | | | | | | | | | | | | |
| Aniline | Yes | 0.66 | DL | 0.66 | Type 1 | 0.66 | PRGc-Ind | 0.66 | DL | 0.66 | 0.66 | 0.006 | A-III | 0.11 | RRSc | 0.006 | A-III | 0.5 | RRS | 0.66 | 0.02 |
| Bis(2-ethylhexyl)phthalate | Yes | 50 | A-I | 50 | Type 1 | 50 | A-I | 50 | A-I | 50 | 50 | 0.006 | A-III | 0.061 | RRSa | 0.006 | A-III | 0.2 | RRS | 0.33 | 0.01 |
| Butyl benzyl phthalate | Yes | 50 | A-I | 50 | Type 1 | 50 | A-I | 50 | A-I | 50 | 50 | 0.1 | A-III | 0.45 | RRSa | 0.1 | A-III | 1.5 | RRS | 0.33 | 0.01 |
| Total Cresols | Yes | 3.8 | A-I | 3.8 | Type 1 | 3.8 | A-I | 3.8 | A-I | 8.1300425 | 8.1 | 0.01 | DL | 1.6 | RRSc | 0.01 | DL | 10 | RRS | 0.33 | 0.01 |
| m & p-Cresols | Yes | 13.2 | A-I | 13 | Type 1 | 13.2 | A-I | 13.2 | A-I | 13.2 | 13.2 | 0.01 | DL | 1.6 | c | 0.01 | DL | 10 | RRS | 0.33 | 0.01 |
| m-Cresol | Yes | 3.8 | A-I | 3.8 | Type 1 | 3.8 | A-I | 3.8 | A-I | 4.08409546 | 4.1 | 0.01 | DL | 0.78 | c | 0.01 | DL | 5.1 | RRS | 0.33 | 0.01 |
| o-Cresol | Yes | 3.8 | A-I | 3.8 | Type 1 | 3.8 | A-I | 3.8 | A-I | 4.14632168 | 4.1 | 0.01 | DL | 0.78 | c | 0.01 | DL | 5.1 | RRS | 0.33 | 0.01 |
| p-Cresol | Yes | 3.8 | A-I | 3.8 | Type 1 | 3.8 | A-I | 3.8 | A-I | 3.8 | 3.8 | 0.01 | DL | 0.064 | RRSc | 0.01 | DL | 0.51 | RRS | 0.33 | 0.01 |
| Dibenzofuran | Soon to be | 0.33 | DL | 4 | SSL | 0.33 | PRGnc-Ind | 0.33 | DL | 2 | 1.9 | 0.01 | DL | 0.016 | RRSc | 0.01 | DL | 0.1 | RRS | 0.33 | 0.01 |
| 2,4-Dimethylphenol | Yes | 70 | GW | 70 | Type 1 | 70 | GW | 70 | GW | 70 | 70 | 0.7 | A-III | 0.7 | Type 1 | 0.7 | A-III | 2 | RRS | 0.33 | 0.01 |
| m-Dinitrobenzene | Yes | 1.05 | A-I | 1.05 | Type 1 | 1.05 | A-I | 1.05 | A-I | 1.05 | 1.05 | 0.001 | A-III | 0.0016 | RRSc | 0.001 | A-III | 0.01 | RRS | 0.33 | 0.01 |
| Di-n-octyl phthalate | Yes | 70 | GW | 33500 | SSL | 70 | GW | 70 | GW | 70 | 70 | 0.01 | DL | 0.01 | Type 1 | 0.01 | DL | 0.01 | Type 3 | 0.33 | 0.01 |
| 1,4-Dioxane | Yes | 7 | GW | 7 | Type 1 | 7 | GW | 7 | GW | 7 | 7 | 0.07 | A-III | 0.07 | Type 1 | 0.07 | A-III | 0.07 | Type 3 | 0.05 | 0.05 |
| Formaldehyde | Yes | 100 | GW | 100 | Type 1 | 100 | GW | 100 | GW | 100 | 100 | 1 | A-III | 1 | Type 1 | 1 | A-III | 20 | RRS | 0.10 | 0.05 |
| N-Nitrosodi-n-butylamine | Yes | 0.33 | DL | 0.33 | Type 1 | 0.33 | PRGc-Ind | 0.33 | DL | 0.33 | 0.33 | 0.000006 | A-III | 3.2E-05 | RRSa | 0.000006 | A-III | 4.7E-05 | RRS | 0.33 | 0.01 |
| N-Nitroso-n-methylethylamine | Yes | 0.33 | DL | 0.33 | Type 1 | 0.33 | PRGc-Ind | 0.33 | DL | 0.33 | 0.33 | 0.000002 | A-III | 3.9E-05 | RRSa | 0.000002 | A-III | 0.00013 | RRS | 0.33 | 0.01 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | 0.33 | PRGc-Ind | 0.33 | DL | | | | | | | | | | | | |
| Acenaphthene | Yes | 300 | A-I | 410 | SSL | 300 | A-I | 300 | A-I | 300 | 300 | 2 | A-III | 2 | Type 1 | 2 | A-III | 6.1 | RRS | 0.33 | 0.01 |
| Acenaphthylene | Yes | 130 | A-I | 130 | Type 1 | 130 | A-I | 130 | A-I | 130 | 130 | 0.01 | DL | 0.01 | Type 1 | 0.01 | DL | 0.01 | Type 3 | 0.33 | 0.01 |
| Anthracene | Yes | 500 | A-I | 500 | Type 1 | 500 | A-I | 500 | A-I | 1020.5261 | 1020 | 0.01 | DL | 4.7 | RRSc | 0.01 | DL | 31 | RRS | 0.33 | 0.01 |
| Benzo(a)anthracene | Yes | 5 | A-I | 5 | Type 1 | 5 | A-I | 5 | A-I | 5 | 5 | 0.0001 | A-III | 0.0012 | RRSa | 0.0001 | A-III | 0.0039 | RRS | 0.33 | 0.01 |
| Benzo(a)pyrene | Yes | 1.64 | A-I | 1.6 | Type 1 | 1.64 | A-I | 1.64 | A-I | 1.64 | 1.64 | 0.0002 | A-III | 0.0002 | Type 1 | 0.0002 | A-III | 0.00039 | RRS | 0.33 | 0.01 |
| Benzo(b)fluoranthene | Yes | 5 | A-I | 5 | Type 1 | 5 | A-I | 5 | A-I | 5 | 5 | 0.0002 | A-III | 0.0012 | RRSa | 0.0002 | A-III | 0.0039 | RRS | 0.33 | 0.01 |
| Benzo(g,h,i)perylene | Yes | 500 | A-I | 1540 | SSL | 500 | A-I | 500 | A-I | 500 | 500 | 0.01 | DL | 0.01 | Type 1 | 0.01 | DL | 0.01 | Type 3 | 0.33 | 0.01 |
| Benzo(k)fluoranthene | Yes | 5 | A-I | 120 | RRSc | 5 | A-I | 5 | A-I | 46 | 46 | 0.01 | DL | 0.012 | RRSa | 0.01 | DL | 0.039 | RRS | 0.33 | 0.01 |
| Chrysene | Yes | 5 | A-I | 43 | SSL | 5 | A-I | 5 | A-I | 140.868007 | 141 | 0.0002 | A-III | 0.12 | RRSa | 0.0002 | A-III | 0.39 | RRS | 0.33 | 0.01 |
| Dibenzo(a,h)anthracene | Yes | 2 | PRGc-Res | 2 | Type 1 | 5 | A-I | 5 | A-I | 5 | 5 | 0.0003 | A-III | 0.0003 | Type 1 | 0.0003 | A-III | 0.00039 | RRS | 0.33 | 0.01 |
| Fluoranthene | Yes | 500 | A-I | 2220 | SSL | 500 | A-I | 500 | A-I | 500 | 500 | 1 | A-III | 1 | Type 1 | 1 | A-III | 4.1 | RRS | 0.33 | 0.01 |
| Fluorene | Yes | 360 | A-I | 370 | SSL | 360 | A-I | 360 | A-I | 360 | 360 | 1 | A-III | 1 | Type 1 | 1 | A-III | 4.1 | RRS | 0.33 | 0.01 |
| Indeno(1,2,3-cd)pyrene | Yes | 5 | A-I | 12 | RRSc | 5 | A-I | 5 | A-I | 15 | 15 | 0.0004 | A-III | 0.0005 | RRSc | 0.0004 | A-III | 0.0039 | RRS | 0.33 | 0.01 |
| Naphthalene | Yes | 100 | A-I | 100 | Type 1 | 100 | A-I | 100 | A-I | 100 | 100 | 0.02 | A-III | 0.02 | Type 1 | 0.02 | A-III | 0.02 | Type 3 | 0.33 | 0.01 |
| Phenanthrene | Yes | 110 | A-I | 110 | Type 1 | 110 | A-I | 110 | A-I | 110 | 110 | 0.01 | DL | 0.01 | Type 1 | 0.01 | DL | 0.01 | Type 3 | 0.33 | 0.01 |
| Pyrene | Yes | 500 | A-I | 2180 | SSL | 500 | A-I | 500 | A-I | 500 | 500 | 1 | A-III | 1 | Type 1 | 1 | A-III | 3.1 | RRS | 0.33 | 0.01 |

**Table 8**
**Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules - Savannah, GA**

| Detected Constituent | Regulated Substance? | Soil Risk Reduction Standards (RRS) | | | | | | | | | | Groundwater Risk Reduction Standards (RRS) | | | | | | | | Practical Quantitation Limits (PQLs) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Type 1 RRS (mg/kg) | Source of Type 1 Standard | Type 2 RRS (mg/kg) | Source of Type 2 Standard | Type 3 RRS (mg/kg) Surface | Source of Type 3 Standard | Type 3 RRS (mg/kg) Subsurface | Source of Type 3 Standard | Type 4 RRS (mg/kg) | Source of Type 4 Standard | Type 1 RRS (mg/L) | Source of Type 1 Standard | Type 2 RRS (mg/L) | Source of Type 2 Standard | Type 3 RRS (mg/L) | Source of Type 3 Standard | Type 4 RRS (mg/L) | Source of Type 4 Standard | Soil mg/kg | Groundwater mg/L |
| **Dioxins** | | | | | | | | | | | | | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | Yes | 0.00008 | A-I | 0.00008 | Type 1 | 0.00008 | A-I | 0.00008 | A-I | 0.0002193 | 0.000219 | 3E-08 | A-III | 3E-08 | Type 1 | 3E-08 | A-III | 3E-08 | Type 3 | 0.00 | 0.00 |
| **Pesticides** | | | | | | | | | | | | | | | | | | | | | |
| Endrin | Yes | 10 | A-I | 10 | Type 1 | 10 | A-I | 10 | A-I | 10 | 10 | 0.002 | A-III | 0.0047 | RRSc | 0.002 | A-III | 0.031 | RRS | 0.00 | 0.00 |
| Endrin aldehyde | Yes | 10 | A-I | 10 | Type 1 | 10 | A-I | 10 | A-I | 10 | 10 | 0.0001 | DL | 0.0001 | Type 1 | 0.0001 | DL | 0.0001 | Type 3 | 0.00 | 0.00 |
| 4,4'-DDT | Yes | 0.66 | A-I | 0.84 | SSL | 0.66 | A-I | 0.66 | A-I | 2.83416025 | 2.8 | 0.0001 | A-III | 0.0025 | RRSa | 0.0001 | A-III | 0.0084 | RRS | 0.00 | 0.00 |
| Methoxychlor | Yes | 10 | A-I | 43 | SSL | 10 | A-I | 10 | A-I | 27.5298004 | 28 | 0.04 | A-III | 0.078 | RRSc | 0.04 | A-III | 0.51 | RRS | 0.00 | 0.00 |
| Parathion | Yes | 20 | GW | 20 | SSL | 20 | GW | 20 | GW | 20 | 20 | 0.2 | A-III | 0.2 | Type 1 | 0.2 | A-III | 0.61 | RRS | 0.33 | 0.01 |
| **Polychlorinated Biphenyls** | | | | | | | | | | | | | | | | | | | | | |
| Aroclor 1254 | Yes | 1.55 | A-I | 1.6 | RRSc | 1.55 | A-I | 1.55 | A-I | 1.55 | 1.55 | 0.0005 | A-III | 0.0005 | Type 1 | 0.0005 | A-III | 0.0014 | RRS | 0.03 | 0.00 |
| Aroclor 1260 | Yes | 1.55 | A-I | 4.6 | RRSc | 1.55 | A-I | 1.55 | A-I | 1.55 | 1.55 | 0.0005 | A-III | 0.0005 | Type 1 | 0.0005 | A-III | 0.0014 | RRS | 0.03 | 0.00 |
| Total PCBs | Yes | 1.55 | A-I | 1.55 | Type 1 | 1.55 | A-I | 1.55 | A-I | 1.55 | 1.55 | 0.0005 | A-III | 0.0005 | Type 1 | 0.0005 | A-III | 0.0014 | RRS | 0.03 | 0.00 |
| **Inorganics** | | | | | | | | | | | | | | | | | | | | | |
| Ammonia (as N) | Yes | 3000 | GW | 6060 | SSL | 3000 | GW | 3000 | GW | 3000 | 3000 | 30 | A-III | 30 | Type 1 | 30 | A-III | 30 | Type 3 | 0.00 | 0.05 |
| Asbestos | Yes | 0.01 | DL | 0.01 | DL | NA | NA | NA | NA | 0.01 | 0.01 | 7 | A-III | 7 | Type 1 | 7 | A-III | 7 | Type 3 | 0.00 | 1.37 |
| Fluoride | Yes | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 4 | A-III | 4 | Type 1 | 4 | A-III | 4.1 | RRS | 0.00 | 0.20 |

mg/kg Milligrams per kilogram.
mg/L Milligrams per liter.
NA Not applicable.

Table 9
Preliminary VIRP Cost Estimate
Voluntary Investigation and Remediation Plan
Hercules - Savannah, GA

| Task Description | Subtasks | Subtotal | Estimated Cost |
|---|---|---|---|
| **Prepare Investigation Work Plan** | | | $15,000 |
| **Field Activities** | | | $28,500 |
| | Mobilize for data collection | $3,000 | |
| | Confirmatory soil sampling | $20,500 | |
| | Slug testing | $1,500 | |
| | Well gauging | $1,000 | |
| | Surface water/ sediment sampling | $2,500 | |
| **Semiannual groundwater sampling** | | | $34,000 |
| | Semiannual event #1 | $8,500 | |
| | Semiannual event #2 | $8,500 | |
| | Semiannual event #3 | $8,500 | |
| | Semiannual event #4 | $8,500 | |
| **Data analysis** | | | $17,500 |
| | Delineation assessment | $10,000 | |
| | Human health risk assessment | $3,500 | |
| | Ecological risk assessment | $2,500 | |
| | CSM update | $1,500 | |
| **Reporting** | | | $35,000 |
| | Semiannual Report #1 | $5,000 | |
| | Semiannual Report #2 | $5,000 | |
| | Semiannual Report #3 | $5,000 | |
| | Semiannual Report #4 | $5,000 | |
| | Draft and final CSR | $15,000 | |
| | Total Estimated Cost: | | $130,000 |

ARCADIS

# Figures




**LEGEND**

HSI 10696 Site Boundary

PROJECTION: NAD83 State Plane Georgia East Feet

SOURCES:
1) Digital Raster Graphic County Mosaic (NRCS), drg_s_ga051.sid
2) Parcels: SAGIS (2008).

REFERENCE:
U.S.G.S. 7.5 Minute Series Topographic Quadrangles:
Garden City, Georgia 1981,
Savannah, Georgia 1979.
CONTOUR INTERVAL: 20 foot.




0 1,500 3,000

SCALE IN FEET

HERCULES - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Site Location Map**

ARCADIS

FIGURE
**1**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV REM PLANIF1 GA60_VRP REG.mxd - 4/4/2012 @ 10:38:07 AM




BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS AND AERIAL SOURCE: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

**LEGEND**

- HSI 10696 Site Boundary
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 200 400

SCALE IN FEET

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

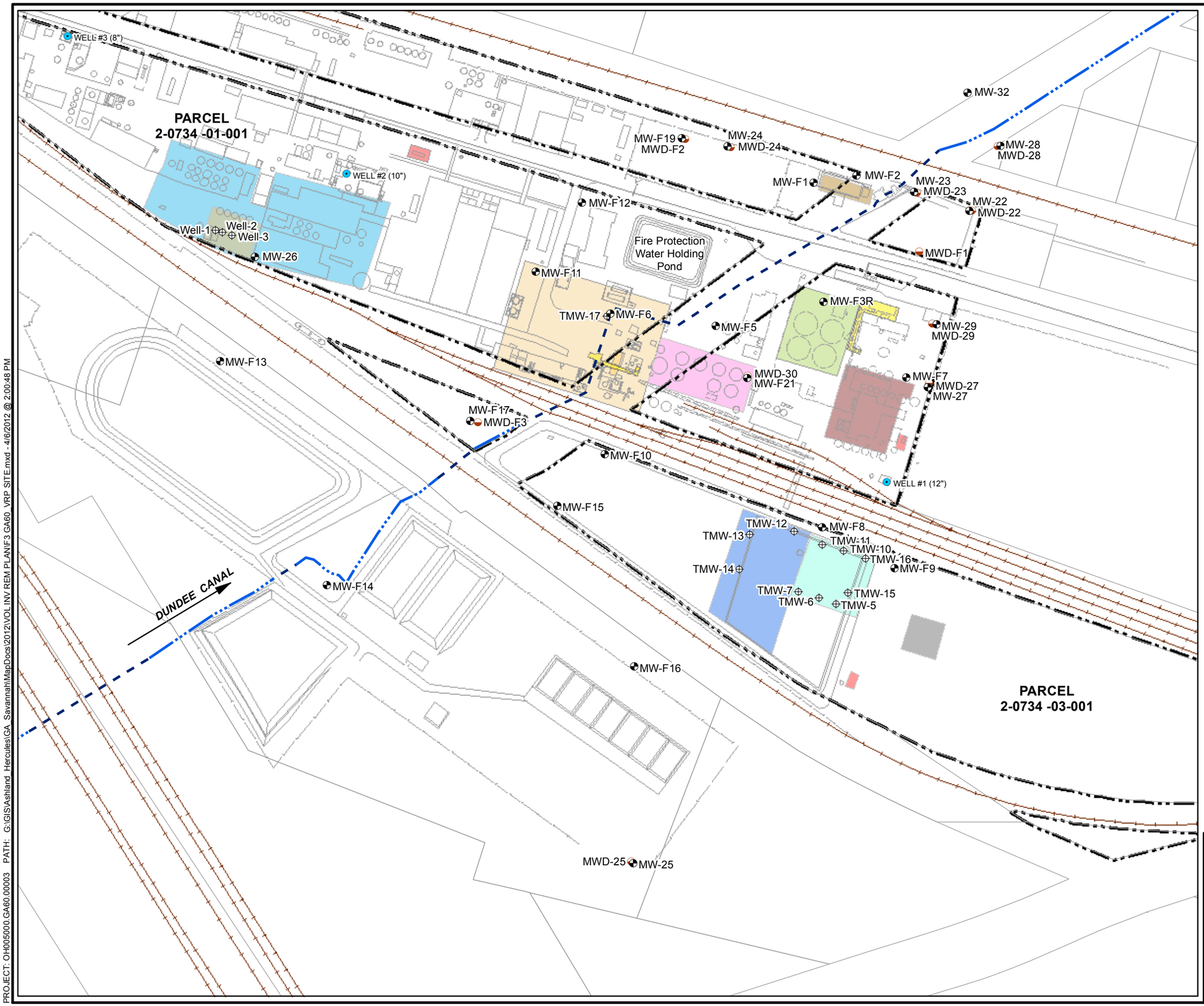
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Site Layout – Aerial View**

ARCADIS

FIGURE
**2**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland Hercules\GA Savannah\MapDocs\2012\VOL INV\REM PLANF2 GA60_VRP Aerial.mxd - 4/5/2012 @ 3:29:41 PM




**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (deep)
- Temporary Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Site Map**

ARCADIS

FIGURE
**3**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland Hercules\GA SavannahMapDocs\2012\VOL INV REM PLAN\F3 GA60 VRP SITE MAP.mxd - 4/6/2012 @ 2:00:48 PM

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV REM PLAN\F4 GA60_VRP 20110

WELL #3 (8")

WELL #2 (10")

**PARCEL**
**2-0734 -01-001**

8.0

7.0

6.0

5.0

4.0

MW-F19 (5.72)

MW-24 (5.38)

MW-32 (3.86)

MW-28 (3.54)

MW-F1 (5.16)

MW-F2 ✳ (5.65)

MW-23 (3.28)

MW-22 (7.16)

MW-F12 (6.32)

MW-26 (7.96)

MW-F11 (6.58)

MW-F3R (5.73)

MW-F6 (6.06)

MW-F5 (5.90)

MW-29 (8.03)

MW-F13 (7.38)

MW-F21 (6.78)

MW-F7 (8.07)

MW-27 (8.34)

MW-F17 (5.68)

WELL #1 (12")

MW-F15 (5.44)

MW-F8 (7.96)

MW-F9 (8.36)

MW-F14 (5.47)

DUNDEE CANAL

MW-F16 (5.78)

**PARCEL**
**2-0734 -03-001**

MW-25 (6.09)

## LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Production Well
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Groundwater Contour Line (ft amsl)
- (inferred where dashed)
- Groundwater Flow Direction
- *8.34* Groundwater Elevation (ft amsl) Measured July 27, 2011
- ✳ Not Used to Construct Contours

NOTE:
MW-F2 was not included due to anomalous readings (perched water table).

0 160 320

SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg); Newfields (toplot.dwg).
2) Parcels: SAGIS (2008).
3) Wells: Bateman Civil Survey Company, PC (July 2011).
PROJECTION: NAD83 State Plane Georgia East Feet

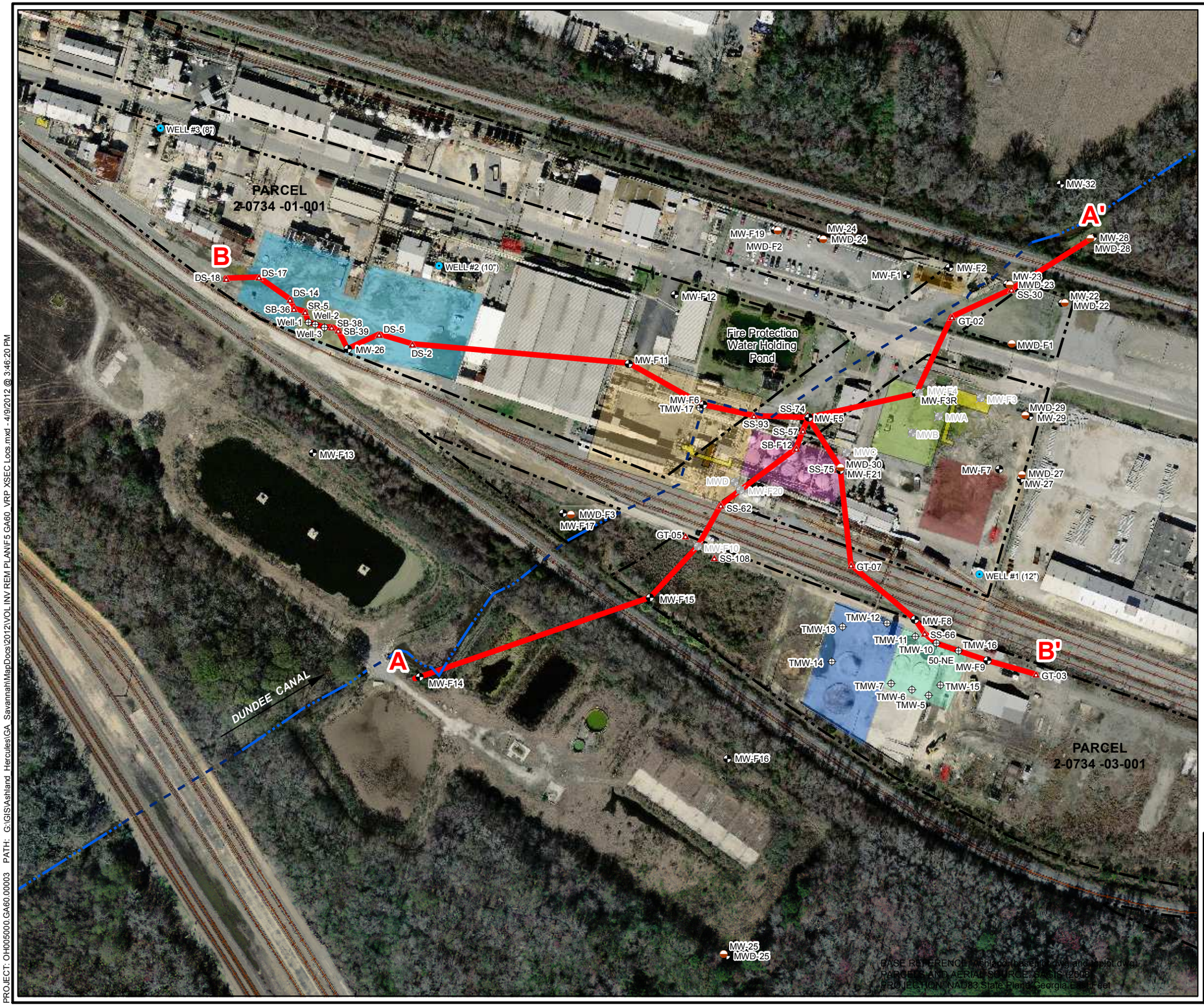
HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

# Shallow Potentiometric Surface Map July 27, 2011

ARCADIS

FIGURE
**4**




BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS AND AERIAL SOURCE: SAGIS (2008).
PROJECTION: NAD_1983_StatePlane_Georgia_East_FIPS_1001_Feet

**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Temporary Monitoring Well (shallow)
- Monitoring Well (deep)
- Monitoring Well (abandoned)
- Production Well
- Soil Sample (1998-2008)
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS AND AERIAL SOURCE: SAGIS (2008).
PROJECTION: NAD_1983_StatePlane_Georgia_East_FIPS_1001_Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

## Geologic Cross-Section Locations

ARCADIS

FIGURE
**5**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV REM PLAN\F5 GA60_VRP_XSEC Locs.mxd - 4/9/2012 @ 3:46:20 PM

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: S.SUTTON LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H:ENGLISH/C.MILLER
PROJECT: OH004000.GA60.10300 PATH: G:\GIS\Ashland_Hercules\GA_Savannah\MapDocs\2011\GAEPD Response\2D-2 GA60_RESP2 XSEC_AA.mxd - 10/13/2011 @ 6:46:13 PM

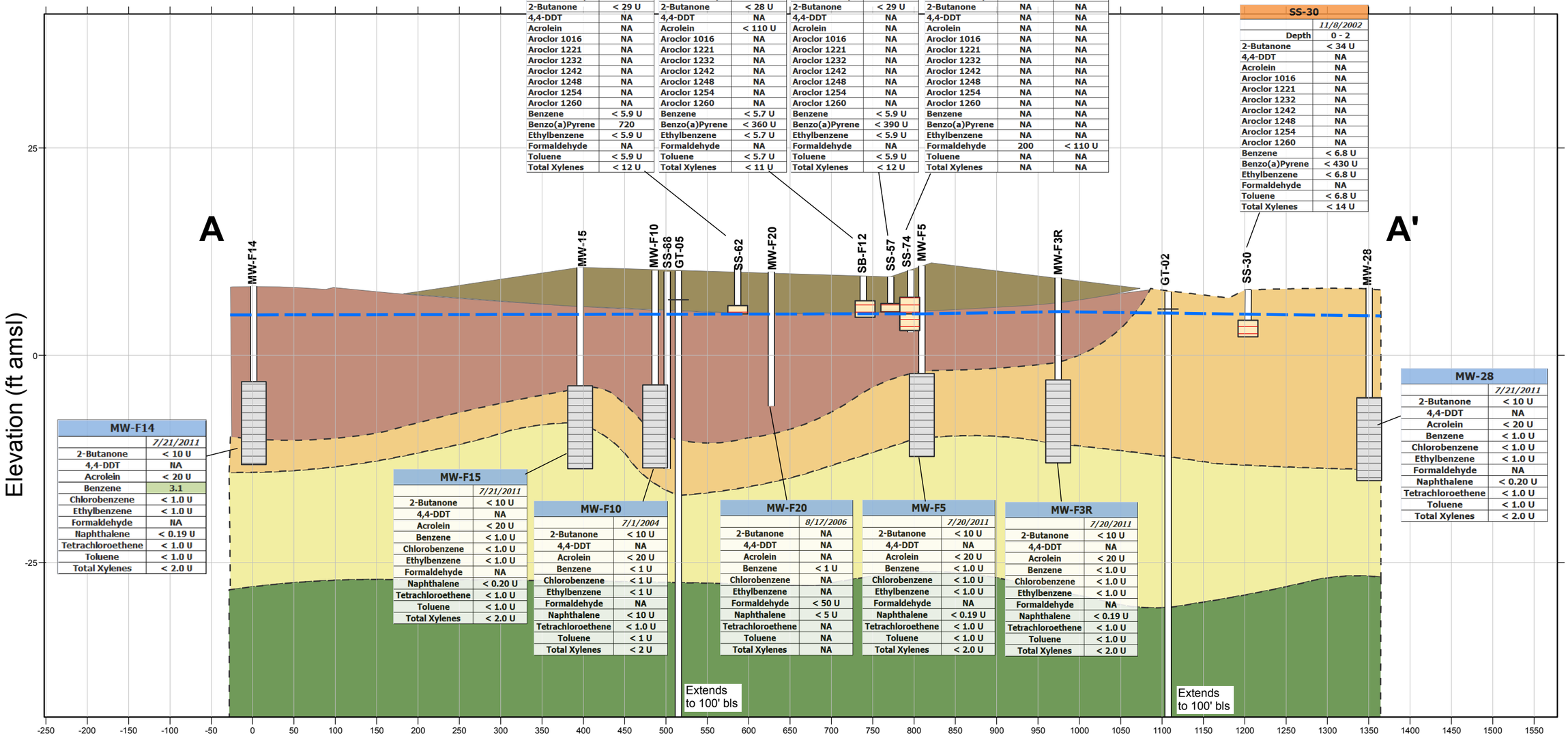
| SS-62 | |
|---|---|
| | *12/19/2002* |
| Depth | 1 - 2 |
| 2-Butanone | < 29 U |
| 4,4-DDT | NA |
| Acrolein | NA |
| Aroclor 1016 | NA |
| Aroclor 1221 | NA |
| Aroclor 1232 | NA |
| Aroclor 1242 | NA |
| Aroclor 1248 | NA |
| Aroclor 1254 | NA |
| Aroclor 1260 | NA |
| Benzene | < 5.9 U |
| Benzo(a)Pyrene | 720 |
| Ethylbenzene | < 5.9 U |
| Formaldehyde | NA |
| Toluene | < 5.9 U |
| Total Xylenes | < 12 U |

| SB-F12 | |
|---|---|
| | *10/20/2000* |
| Depth | 1 - 3 |
| 2-Butanone | < 28 U |
| 4,4-DDT | NA |
| Acrolein | < 110 U |
| Aroclor 1016 | NA |
| Aroclor 1221 | NA |
| Aroclor 1232 | NA |
| Aroclor 1242 | NA |
| Aroclor 1248 | NA |
| Aroclor 1254 | NA |
| Aroclor 1260 | NA |
| Benzene | < 5.7 U |
| Benzo(a)Pyrene | < 360 U |
| Ethylbenzene | < 5.7 U |
| Formaldehyde | NA |
| Toluene | < 5.7 U |
| Total Xylenes | < 11 U |

| SS-57 | |
|---|---|
| | *12/19/2002* |
| Depth | 1 - 2 |
| 2-Butanone | < 29 U |
| 4,4-DDT | NA |
| Acrolein | NA |
| Aroclor 1016 | NA |
| Aroclor 1221 | NA |
| Aroclor 1232 | NA |
| Aroclor 1242 | NA |
| Aroclor 1248 | NA |
| Aroclor 1254 | NA |
| Aroclor 1260 | NA |
| Benzene | < 5.9 U |
| Benzo(a)Pyrene | < 390 U |
| Ethylbenzene | < 5.9 U |
| Formaldehyde | NA |
| Toluene | < 5.9 U |
| Total Xylenes | < 12 U |

| SS-74 | | |
|---|---|---|
| | *8/15/2006* | *8/15/2006* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | NA | NA |
| 4,4-DDT | NA | NA |
| Acrolein | NA | NA |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | NA | NA |
| Benzo(a)Pyrene | NA | NA |
| Ethylbenzene | NA | NA |
| Formaldehyde | 200 | < 110 U |
| Toluene | NA | NA |
| Total Xylenes | NA | NA |

| SS-30 | |
|---|---|
| | *11/8/2002* |
| Depth | 0 - 2 |
| 2-Butanone | < 34 U |
| 4,4-DDT | NA |
| Acrolein | NA |
| Aroclor 1016 | NA |
| Aroclor 1221 | NA |
| Aroclor 1232 | NA |
| Aroclor 1242 | NA |
| Aroclor 1248 | NA |
| Aroclor 1254 | NA |
| Aroclor 1260 | NA |
| Benzene | < 6.8 U |
| Benzo(a)Pyrene | < 430 U |
| Ethylbenzene | < 6.8 U |
| Formaldehyde | NA |
| Toluene | < 6.8 U |
| Total Xylenes | < 14 U |




| MW-F14 | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | 3.1 |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.19 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F15 | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.20 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F10 | |
|---|---|
| | *7/1/2004* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1 U |
| Chlorobenzene | < 1 U |
| Ethylbenzene | < 1 U |
| Formaldehyde | NA |
| Naphthalene | < 10 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1 U |
| Total Xylenes | < 2 U |

| MW-F20 | |
|---|---|
| | *8/17/2006* |
| 2-Butanone | NA |
| 4,4-DDT | NA |
| Acrolein | NA |
| Benzene | < 1 U |
| Chlorobenzene | NA |
| Ethylbenzene | NA |
| Formaldehyde | < 50 U |
| Naphthalene | < 5 U |
| Tetrachloroethene | NA |
| Toluene | NA |
| Total Xylenes | NA |

| MW-F5 | |
|---|---|
| | *7/20/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.19 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F3R | |
|---|---|
| | *7/20/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.19 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-28 | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.20 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

## LEGEND

- Water Table (ft amsl) (July 2011)
- Well Screen
- Soil Boring
- Gravel, Silty Sandy, Fill
- Fine-grained Silty, Clayey, Sand
- High Plasticity Clay (Inferred where dashed)
- Clayey, Silty-Sand with Shell Fragments (inferred where dashed)
- Sandy Silt (Inferred where dashed)
- MW-F20 — Groundwater Results (µg/L)
- SB-F12 — Soil Results (mg/kg)
- NA — Not Analyzed
- 3.1 — Concentration exceeds the practical quantitation limit (PQL).

0 62.5 125 250 Feet

HORIZONTAL SCALE

VERTICAL EXAGGERATION: 10x

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Distribution of Select Constituents along Geologic Cross-Section A-A'**

ARCADIS

FIGURE
**6**

| DS-18 | | |
|---|---|---|
| *Date* | *11/10/2008* | *11/10/2008* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | 20 J | 10 J |
| 4,4-DDT | NA | NA |
| Acrolein | < 100 U | < 99 U |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | < 5 U | < 5 U |
| Benzo(a)Pyrene | < 1900 UD | < 2000 UD |
| Ethylbenzene | < 5 U | < 5 U |
| Formaldehyde | NA | NA |
| Toluene | 1.7 J | < 5 U |
| Total Xylenes | < 10 U | < 9.9 U |

| DS-17 | | |
|---|---|---|
| *Date* | *11/10/2008* | *11/10/2008* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | 12 J | < 26 U |
| 4,4-DDT | NA | NA |
| Acrolein | < 90 U | < 100 U |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | < 4.5 U | < 5.1 U |
| Benzo(a)Pyrene | < 2000 UD | < 3900 UD |
| Ethylbenzene | < 4.5 U | < 5.1 U |
| Formaldehyde | NA | NA |
| Toluene | < 4.5 U | < 5.1 U |
| Total Xylenes | 2.9 J | 9.3 J |

| DS-14 | | |
|---|---|---|
| *Date* | *11/10/2008* | *11/10/2008* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | 35 | 40 |
| 4,4-DDT | NA | NA |
| Acrolein | < 96 U | < 110 U |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | 1.9 J | 11 |
| Benzo(a)Pyrene | < 3900 UD | < 4100 UD |
| Ethylbenzene | 1.3 J | 9.2 |
| Formaldehyde | NA | NA |
| Toluene | 6.3 | 44 |
| Total Xylenes | 4.6 J | 4 J |

| DS-5 | | |
|---|---|---|
| *Date* | *11/7/2008* | *11/7/2008* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | 3.4 J | 17 J |
| 4,4-DDT | NA | NA |
| Acrolein | < 110 U | < 110 U |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | < 5.7 U | < 5.4 U |
| Benzo(a)Pyrene | < 370 U | < 1900 UD |
| Ethylbenzene | < 5.7 U | < 5.4 U |
| Formaldehyde | NA | NA |
| Toluene | 1.2 J | 1.1 J |
| Total Xylenes | < 11 U | 5.4 J |

| DS-2 | | |
|---|---|---|
| *Date* | *11/7/2008* | *11/7/2008* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | 8.8 J | < 29 U |
| 4,4-DDT | NA | NA |
| Acrolein | < 100 U | < 120 U |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | < 5.1 U | < 5.8 U |
| Benzo(a)Pyrene | < 360 U | < 380 U |
| Ethylbenzene | < 5.1 U | < 5.8 U |
| Formaldehyde | NA | NA |
| Toluene | 0.88 J | < 5.8 U |
| Total Xylenes | < 10 U | < 12 U |

| SS-93 | |
|---|---|
| *Date* | *11/6/2008* |
| Depth | 0 - 4 |
| 2-Butanone | NA |
| 4,4-DDT | NA |
| Acrolein | < 92 U |
| Aroclor 1016 | NA |
| Aroclor 1221 | NA |
| Aroclor 1232 | NA |
| Aroclor 1242 | NA |
| Aroclor 1248 | NA |
| Aroclor 1254 | NA |
| Aroclor 1260 | NA |
| Benzene | NA |
| Benzo(a)Pyrene | NA |
| Ethylbenzene | NA |
| Formaldehyde | NA |
| Toluene | NA |
| Total Xylenes | NA |

| SS-74 | | |
|---|---|---|
| *Date* | *8/15/2006* | *8/15/2006* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | NA | NA |
| 4,4-DDT | NA | NA |
| Acrolein | NA | NA |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | NA | NA |
| Benzo(a)Pyrene | NA | NA |
| Ethylbenzene | NA | NA |
| Formaldehyde | 200 | < 110 U |
| Toluene | NA | NA |
| Total Xylenes | NA | NA |

| SS-75 | | |
|---|---|---|
| *Date* | *8/15/2006* | *8/15/2006* |
| Depth | 0 - 2 | 2 - 4 |
| 2-Butanone | NA | NA |
| 4,4-DDT | NA | NA |
| Acrolein | NA | NA |
| Aroclor 1016 | NA | NA |
| Aroclor 1221 | NA | NA |
| Aroclor 1232 | NA | NA |
| Aroclor 1242 | NA | NA |
| Aroclor 1248 | NA | NA |
| Aroclor 1254 | NA | NA |
| Aroclor 1260 | NA | NA |
| Benzene | NA | NA |
| Benzo(a)Pyrene | NA | NA |
| Ethylbenzene | NA | NA |
| Formaldehyde | 320 | 480 |
| Toluene | NA | NA |
| Total Xylenes | NA | NA |

B

B'

DS-18 DS-17 DS-14 SB-36 SR-5 SR3/Well-1 SR2/Well-2 SR1/Well-3 SB-39 SB-38 MW-26 DS-5 DS-2 MW-F11 MW-F6 SS-93 SS-74 MW-F5 MWD-30/SS-75 MW-F21 GT-07 MW-F8 SS-66 TMW-10 TMW-16 MW-F9 GT-03

Elevation (ft amsl)

20 0 -20 -40

-50 0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 100 1150 1200 1250 1300 1350 1400 1450 1500 1550 1600 1650

| MW-26 | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.20 U |
| Tetrachloroethene | < 10 U |
| Toluene | < 10 U |
| Total Xylenes | < 2.0 U |

| MW-F11 | |
|---|---|
| | *7/19/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 2.0 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F6 | |
|---|---|
| | *7/20/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.20 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F5 | |
|---|---|
| | *7/20/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.19 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F21 (DUPL) | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U (< 10 U) |
| 4,4-DDT | NA (NA) |
| Acrolein | < 20 U (< 20 U) |
| Benzene | 14 (16) |
| Chlorobenzene | < 1.0 U (< 1.0 U) |
| Ethylbenzene | < 1.0 U (< 1.0 U) |
| Formaldehyde | < 50 U (NA) |
| Naphthalene | 430 (400) |
| Tetrachloroethene | < 10 U (< 10 U) |
| Toluene | < 10 U (< 10 U) |
| Total Xylenes | < 2.0 U (2.2) |

| MWD-30 | |
|---|---|
| | *7/22/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | NA |
| Naphthalene | < 0.19 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| MW-F8 | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | < 50 U |
| Naphthalene | < 0.20 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

| TMW-10 | |
|---|---|
| | *6/6/2000* |
| 2-Butanone | NA |
| 4,4-DDT | NA |
| Acrolein | NA |
| Benzene | < 5 U |
| Chlorobenzene | NA |
| Ethylbenzene | NA |
| Formaldehyde | NA |
| Naphthalene | NA |
| Toluene | NA |
| Total Xylenes | NA |

| TMW-16 | |
|---|---|
| | *6/6/2000* |
| 2-Butanone | NA |
| 4,4-DDT | NA |
| Acrolein | NA |
| Benzene | < 5 U |
| Chlorobenzene | NA |
| Ethylbenzene | NA |
| Formaldehyde | NA |
| Naphthalene | NA |
| Toluene | NA |
| Total Xylenes | NA |

| MW-F9 | |
|---|---|
| | *7/21/2011* |
| 2-Butanone | < 10 U |
| 4,4-DDT | NA |
| Acrolein | < 20 U |
| Benzene | < 1.0 U |
| Chlorobenzene | < 1.0 U |
| Ethylbenzene | < 1.0 U |
| Formaldehyde | < 50 U |
| Naphthalene | < 0.20 U |
| Tetrachloroethene | < 1.0 U |
| Toluene | < 1.0 U |
| Total Xylenes | < 2.0 U |

Extends to 100' bls

Extends to 100' bls

## LEGEND

- Water Table (ft amsl) (July 2011)
- Well Screen
- Soil Boring
- Gravel, Silty, Sandy, Fill
- Fine-grain, Silty, Clayey Sand
- High Plasticity Clay (Inferred where dashed)
- Clayey, Silty-Sand with Shell Fragements (Inferred where dashed)
- Sandy Silt (Inferred where dashed)

MW-F20 — Groundwater Results (µg/L)

SB-F12 — Soil Results (mg/kg)

NA — Not Analyzed

3.1 — Concentration exceeds the practical quantitation limit (PQL).

14 (16) — Concentration exceeds Type 4 RRS.

0 62.5 125 250 Feet

HORIZONTAL SCALE

VERTICAL EXAGGERATION: 10x

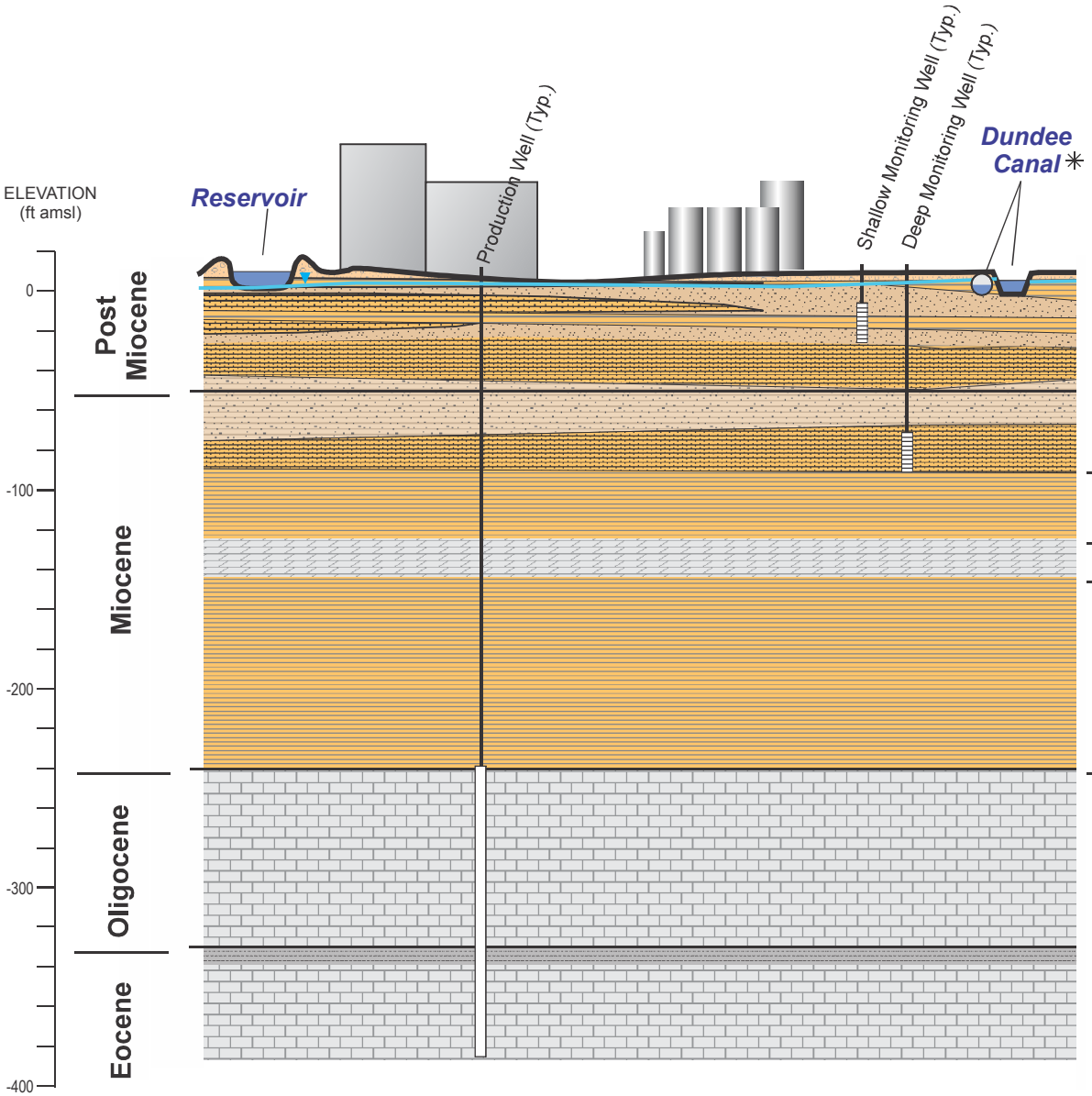
HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Distribution of Select Constituents along Geologic Cross-Section B-B'**

ARCADIS

FIGURE 7

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: S.SUTTON LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH/C.MILLER
PROJECT: OH004000.GA60.10300 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs2011\GAEPD Response2\D-3 GA60_RESP2 XSEC_BB.mxd - 10/13/2011 @ 6:54:21 PM




**LEGEND**

- Fill Material
- Clay
- Silt, clayey
- Sand
- Sand, clayey
- Water-Table
- Shale
- Limestone
- Limestone and Dolomite
- Screened Interval
- Open Hole

✳ Dundee Canal exists both in open and enclosed (i.e., piped) segments at the facility.

SOURCE: Clarke, John S., Charles M. Hacke, and Michael F. Peck. 1990. Geology and Ground-Water Resources of the Coastal Area of Georgia. The Department of Natural Resources Environmental Protection Division Georgia Geologic Survey. Bulletin 113.

HERCULES - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

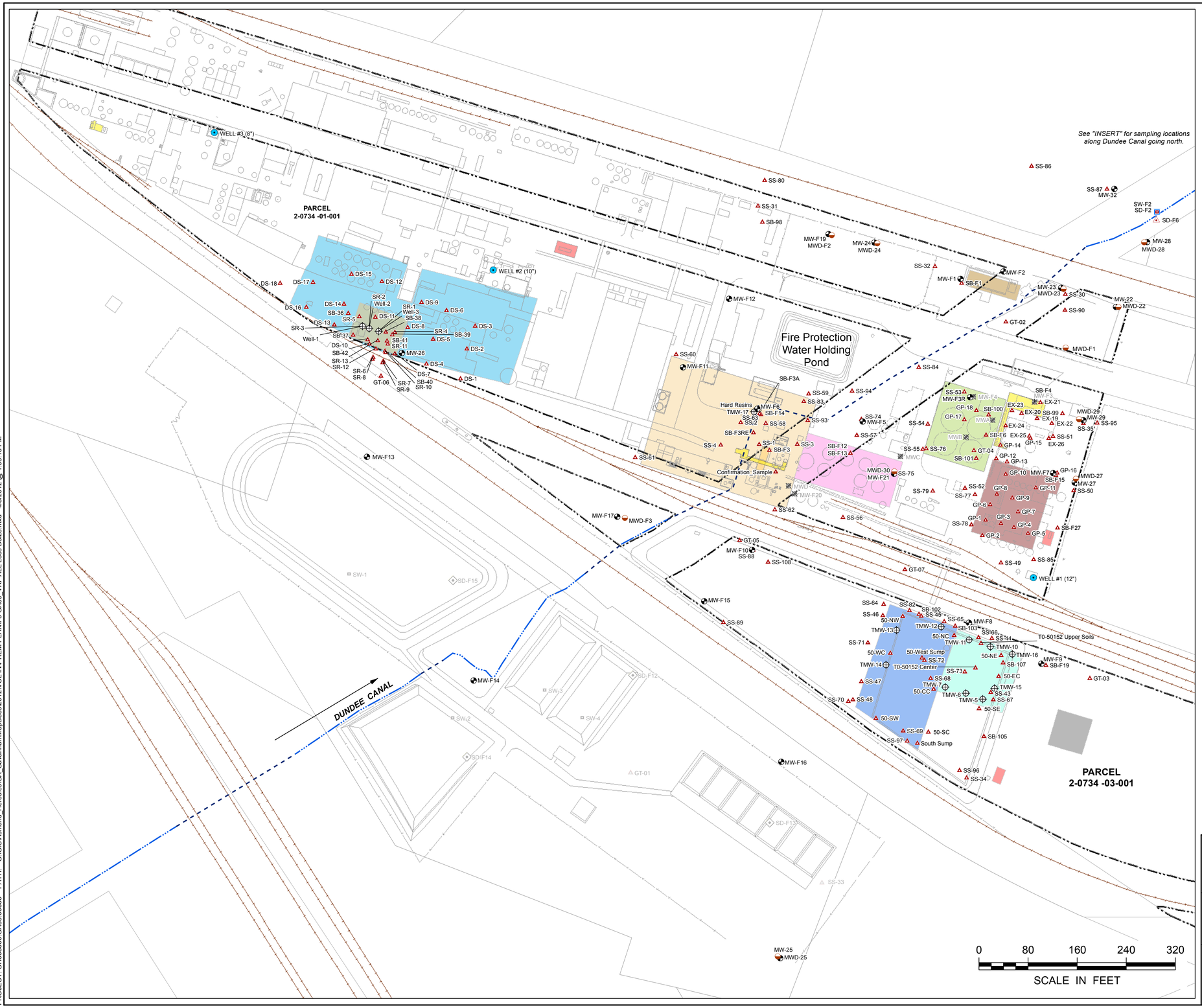
## Conceptual Site Model

ARCADIS

FIGURE
**8**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH/C.MILLER
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_Savannah\MapDocs\2012\VOL INV REM PLAN\F8 GA60_VRP CSM.cdr SAVED: 9APR2012

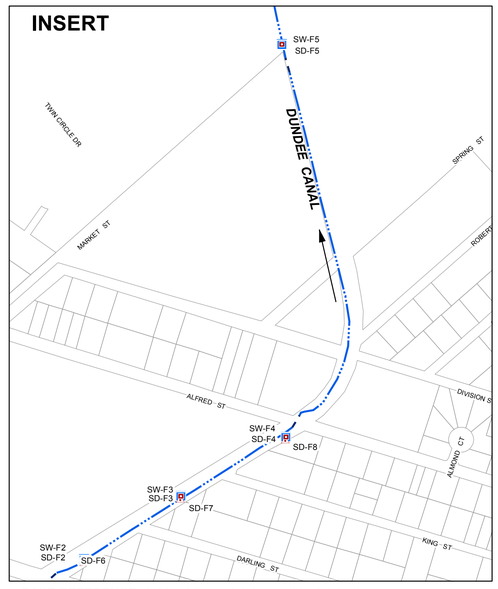
CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005500.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV REM PLAN\F9 GA60_VRP ALL Locs Dsize.mxd - 4/5/2012 @ 1:38:13 PM




## LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Temporary Monitoring Well (shallow)
- Monitoring Well (deep)
- Monitoring Well (abandoned)
- Production Well
- Soil Sample (1998-2008)
- Surface Water Sample
- Sediment Sample
- Berm Sample
- Sludge Sample
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

## INSERT




BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

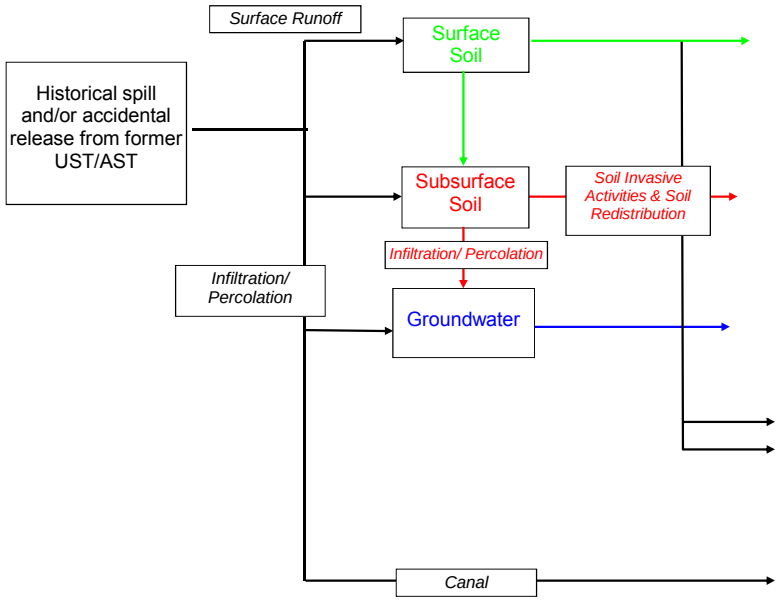
HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

## Sampling Locations

ARCADIS

FIGURE
**9**



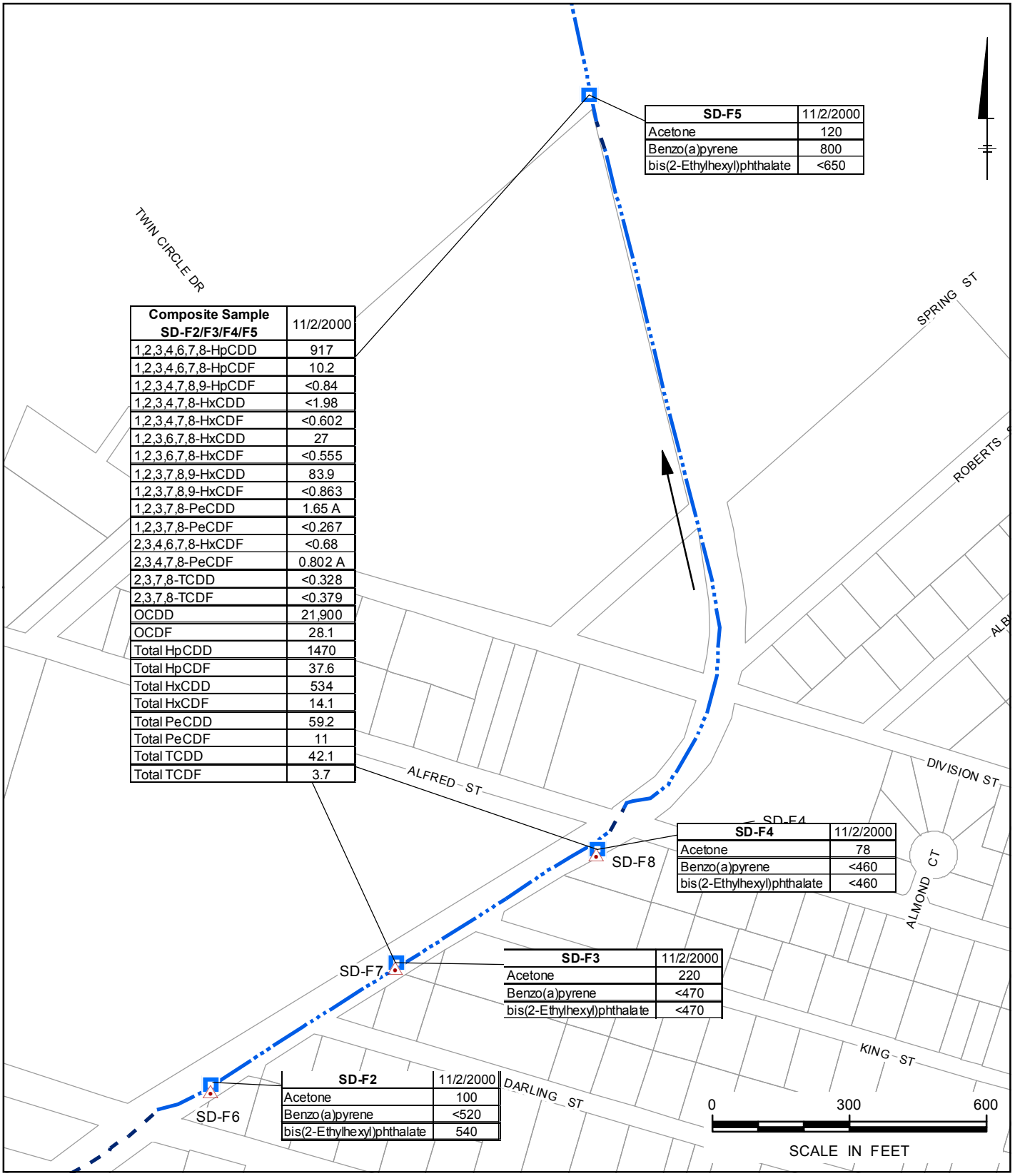

| PATHWAY/ EXPOSURE MEDIUM | EXPOSURE ROUTE | RECEPTORS: Current – Onsite Worker | Current – Tresspasser | Future – Onsite Construction Worker | Future – Onsite Site Worker | Future – Tresspasser |
|---|---|---|---|---|---|---|
| Surface Soil | Ingestion | IC | IC | X | X | X |
| Surface Soil | Dermal | IC | IC | X | X | X |
| Outdoor Air (dust) | Inhalation | IC | IC | X | X | X |
| Subsurface Soil | Ingestion | IC | IC | X | X | X |
| Subsurface Soil | Dermal | IC | IC | X | X | X |
| Outdoor Air (dust) | Inhalation | IC | IC | X | X | X |
| Groundwater | Ingestion | IC | IC | X | IC | IC |
| Groundwater | Dermal | IC | IC | X | IC | IC |
| Groundwater | Inhalation | IC | IC | X | IC | IC |
| Indoor Air (vapors) | Inhalation | X | IC | IC | X | IC |
| Outdoor Air (vapors) | Inhalation | xis | IC | xis | xis | IC |
| Onsite Sediment/ Water | Ingestion | IC | IC | X | IC | IC |
| Onsite Sediment/ Water | Dermal | IC | IC | X | IC | IC |
| Offsite Sediment/Water | Ingestion | IC | X | IC | IC | X |
| Offsite Sediment/Water | Dermal | IC | X | IC | IC | X |
| Offsite Water (vapors) | Inhalation | IC | xis | IC | IC | xis |

IC Incomplete pathway.
X Complete pathway.
xis Complete but insignificant pathway.

ARCADIS

**Site Conceptual Exposure Model for Potential Human Receptors**
**Hercules - Savannah, Georgia**

**Figure 10**




| SD-F5 | 11/2/2000 |
|---|---|
| Acetone | 120 |
| Benzo(a)pyrene | 800 |
| bis(2-Ethylhexyl)phthalate | <650 |

| Composite Sample SD-F2/F3/F4/F5 | 11/2/2000 |
|---|---|
| 1,2,3,4,6,7,8-HpCDD | 917 |
| 1,2,3,4,6,7,8-HpCDF | 10.2 |
| 1,2,3,4,7,8,9-HpCDF | <0.84 |
| 1,2,3,4,7,8-HxCDD | <1.98 |
| 1,2,3,4,7,8-HxCDF | <0.602 |
| 1,2,3,6,7,8-HxCDD | 27 |
| 1,2,3,6,7,8-HxCDF | <0.555 |
| 1,2,3,7,8,9-HxCDD | 83.9 |
| 1,2,3,7,8,9-HxCDF | <0.863 |
| 1,2,3,7,8-PeCDD | 1.65 A |
| 1,2,3,7,8-PeCDF | <0.267 |
| 2,3,4,6,7,8-HxCDF | <0.68 |
| 2,3,4,7,8-PeCDF | 0.802 A |
| 2,3,7,8-TCDD | <0.328 |
| 2,3,7,8-TCDF | <0.379 |
| OCDD | 21,900 |
| OCDF | 28.1 |
| Total HpCDD | 1470 |
| Total HpCDF | 37.6 |
| Total HxCDD | 534 |
| Total HxCDF | 14.1 |
| Total PeCDD | 59.2 |
| Total PeCDF | 11 |
| Total TCDD | 42.1 |
| Total TCDF | 3.7 |

| SD-F4 | 11/2/2000 |
|---|---|
| Acetone | 78 |
| Benzo(a)pyrene | <460 |
| bis(2-Ethylhexyl)phthalate | <460 |

| SD-F3 | 11/2/2000 |
|---|---|
| Acetone | 220 |
| Benzo(a)pyrene | <470 |
| bis(2-Ethylhexyl)phthalate | <470 |

| SD-F2 | 11/2/2000 |
|---|---|
| Acetone | 100 |
| Benzo(a)pyrene | <520 |
| bis(2-Ethylhexyl)phthalate | 540 |

PARCELS SOURCE: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

## LEGEND

- Sediment Sample
- Berm Sample
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

NOTES:
1) Discrete sample results are reported in µg/kg.
2) Composite sample results are reported in pg/g.

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

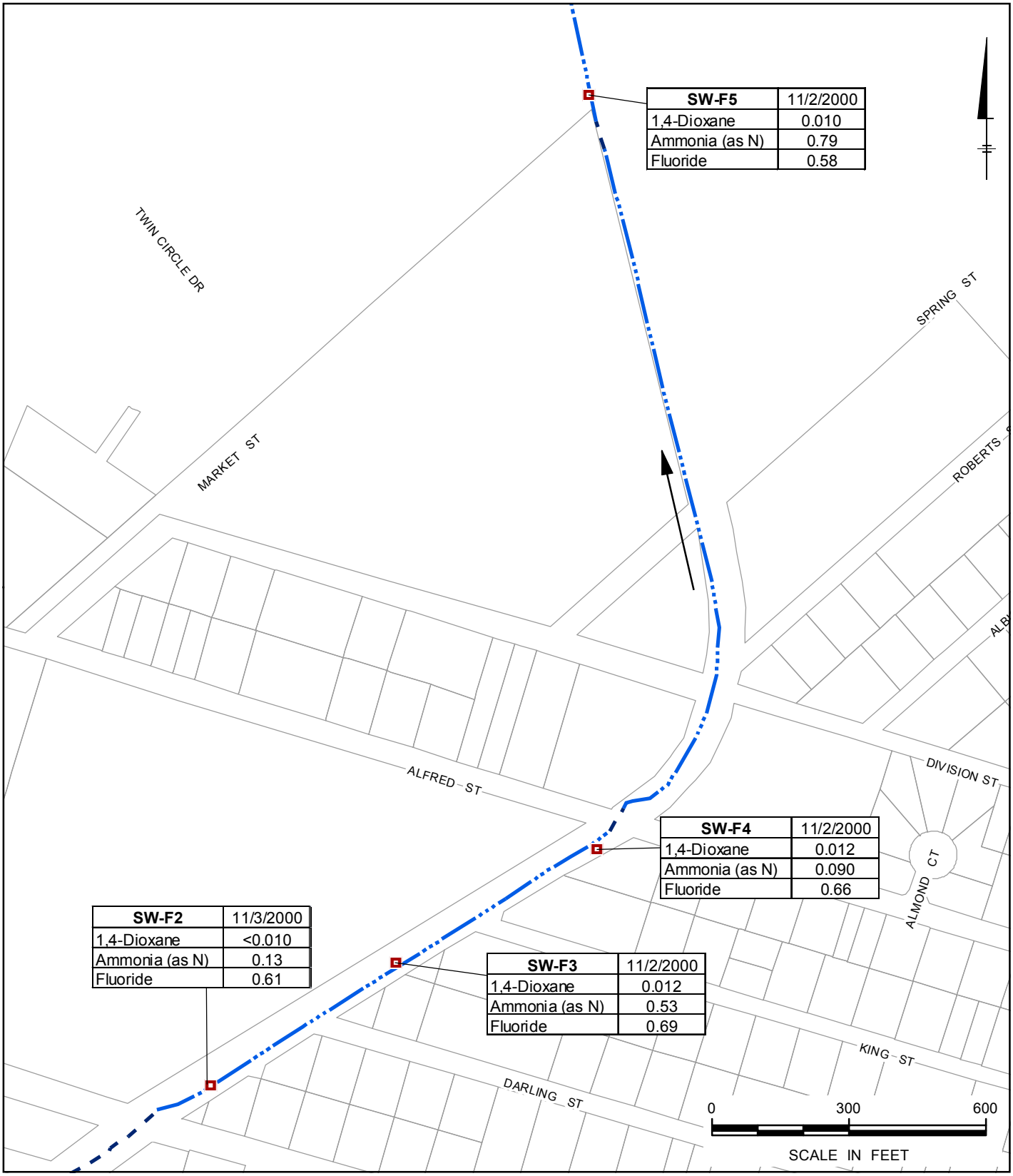
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

# Regulated Substances Detected in Sediment

ARCADIS

FIGURE
**11**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV REM PLAN\F11 GA60_VRP SED 201107.mxd Date Saved: 4/9/2012 2:43:02 PM




PARCELS SOURCE: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

**LEGEND**

- Surface Water Sample
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

NOTE: Results are reported in milligram per liter (mg/L).

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

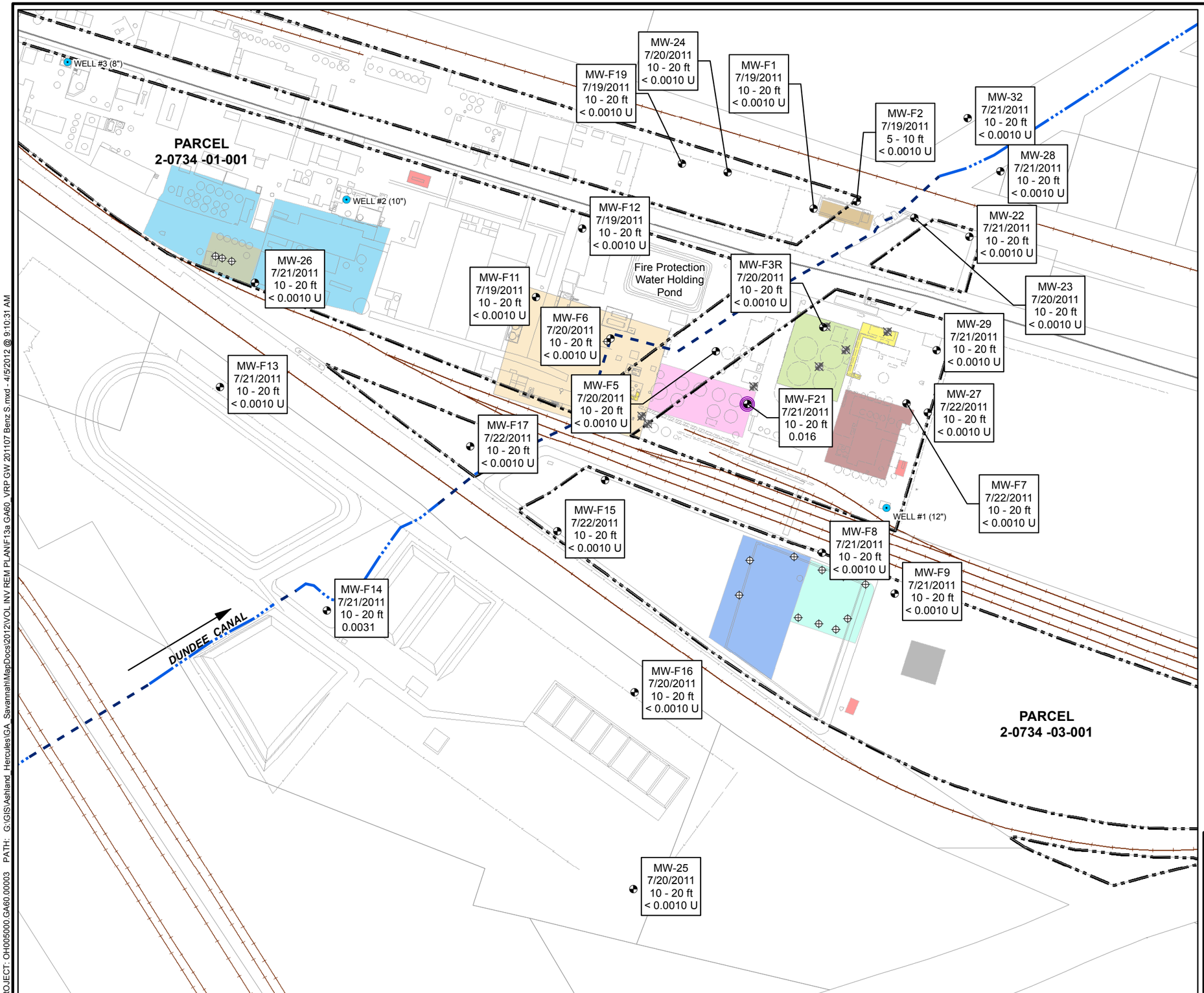
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Regulated Substances Detected in Surface Water**

ARCADIS

FIGURE
**12**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_Savannah\MapDocs\2012\VOL INV REM PLAN\F12 GA60_VRP SW 200011.mxd Date Saved: 4/9/2012 2:37:15 PM




**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (abandoned)
- Temporary Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.005 mg/L)

NOTES:
1) Analytical results represent data from July 19-22, 2011, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in milligrams per liter (mg/L).

U - Indicates the analyte was analyzed for but not detected.

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

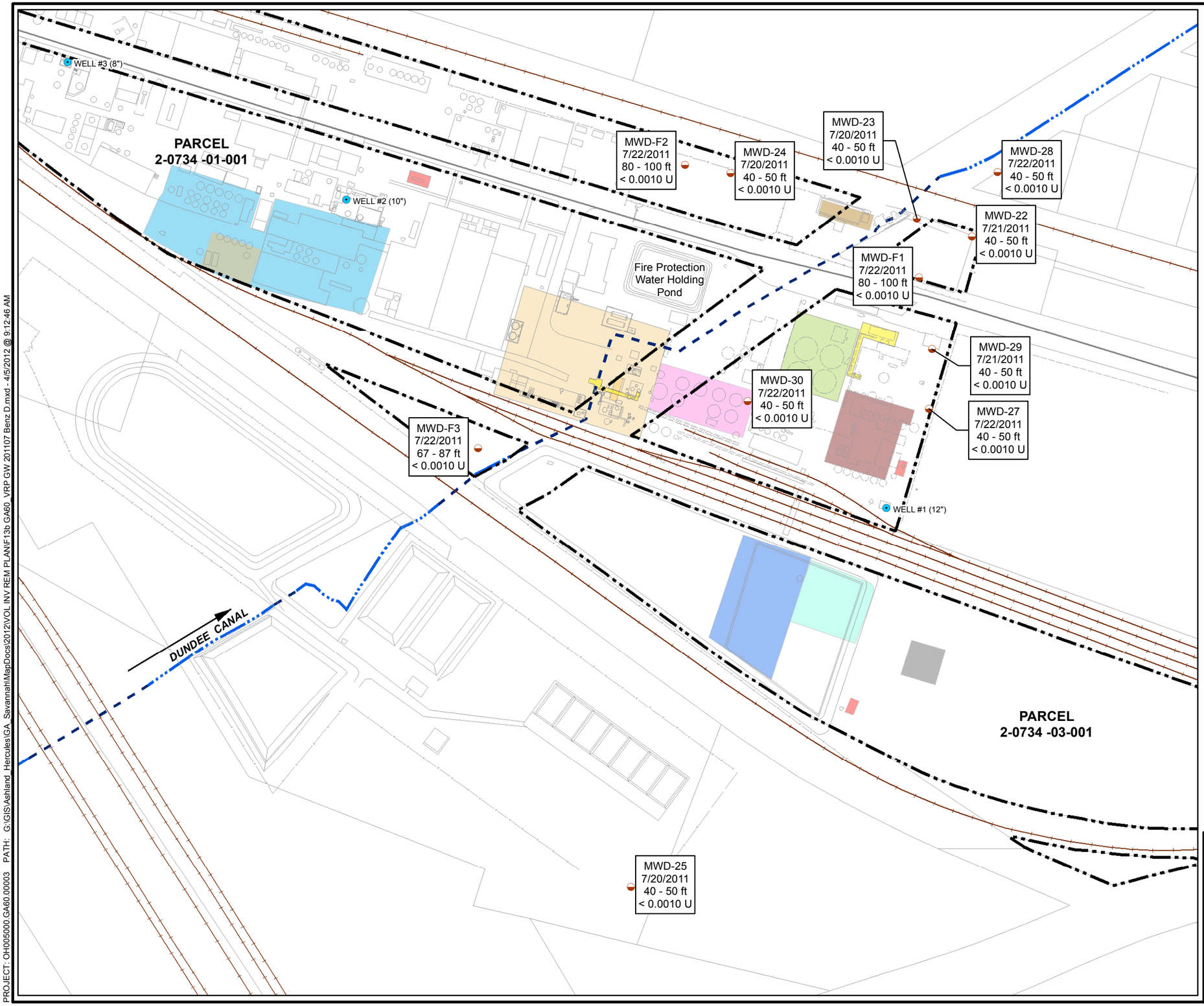
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Benzene Delineation in Groundwater (Shallow Aquifer), July 2011**

ARCADIS

FIGURE
**13a**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_Savannah\MapDocs\2012\VOL INV REM PLAN\F13a GA60_VRP GW 201107 Benz S.mxd - 4/5/2012 @ 9:10:31 AM




CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL_INV REM PLAN\F13b GA60_VRP GW 201107 Benz D.mxd - 4/5/2012 @ 9:12:46 AM

**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (deep)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

NOTES:
1) Analytical results represent data from July 19-22, 2011, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in milligrams per liter (mg/L).
5) No samples exceeded Type 1 RRS (0.005 mg/L) during this sampling event.

U - Indicates the analyte was analyzed for but not detected.

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

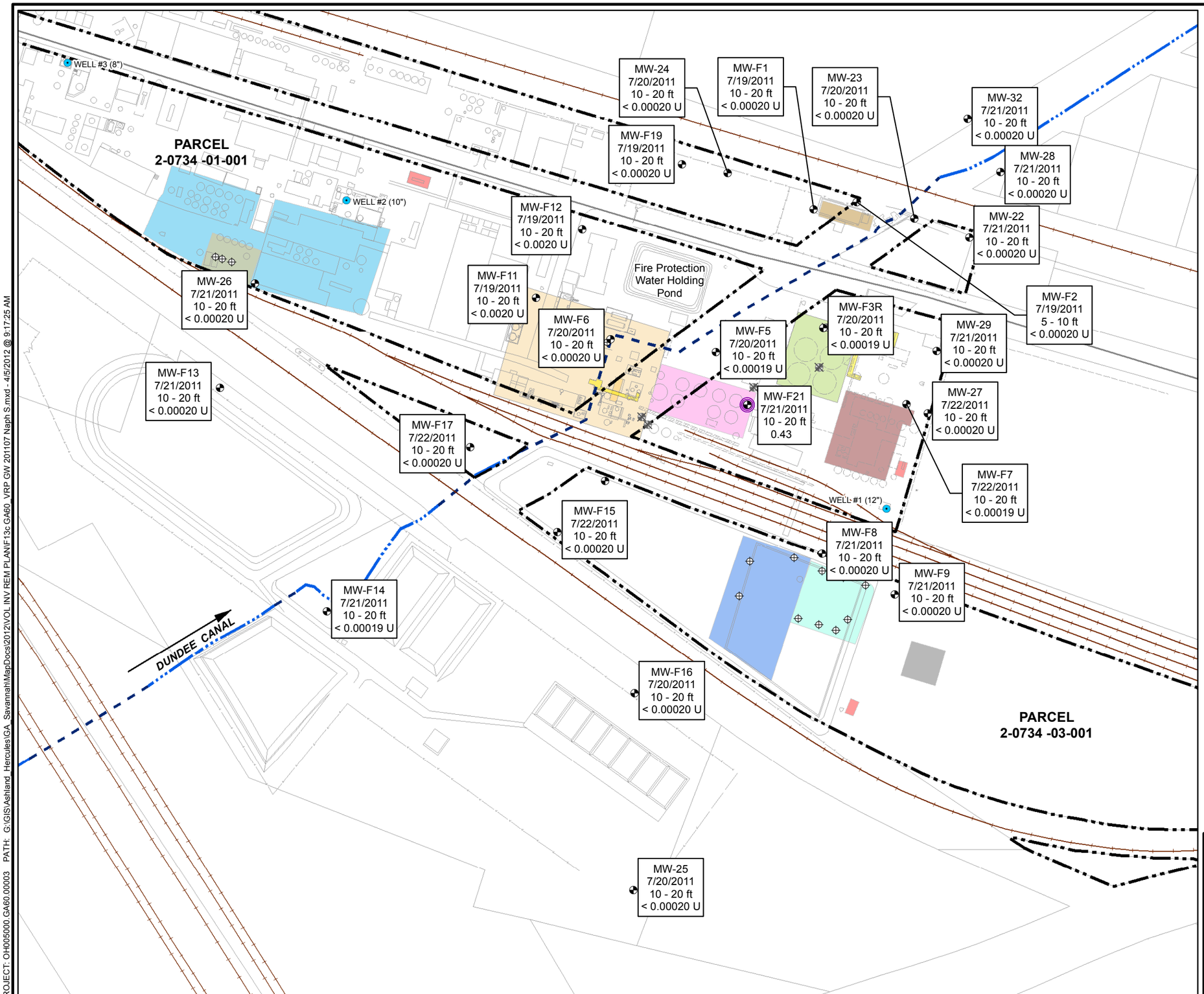
HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

# Benzene Delineation in Groundwater (Deep Aquifer), July 2011

ARCADIS

FIGURE
**13b**




**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (abandoned)
- Temporary Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.02 mg/L)

NOTES:
1) Analytical results represent data from July 19-22, 2011, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in milligrams per liter (mg/L).

U - Indicates the analyte was analyzed for but not detected.

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

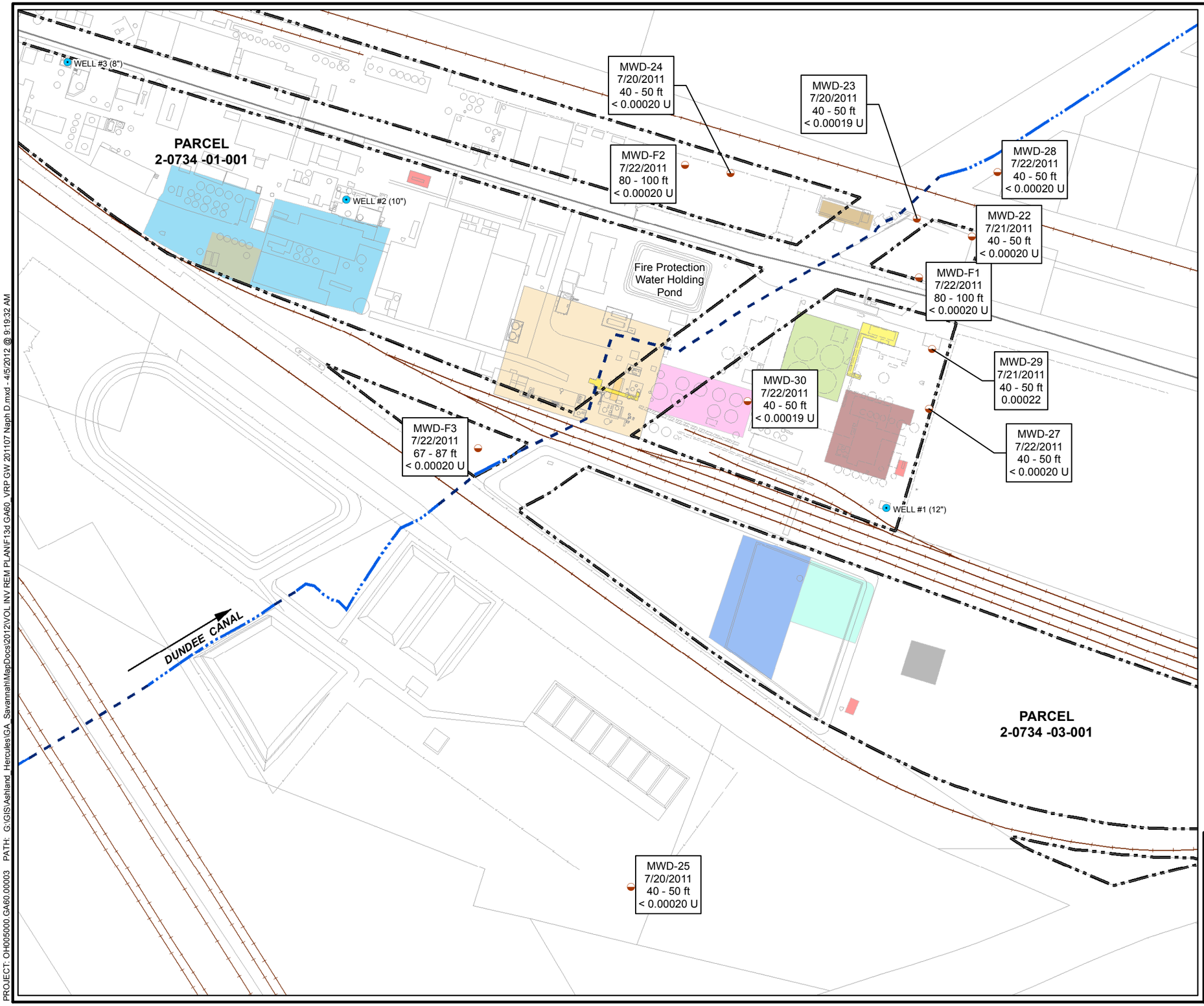
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Naphthalene Delineation in Groundwater (Shallow Aquifer), July 2011**

ARCADIS

FIGURE
**13c**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_Savannah\MapDocs\2012\VOL INV REM PLAN\F13c GA60_VRP GW 201107 Naph S.mxd - 4/5/2012 @ 9:17:25 AM




CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV.REM PLAN\F13d GA60_VRP GW 201107 Naph D.mxd - 4/5/2012 @ 9:19:32 AM

**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (deep)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

NOTES:
1) Analytical results represent data from July 19-22, 2011, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in milligrams per liter (mg/L).
5) No samples exceeded Type 1 RRS (0.02 mg/L) during this sampling event.

U - Indicates the analyte was analyzed for but not detected.

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

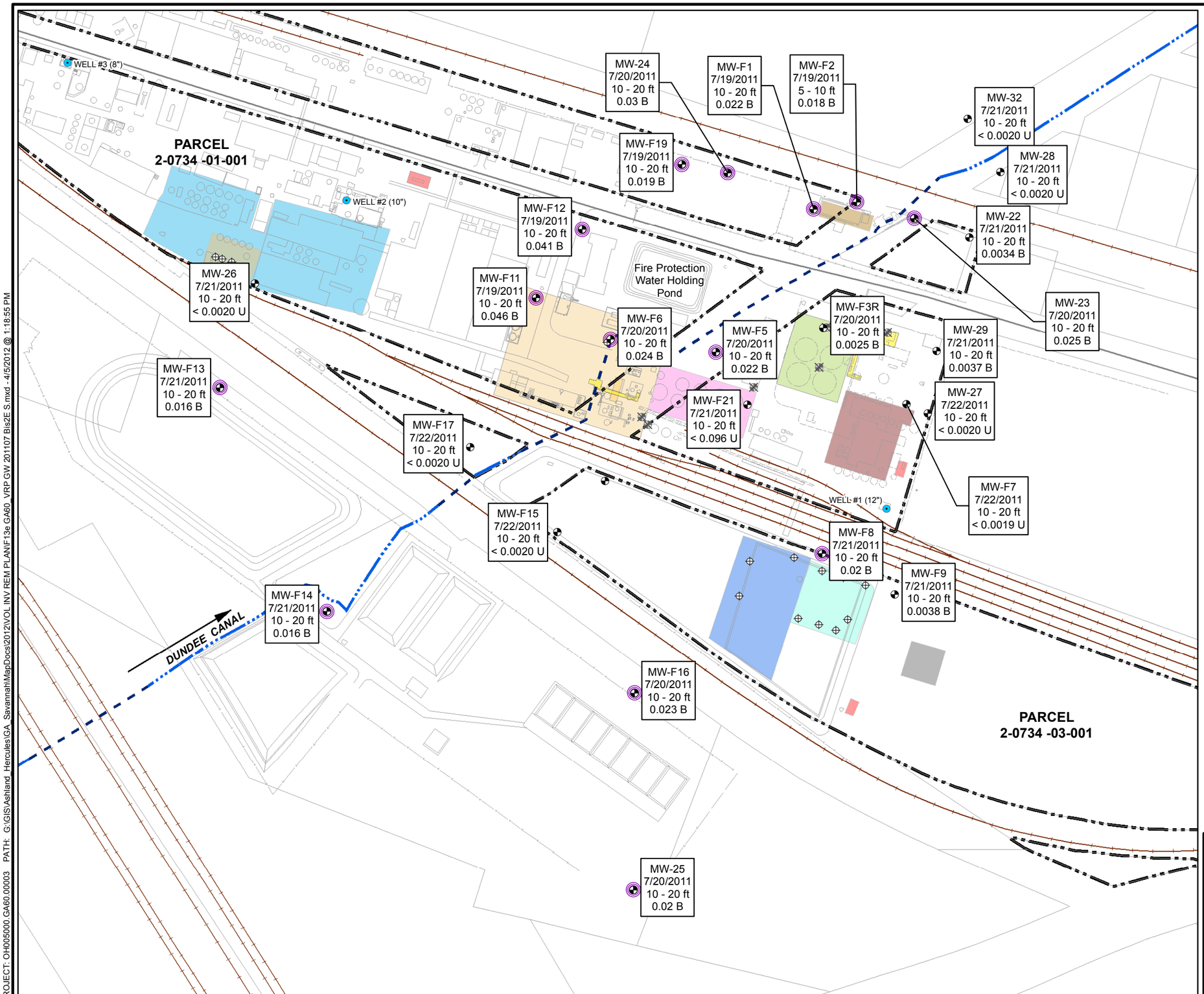
HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

# Naphthalene Delineation in Groundwater (Deep Aquifer), July 2011

ARCADIS

FIGURE
**13d**




**LEGEND**

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (abandoned)
- Temporary Monitoring Well (shallow)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.006 mg/L)

NOTES:
1) Analytical results represent data from July 19-22, 2011, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in milligrams per liter (mg/L).

U - Indicates the analyte was analyzed for but not detected.
B - Indicates this compound was also detected in the laboratory method blank.

0 160 320
SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

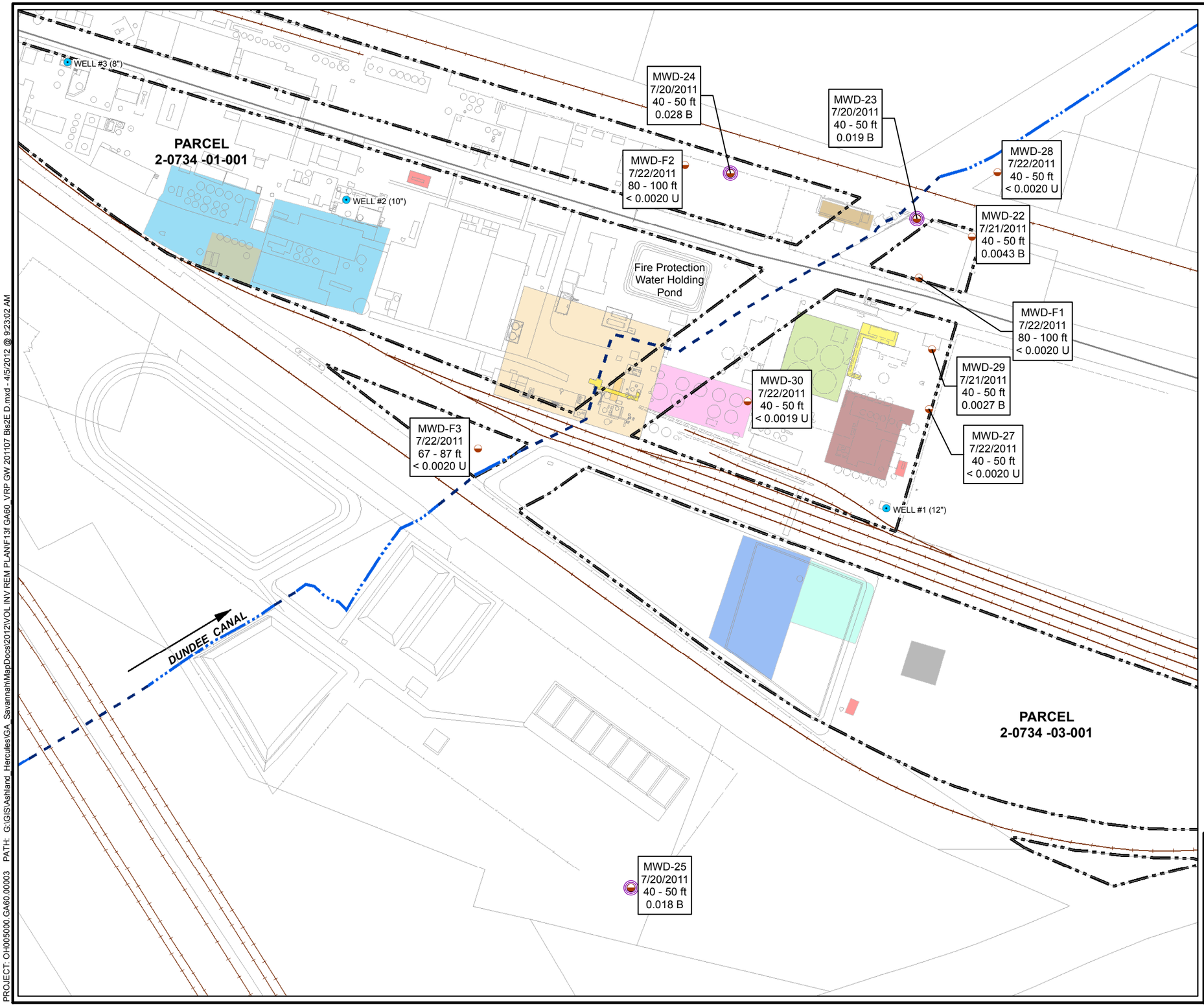
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

# bis(2-Ethylhexyl)phthalate Delineation in Groundwater (Shallow Aquifer), July 2011

ARCADIS

FIGURE
**13e**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_Savannah\MapDocs\2012\VOL INV REM PLAN\F13e GA60_VRP GW 201107 Bis2E S.mxd - 4/5/2012 @ 1:18:55 PM




## LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (deep)
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.006 mg/L)

NOTES:
1) Analytical results represent data from July 19-22, 2011, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in milligrams per liter (mg/L).

U - Indicates the analyte was analyzed for but not detected.
B - Indicates this compound was also detected in the laboratory method blank.

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**bis(2-Ethylhexyl)phthalate Delineation in Groundwater (Deep Aquifer), July 2011**

ARCADIS

FIGURE
**13f**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs2012\VOL INV REM PLAN\F13f GA60_VRP GW 201107 Bis2E D.mxd - 4/5/2012 @ 9:23:02 AM

DS-15
11/10/2008
(0 - 2 ft) < 0.086 U
(2 - 4 ft) < 0.11 U

DS-14
11/10/2008
(0 - 2 ft) < 0.096 U
(2 - 4 ft) < 0.11 U

DS-11
11/7/2008
(0 - 2 ft) < 0.096 U
(2 - 4 ft) < 0.11 U

DS-17
11/10/2008
(0 - 2 ft) < 0.09 U
(2 - 4 ft) < 0.1 U

DS-12
11/7/2008
(0 - 2 ft) < 0.1 U
(2 - 4 ft) < 0.1 U

DS-18
11/10/2008
(0 - 2 ft) < 0.1 U
(2 - 4 ft) < 0.099 U

DS-9
11/7/2008
(0 - 2 ft) < 0.11 U
(2 - 4 ft) < 0.091 U

DS-8
11/7/2008
(0 - 2 ft)
< 0.084 U

PARCEL
2-0734 -01-001

DS-6
11/7/2008
(0 - 2 ft) < 0.097 U
(2 - 4 ft) < 0.12 U

SS-93
11/6/2008
(0 - 4 ft)
< 0.092 U

SS-94
11/6/2008
(0 - 2 ft)
< 0.095 U

SB-F1
10/19/2000
(1 - 3 ft)
< 0.12 U

SB-F6
10/19/2000
(1 - 3 ft)
< 0.12 U

EX-23
7/27/2007
(0 - 2 ft)
< 74 U

SS-3
7/2/2004
(0 - 2 ft)
< 0.11 U

GP-18
7/27/2007
(0 - 2 ft)
< 0.14 U

GP-14
7/26/2007
(0 - 2 ft)
< 3.3 U

SB-F4
10/19/2000
(0.5 - 2 ft)
< 0.1 U

EX-21
7/27/2007
(0 - 2 ft)
< 0.13 U

EX-19
7/27/2007
(0 - 2 ft)
< 14 U

DS-3
11/7/2008
(0 - 2 ft) < 3.4 UD
(2 - 4 ft) < 0.1 U

SB-F14
10/19/2000
(1 - 3 ft)
< 0.12 U

EX-22
7/27/2007
(0 - 2 ft)
< 23 U

GP-15
7/26/2007
(0 - 2 ft)
< 3.4 U

DS-16
11/10/2008
(0 - 2 ft) < 0.096 U
(2 - 4 ft) < 0.098 U

Hard Resins
6/5/2000
(1 - 3 ft) < 0.11 U
(4 - 6 ft) < 0.13 U

Fire Protection
Water Holding
Pond

DS-2
11/7/2008
(0 - 2 ft) < 0.1 U
(2 - 4 ft) < 0.12 U

GP-10
7/26/2007
(0 - 2 ft)
< 4.8 U

EX-26
7/27/2007
(0 - 2 ft)
< 4.8 U

DS-13
11/10/2008
(0 - 2 ft) < 0.083 U
(2 - 4 ft) < 0.1 U

SS-2
7/2/2004
(0 - 2 ft)
< 0.11 U

SS-4
7/2/2004
(0 - 2 ft)
< 0.12 U

GP-8
7/26/2007
(0 - 2 ft)
< 6.8 U

GP-16
7/27/2007
(0 - 2 ft)
< 13 U

DS-10
11/7/2008
(0 - 2 ft) < 0.082 U
(2 - 4 ft) < 0.099 U

SS-1
7/2/2004
(0 - 2 ft)
< 0.12 U

SB-F15
10/18/2000
(0 - 3 ft)
< 0.11 U

DS-7
11/7/2008
(0 - 2 ft) < 0.096 U
(2 - 4 ft) < 0.089 U

SB-F3
10/24/2000
(0 - 2 ft)
< 4.9 U

GP-6
7/26/2007
(0 - 2 ft)
< 4.4 U

GP-11
7/26/2007
(0 - 2 ft)
< 4 U

DS-1
11/7/2008
(0 - 2 ft) < 0.099 U
(2 - 4 ft) < 0.099 U

DS-5
11/7/2008
(0 - 2 ft) < 0.11 U
(2 - 4 ft) < 0.11 U

SB-F27
10/19/2000
(1 - 3 ft)
< 0.11 U

GP-13
7/26/2007
(0 - 2 ft)
< 5.1 U

Confirmation_Sample
12/1/2000
(0 - 3 ft) 0.11
(3 - 6 ft) 0.13

SB-F12
10/20/2000
(1 - 3 ft)
< 0.11 U

DS-4
11/7/2008
(0 - 2 ft) < 0.086 U
(2 - 4 ft) < 0.081 U

GP-5
7/26/2007
(0 - 2 ft)
< 4.9 U

GP-2
7/26/2007
(0 - 2 ft)
< 5.9 U

GP-7
7/26/2007
(0 - 2 ft)
< 4.9 U

SB-F19
10/17/2000
(0 - 3 ft)
< 0.1 U

DUNDEE CANAL

PARCEL
2-0734 -03-001

## LEGEND

- HSI 10696 Site Boundary
- Soil Sample (1998-2008)
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.10 mg/kg)
- Laboratory Reporting Limit above Type 1 RRS (0.10 mg/kg)

NOTES:
1) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
2) All concentrations reported in milligrams per kilogram (mg/kg).
3) Location of EX-27 is unknown.

D - Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution.
U - Indicates the analyte was analyzed for but not detected.

0 160 320
SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Acrolein Delineation in Soil**

ARCADIS

FIGURE
**14a**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland Hercules\GA Savannah\MapDocs\2012\VOL INV REM PLAN\F14a GA60 VRP SOIL Acrolein.mxd - 4/5/2012 @ 3:46:30 PM

DS-12
11/7/2008
(0 - 2 ft) < 0.81 U
(2 - 4 ft) < 0.77 U

DS-8
11/7/2008
(0 - 2 ft) < 7.4 UD

DS-11
11/7/2008
(0 - 2 ft) < 0.78 U
(2 - 4 ft) < 0.78 U

DS-9
11/7/2008
(0 - 2 ft) < 0.9 U
(2 - 4 ft) < 1.6 UD

DS-15
11/10/2008
(0 - 2 ft) < 7.8 UD
(2 - 4 ft) < 3.9 UD

DS-5
11/7/2008
(0 - 2 ft) < 0.74 U
(2 - 4 ft) < 3.7 UD

DS-17
11/10/2008
(0 - 2 ft) < 4 UD
(2 - 4 ft) < 7.7 UD

PARCEL
2-0734 -01-001

DS-6
11/7/2008
(0 - 2 ft) < 7.8 UD
(2 - 4 ft) < 8.1 UD

DS-18
11/10/2008
(0 - 2 ft) < 3.9 UD
(2 - 4 ft) < 3.9 UD

DS-16
11/10/2008
(2 - 4 ft) < 7.9 UD
(0 - 2 ft) < 7.3 UD

DS-3
11/7/2008
(0 - 2 ft) < 7.7 UD
(2 - 4 ft) < 7.7 UD

DS-14
11/10/2008
(0 - 2 ft) < 7.8 UD
(2 - 4 ft) < 8.1 UD

DS-2
11/7/2008
(0 - 2 ft) < 0.73 U
(2 - 4 ft) < 0.76 U

DS-13
11/10/2008
(0 - 2 ft) < 7.4 UD
(2 - 4 ft) < 7.6 UD

SS-4
7/2/2004
(0 - 2 ft)
< 0.4 U

DS-10
11/7/2008
(0 - 2 ft) < 0.7 U
(2 - 4 ft) < 0.76 U

SS-61
12/17/2002
(1 - 2 ft)
< 0.38 U

DS-7
11/7/2008
(0 - 2 ft) < 0.73 U
(2 - 4 ft) < 0.75 U

SB-F3RE
12/19/2002
(0 - 2 ft)
< 0.39 U

DS-4
11/7/2008
(0 - 2 ft) < 0.72 U
(2 - 4 ft) < 0.72 U

SS-1
7/2/2004
(0 - 2 ft)
< 0.39 U

DS-1
11/7/2008
(0 - 2 ft) < 0.69 U
(2 - 4 ft) < 0.7 U

DUNDEE CANAL

SB-F3
10/24/2000
(0 - 2 ft)
3.3

SS-62
12/19/2002
(1 - 2 ft)
< 0.39 U

SB-F12
10/20/2000
(1 - 3 ft)
< 0.36 U

SS-56
12/19/2002
(1 - 2 ft)
< 0.36 U

SS-58
12/19/2002
(1 - 2 ft)
< 0.38 U

SB-F14
10/19/2000
(1 - 3 ft)
< 0.39 U

SB-F3A
11/8/2002
(0 - 1 ft)
< 0.39 U

SS-63
12/19/2002
(1 - 2 ft)
< 0.38 U

SS-60
12/19/2002
(1 - 2 ft)
< 0.42 U

SS-2
7/2/2004
(0 - 2 ft)
< 0.38 U

Fire Protection
Water Holding
Pond

SS-31
11/8/2002
(0 - 2 ft)
< 0.44 U

SS-3
7/2/2004
(0 - 2 ft)
< 0.37 U

SS-53
12/19/2002
(1 - 2 ft)
< 0.36 U

SS-32
11/8/2002
(0 - 2 ft)
< 0.41 U

SS-54
12/19/2002
(1 - 2 ft)
< 0.38 U

SS-55
12/17/2002
(1 - 2 ft)
< 0.38 U

SS-59
12/19/2002
(1 - 2 ft)
< 0.44 U

SS-57
12/19/2002
(1 - 2 ft)
< 0.39 U

SS-52
12/17/2002
(1 - 2 ft)
< 0.39 U

GP-8
7/26/2007
(0 - 2 ft)
< 980 U

GP-2
7/26/2007
(0 - 2 ft)
< 0.78 U

SS-46
12/17/2002
(1 - 2 ft)
< 0.37 U

SS-47
12/17/2002
(1 - 2 ft)
< 0.38 U

SS-48
12/17/2002
(1 - 2 ft)
< 0.38 U

SS-45
12/17/2002
(1 - 2 ft)
< 0.37 U

SS-33
11/8/2002
(0 - 2 ft)
< 0.4 U

SS-34
11/8/2002
(0 - 2 ft)
< 0.4 U

SS-43
12/17/2002
(1 - 2 ft)
< 0.38 U

SB-F1
10/19/2000
(1 - 3 ft)
< 0.37 U

GP-18
7/27/2007
(0 - 2 ft)
< 0.76 U

SB-F6
10/19/2000
(1 - 3 ft)
< 0.38 U

GP-14
7/26/2007
(0 - 2 ft)
< 0.78 U

EX-23
7/27/2007
(0 - 2 ft)
< 0.73 U

SS-30
11/8/2002
(0 - 2 ft)
< 0.43 U

SB-F4
10/19/2000
(0.5 - 2 ft)
< 0.38 U

EX-21
7/27/2007
(0 - 2 ft)
< 7.6 U

EX-19
7/27/2007
(0 - 2 ft)
< 420 U

GP-15
7/26/2007
(0 - 2 ft)
< 0.77 U

EX-22
7/27/2007
(0 - 2 ft)
< 1.5 U

EX-26
7/27/2007
(0 - 2 ft)
< 32 U

SS-51
12/17/2002
(1 - 2 ft)
< 0.38 U

SS-35
11/8/2002
(0 - 2 ft)
< 0.42 U

GP-13
7/26/2007
(0 - 2 ft)
< 3.9 U

GP-10
7/26/2007
(0 - 2 ft)
< 4 U

GP-16
7/27/2007
(0 - 2 ft)
< 3.7 U

SB-F15
10/18/2000
(0 - 3 ft)
< 0.37 U

SS-50
12/17/2002
(1 - 2 ft)
< 0.42 U

GP-11
7/26/2007
(0 - 2 ft)
< 0.75 U

SB-F27
10/19/2000
(1 - 3 ft)
< 0.38 U

GP-7
7/26/2007
(0 - 2 ft)
< 0.78 U

GP-5
7/26/2007
(0 - 2 ft)
< 0.76 U

SB-F19
10/17/2000
(0 - 3 ft)
< 0.39 U

SS-44
12/17/2002
(1 - 2 ft)
< 0.38 U

GP-6
7/26/2007
(0 - 2 ft)
< 16 U

PARCE
2-0734 -03-

SS-49
12/17/2002
(1 - 2 ft)
< 0.4 U

## LEGEND

- HSI 10696 Site Boundary
- Soil Sample (1998-2008)
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.66 mg/kg)
- Laboratory Reporting Limit above Type 1 RRS (0.66 mg/kg)

NOTES:
1) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
2) All concentrations reported in milligrams per kilogram (mg/kg).
3) Location of EX-27 is unknown.

D - Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution.
U - Indicates the analyte was analyzed for but not detected.

0 160 320
SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

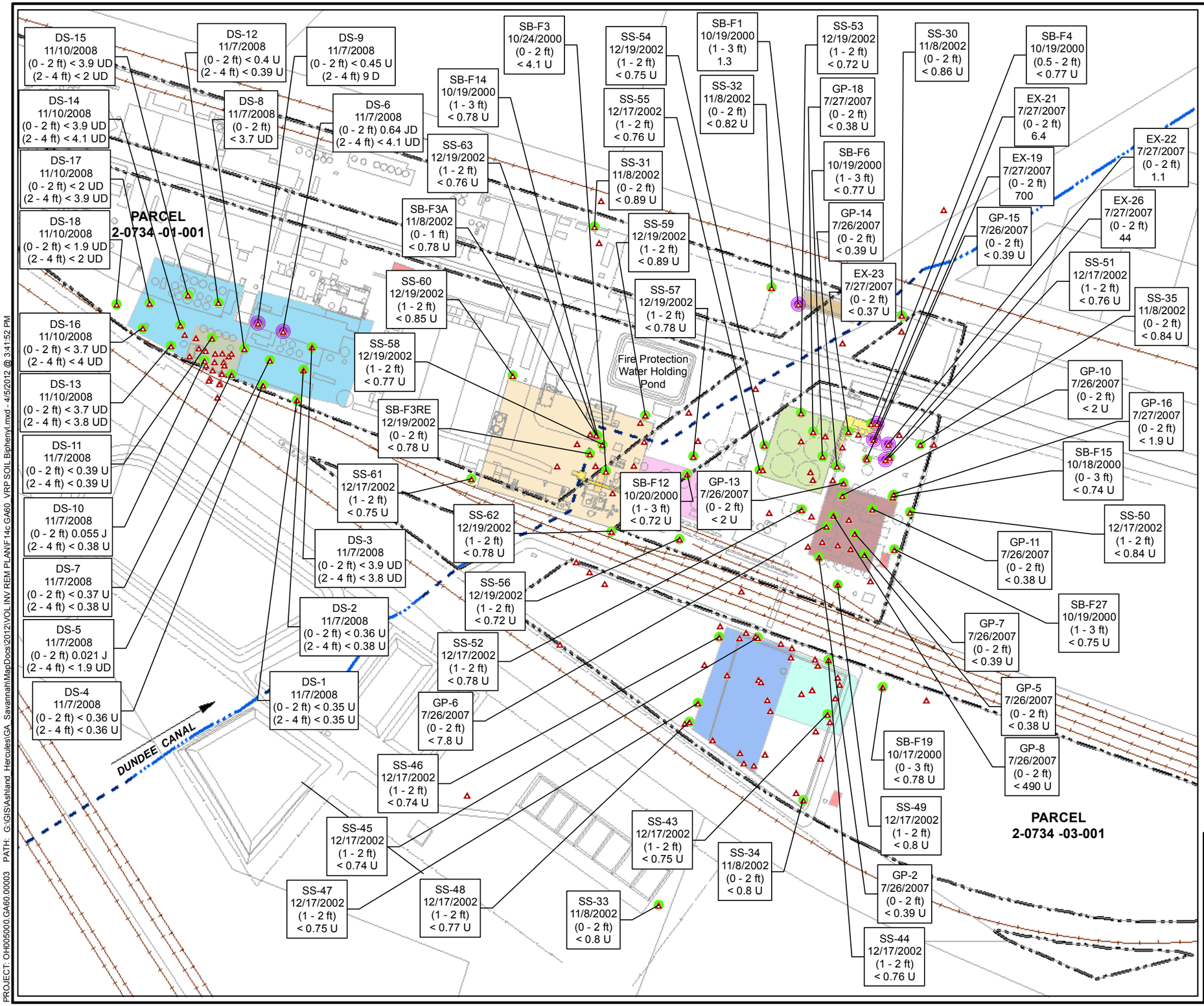
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Aniline Delineation in Soil**

ARCADIS

FIGURE
**14b**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland Hercules\GA SavannahMapDocs\2012\VOL INV REM PLAN\F14b GA60_VRP SOIL Aniline.mxd - 4/5/2012 @ 3:40:58 PM




**LEGEND**

- HSI 10696 Site Boundary
- Soil Sample (1998-2008)
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction
- Result above Type 1 RRS (0.33 mg/kg)
- Laboratory Reporting Limit above Type 1 RRS (0.33 mg/kg)

NOTES:
1) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
2) All concentrations reported in milligrams per kilogram (mg/kg).
3) Location of EX-27 is unknown.

D - Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution.
J - Result is less than the reporting limit but greater than or equal to the detection limit and the concentration is an approximate value.
U - Indicates the analyte was analyzed for but not detected.

0 160 320
SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

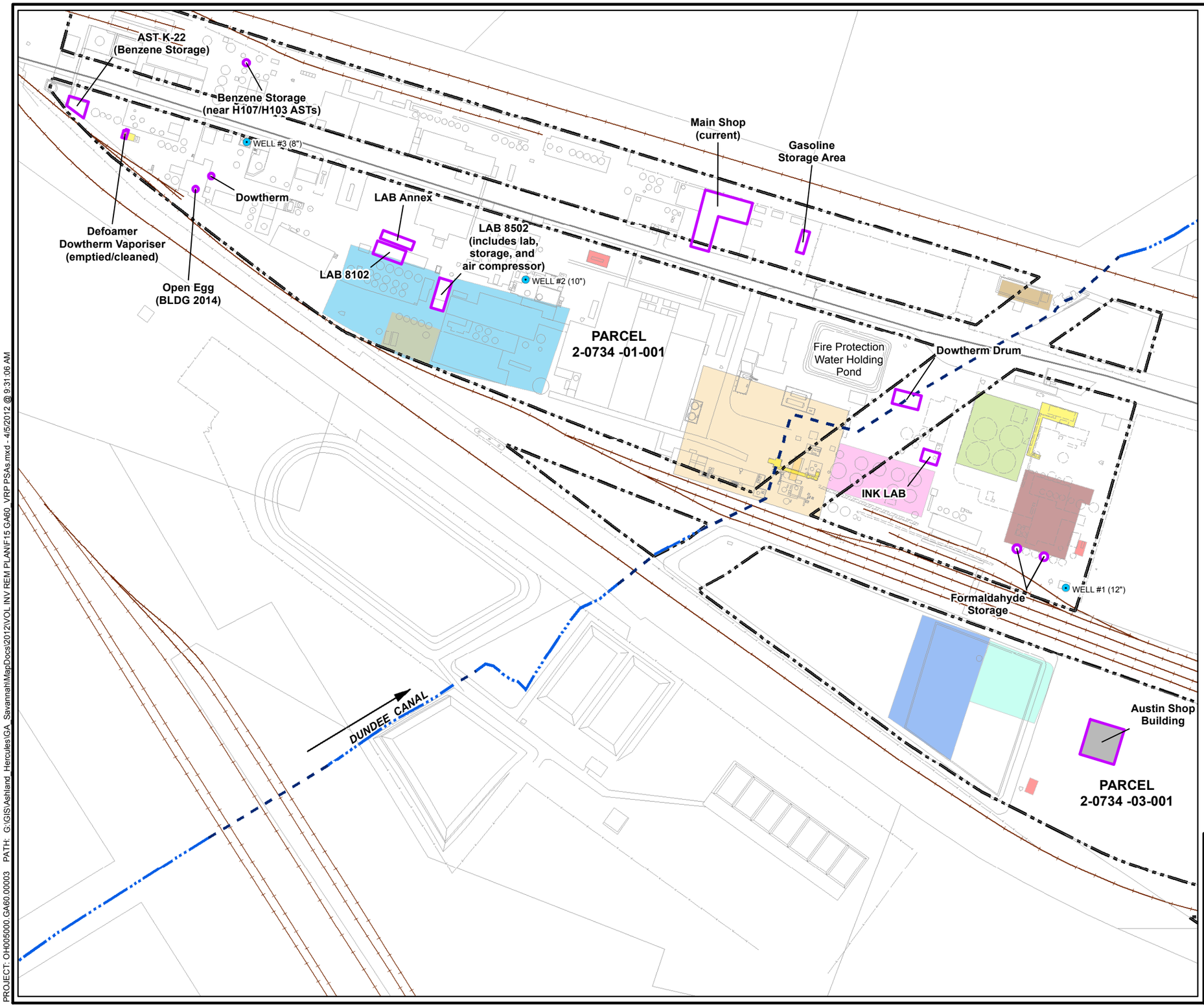
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**1,1-Biphenyl Delineation in Soil**

ARCADIS

FIGURE
**14c**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland Hercules\GA Savannah\MapDocs\2012\VOL INV\REM PLAN\F14c GA60 VRP SOIL Biphenyl.mxd - 4/5/2012 @ 3:41:52 PM




LEGEND

- HSI 10696 Site Boundary
- Production Well
- Contractor Yard
- Former CTO ASTs 60's
- ASTs 30's
- Former Fatty Acid ASTs 50's
- Hard Resins Area
- Primary Oil/Water Separator
- Former Tall Oil Plant
- Former CTO Tank Area (Tall Oil Release)
- Dowtherm Release
- Former Dowtherm Unit
- Electrical Substation
- Former Dry Size Area
- Former Size Tank Area
- Additional Potential Source Area*
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

NOTE:
* Additional potential source area identified by EPD in letter dated December 8, 2011

0 160 320

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

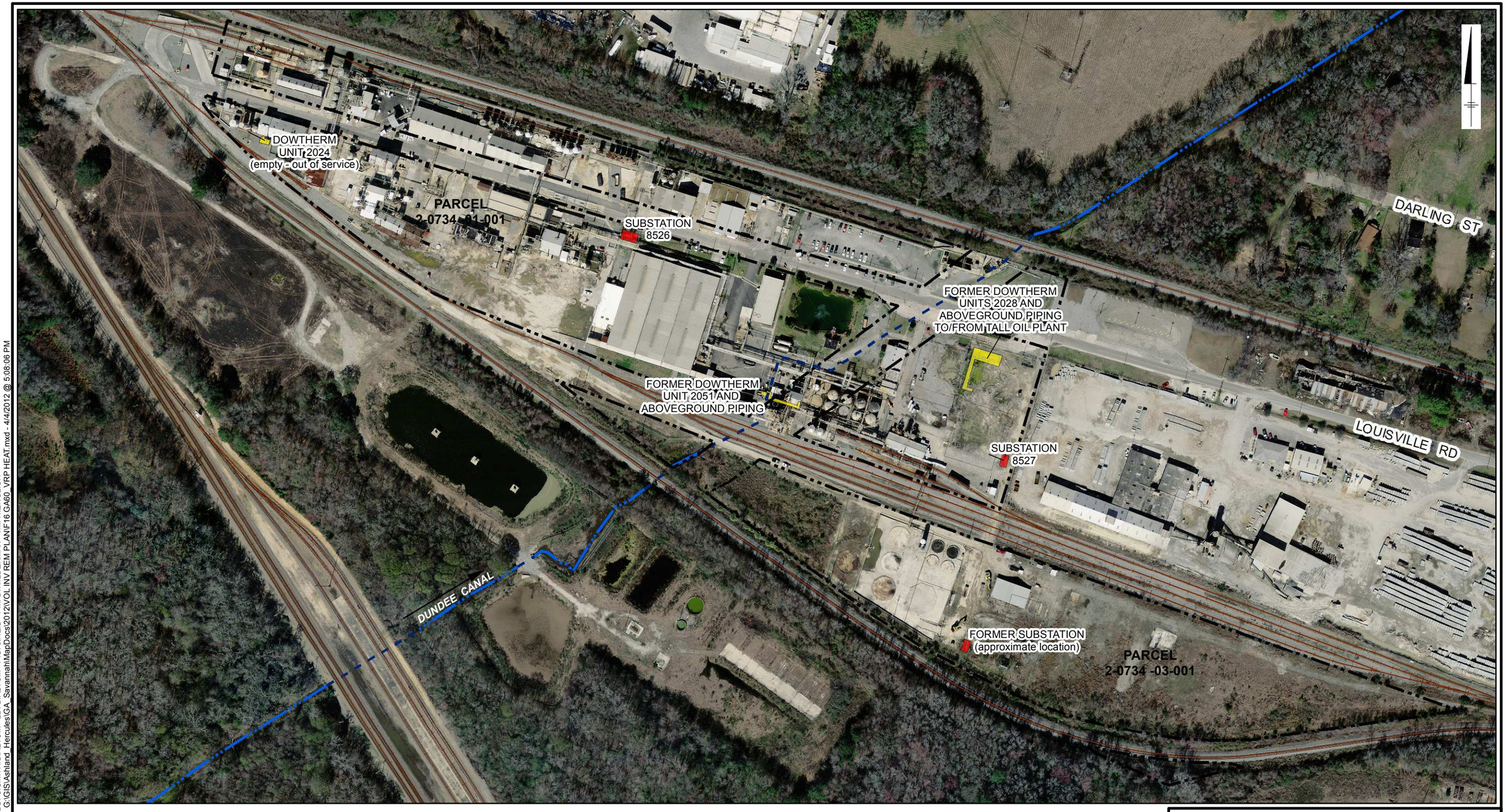
**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Additional Potential Source Areas**

ARCADIS

FIGURE
**15**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland_Hercules\GA_SavannahMapDocs\2012\VOL INV REM PLAN\F15 GA60_VRP PSAs.mxd - 4/5/2012 @ 9:31:06 AM




**LEGEND**

- HSI 10696 Site Boundary
- Dowtherm Unit and Aboveground Piping
- Electrical Substation
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 200 400

SCALE IN FEET

BASE REFERENCE: Ashland (baseplot.dwg and toplot.dwg).
PARCELS AND AERIAL SOURCE: SAGIS (2008).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES — SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)

**VOLUNTARY INVESTIGATION AND REMEDIATION PLAN**

**Heat Transfer Oil Use and Electrical Substations**

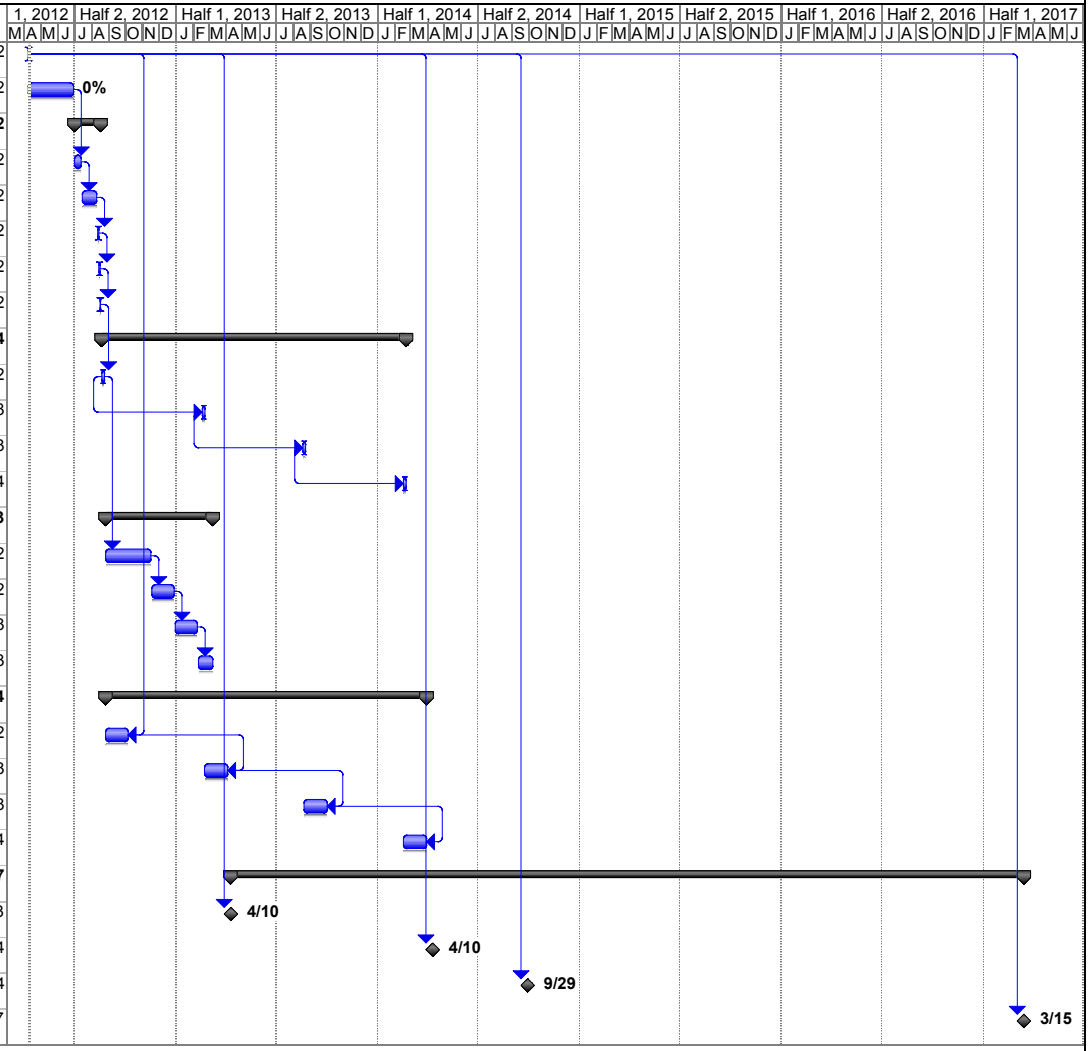
ARCADIS

FIGURE **16**

CITY: KNOXVILLE DIV/GROUP: ENV/GIS DB: C.SMITH/B.ALTOM LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: H.ENGLISH
PROJECT: OH005000.GA60.00003 PATH: G:\GIS\Ashland Hercules\GA Savannah\MapDocs\2012\VOL INV\REM PLAN\F16 GA60_VRP HEAT.mxd - 4/4/2012 @ 5:08:06 PM

Figure 17
Hercules - Savannah Plant
3000 Louisville Road, Savannah, Georgia
Voluntary Remediation Program Milestone Schedule

| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 1 | Submit VRP Application | 1 day | Mon 4/9/12 | Mon 4/9/12 |
| 2 | Prepare Investigation Work Plan | 60 days | Mon 4/9/12 | Fri 6/29/12 |
| 3 | **Field Activities** | **35 days** | **Mon 7/2/12** | **Fri 8/17/12** |
| 4 | Mobilize for data collection | 10 days | Mon 7/2/12 | Fri 7/13/12 |
| 5 | Confirmatory soil sampling | 20 days | Mon 7/16/12 | Fri 8/10/12 |
| 6 | Slug testing | 2 days | Mon 8/13/12 | Tue 8/14/12 |
| 7 | Well gauging | 2 days | Wed 8/15/12 | Thu 8/16/12 |
| 8 | Surface water/ sediment sampling | 1 day | Fri 8/17/12 | Fri 8/17/12 |
| 9 | **Semiannual groundwater sampling** | **395 days** | **Mon 8/20/12** | **Fri 2/21/14** |
| 10 | Semiannual event #1 | 5 days | Mon 8/20/12 | Fri 8/24/12 |
| 11 | Semiannual event #2 | 5 days | Mon 2/18/13 | Fri 2/22/13 |
| 12 | Semiannual event #3 | 5 days | Mon 8/19/13 | Fri 8/23/13 |
| 13 | Semiannual event #4 | 5 days | Mon 2/17/14 | Fri 2/21/14 |
| 14 | **Data analysis** | **140 days** | **Mon 8/27/12** | **Fri 3/8/13** |
| 15 | Delineation assessment | 60 days | Mon 8/27/12 | Fri 11/16/12 |
| 16 | Human health risk assessment | 30 days | Mon 11/19/12 | Fri 12/28/12 |
| 17 | Ecological risk assessment | 30 days | Mon 12/31/12 | Fri 2/8/13 |
| 18 | CSM update | 20 days | Mon 2/11/13 | Fri 3/8/13 |
| 19 | **Reporting** | **415 days** | **Mon 8/27/12** | **Sun 3/30/14** |
| 20 | Semiannual Report #1 | 30 days | Mon 8/27/12 | Sat 10/6/12 |
| 21 | Semiannual Report #2 | 30 days | Fri 2/22/13 | Thu 4/4/13 |
| 22 | Semiannual Report #3 | 30 days | Wed 8/21/13 | Tue 10/1/13 |
| 23 | Semiannual Report #4 | 30 days | Mon 2/17/14 | Sun 3/30/14 |
| 24 | **Required Performance Milestones** | **1026 days** | **Wed 4/10/13** | **Wed 3/15/17** |
| 25 | Horizontal delineation complete (onsite) | 1 day | Wed 4/10/13 | Wed 4/10/13 |
| 26 | Horizontal delineation complete (off-site) | 1 day | Thu 4/10/14 | Thu 4/10/14 |
| 27 | Submit updated CSM | 1 day | Mon 9/29/14 | Mon 9/29/14 |
| 28 | CSR submittal | 1 day | Wed 3/15/17 | Wed 3/15/17 |




Project: 2012_04_09_VRP_schedule
Date: Mon 4/9/12

| | | | | | |
|---|---|---|---|---|---|
| Task | | Milestone | | External Tasks | |
| Split | | Summary | | External Milestone | |
| Progress | | Project Summary | | Deadline | |

# Appendix A

Warranty Deed Information

Lawyers Title Insurance Corporation
A LANDAMERICA COMPANY

Schedule A – Exhibit A – Parcel 2

Parcel 2:

All that certain tract or parcel of land of triangular shape, situate, lying and being in the Eighth G. M. District of Chatham County, Georgia, near Central Junction, described as follows:

Begin at a stone on the south side of the Louisville Road, said stone being 450 feet, more or less, west of Milepost S-3, Savannah District, measured along the center line of the main track of the Central of Georgia Railway Company, and 192 feet, more or less, southwardly at right angles therefrom; thence continuing southwardly at right angles to Louisville road a distance of 115 feet, more or less, to a point 25 feet distant, southwardly at right angles from the old center line of Midland Railway, which is the beginning point of the property herein conveyed and hereafter described; thence in a southeasterly direction parallel to and 25 feet distant southwardly, at right angles from the old center line of Midland Railway, a distance of 290 feet, more or less, to a point on the northerly right of way line of the Savannah and Atlanta Railway Company; thence in a northwesterly direction along the said northerly right of way line a distance of 240 feet, more or less, to an iron monument; thence in a northeasterly direction a distance of 130 feet, more or less, to the point of beginning, containing .35 acres, more or less, and being more fully shown and described on Central of Georgia Railway Company's Plan No. 120-53, dated December 9, 1932, and recorded in Map Book 2, page 228, said records, reference to which is made for all purposes hereof. Said parcel of land being the same land acquired by Central of Georgia Railway Company from W. H. Proctor by deed dated January 31, 1921, and recorded in Deed Book 16-F, page 405, said records, except a small triangular strip in the southwest corner of said land which was conveyed by the Railway Company to the Savannah and Atlanta Railway, together with other property, by deed dated October 22, 1925.

Being the same property which Paper Makers Chemical Corporation granted and conveyed to Hercules Powder Company, by deed dated November 2, 1936, and recorded in Deed Book 31-Y, page 32, said records.

Lawyers Title Insurance Corporation
A LANDAMERICA COMPANY

Schedule A – Exhibit A – Parcel 4

Parcel 4:

All that certain lot, tract or parcel of land situate, lying and being in Chatham County, Georgia, known and described as the Eastern 4 acres of Lot 12, as shown on a map entitled "Map showing a subdivision of J. H. Roberts' Estate at Central Junction, Chatham County, Georgia, made by W. F. Brown, County Engineer of Chatham County, Georgia, dated July 1915"; said lot being bounded as follows: North by the Louisville Road; East by lands formerly of Brinson; South by lands of the Savannah and Atlanta Railway; and West by the western 4 acres of Lot 12, said subdivision of the J. H. Roberts' Estate.

Being the same property which James R. Sheldon (as to a 1/3 interest) granted and conveyed to Hercules Powder Company, by deed dated September 12, 1945, and recorded in Deed Book 41-X, page 197; which James R. Sheldon, as Executor of the Last Will and Testament of Bessie R. Sheldon, deceased (as to a 1/3 interest), granted and conveyed to Hercules Powder Company, by deed dated September 12, 1945, and recorded in Deed Book 41-X, page 214; and which Emma Walthour Morel (as to a 1/3 interest) granted and conveyed to Hercules Powder Company by deed dated August 31, 1945, and recorded in Deed Book 41-Y, page 86, all of said records.

Lawyers Title Insurance Corporation
A LANDAMERICA COMPANY

Schedule A – Exhibit A – Parcel 5

Parcel 5

All those two certain tracts or parcels of land situate, lying and being in Chatham County, Georgia, west of the City of Savannah and more particularly described as follows:

**Parcel 5-A:** Beginning at the intersection of the northerly property line of Savannah & Ogeechee Canal with the northerly right of way of Seaboard Air Line Railroad, which right of way line is parallel to and 50 feet distance from center line of the main line of Seaboard Air Line Railroad, measured at right angles in a northerly direction, and running from said point in a northwesterly direction parallel to and 50 feet distance from center line of Seaboard Air Line Railroad's main track, measured at right angles in a northerly direction a distance of 1,156.92 feet, more or less, to a point; thence running in a southwesterly direction a distance of 22.5 feet, more or less, to a point, said point being 30 feet, measured at right angles from the center line of Seaboard Air Line Railroad's main track in a northerly direction; thence running in a northwesterly direction parallel to and 30 feet distance from center line of Seaboard Air Line Railroad's main tract, measured at right angles in a northerly direction a distance of 522.9 feet, more or less, to a point; thence running in a northeasterly direction a distance of 15.45 feet, more or less, to a point, said point being 50 feet, measured at right angles from the center line of Savannah & Atlanta Railway Company's main track in a southerly direction; thence running in an easterly direction parallel to and 50 feet distance from the center line of Savannah & Atlanta Railway Company's main track measured at right angles in a southerly direction a distance of 2,442.20 feet, more or less, to a point; thence running in a southerly direction a distance of 39.85 feet, more or less, to a point, said point being on the northerly property line of Savannah & Ogeechee Canal; thence running in a westerly direction along the northerly property line of Savannah & Ogeechee Canal a distance of 104 feet, more or less, to a point; thence running in a westerly direction along the northerly property line of Savannah & Ogeechee Canal a distance of 97.7 feet, more or less, to a point; thence running in a northerly direction along the northerly property line of Savannah & Ogeechee Canal a distance of 18 feet, more or less, to a point; thence running in a southwesterly direction along the northerly property line of Savannah & Ogeechee Canal a distance of 683.4 feet, more or less, to the point of beginning.

The above-mentioned parcel contains 10.007 acres, more or less, and is more particularly shown on Savannah & Atlanta Railway Company's Plan A-19-s, dated November 1955, and recorded in Plat Record Book H, page 137, said records.

**Parcel 5-B:** Commencing at the intersection of the southerly right of way line of Louisville Road and the easterly line of Lot No. 6, Weilville Subdivision and running in a westerly direction along the southerly right of way line of Louisville Road a distance of 185.13 feet, more or less, to a point that is the point of beginning; thence running in a westerly direction along the southerly line of Louisville Road a distance of 33.33 feet, more or less, to a point; thence running in a southerly direction 403.75 feet, more or less, to a point, said point being 50 feet, measured at right angles from the center line of Savannah & Atlanta Railway Company's main track in a northerly direction; thence running in an easterly direction parallel to and 50 feet distance from the center line of Savannah & Atlanta Railway Company's main track measured at right angles in a northerly direction a distance of 33.33 feet, more or less, to a point; thence running in a northerly direction 406.15 feet, more or less, to the point of beginning.

Schedule A – Exhibit A – Parcel 5 (continued)

The above mentioned parcel contains 0.31 acres, more or less, and is more particularly shown on Savannah & Atlanta Railway Company's Plan A-19-s, dated November 1955, and recorded in Plat Record Book H, page 137, said records.

All of this Parcel 5 being the same property which Savannah & Atlanta Railway Company granted and conveyed to Hercules Powder Company by deed dated September 29, 1956, and recorded in Deed Book 65-Q, page 441, said records.

Lawyers Title Insurance Corporation
A LandAmerica Company

Schedule A – Exhibit A – Parcel 9

Parcel 9:

All that certain tract or parcel of land situate, lying and being in the 7th and 8th G. M. Districts of Chatham County, Georgia, located at Central Junction and being the northwestern portion of Lot 11 of the Subdivision of the J. H. Roberts Estate. Said portion of lot hereby conveyed containing 6.99 acres and being more particularly described as follows: Commencing at a point on the southeastern side of U. S. Highway 80 where the extension of the center line of Junction Avenue intersects said southeastern right of way line of U. S. Highway 80; running thence North 55°14' East along said southeastern right of way line a distance of 161.8 feet to a railroad iron; running thence South 70°30' East along the property line which divides the Seaboard Coastline Railroad Property from the Subdivision of the J. H. Roberts Estate a distance of 2,543.5 feet to the point of beginning; running thence South 18°00' West a distance of 50 feet to a point; running thence South 70°30' East a distance of 40 feet to a point; running thence North 18°00' East a distance of 469.0 feet to a point; running thence North 53°35' West a distance of 545.2 feet to a pipe; running thence South 17°19' West a distance of 128.6 feet to a stone; running thence North 72°33' West a distance of 419.0 feet to a stone; running thence South 31°30' East a distance of 368.0 feet to a point; running thence South 58°30' West a distance of 75.0 feet to a point; running thence South 31°30' East to the aforesaid property line; running thence South 70°30' East along said property line a distance of 265.0 feet, more or less, to the point of beginning.

Said property is more specifically described as the northwestern part of Lot 11, containing 6.99 acres, according to a survey prepared for Jack Shearouse dated August 11, 1970, by R. L. Screws under the directions of J. D. McLeod, registered surveyor, which plat is recorded in Plat Record Book U, folio 222, said records.

Being the same property which Jack W. Shearouse granted and conveyed to Hercules Incorporated by deed August 24, 1971, and recorded in Deed Book 99-O, page 17, said records.

Lawyers Title Insurance Corporation
A LandAmerica Company

Schedule A – Exhibit A – Parcel 11

Parcel 11:

All of that piece or parcel of land situate, lying and being in the City of Savannah, Chatham County, Georgia, and being more particularly described as follows:

To find the point of beginning, start at the point in the centerline of the main track of the Central of Georgia Railroad Company as it runs between Savannah and Macon, Georgia, opposite Milepost 3; go thence South 76°25'31" East along said centerline a distance of 1024.71 feet; thence South 13°34'29" West a distance of 33 feet to the true point of beginning; thence run South 13°34'29" West a distance of 109.64 feet; thence run North 77°10'00" West along the northerly boundary of Louisville Road, a distance of 238.24 feet; thence continuing North 77°10'39" West along the said northerly boundary of Louisville Road a distance of 880.04 feet; thence run North 76°05'22" West along said northerly boundary of Louisville Road a distance of 1,129.86 feet; thence run North 52°47'37" West a distance of 147.14 feet; thence run North 14°28'53" East a distance of 58.68 feet to a point 33 feet southwardly from, as measured at a right angle to, the centerline of the said main track; thence run South 76°25'31" East along a line which is parallel to and at all points 33 feet southwardly from, as measured at a right angle to the centerline of the said main tract, a distance of 2,381.90 feet, more or less, to the point of beginning: containing 6.412 acres, more or less; and being shown on that certain plat certified by Joseph D. Sims, R.L.S. No. 1923, recorded in Plat Book 4-P, page 189, said records; together with all the improvements thereon, including tracks, ties, ballast and hardware.

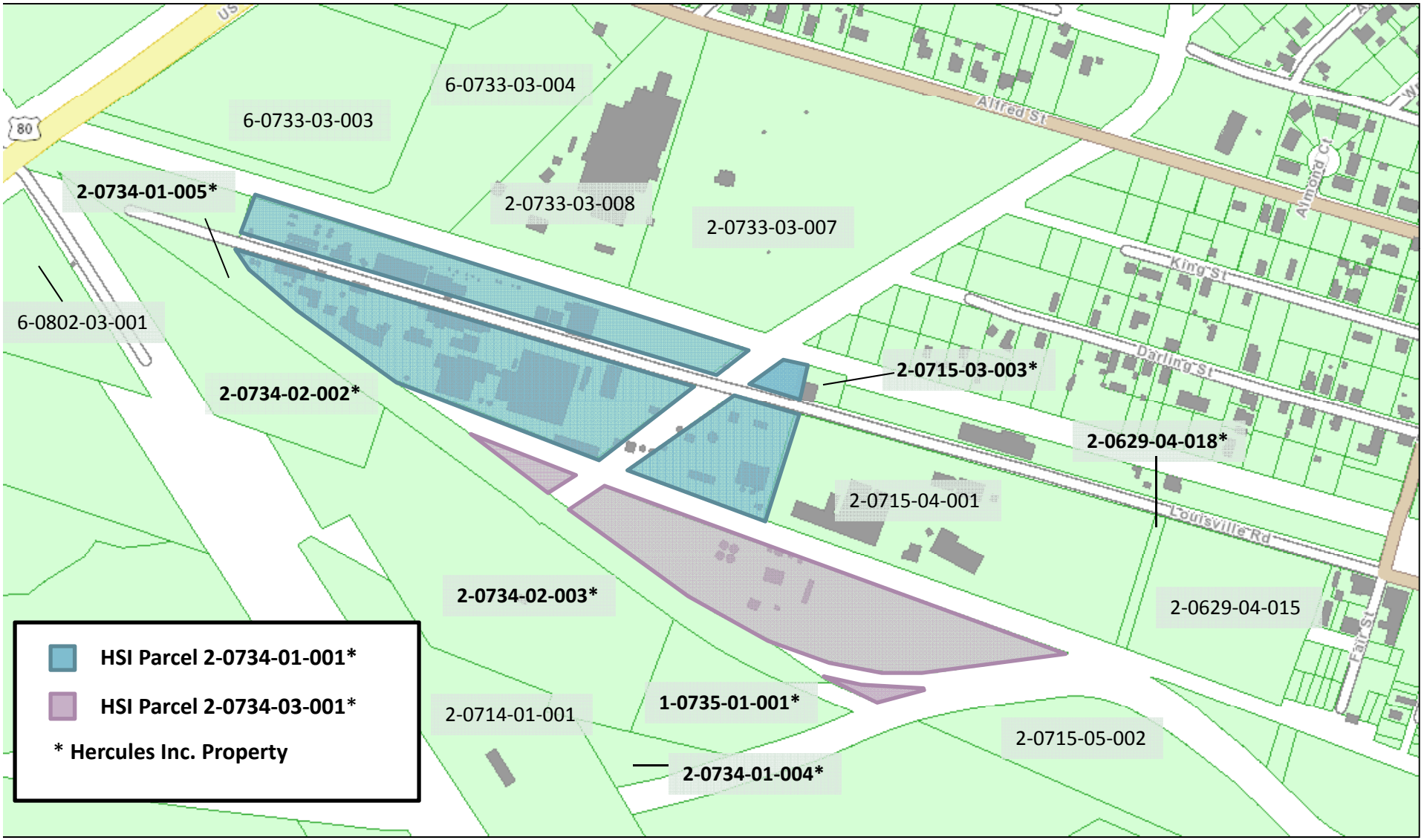
Being the same property which Central of Georgia Railroad Company granted and conveyed to Hercules Incorporated by deed dated February 23, 1983, and recorded in Deed Book 121-C, page 218, said records.

ARCADIS

## Appendix B

Tax Plat Summary

Hercules Inc.
Qualifying Property Boundaries and Abutting Properties
3000 Louisville Road, Savannah, Georgia



# Appendix C

Risk Reduction Standards

**Table C-1**
**Risk Reduction Standard Equations for Exposure to Soil**
**Hazardous Site Response Act (HSRA) Compliance Status Report**
**Hercules - Savannah, Georgia**

**ROUTE-SPECIFIC RRSs:**

**Oral:**

$$(RRS_o)_{C\ or\ NC} = \frac{(TCR\ or\ THI)\ x\ BW\ x\ (AT_C\ or\ AT_{NC})\ x\ (10^6\ mg/kg)}{IRs\ x\ EF\ x\ ED\ x\ [SF_O\ or\ (1/RfD_O)]}$$

**Inhalation:**

$$(RRS_i)_{C\ or\ NC} = \frac{(TCR\ or\ THI)\ x\ (AT_C\ or\ AT_{NC})\ x\ BW}{[(1/VF)\ +\ (1/PEF)]\ x\ EF\ x\ ED\ x\ [SF_I\ or\ (1/RfD_I)]}$$

where:

$$PEF = \frac{LS\ x\ V\ x\ DH}{A}\ x\ \frac{(1000\ g/kg)\ x\ (3{,}600\ sec/hr)}{RPF\ x\ (1\text{-}G)\ x\ (Um/Ut)^3\ x\ F_x}$$

$$VF = \frac{LS\ x\ V\ x\ DH}{A}\ x\ \frac{(3.14\ x\ \alpha\ x\ T)^{1/2}}{2\ x\ Dei\ x\ E\ x\ Kas\ x\ (10^3\ kg/g)}$$

$$\alpha = \frac{Dei\ x\ E}{E\ +\ [ps\ x\ (1\text{-}E)/Kas]}$$

$$Dei = Di\ x\ E^{0.33}$$

$$Kas = H/(RT\ x\ Kd)$$

**Cancer Effects RRS:**

$$RRS_C = \frac{1}{\frac{1}{(RRS_O)_C} + \frac{1}{(RRS_I)_C}}$$

**Non-Cancer Effects RRS:**

$$RRS_{NC} = \frac{1}{\frac{1}{(RRS_O)_{NC}} + \frac{1}{(RRS_I)_{NC}}}$$

RRS = Minimum result of $RRS_C$ and $RRS_{NC}$.

where:

| | |
|---|---|
| α | Alpha; calculation intermediate ($cm^2$/sec). |
| A | Contiguous area of contamination (20,250,000 $cm^2$; USEPA [1991] default). |
| $AT_C$ | Averaging time for cancer effects (25,550 days). |
| $AT_{NC}$ | Averaging time for non-cancer effects (10,950 for adult residents; 2,190 days for child residents; 9,125 days for site workers); ED x 365 days/year. |
| BW | Body weight (70 kg for adult receptors; 15 kg for child resident |
| DH | Diffusion Height (2 m, USEPA [1991] default |
| Dei | Effective diffusivity ($cm^2$/sec). |
| Di | Diffusivity in air ($cm^2$/sec); constituent specific. |
| E | Total soil porosity (0.35 unitless, USEPA default) |
| ED | Exposure duration (30 years for adult resident; 6 years for child resident; 25 years for site worke |
| EF | Exposure frequency (350 days/year for resident receptors; 250 days/year for site worke |
| Foc | Fraction organic carbon in soil (0.02 unitless, USEPA default |
| Fx | Function of Ut/Um (unitless); Fx = 0.18 x [$8x^3$ + 12x] x exp($-x^2$), where x = 0.886 x (Ut/Um). |
| G | Fraction of vegetative cover (unitless) (0 |
| H | Henry's Law Constant (atm-$m^3$/mol); constituent specific. |
| $IR_{air}$ | Inhalation rate (15 $m^3$/day for residents; 20 $m^3$/day for site workers). |
| $IR_{soil}$ | Incidental soil ingestion rate (114 mg/day for adult resident; 200 mg/day for child resident; 50 mg/day for site worker). |

**Table C-1**
**Risk Reduction Standard Equations for Exposure to Soil**
**Hazardous Site Response Act (HSRA) Compliance Status Report**
**Hercules - Savannah, Georgia**

---

| | |
|---|---|
| Kas | Soil-air partition coefficient (g soil/ $cm^3$ air). |
| Kd | Soil-water partition coefficient ($cm^3$/g or mL/g); constituent specific. Kd is calculated as Foc × Koc. |
| Koc | Organic carbon partition coefficient ($cm^3$/g or mL/g); constituent specific. |
| LS | Length of side of contaminated area (45 m, USEPA default |
| PEF | Particulate emission factor (4.63 x $10^9$ $m^3$/kg, USEPA default). |
| ps | True soil or particle density (2.65 g/$cm^3$, USEPA default). |
| RfDi | Reference dose for inhalation (mg/kg/day |
| RfDo | Reference dose for ingestion (mg/kg/day |
| RPF | Respirable particle fraction (0.036 g/$m^2$/hr). |
| RRS | Risk reduction standard for soil (mg/kg); minimum of the $RRS_C$ (based on cancer effects) and the $RRS_{NC}$ (based on non-cancer effects), which are based on the route-specfic RRSs (RRSo for the oral route and RRSi for the inhalation route) |
| RT | Product of the ideal gas constant (8.206 x $10^{-5}$ atm-$m^3$/mol/K) and the absolute temperature (K); RT = 0.02445 atm-$m^3$/mol at 25ºC (298 K). |
| SF | Cancer slope factor or oral ($SF_o$) or inhalation ($SF_i$) exposure (kg-day/mg). |
| T | Exposure interval (7.9 x 108 sec, USEPA default |
| TCR | Target cancer risk (unitless); results presented for TCR value of $10^{-5}$ ($10^{-4}$ for Class C carcinogens). |
| THI | Target hazard index (unitless); results presented for THI value of |
| Um | Wind speed, annual average (3.0 m/sec) |
| Ut | Equivalent threshold value of windspeed at 10 meters (12.8 m/sec |
| V | Wind speed in the mixing zone (2.25 m/sec, USEPA default |
| VF | Volatilization factor ($m^3$/kg). |

**SAMPLE CALCULATIONS, Benzene, Industrial Exposure (Type 4)**

$$x = 0.886 \times \frac{12.8\ m/sec}{3.0\ m/sec} = 3.780$$

$$Fx = 0.18\ [(8 \times 3.780^3) + (12 \times 3.78)] \times \exp(-(3.780^2)) = 5.36E\text{-}05$$

$$Dei = 0.089\ cm2/sec \times (0.35)0.33 = 6.29E\text{-}02\ cm^2/sec$$

$$Kas = \frac{5.55E\text{-}03\ atm\text{-}m^3/mol}{5.55E\text{-}03\ atm\text{-}m^3/mol \times 0.02 \times 145.8\ cm^3/g} = 7.78E\text{-}02\ g/cm^3$$

$$\alpha = \frac{0.06294\ cm^2/sec \times 0.35}{0.35 + [2.65\ g/cm^3 \times (1 - 0.35)/\ 7.78E\text{-}02\ g/cm^3)]}$$

$$= 9.80E\text{-}04\ cm^2/sec$$

$$VF = \frac{45\ m * 2.25\ m/s * 2\ m}{2.03 \times 10^7\ cm^2} \times \frac{(3.14 \times 9.80E\text{-}04\ cm^2/sec \times 7.9 \times 10^8\ sec)^{1/2}}{2 \times 6.29E\text{-}02\ cm^2/sec \times 0.35 \times 7.78E\text{-}02\ g/cm^3 \times 10^{-3}\ kg/g}$$

$$= 4{,}535\ m^3/kg$$

**Table C-1**
**Risk Reduction Standard Equations for Exposure to Soil**
**Hazardous Site Response Act (HSRA) Compliance Status Report**
**Hercules - Savannah, Georgia**

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**CANCER EFFECTS:**

**Oral:**

$$(RRS_O)_C = \frac{10^{-5} \times 70\ kg \times 25{,}550\ days \times 10^{6}\ mg/kg}{50\ mg/day \times 250\ days/yr \times 25\ yrs \times (\ 0.055\ kg\text{-}day/m}$$

$$= 1{,}040\ mg/kg$$

**Inhalation:**

$$(RRS_I)_C = \frac{10^{-5} \times 70\ kg \times 25{,}550\ days}{[(1/2{,}818\ m^3/kg) + (1/4.63 \times 109\ m^3/kg)] \times 250\ days/yr \times 25\ yrs \times 20\ m^3/day \times \quad 2.73E\text{-}02\ kg\text{-}day/mg)}$$

$$= 23.8\ mg/kg$$

**CANCER EFFECTS RRS:**

$$RRS_C = \frac{1}{\frac{1}{1{,}040} + \frac{1}{23.8}} = 23\ mg/kg$$

**NON-CANCER EFFECTS:**

**Oral:**

$$(RRS_O)_{NC} = \frac{1 \times 70\ kg \times 9{,}125\ days \times 10^{6}\ mg/kg}{50\ mg/day \times 250\ days/yr \times 25\ yrs \times [1/\ 0.004\ mg/kg\text{-}da}$$

$$= 20{,}440\ mg/kg$$

**Inhalation:**

$$(RRS_I)_{NC} = \frac{1 \times 70\ kg \times 9{,}125\ days}{[(1/2{,}818\ m^3/kg) + (1/4.63 \times 109\ m^3/kg)] \times 250\ days/yr \times 25\ yrs \times 20\ m^3/day \times (\ 1\ /\ \quad 8.60E\text{-}03\ kg\text{-}day/mg)}$$

$$= 1{,}109\ mg/kg$$

**NON-CANCER EFFECTS RRS:**

$$RRS_{NC} = \frac{1}{\frac{1}{20{,}440} + \frac{1}{1{,}109}} = 1{,}050\ mg/kg$$

RRS = Minumum result of RRSC (23 mg/kg) and RRSNC (1050 mg/kg) = 23 mg/kg

**Table C-2**
**Risk Reduction Standard Equations for Exposure to Groundwater**
**Hazardous Site Response Act (HSRA) Compliance Status Report**
**Hercules - Savannah, Georgia**

**ROUTE-SPECIFIC RRSs:**

**Oral:**

$$(RRS_o)_{C\ or\ NC} = \frac{(TCR\ or\ THI)\ x\ BW\ x\ (AT_C\ or\ AT_{NC})}{IR_w\ x\ EF\ x\ ED\ x\ [SF_O\ or\ (1/RfD_O)]}$$

**Inhalation:**

$$(RRS_i)_{C\ or\ NC} = \frac{(TCR\ or\ THI)\ x\ (AT_C\ or\ AT_{NC})\ x\ BW}{K\ x\ IR_a\ x\ EF\ x\ ED\ x\ [SF_I\ or\ (1/RfD_I)]}$$

**Cancer Effects RRS:**

$$RRS_C = \frac{1}{\frac{1}{(RRS_O)_C} + \frac{1}{(RRS_I)_C}}$$

**Non-Cancer Effects RRS:**

$$RRS_{NC} = \frac{1}{\frac{1}{(RRS_O)_{NC}} + \frac{1}{(RRS_I)_{NC}}}$$

RRS = Minimum result of $RRS_C$ and $RRS_{NC}$.

where:

| | |
|---|---|
| $AT_C$ | Averaging time for cancer effects (25,550 days). |
| $AT_{NC}$ | Averaging time for non-cancer effects (10,950 for adult residents; 2,190 days for child residents; 9,125 days for site workers); ED x 365 days/year. |
| BW | Body weight (70 kg for adult receptors; 15 kg for child resident |
| ED | Exposure duration (30 years for adult resident; 6 years for child resident; 25 years for site worke |
| EF | Exposure frequency (250 days/year) |
| $IR_{air}$ | Inhalation rate (15 $m^3$/day for residents; 20 $m^3$/day for site workers). |
| $IR_w$ | Ingestion rate of drinking water (2 L/day for adult residents; 1 L/day for child residents and site workers) (USEPA 1997a). |
| K | Volatilization factor for volatile organic compounds (VOCs) from household tap water (0.5 $L/m^3$) (USEPA 1991). |
| RfDi | Reference dose for inhalation (mg/kg/day |
| RfDo | Reference dose for ingestion (mg/kg/day) |
| RRS | Risk reduction standard for soil (mg/L); minimum of the $RRS_C$ (based on cancer effects) and the $RRS_{NC}$ (based on non-cancer effects), which are based on the route-specfic RRSs (RRSo for the oral route an RRSi for the inhalation route) |
| TCR | Target cancer risk (unitless); results presented for TCR value of $10^{-5}$ ($10^{-4}$ for Class C carcinogens). |
| THI | Target hazard index (unitless); results presented for THI value of |

**Table C-2**
**Risk Reduction Standard Equations for Exposure to Groundwater**
**Hazardous Site Response Act (HSRA) Compliance Status Report**
**Hercules - Savannah, Georgia**

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**SAMPLE CALCULATIONS, Benzene, Industrial Exposure (Type 4)**

**CANCER EFFECTS:**

**Oral:**

$$(RRS_O)_C = \frac{10^{-5} \times 70\ kg \times 25{,}550\ days}{1\ L/day \times 250\ days/yr \times 25\ yrs \times (0.055\ kg\text{-}day/m}$$

$$= 0.0520\ mg/L$$

**Inhalation:**

$$(RRS_I)_C = \frac{10^{-5} \times 70\ kg \times 25{,}550\ days}{0.5\ L/m^3 \times 250\ days/yr \times 25\ yrs \times 20\ m^3/day \times 0.0273\ kg\text{-}day/mg)}$$

$$= 0.010\ mg/L$$

**CANCER EFFECTS RRS:**

$$RRS_C = \frac{1}{\frac{1}{0.0520} + \frac{1}{0.01048}} = 0.0087\ mg/L$$

**NON-CANCER EFFECTS:**

**Oral:**

$$(RRS_O)_{NC} = \frac{1 \times 70\ kg \times 9{,}125\ days}{1\ L/day \times 250\ days/yr \times 25\ yrs \times [1/0.004\ mg/kg\text{-}da}$$

$$= 0.4\ mg/L$$

**Inhalation:**

$$(RRS_I)_{NC} = \frac{1 \times 70\ kg \times 9{,}125\ days}{0.5\ L/m^3 \times 250\ days/yr \times 25\ yrs \times 20\ m^3/day \times 1/0.00857142857142857\ kg\text{-}day/mg)}$$

$$= 0.09\ mg/L$$

**NON-CANCER EFFECTS RRS:**

$$RRS_{NC} = \frac{1}{\frac{1}{0.4} + \frac{1}{0.09}} = 0.072\ mg/L$$

RRS = Minumum result of RRSC (0.0087 mg/L) and RRSNC (0.072 mg/L) = 0.0087 mg/L

**Table C-3**
**Toxicity Values**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Cancer Effects: Cancer Slope Factors (CSF) CSFo Oral (kg-day/mg) | ref | CSFi Inhalation (kg-day/mg) | ref | Weight of Evidence | Target Cancer Risk (TCR) (for Type 3) | Noncancer Effects: Reference Doses (RfD) RfDo Oral (mg/kg/day) | ref | RfDi Inhalation (mg/kg/day) | ref |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | | |
| Acetone | NA | | NA | | D | NC | 9.0E-01 | I | 8.9E+00 | A |
| Acetonitrile | NA | | NA | | D | NC | NA | | 1.7E-02 | I |
| Acetophenone | NA | | NA | | D | NC | 1.0E-01 | I | NA | |
| Acrolein | NA | | NA | | C | 1.0E-04 | 5.0E-04 | I | 5.7E-06 | I |
| Benzene | 5.5E-02 | I | 2.7E-02 | I | A | 1.0E-05 | 4.0E-03 | I | 8.6E-03 | I |
| Biphenyl | 8.0E-03 | P | NA | | SU | 1.0E-05 | 5.0E-02 | I | 1.1E-04 | P |
| Carbon disulfide | NA | | NA | | NA | NC | 1.0E-01 | I | 2.0E-01 | I |
| Chlorobenzene | NA | | NA | | D | NC | 2.0E-02 | I | 1.4E-02 | P |
| trans-1,4-Dichlorobutene | NA | | 1.5E+01 | P | B3 | 1.0E-05 | NA | | NA | |
| 1,2-Dichloropropane | 3.6E-02 | C | 3.5E-02 | C | B2 | 1.0E-05 | 9.0E-02 | A | 1.1E-03 | I |
| 1,4-Dichloro-2-butene | NA | | 1.5E+01 | P | SU | 1.0E-05 | NA | | NA | |
| Ethylbenzene | 1.1E-02 | C | 8.8E-03 | C | * | 1.0E-05 | 1.0E-01 | I | 2.9E-01 | I |
| Ethyl Methacrylate | NA | | NA | | NA | NC | 9.0E-02 | H | NA | |
| Isobutyl alcohol | NA | | NA | | NA | NC | 3.0E-01 | I | NA | |
| Methyl ethyl ketone | NA | | NA | | D | NC | 6.0E-01 | I | 1.4E+00 | I |
| Methyl isobutyl ketone | NA | | NA | | NA | NC | 8.0E-02 | H | 8.6E-01 | I |
| Styrene | NA | | NA | | NA | NC | 2.0E-01 | I | 2.9E-01 | I |
| Tetrachloroethene | 2.1E-03 | I | 9.1E-04 | I | L | 1.0E-05 | 6.0E-03 | I | 1.1E-02 | I |
| Toluene | NA | | NA | | D | NC | 8.0E-02 | I | 1.4E+00 | I |
| Xylenes (total) | NA | | NA | | D | NC | 2.0E-01 | I | 2.9E-02 | I |
| m-Xylene | NA | | NA | | D | NC | 2.0E-01 | I | 2.9E-02 | I |
| o-Xylene | NA | | NA | | D | NC | 2.0E-01 | I | 2.9E-02 | I |
| p-Xylene | NA | | NA | | D | NC | 2.0E-01 | I | 2.9E-02 | I |
| m & p-Xylenes | NA | | NA | | D | NC | 2.0E-01 | I | 2.9E-02 | I |
| **Semi Volatile Organic Compounds** | | | | | | | | | | |
| Aniline | 5.7E-03 | I | 5.6E-03 | C | B2 | 1.0E-05 | 7.0E-03 | P | 2.9E-04 | I |
| Bis(2-ethylhexyl)phthalate | 1.4E-02 | I | 8.4E-03 | C | B2 | 1.0E-05 | 2.0E-02 | I | NA | |
| Butyl benzyl phthalate | 1.9E-03 | P | NA | | C | 1.0E-04 | 2.0E-01 | I | NA | |
| Total Cresols | NA | | NA | | C | 1.0E-04 | 1.0E-01 | A | 1.7E-01 | C |
| m & p-Cresols | NA | | NA | | NA | NC | 1.0E-01 | X | NA | |
| m-Cresol | NA | | NA | | C | 1.0E-04 | 5.0E-02 | I | 1.7E-01 | C |
| o-Cresol | NA | | NA | | C | 1.0E-04 | 5.0E-02 | I | 1.7E-01 | C |
| p-Cresol | NA | | NA | | C | 1.0E-04 | 5.0E-03 | H | 1.7E-01 | C |
| Dibenzofuran | NA | | NA | | D | NC | 1.0E-03 | X | NA | |

**Table C-3**
**Toxicity Values**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Cancer Effects: Cancer Slope Factors (CSF) CSFo Oral (kg-day/mg) | ref | CSFi Inhalation (kg-day/mg) | ref | Weight of Evidence | Target Cancer Risk (TCR) (for Type 3) | Noncancer Effects: Reference Doses (RfD) RfDo Oral (mg/kg/day) | ref | RfDi Inhalation (mg/kg/day) | ref |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dimethylphenol | NA | | NA | | NA | NC | 2.0E-02 | I | NA | |
| m-Dinitrobenzene | NA | | NA | | D | NC | 1.0E-04 | I | NA | |
| Di-n-octyl phthalate | NA | | NA | | D | NC | NA | | NA | |
| 1,4-Dioxane | 1.0E-01 | I | 2.7E-02 | C | B2 | 1.0E-05 | 3.0E-02 | I | 8.6E-01 | C |
| Formaldehyde | NA | | 4.6E-02 | I | B1 | 1.0E-05 | 2.0E-01 | I | 2.8E-03 | A |
| N-Nitrosodi-n-butylamine | 5.4E+00 | I | 5.6E+00 | I | B2 | 1.0E-05 | NA | | NA | |
| N-Nitroso-n-methylethylamine | 2.2E+01 | I | 2.2E+01 | C | B2 | 1.0E-05 | NA | | NA | |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | | |
| Acenaphthene | NA | | NA | | NA | NC | 6.0E-02 | I | NA | |
| Acenaphthylene | NA | | NA | | D | NC | NA | | NA | |
| Anthracene | NA | | NA | | D | NC | 3.0E-01 | I | NA | |
| Benzo(a)anthracene | 7.3E-01 | E | 3.9E-01 | C | B2 | 1.0E-05 | NA | | NA | |
| Benzo(a)pyrene | 7.3E+00 | I | 3.9E+00 | C | B2 | 1.0E-05 | NA | | NA | |
| Benzo(b)fluoranthene | 7.3E-01 | E | 3.9E-01 | C | B2 | 1.0E-05 | NA | | NA | |
| Benzo(g,h,i)perylene | NA | | NA | | D | NC | NA | | NA | |
| Benzo(k)fluoranthene | 7.3E-02 | E | 3.9E-01 | C | B2 | 1.0E-05 | NA | | NA | |
| Chrysene | 7.3E-03 | E | 3.9E-02 | C | B2 | 1.0E-05 | NA | | NA | |
| Dibenzo(a,h)anthracene | 7.3E+00 | E | 4.2E+00 | C | B2 | 1.0E-05 | NA | | NA | |
| Fluoranthene | NA | | NA | | D | NC | 4.0E-02 | I | NA | |
| Fluorene | NA | | NA | | D | NC | 4.0E-02 | I | NA | |
| Indeno(1,2,3-cd)pyrene | 7.3E-01 | E | 3.9E-01 | C | B2 | 1.0E-05 | NA | | NA | |
| Naphthalene | NA | | 1.2E-01 | C | C | 1.0E-04 | 2.0E-02 | I | 8.6E-04 | I |
| Phenanthrene | NA | | NA | | D | NC | NA | | NA | |
| Pyrene | NA | | NA | | D | NC | 3.0E-02 | I | NA | |
| **Dioxins** | | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 1.3E+05 | C | 1.3E+05 | C | B2 | 1.0E-05 | 1.0E-09 | A | 1.1E-08 | C |
| **Pesticides** | | | | | | | | | | |
| Endrin | NA | | NA | | D | NC | 3.0E-04 | I | NA | |
| Endrin aldehyde | NA | | NA | | D | NC | NA | | NA | |
| 4,4'-DDT | 3.4E-01 | I | 3.4E-01 | I | B2 | 1.0E-05 | 5.0E-04 | I | NA | |
| Methoxychlor | NA | | NA | | D | NC | 5.0E-03 | I | NA | |
| Parathion | NA | | NA | | C | 1.0E-04 | 6.0E-03 | H | NA | |
| **Polychlorinated Biphenyls** | | | | | | | | | | |
| Aroclor 1254 | 2.0E+00 | I | 2.0E+00 | I | B2 | 1.0E-05 | 2.0E-05 | I | NA | |
| Aroclor 1260 | 2.0E+00 | I | 2.0E+00 | I | B2 | 1.0E-05 | NA | | NA | |

**Table C-3**
**Toxicity Values**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Cancer Effects: Cancer Slope Factors (CSF) CSFo Oral (kg-day/mg) | ref | CSFi Inhalation (kg-day/mg) | ref | Weight of Evidence | Target Cancer Risk (TCR) (for Type 3) | Noncancer Effects: Reference Doses (RfD) RfDo Oral (mg/kg/day) | ref | RfDi Inhalation (mg/kg/day) | ref |
|---|---|---|---|---|---|---|---|---|---|---|
| Total PCBs | 2.0E+00 | I | 2.0E+00 | I | B2 | 1.0E-05 | 2.0E-05 | I | NA | |
| **Inorganics** | | | | | | | | | | |
| Ammonia (as N) | NA | | NA | | NA | NC | NA | | 2.9E-02 | I |
| Asbestos | NA | | NA | | NA | NC | NA | | NA | |
| Fluoride | NA | | NA | | NA | NC | 4.0E-02 | C | 3.7E-03 | C |

*References [ref]:*

*A* Agency for Toxic Substances Disease Registry (ATDSR) (ATSDR 2012).
C CalEPA, Toxicity Criteria database (CalEPA 2012).
*E* Environmental Criteria and Assessment Office as referenced in the USEPA Regional Screening Level Table (USEPA 2011).
*H* USEPA, Health Effects Summary Table (HEAST; USEPA 1997b).
*I* USEPA, Integrated Risk Information System (IRIS; USEPA 2012).
P Provisional Peer Reviewed Toxicity Values (PPRTV) as referenced in the USEPA Regional Screening Level Table (USEPA 2011).
X PPRTV Appendix as referenced in the USEPA Regional Screening Level Table (USEPA 2011).

USEPA cancer weight-of-evidence categories are as follows:

Group A: Human Carcinogen (sufficient evidence of carcinogenicity in humans)
Group B: Probable Human Carcinogen
B1 - limited evidence of carcinogenicity in humans
B2 - sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans
Group C: Possible Human Carcinogen (limited evidence of carcinogenicity in animals and inadequate or lack of human data)
Group D: Not Classifiable as to Human Carcinogenicity (inadequate or no evidence)
Group E: Evidence of Noncarcinogenicity for Humans (no evidence of carcinogenicity in adequate studies)
*: The IRIS summary for ethylbenzene states that ethylbenzene is not classifiable as to human carcinogenicity due to the lack of animal bioassays and human studi
L: Likely carcinogen.
SU: Suggestive evidence of carcinogenic potential.

kg-day/mg Kilogram-day per milligram. mg/kg-day Milligram per kilogram-day NA Not Available. NC Not a carcinogen.

**Table C-4**
**Physical-Chemical Properties of the Detected Soil Constiutents**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Henry's Law Constant (atm-m³/mol) (25 °C) | [ref] | Diffusivity in Air (cm²/sec) | [ref] | Effective Diffusivity (cm²/sec) (calc) | Molecular Weight (g/mole) | [ref] | Koc or Kd ($cm^3$/g) | [ref] | Kas (g/cm³) (calc) | alpha (cm²/sec) (calc) | Volatilization Factor (VF) (m³/kg) (calc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | | | | |
| Acetone | 3.50E-05 | RSL | 1.06E-01 | RSL | 7.49E-02 | 58.08 | RSL | 2.36E+00 | RSL | 3.03E-02 | 4.58E-04 | 6.72E+03 |
| Acetonitrile | 3.45E-05 | RSL | 1.34E-01 | RSL | 9.48E-02 | 41.05 | RSL | 4.67E+00 | RSL | 1.51E-02 | 2.90E-04 | 8.47E+03 |
| Acetophenone | 1.04E-05 | RSL | 6.52E-02 | RSL | 4.61E-02 | 120.15 | RSL | 5.19E+01 | RSL | 4.10E-04 | 3.84E-06 | 7.38E+04 |
| Acrolein | 1.22E-04 | RSL | 1.12E-01 | RSL | 7.90E-02 | 56.06 | RSL | 1.00E+00 | RSL | 2.49E-01 | 3.81E-03 | 2.23E+03 |
| Benzene | 5.55E-03 | RSL | 8.95E-02 | RSL | 6.33E-02 | 78.11 | RSL | 1.46E+02 | RSL | 7.78E-02 | 9.86E-04 | 4.53E+03 |
| Biphenyl | 3.08E-04 | RSL | 4.71E-02 | RSL | 3.33E-02 | 154.21 | RSL | 5.13E+03 | RSL | 1.23E-04 | 8.30E-07 | 1.59E+05 |
| Carbon disulfide | 1.44E-02 | RSL | 1.06E-01 | RSL | 7.53E-02 | 76.13 | RSL | 2.17E+01 | RSL | 1.36E+00 | 1.63E-02 | 8.89E+02 |
| Chlorobenzene | 3.11E-03 | RSL | 7.21E-02 | RSL | 5.10E-02 | 112.56 | RSL | 2.34E+02 | RSL | 2.72E-02 | 2.80E-04 | 8.59E+03 |
| trans-1,4-Dichlorobutene | 6.64E-04 | RSL | 6.64E-02 | RSL | 4.69E-02 | 125 | RSL | 1.32E+02 | RSL | 1.03E-02 | 9.83E-05 | 1.46E+04 |
| 1,2-Dichloropropane | 2.82E-03 | RSL | 7.33E-02 | RSL | 5.19E-02 | 112.99 | RSL | 6.07E+01 | RSL | 9.50E-02 | 9.82E-04 | 4.53E+03 |
| 1,4-Dichloro-2-butene | 6.64E-04 | RSL | 6.65E-02 | RSL | 4.70E-02 | 125 | RSL | 1.32E+02 | RSL | 1.03E-02 | 9.85E-05 | 1.45E+04 |
| Ethylbenzene | 7.88E-03 | RSL | 6.85E-02 | RSL | 4.84E-02 | 106.17 | RSL | 4.46E+02 | RSL | 3.61E-02 | 3.53E-04 | 7.64E+03 |
| Ethyl Methacrylate | 5.73E-04 | RSL | 6.53E-02 | RSL | 4.62E-02 | 114.15 | RSL | 1.67E+01 | RSL | 7.03E-02 | 6.51E-04 | 5.59E+03 |
| Isobutyl alcohol | 9.78E-06 | RSL | 8.97E-02 | RSL | 6.34E-02 | 74.12 | RSL | 2.92E+00 | RSL | 6.85E-03 | 8.82E-05 | NV |
| Methyl ethyl ketone | 5.69E-05 | RSL | 9.14E-02 | RSL | 6.47E-02 | 72.11 | RSL | 4.51E+00 | RSL | 2.58E-02 | 3.37E-04 | 7.83E+03 |
| Methyl isobutyl ketone | 1.38E-04 | RSL | 6.98E-02 | RSL | 4.93E-02 | 100.16 | RSL | 1.26E+01 | RSL | 2.24E-02 | 2.24E-04 | 9.63E+03 |
| Styrene | 2.75E-03 | RSL | 7.11E-02 | RSL | 5.03E-02 | 104.15 | RSL | 4.46E+02 | RSL | 1.26E-02 | 1.28E-04 | 1.27E+04 |
| Tetrachloroethene | 1.77E-02 | RSL | 5.05E-02 | RSL | 3.57E-02 | 165.83 | RSL | 9.49E+01 | RSL | 3.81E-01 | 2.57E-03 | 2.65E+03 |
| Toluene | 6.64E-03 | RSL | 7.78E-02 | RSL | 5.50E-02 | 92.14 | RSL | 2.34E+02 | RSL | 5.81E-02 | 6.41E-04 | 5.64E+03 |
| Xylenes (total) | 5.18E-03 | RSL | 8.47E-02 | RSL | 5.99E-02 | 106.17 | RSL | 3.83E+02 | RSL | 2.77E-02 | 3.35E-04 | 7.86E+03 |
| m-Xylene | 7.18E-03 | RSL | 6.84E-02 | RSL | 4.83E-02 | 106.17 | RSL | 3.75E+02 | RSL | 3.91E-02 | 3.81E-04 | 7.35E+03 |
| o-Xylene | 5.18E-03 | RSL | 6.89E-02 | RSL | 4.87E-02 | 106.17 | RSL | 3.83E+02 | RSL | 2.77E-02 | 2.72E-04 | 8.71E+03 |
| p-Xylene | 6.90E-03 | RSL | 6.82E-02 | RSL | 4.83E-02 | 106.17 | RSL | 3.75E+02 | RSL | 3.76E-02 | 3.66E-04 | 7.50E+03 |
| m & p-Xylenes | 7.50E-03 | SCDM | 7.35E-02 | J&E | 5.20E-02 | 106.17 | SCDM | 1.60E+02 | CFATE | 9.59E-02 | 9.93E-04 | 4.50E+03 |
| **Semi Volatile Organic Compounds** | | | | | | | | | | | | |
| Aniline | 2.02E-06 | RSL | 8.30E-02 | RSL | 5.87E-02 | 93.13 | RSL | 7.02E+01 | RSL | 5.88E-05 | 7.02E-07 | NV |
| Bis(2-ethylhexyl)phthalate | 2.70E-07 | RSL | 1.73E-02 | RSL | 1.23E-02 | 390.57 | RSL | 1.20E+05 | RSL | 4.62E-09 | 1.15E-11 | NV |
| Butyl benzyl phthalate | 1.26E-06 | RSL | 2.08E-02 | RSL | 1.47E-02 | 312.37 | RSL | 7.16E+03 | RSL | 3.60E-07 | 1.08E-09 | NV |
| Total Cresols | 1.20E-06 | RSL | 8.37E-02 | RSL | 5.92E-02 | 108.14 | RSL | 3.07E+02 | RSL | 8.01E-06 | 9.63E-08 | NV |
| m & p-Cresols | 2.45E-06 | RSL | 6.96E-02 | RSL | 4.92E-02 | 142.59 | RSL | 4.92E+02 | RSL | 1.02E-05 | 1.02E-07 | NV |
| m-Cresol | 8.56E-07 | RSL | 7.29E-02 | RSL | 5.15E-02 | 108.14 | RSL | 3.00E+02 | RSL | 5.83E-06 | 6.10E-08 | NV |

**Table C-4**
**Physical-Chemical Properties of the Detected Soil Constiutents**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Henry's Law Constant (atm-m³/mol) (25 °C) | [ref] | Diffusivity in Air (cm²/sec) | [ref] | Effective Diffusivity (cm²/sec) (calc) | Molecular Weight (g/mole) | [ref] | Koc or Kd ($cm^3$/g) | [ref] | Kas (g/cm³) (calc) | alpha (cm²/sec) (calc) | Volatilization Factor (VF) (m³/kg) (calc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Cresol | 1.20E-06 | RSL | 7.28E-02 | RSL | 5.15E-02 | 108.14 | RSL | 3.07E+02 | RSL | 8.01E-06 | 8.38E-08 | NV |
| p-Cresol | 1.00E-06 | RSL | 7.24E-02 | RSL | 5.12E-02 | 108.14 | RSL | 3.00E+02 | RSL | 6.81E-06 | 7.08E-08 | NV |
| Dibenzofuran | 2.13E-04 | RSL | 4.10E-02 | RSL | 2.90E-02 | 168.2 | RSL | 9.16E+03 | RSL | 4.75E-05 | 2.80E-07 | 2.73E+05 |
| 2,4-Dimethylphenol | 9.51E-07 | RSL | 6.22E-02 | RSL | 4.40E-02 | 122.17 | RSL | 4.92E+02 | RSL | 3.95E-06 | 3.54E-08 | NV |
| m-Dinitrobenzene | 4.90E-08 | RSL | 4.85E-02 | RSL | 3.43E-02 | 168.11 | RSL | 3.52E+02 | RSL | 2.85E-07 | 1.99E-09 | NV |
| Di-n-octyl phthalate | 6.68E-05 | SCDM | 1.51E-02 | J&E | 1.07E-02 | 390.56 | SCDM | 8.38E+07 | SCDM | 1.63E-09 | 3.54E-12 | NV |
| 1,4-Dioxane | 4.80E-06 | RSL | 8.74E-02 | RSL | 6.18E-02 | 88.11 | RSL | 2.63E+00 | RSL | 3.73E-03 | 4.68E-05 | NV |
| Formaldehyde | 3.37E-07 | RSL | 1.67E-01 | RSL | 1.18E-01 | 30.03 | RSL | 1.00E+00 | RSL | 6.89E-04 | 1.65E-05 | NV |
| N-Nitrosodi-n-butylamine | 1.32E-05 | RSL | 6.49E-02 | RSL | 4.59E-02 | 158.25 | RSL | 9.15E+02 | RSL | 2.95E-05 | 2.75E-07 | 2.76E+05 |
| N-Nitroso-n-methylethylamine | 1.44E-06 | RSL | 9.60E-02 | RSL | 6.79E-02 | 88.11 | RSL | 4.35E+01 | RSL | 6.77E-05 | 9.34E-07 | NV |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | | | | |
| Acenaphthene | 1.84E-04 | RSL | 5.06E-02 | RSL | 3.58E-02 | 154.21 | RSL | 5.03E+03 | RSL | 7.49E-05 | 5.44E-07 | 1.96E+05 |
| Acenaphthylene | 1.13E-04 | SCDM | 4.39E-02 | RAIS | 3.10E-02 | 152.2 | SCDM | 3.09E+03 | SCDM | 7.48E-05 | 4.72E-07 | 2.11E+05 |
| Anthracene | 5.56E-05 | RSL | 3.90E-02 | RSL | 2.76E-02 | 178.24 | RSL | 1.64E+04 | RSL | 6.95E-06 | 3.89E-08 | 7.33E+05 |
| Benzo(a)anthracene | 1.20E-05 | RSL | 5.09E-02 | RSL | 3.60E-02 | 228.3 | RSL | 1.77E+05 | RSL | 1.39E-07 | 1.01E-09 | NV |
| Benzo(a)pyrene | 4.57E-07 | RSL | 4.76E-02 | RSL | 3.37E-02 | 252.32 | RSL | 5.87E+05 | RSL | 1.59E-09 | 1.09E-11 | NV |
| Benzo(b)fluoranthene | 6.57E-07 | RSL | 4.76E-02 | RSL | 3.37E-02 | 252.32 | RSL | 5.99E+05 | RSL | 2.24E-09 | 1.53E-11 | NV |
| Benzo(g,h,i)perylene | 1.41E-07 | SCDM | 4.20E-02 | L90-calc | 2.97E-02 | 276.34 | SCDM | 3.86E+06 | SCDM | 7.47E-11 | 4.51E-13 | NV |
| Benzo(k)fluoranthene | 5.84E-07 | RSL | 4.76E-02 | RSL | 3.37E-02 | 252.32 | RSL | 5.87E+05 | RSL | 2.03E-09 | 1.39E-11 | NV |
| Chrysene | 5.23E-06 | RSL | 2.61E-02 | RSL | 1.85E-02 | 228.3 | RSL | 1.81E+05 | RSL | 5.93E-08 | 2.22E-10 | NV |
| Dibenzo(a,h)anthracene | 1.41E-07 | RSL | 4.46E-02 | RSL | 3.15E-02 | 278.36 | RSL | 1.91E+06 | RSL | 1.51E-10 | 9.66E-13 | NV |
| Fluoranthene | 8.86E-06 | RSL | 2.76E-02 | RSL | 1.95E-02 | 202.26 | RSL | 5.55E+04 | RSL | 3.27E-07 | 1.30E-09 | NV |
| Fluorene | 9.62E-05 | RSL | 4.40E-02 | RSL | 3.11E-02 | 166.22 | RSL | 9.16E+03 | RSL | 2.15E-05 | 1.36E-07 | 3.93E+05 |
| Indeno(1,2,3-cd)pyrene | 3.48E-07 | RSL | 4.48E-02 | RSL | 3.17E-02 | 276.34 | RSL | 1.95E+06 | RSL | 3.65E-10 | 2.35E-12 | NV |
| Naphthalene | 4.40E-04 | RSL | 6.05E-02 | RSL | 4.28E-02 | 128.18 | RSL | 1.54E+03 | RSL | 5.83E-04 | 5.07E-06 | 6.42E+04 |
| Phenanthrene | 2.33E-05 | SCDM | 5.43E-02 | L90-calc | 3.84E-02 | 178.23 | SCDM | 2.97E+04 | SCDM | 1.60E-06 | 1.25E-08 | 1.29E+06 |
| Pyrene | 1.19E-05 | RSL | 2.78E-02 | RSL | 1.97E-02 | 202.26 | RSL | 5.43E+04 | RSL | 4.48E-07 | 1.79E-09 | NV |
| **Dioxins** | | | | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 5.00E-05 | RSL | 1.43E-02 | RAIS | 1.01E-02 | 321.98 | RSL | 2.49E+05 | RSL | 4.10E-07 | 8.43E-10 | NV |
| **Pesticides** | | | | | | | | | | | | |
| Endrin | 1.00E-05 | RSL | 3.62E-02 | RSL | 2.56E-02 | 380.91 | RSL | 2.01E+04 | RSL | 1.02E-06 | 5.29E-09 | NV |
| Endrin aldehyde | 2.90E-09 | HSDB | 4.64E-02 | L90-calc | 3.28E-02 | 380.91 | EPI | 3.27E+03 | EPI | 1.81E-09 | 1.21E-11 | NV |

**Table C-4**
**Physical-Chemical Properties of the Detected Soil Constiutents**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Henry's Law Constant (atm-m³/mol) (25 °C) | [ref] | Diffusivity in Air (cm²/sec) | [ref] | Effective Diffusivity (cm²/sec) (calc) | Molecular Weight (g/mole) | [ref] | Koc or Kd ($cm^3$/g) | [ref] | Kas (g/cm³) (calc) | alpha (cm²/sec) (calc) | Volatilization Factor (VF) (m³/kg) (calc) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,4'-DDT | 8.32E-06 | RSL | 3.79E-02 | RSL | 2.68E-02 | 354.49 | RSL | 1.69E+05 | RSL | 1.01E-07 | 5.50E-10 | NV |
| Methoxychlor | 2.03E-07 | RSL | 2.21E-02 | RSL | 1.56E-02 | 345.66 | RSL | 2.69E+04 | RSL | 1.54E-08 | 4.90E-11 | NV |
| Parathion | 2.98E-07 | RSL | 2.29E-02 | RSL | 1.62E-02 | 291.26 | RSL | 2.42E+03 | RSL | 2.52E-07 | 8.30E-10 | NV |
| **Polychlorinated Biphenyls** | | | | | | | | | | | | |
| Aroclor 1254 | 2.83E-04 | RSL | 4.01E-02 | RSL | 2.83E-02 | 326.44 | RSL | 1.31E+05 | RSL | 4.43E-06 | 2.55E-08 | NV |
| Aroclor 1260 | 3.36E-04 | RSL | 3.53E-02 | RSL | 2.49E-02 | 395.33 | RSL | 3.50E+05 | RSL | 1.96E-06 | 9.96E-09 | NV |
| Total PCBs | 2.83E-04 | RSL | 4.01E-02 | RSL | 2.83E-02 | 326.44 | RSL | 1.31E+05 | RSL | 4.43E-06 | 2.55E-08 | NV |
| **Inorganics** | | | | | | | | | | | | |
| Ammonia (as N) | 1.61E-05 | RSL | 2.42E-01 | L90-calc | 1.71E-01 | 17.03 | RSL | 4.95E+03 | SCDM | 6.65E-06 | 2.31E-07 | NV |
| Asbestos | NA | | NA | | NA | NA | | NA | | NA | NA | NA |
| Fluoride | NA | | NA | | NA | NA | | NA | | NA | NA | NA |

Notes:
Parameters were obtained from USEPA Regional Screening Level (RSL) Table ( 2011) where available, otherwise, they were obtained from literature sources cited as follows: CFATE (SRC 2008); HSDB (NLM 2008); J&E (USEPA 2003); Lyman, et al. (L90, 1990); RAIS (ORNL 2009); SCDM (USEPA 2004).

| | | | | | |
|---|---|---|---|---|---|
| alpha | attenuation coefficient - calculation intermediate. | $cm^3$/g | Cubic centimeter per gram. | $m^3$/kg | Cubic meter per kilogram. |
| atm-$m^3$/mole | Atmosphere - cubic meter per mole. | g/$cm^3$ | Gram per cubic centimeter. | NA | Not available or applicable. |
| calc | Calculated. | Koc | Organic carbon partition coefficient. | NV | Not volatile. |
| $cm^2$/sec | Square centimeter per second. | Kas | Soil-air partition coefficient. | ref | Reference. |

**Table C-5**
**Comparison of Maximum Concentrations Detected in Soil to Types 1 and 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 1 RRS [a] (mg/kg) | Source of Type 1 Standard | Type 2 RRS [b] (mg/kg) | Source of Type 2 Standard | Type 1 Standard Exceeded? | Type 2 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 10 | DS-14 | 11/10/2008 | 400 | GW | 400 | Type 1 | no | no |
| Acetonitrile | 0.075 | DS-18 | 11/10/2008 | 20 | GW | 20 | Type 1 | no | no |
| Acetophenone | <0.33 | NA | NA | 400 | GW | 400 | Type 1 | no | no |
| Acrolein | 0.13 | Confirmation_Sample | 12/1/2000 | 0.10 | DL | 0.10 | Type 1 | YES | YES |
| Benzene | 0.38 | SD-F6 | 11/2/2000 | 0.50 | GW | 0.50 | Type 1 | no | no |
| Biphenyl | 700 | EX-19 | 7/27/2007 | 0.33 | DL | 2.1 | SSL | YES | YES |
| Carbon disulfide | 0.0083 | DS-9 | 11/7/2008 | 400 | GW | 400 | Type 1 | no | no |
| Chlorobenzene | 0.0011 | DS-16 | 11/10/2008 | 10 | GW | 10 | Type 1 | no | no |
| trans-1,4-Dichlorobutene | 0.020 | DS-15 | 11/10/2008 | 0.113 | DL | 0.11 | Type 1 | no | no |
| 1,2-Dichloropropane | <0.005 | NA | NA | 0.50 | GW | 0.50 | Type 1 | no | no |
| 1,4-Dichloro-2-butene | <0.005 | NA | NA | 0.11 | PRGc-Res | 0.11 | Type 1 | no | no |
| Ethylbenzene | 10 | SB-99 | 11/6/2008 | 70 | GW | 70 | Type 1 | no | no |
| Ethyl Methacrylate | 0.89 | GP-16 | 7/27/2007 | 1000 | A-I | 1000 | Type 1 | no | no |
| Isobutyl alcohol | 0.17 | DS-13 | 11/10/2008 | 1000 | GW | 1000 | Type 1 | no | no |
| Methyl ethyl ketone | 0.49 | SD-F6 | 11/2/2000 | 200 | GW | 200 | Type 1 | no | no |
| Methyl isobutyl ketone | 0.0099 | DS-14 | 11/10/2008 | 200 | GW | 200 | Type 1 | no | no |
| Styrene | 0.0029 | DS-6 | 11/7/2008 | 14 | A-I | 14 | Type 1 | no | no |
| Tetrachloroethene | <0.005 | NA | NA | 0.50 | GW | 0.5 | Type 1 | no | no |
| Toluene | 8.9 | SB-99 | 11/6/2008 | 100 | GW | 100 | Type 1 | no | no |
| Xylenes (total) | 83 | SB-99 | 11/6/2008 | 1000 | GW | 1000 | Type 1 | no | no |
| m-Xylene | 0.024 | SS-31 | 11/8/2002 | 20 | A-I | 20 | Type 1 | no | no |
| o-Xylene | 0.035 | 50-SC Composite | 1/19/2000 | 20 | A-I | 20 | Type 1 | no | no |
| p-Xylene [c] | 0.099 | 50-NC Composite | NA | 20 | A-I | 20 | Type 1 | no | no |
| m & p-Xylenes | 0.099 | 50-NC Composite | 1/19/2000 | 20 | A-I | 20 | Type 1 | no | no |
| **Semi Volatile Organic Compounds** | | | | | | | | | |
| Aniline | 3.3 | SB-F3 | 10/24/2000 | 0.66 | DL | 0.66 | Type 1 | YES | YES |
| Bis(2-ethylhexyl)phthalate | 2.2 | SS-32 | 11/8/2002 | 50 | A-I | 50 | Type 1 | no | no |
| Butyl benzyl phthalate | 0.072 | DS-10 | 11/7/2008 | 50 | A-I | 50 | Type 1 | no | no |
| Total Cresols | <0.33 | NA | NA | 3.8 | A-I | 3.8 | Type 1 | no | no |
| m & p-Cresols | <0.33 | NA | NA | 13.2 | A-I | 13 | Type 1 | no | no |
| m-Cresol | <0.33 | NA | NA | 3.8 | A-I | 3.8 | Type 1 | no | no |
| o-Cresol | <0.33 | NA | NA | 3.8 | A-I | 3.8 | Type 1 | no | no |
| p-Cresol | <0.33 | NA | NA | 3.8 | A-I | 3.8 | Type 1 | no | no |

**Table C-5**
**Comparison of Maximum Concentrations Detected in Soil to Types 1 and 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 1 RRS [a] (mg/kg) | Source of Type 1 Standard | Type 2 RRS [b] (mg/kg) | Source of Type 2 Standard | Type 1 Standard Exceeded? | Type 2 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| Dibenzofuran | 0.024 | DS-10 | 11/7/2008 | 0.33 | DL | 3.7 | SSL | no | no |
| 2,4-Dimethylphenol | <0.33 | NA | NA | 70 | GW | 70 | Type 1 | no | no |
| m-Dinitrobenzene | <0.33 | NA | NA | 1.05 | A-I | 1.05 | Type 1 | no | no |
| Di-n-octyl phthalate | 0.062 | DS-10 | 11/7/2008 | 70 | GW | 33500 | SSL | no | no |
| 1,4-Dioxane | 0.05 | NA | NA | 7.0 | GW | 7 | Type 1 | no | no |
| Formaldehyde | 54 | SS-82 | 11/6/2008 | 100 | GW | 100 | Type 1 | no | no |
| N-Nitrosodi-n-butylamine | <0.33 | NA | NA | 0.33 | DL | 0.33 | Type 1 | no | no |
| N-Nitroso-n-methylethylamine | <0.33 | NA | NA | 0.33 | DL | 0.33 | Type 1 | no | no |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | |
| Acenaphthene | 0.073 | DS-1 | 11/7/2008 | 300 | A-I | 410 | SSL | no | no |
| Acenaphthylene | 0.18 | DS-1 | 11/7/2008 | 130 | A-I | 130 | Type 1 | no | no |
| Anthracene | 0.21 | DS-3 | 11/7/2008 | 500 | A-I | 500 | Type 1 | no | no |
| Benzo(a)anthracene | 0.4 | DS-10 | 11/7/2008 | 5.0 | A-I | 5 | Type 1 | no | no |
| Benzo(a)pyrene | 0.72 | SS-62 | 12/19/2002 | 1.64 | A-I | 1.6 | Type 1 | no | no |
| Benzo(b)fluoranthene | 0.77 | DS-7 | 11/7/2008 | 5 | A-I | 5 | Type 1 | no | no |
| Benzo(g,h,i)perylene | 0.58 | DS-17 | 11/10/2008 | 500 | A-I | 1,540 | SSL | no | no |
| Benzo(k)fluoranthene | 0.45 | DS-7 | 11/7/2008 | 5.0 | A-I | 120 | RRSc | no | no |
| Chrysene | 0.65 | DS-7 | 11/7/2008 | 5.0 | A-I | 43 | SSL | no | no |
| Dibenzo(a,h)anthracene | 0.56 | DS-17 | 11/10/2008 | 2.0 | PRGc-Res | 2 | Type 1 | no | no |
| Fluoranthene | 1.5 | DS-10 | 11/7/2008 | 500 | A-I | 2,220 | SSL | no | no |
| Fluorene | 0.045 | DS-4 | 11/7/2008 | 360 | A-I | 370 | SSL | no | no |
| Indeno(1,2,3-cd)pyrene | 0.51 | DS-17 | 11/10/2008 | 5.0 | A-I | 12 | RRSc | no | no |
| Naphthalene | <0.33 | NA | NA | 100 | A-I | 100 | Type 1 | no | no |
| Phenanthrene | 0.46 | SS-1 | 7/2/2004 | 110 | A-I | 110 | Type 1 | no | no |
| Pyrene | 1.0 | DS-4 | 11/7/2008 | 500 | A-I | 2,180 | SSL | no | no |
| **Dioxins** | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 0.0000062 | SB-F1 | 10/19/2000 | 0.00008 | A-I | 0.00008 | Type 1 | no | no |
| **Pesticides** | | | | | | | | | |
| Endrin | <0.00125 | NA | NA | 10 | A-I | 10 | Type 1 | no | no |
| Endrin aldehyde | <0.00125 | NA | NA | 10 | A-I | 10 | Type 1 | no | no |
| 4,4'-DDT | 0.0078 | SB-F6/F4/F15/F27 | 10/20/2000 | 0.66 | A-I | 0.84 | SSL | no | no |
| Methoxychlor | <0.00125 | NA | NA | 10 | A-I | 43 | SSL | no | no |
| Parathion | 2.1 | SB-F6 | 10/19/2000 | 20 | GW | 20 | SSL | no | no |
| **Polychlorinated Biphenyls** | | | | | | | | | |

**Table C-5**
**Comparison of Maximum Concentrations Detected in Soil to Types 1 and 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 1 RRS [a] (mg/kg) | Source of Type 1 Standard | Type 2 RRS [b] (mg/kg) | Source of Type 2 Standard | Type 1 Standard Exceeded? | Type 2 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| Aroclor 1254 | 0.78 | SS-88 | 11/6/2008 | 1.55 | A-I | 1.6 | RRSc | no | no |
| Aroclor 1260 | 0.25 | SS-88 | 11/6/2008 | 1.55 | A-I | 4.6 | RRSc | no | no |
| Total PCBs | 1.03 | SS-88 | NA | 1.55 | A-I | 1.55 | Type 1 | no | no |
| **Inorganics** | | | | | | | | | |
| Ammonia (as N) | <0.01 | NA | NA | 3,000 | GW | 6,060 | SSL | no | no |
| Asbestos | <1% | NA | NA | 1% | DL | 1% | DL | no | no |

| | |
|---|---|
| | Maximum exceeds Risk Reduction Standard. |
| mg/kg | Milligrams per kilogram. |
| NA | Not applicable; constituent was not detected in this medium. |
| RRS | Risk Reduction Standard. |
| [a] | Source of Type 1 RRS: |
| | A-I: Appendix I notification requirement (NC) ("App I NC"). |
| | A-III: Appendix III. |
| | DL: Detection limit. |
| | GW: Appendix III Table 1 times 100. |
| | PRGc-Res: Calculated default residential carcinogenic preliminary remediation goal. |
| | PRGnc-Res: Calculated default residential non-carcinogenic preliminary remediation goal. |
| [b] | Source of Type 2 RRS: |
| | RRSa: Calculated site-specific residential risk reduction standard based on adult exposure. |
| | RRSc: Calculated site-specific residential risk reduction standard based on child exposure. |
| | SSL: Soil screeening level for Migration to Groundwater. |
| | Type 1 RRS. |

**Table C-6**

**Risk Reduction Standards for Potential Adult Residential Exposure (Type 2) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS | | | NON-CANCER EFFECTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | Route-Specific RRS (mg/kg) | | RRSc (mg/kg) | Route-Specific RRS (mg/kg) | | RRSnc (mg/kg) | RRS (mg/kg) | |
| | Oral | Inhalation | | Oral | Inhalation | | | |
| **Volatile Organic Compounds** | | | | | | | | |
| Acetone | NA | NA | NA | 5.8E+05 | 2.9E+05 | 1.9E+05 | 1.9E+05 | N |
| Acetonitrile | NA | NA | NA | NA | 7.1E+02 | 7.1E+02 | 7.1E+02 | N |
| Acetophenone | NA | NA | NA | 6.4E+04 | NA | 6.4E+04 | 6.4E+04 | N |
| Acrolein | NA | NA | NA | 3.2E+02 | 6.2E-02 | 6.2E-02 | 6.2E-02 | N |
| Benzene | 2.7E+02 | 1.9E+01 | 1.8E+01 | 2.6E+03 | 1.9E+02 | 1.8E+02 | 1.8E+01 | C |
| Biphenyl | 1.9E+03 | NA | 1.9E+03 | 3.2E+04 | 8.8E+01 | 8.8E+01 | 8.8E+01 | N |
| Carbon disulfide | NA | NA | NA | 6.4E+04 | 8.7E+02 | 8.5E+02 | 8.5E+02 | N |
| Chlorobenzene | NA | NA | NA | 1.3E+04 | 6.0E+02 | 5.7E+02 | 5.7E+02 | N |
| trans-1,4-Dichlorobutene | NA | 1.1E-01 | 1.1E-01 | NA | NA | NA | 1.1E-01 | C |
| 1,2-Dichloropropane | 4.2E+02 | 1.5E+01 | 1.4E+01 | 5.8E+04 | 2.5E+01 | 2.5E+01 | 1.4E+01 | C |
| 1,4-Dichloro-2-butene | NA | 1.1E-01 | 1.1E-01 | NA | NA | NA | 1.1E-01 | C |
| Ethylbenzene | 1.4E+03 | 9.9E+01 | 9.2E+01 | 6.4E+04 | 1.1E+04 | 9.1E+03 | 9.2E+01 | C |
| Ethyl Methacrylate | NA | NA | NA | 5.8E+04 | NA | 5.8E+04 | 5.8E+04 | N |
| Isobutyl alcohol | NA | NA | NA | 1.9E+05 | NA | 1.9E+05 | 1.9E+05 | N |
| Methyl ethyl ketone | NA | NA | NA | 3.8E+05 | 5.4E+04 | 4.8E+04 | 4.8E+04 | N |
| Methyl isobutyl ketone | NA | NA | NA | 5.1E+04 | 4.0E+04 | 2.3E+04 | 2.3E+04 | N |
| Styrene | NA | NA | NA | 1.3E+05 | 1.8E+04 | 1.6E+04 | 1.6E+04 | N |
| Tetrachloroethene | 7.1E+03 | 3.3E+02 | 3.2E+02 | 3.8E+03 | 1.5E+02 | 1.4E+02 | 1.4E+02 | N |
| Toluene | NA | NA | NA | 5.1E+04 | 3.9E+04 | 2.2E+04 | 2.2E+04 | N |
| Xylenes (total) | NA | NA | NA | 1.3E+05 | 1.1E+03 | 1.1E+03 | 1.1E+03 | N |
| m-Xylene | NA | NA | NA | 1.3E+05 | 1.0E+03 | 1.0E+03 | 1.0E+03 | N |
| o-Xylene | NA | NA | NA | 1.3E+05 | 1.2E+03 | 1.2E+03 | 1.2E+03 | N |
| p-Xylene | NA | NA | NA | 1.3E+05 | 1.0E+03 | 1.0E+03 | 1.0E+03 | N |
| m & p-Xylenes | NA | NA | NA | 1.3E+05 | 6.3E+02 | 6.2E+02 | 6.2E+02 | N |
| **Semi Volatile Organic Compounds** | | | | | | | | |
| Aniline | 2.6E+03 | 9.4E+07 | 2.6E+03 | 4.5E+03 | 6.4E+06 | 4.5E+03 | 2.6E+03 | C |
| Bis(2-ethylhexyl)phthalate | 1.1E+03 | 6.3E+07 | 1.1E+03 | 1.3E+04 | NA | 1.3E+04 | 1.1E+03 | C |
| Butyl benzyl phthalate | 7.9E+03 | NA | 7.9E+03 | 1.3E+05 | NA | 1.3E+05 | 7.9E+03 | C |
| Total Cresols | NA | NA | NA | 6.4E+04 | 3.9E+09 | 6.4E+04 | 6.4E+04 | N |
| m & p-Cresols | NA | NA | NA | 6.4E+04 | NA | 6.4E+04 | 6.4E+04 | N |

**Table C-6**

**Risk Reduction Standards for Potential Adult Residential Exposure (Type 2) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS | | | NON-CANCER EFFECTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | Route-Specific RRS (mg/kg) | | RRSc (mg/kg) | Route-Specific RRS (mg/kg) | | RRSnc (mg/kg) | RRS (mg/kg) | |
| | Oral | Inhalation | | Oral | Inhalation | | | |
| m-Cresol | NA | NA | NA | 3.2E+04 | 3.9E+09 | 3.2E+04 | 3.2E+04 | N |
| o-Cresol | NA | NA | NA | 3.2E+04 | 3.9E+09 | 3.2E+04 | 3.2E+04 | N |
| p-Cresol | NA | NA | NA | 3.2E+03 | 3.9E+09 | 3.2E+03 | 3.2E+03 | N |
| Dibenzofuran | NA | NA | NA | 6.4E+02 | NA | 6.4E+02 | 6.4E+02 | N |
| 2,4-Dimethylphenol | NA | NA | NA | 1.3E+04 | NA | 1.3E+04 | 1.3E+04 | N |
| m-Dinitrobenzene | NA | NA | NA | 6.4E+01 | NA | 6.4E+01 | 6.4E+01 | N |
| Di-n-octyl phthalate | NA | NA | NA | NA | NA | NA | NA | |
| 1,4-Dioxane | 1.5E+02 | 2.0E+07 | 1.5E+02 | 1.9E+04 | 1.9E+10 | 1.9E+04 | 1.5E+02 | C |
| Formaldehyde | NA | 1.2E+07 | 1.2E+07 | 1.3E+05 | 6.3E+07 | 1.3E+05 | 1.3E+05 | N |
| N-Nitrosodi-n-butylamine | 2.8E+00 | 5.6E+00 | 1.9E+00 | NA | NA | NA | 1.9E+00 | C |
| N-Nitroso-n-methylethylamine | 6.8E-01 | 2.4E+04 | 6.8E-01 | NA | NA | NA | 6.8E-01 | C |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | |
| Acenaphthene | NA | NA | NA | 3.8E+04 | NA | 3.8E+04 | 3.8E+04 | N |
| Acenaphthylene | NA | NA | NA | NA | NA | NA | NA | |
| Anthracene | NA | NA | NA | 1.9E+05 | NA | 1.9E+05 | 1.9E+05 | N |
| Benzo(a)anthracene | 2.0E+01 | 1.4E+06 | 2.0E+01 | NA | NA | NA | 2.0E+01 | C |
| Benzo(a)pyrene | 2.0E+00 | 1.4E+05 | 2.0E+00 | NA | NA | NA | 2.0E+00 | C |
| Benzo(b)fluoranthene | 2.0E+01 | 1.4E+06 | 2.0E+01 | NA | NA | NA | 2.0E+01 | C |
| Benzo(g,h,i)perylene | NA | NA | NA | NA | NA | NA | NA | |
| Benzo(k)fluoranthene | 2.0E+02 | 1.4E+06 | 2.0E+02 | NA | NA | NA | 2.0E+02 | C |
| Chrysene | 2.0E+03 | 1.4E+07 | 2.0E+03 | NA | NA | NA | 2.0E+03 | C |
| Dibenzo(a,h)anthracene | 2.0E+00 | 1.3E+05 | 2.0E+00 | NA | NA | NA | 2.0E+00 | C |
| Fluoranthene | NA | NA | NA | 2.6E+04 | NA | 2.6E+04 | 2.6E+04 | N |
| Fluorene | NA | NA | NA | 2.6E+04 | NA | 2.6E+04 | 2.6E+04 | N |
| Indeno(1,2,3-cd)pyrene | 2.0E+01 | 1.4E+06 | 2.0E+01 | NA | NA | NA | 2.0E+01 | C |
| Naphthalene | NA | 6.1E+01 | 6.1E+01 | 1.3E+04 | 2.7E+02 | 2.6E+02 | 6.1E+01 | C |
| Phenanthrene | NA | NA | NA | NA | NA | NA | NA | |
| Pyrene | NA | NA | NA | 1.9E+04 | NA | 1.9E+04 | 1.9E+04 | N |
| **Dioxins** | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 1.1E-04 | 4.0E+00 | 1.1E-04 | 6.4E-04 | 2.6E+02 | 6.4E-04 | 1.1E-04 | C |
| **Pesticides** | | | | | | | | |

**Table C-6**

**Risk Reduction Standards for Potential Adult Residential Exposure (Type 2) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS | | | NON-CANCER EFFECTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | Route-Specific RRS (mg/kg) | | RRSc (mg/kg) | Route-Specific RRS (mg/kg) | | RRSnc (mg/kg) | RRS (mg/kg) | |
| | Oral | Inhalation | | Oral | Inhalation | | | |
| Endrin | NA | NA | NA | 1.9E+02 | NA | 1.9E+02 | 1.9E+02 | N |
| Endrin aldehyde | NA | NA | NA | NA | NA | NA | NA | |
| 4,4'-DDT | 4.4E+01 | 1.5E+06 | 4.4E+01 | 3.2E+02 | NA | 3.2E+02 | 4.4E+01 | C |
| Methoxychlor | NA | NA | NA | 3.2E+03 | NA | 3.2E+03 | 3.2E+03 | N |
| Parathion | NA | NA | NA | 3.8E+03 | NA | 3.8E+03 | 3.8E+03 | N |
| **Polychlorinated Biphenyls** | | | | | | | | |
| Aroclor 1254 | 7.5E+00 | 2.6E+05 | 7.5E+00 | 1.3E+01 | NA | 1.3E+01 | 7.5E+00 | C |
| Aroclor 1260 | 7.5E+00 | 2.6E+05 | 7.5E+00 | NA | NA | NA | 7.5E+00 | C |
| Total PCBs | 7.5E+00 | 2.6E+05 | 7.5E+00 | 1.3E+01 | NA | 1.3E+01 | 7.5E+00 | C |
| **Inorganics** | | | | | | | | |
| Ammonia (as N) | NA | NA | NA | NA | NA | NA | NA | |
| Asbestos | NA | NA | NA | NA | NA | NA | NA | |

RRSc (for carcinogens) is calculated using a target cancer risk (TCR) of 1E-05; RRSnc (for noncarcinogens) is calculated using a target hazard index (THI) of 1.

mg/kg Milligram per kilogram.
NA Not available.
RRS Risk reduction standard.

**Table C-7**
**Risk Reduction Standards for Potential Child Residential Exposure (Type 2) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS | | | NON-CANCER EFFECTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | Route-Specific RRS (mg/kg) | | Calculated | Route-Specific RRS (mg/kg) | | Calculated | RRS | |
| | Oral | Inhalation | Goal (mg/kg) | Oral | Inhalation | Goal (mg/kg) | (mg/kg) | |
| **Volatile Organic Compounds** | | | | | | | | |
| Acetone | NA | NA | NA | 7.0E+04 | 6.2E+04 | 3.3E+04 | 3.3E+04 | N |
| Acetonitrile | NA | NA | NA | NA | 1.5E+02 | 1.5E+02 | 1.5E+02 | N |
| Acetophenone | NA | NA | NA | 7.8E+03 | NA | 7.8E+03 | 7.8E+03 | N |
| Acrolein | NA | NA | NA | 3.9E+01 | 1.3E-02 | 1.3E-02 | 1.3E-02 | N |
| Benzene | 1.7E+02 | 2.0E+01 | 1.8E+01 | 3.1E+02 | 4.1E+01 | 3.6E+01 | 1.8E+01 | C |
| Biphenyl | 1.1E+03 | NA | 1.1E+03 | 3.9E+03 | 1.9E+01 | 1.9E+01 | 1.9E+01 | N |
| Carbon disulfide | NA | NA | NA | 7.8E+03 | 1.9E+02 | 1.8E+02 | 1.8E+02 | N |
| Chlorobenzene | NA | NA | NA | 1.6E+03 | 1.3E+02 | 1.2E+02 | 1.2E+02 | N |
| trans-1,4-Dichlorobutene | NA | 1.2E-01 | 1.2E-01 | NA | NA | NA | 1.2E-01 | C |
| 1,2-Dichloropropane | 2.5E+02 | 1.6E+01 | 1.5E+01 | 7.0E+03 | 5.4E+00 | 5.4E+00 | 5.4E+00 | N |
| 1,4-Dichloro-2-butene | NA | 1.2E-01 | 1.2E-01 | NA | NA | NA | 1.2E-01 | C |
| Ethylbenzene | 8.3E+02 | 1.1E+02 | 9.4E+01 | 7.8E+03 | 2.3E+03 | 1.8E+03 | 9.4E+01 | C |
| Ethyl Methacrylate | NA | NA | NA | 7.0E+03 | NA | 7.0E+03 | 7.0E+03 | N |
| Isobutyl alcohol | NA | NA | NA | 2.3E+04 | NA | 2.3E+04 | 2.3E+04 | N |
| Methyl ethyl ketone | NA | NA | NA | 4.7E+04 | 1.2E+04 | 9.3E+03 | 9.3E+03 | N |
| Methyl isobutyl ketone | NA | NA | NA | 6.3E+03 | 8.6E+03 | 3.6E+03 | 3.6E+03 | N |
| Styrene | NA | NA | NA | 1.6E+04 | 3.8E+03 | 3.1E+03 | 3.1E+03 | N |
| Tetrachloroethene | 4.3E+03 | 3.5E+02 | 3.3E+02 | 4.7E+02 | 3.2E+01 | 3.0E+01 | 3.0E+01 | N |
| Toluene | NA | NA | NA | 6.3E+03 | 8.4E+03 | 3.6E+03 | 3.6E+03 | N |
| Xylenes (total) | NA | NA | NA | 1.6E+04 | 2.3E+02 | 2.3E+02 | 2.3E+02 | N |
| m-Xylene | NA | NA | NA | 1.6E+04 | 2.2E+02 | 2.2E+02 | 2.2E+02 | N |
| o-Xylene | NA | NA | NA | 1.6E+04 | 2.6E+02 | 2.6E+02 | 2.6E+02 | N |
| p-Xylene | NA | NA | NA | 1.6E+04 | 2.2E+02 | 2.2E+02 | 2.2E+02 | N |
| m & p-Xylenes | NA | NA | NA | 1.6E+04 | 1.3E+02 | 1.3E+02 | 1.3E+02 | N |
| **Semi Volatile Organic Compounds** | | | | | | | | |
| Aniline | 1.6E+03 | 1.0E+08 | 1.6E+03 | 5.5E+02 | 1.4E+06 | 5.5E+02 | 5.5E+02 | N |
| Bis(2-ethylhexyl)phthalate | 6.5E+02 | 6.7E+07 | 6.5E+02 | 1.6E+03 | NA | 1.6E+03 | 6.5E+02 | C |
| Butyl benzyl phthalate | 4.8E+03 | NA | 4.8E+03 | 1.6E+04 | NA | 1.6E+04 | 4.8E+03 | C |

**Table C-7**
**Risk Reduction Standards for Potential Child Residential Exposure (Type 2) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS | | | NON-CANCER EFFECTS | | | | |
|---|---|---|---|---|---|---|---|---|
| | Route-Specific RRS (mg/kg) | | Calculated | Route-Specific RRS (mg/kg) | | Calculated | RRS | |
| | Oral | Inhalation | Goal (mg/kg) | Oral | Inhalation | Goal (mg/kg) | (mg/kg) | |
| Total Cresols | NA | NA | NA | 7.8E+03 | 8.3E+08 | 7.8E+03 | 7.8E+03 | N |
| m & p-Cresols | NA | NA | NA | 7.8E+03 | NA | 7.8E+03 | 7.8E+03 | N |
| m-Cresol | NA | NA | NA | 3.9E+03 | 8.3E+08 | 3.9E+03 | 3.9E+03 | N |
| o-Cresol | NA | NA | NA | 3.9E+03 | 8.3E+08 | 3.9E+03 | 3.9E+03 | N |
| p-Cresol | NA | NA | NA | 3.9E+02 | 8.3E+08 | 3.9E+02 | 3.9E+02 | N |
| Dibenzofuran | NA | NA | NA | 7.8E+01 | NA | 7.8E+01 | 7.8E+01 | N |
| 2,4-Dimethylphenol | NA | NA | NA | 1.6E+03 | NA | 1.6E+03 | 1.6E+03 | N |
| m-Dinitrobenzene | NA | NA | NA | 7.8E+00 | NA | 7.8E+00 | 7.8E+00 | N |
| Di-n-octyl phthalate | NA | NA | NA | NA | NA | NA | NA | |
| 1,4-Dioxane | 9.1E+01 | 2.1E+07 | 9.1E+01 | 2.3E+03 | 4.1E+09 | 2.3E+03 | 9.1E+01 | C |
| Formaldehyde | NA | 1.2E+07 | 1.2E+07 | 1.6E+04 | 1.4E+07 | 1.6E+04 | 1.6E+04 | N |
| N-Nitrosodi-n-butylamine | 1.7E+00 | 6.0E+00 | 1.3E+00 | NA | NA | NA | 1.3E+00 | C |
| N-Nitroso-n-methylethylamine | 4.1E-01 | 2.6E+04 | 4.1E-01 | NA | NA | NA | 4.1E-01 | C |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | |
| Acenaphthene | NA | NA | NA | 4.7E+03 | NA | 4.7E+03 | 4.7E+03 | N |
| Acenaphthylene | NA | NA | NA | NA | NA | NA | NA | |
| Anthracene | NA | NA | NA | 2.3E+04 | NA | 2.3E+04 | 2.3E+04 | N |
| Benzo(a)anthracene | 1.3E+01 | 1.5E+06 | 1.2E+01 | NA | NA | NA | 1.2E+01 | C |
| Benzo(a)pyrene | 1.3E+00 | 1.5E+05 | 1.2E+00 | NA | NA | NA | 1.2E+00 | C |
| Benzo(b)fluoranthene | 1.3E+01 | 1.5E+06 | 1.2E+01 | NA | NA | NA | 1.2E+01 | C |
| Benzo(g,h,i)perylene | NA | NA | NA | NA | NA | NA | NA | |
| Benzo(k)fluoranthene | 1.3E+02 | 1.5E+06 | 1.2E+02 | NA | NA | NA | 1.2E+02 | C |
| Chrysene | 1.3E+03 | 1.5E+07 | 1.2E+03 | NA | NA | NA | 1.2E+03 | C |
| Dibenzo(a,h)anthracene | 1.3E+00 | 1.3E+05 | 1.2E+00 | NA | NA | NA | 1.2E+00 | C |
| Fluoranthene | NA | NA | NA | 3.1E+03 | NA | 3.1E+03 | 3.1E+03 | N |
| Fluorene | NA | NA | NA | 3.1E+03 | NA | 3.1E+03 | 3.1E+03 | N |
| Indeno(1,2,3-cd)pyrene | 1.3E+01 | 1.5E+06 | 1.2E+01 | NA | NA | NA | 1.2E+01 | C |
| Naphthalene | NA | 6.6E+01 | 6.6E+01 | 1.6E+03 | 5.7E+01 | 5.5E+01 | 5.5E+01 | N |
| Phenanthrene | NA | NA | NA | NA | NA | NA | NA | |

**Table C-7**
**Risk Reduction Standards for Potential Child Residential Exposure (Type 2) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/kg) Oral | CANCER EFFECTS Route-Specific RRS (mg/kg) Inhalation | CANCER EFFECTS Calculated Goal (mg/kg) | NON-CANCER EFFECTS Route-Specific RRS (mg/kg) Oral | NON-CANCER EFFECTS Route-Specific RRS (mg/kg) Inhalation | NON-CANCER EFFECTS Calculated Goal (mg/kg) | RRS (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| Pyrene | NA | NA | NA | 2.3E+03 | NA | 2.3E+03 | 2.3E+03 | N |
| **Dioxins** | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 7.0E-05 | 4.2E+00 | 7.0E-05 | 7.8E-05 | 5.5E+01 | 7.8E-05 | 7.0E-05 | C |
| **Pesticides** | | | | | | | | |
| Endrin | NA | NA | NA | 2.3E+01 | NA | 2.3E+01 | 2.3E+01 | N |
| Endrin aldehyde | NA | NA | NA | NA | NA | NA | NA | |
| 4,4'-DDT | 2.7E+01 | 1.7E+06 | 2.7E+01 | 3.9E+01 | NA | 3.9E+01 | 2.7E+01 | C |
| Methoxychlor | NA | NA | NA | 3.9E+02 | NA | 3.9E+02 | 3.9E+02 | N |
| Parathion | NA | NA | NA | 4.7E+02 | NA | 4.7E+02 | 4.7E+02 | N |
| **Polychlorinated Biphenyls** | | | | | | | | |
| Aroclor 1254 | 4.6E+00 | 2.8E+05 | 4.6E+00 | 1.6E+00 | NA | 1.6E+00 | 1.6E+00 | N |
| Aroclor 1260 | 4.6E+00 | 2.8E+05 | 4.6E+00 | NA | NA | NA | 4.6E+00 | C |
| Total PCBs | 4.6E+00 | 2.8E+05 | 4.6E+00 | 1.6E+00 | NA | 1.6E+00 | 1.6E+00 | N |
| **Inorganics** | | | | | | | | |
| Ammonia (as N) | NA | NA | NA | NA | NA | NA | NA | |
| Asbestos | NA | NA | NA | NA | NA | NA | NA | |

RRSc (for carcinogens) is calculated using a target cancer risk (TCR) of 1E-05; RRSnc (for noncarcinogens) is calculated using a target hazard index (THI) of 1.

| | |
|---|---|
| mg/kg | Milligram per kilogram. |
| NA | Not available. |
| RRS | Risk reduction standard. |

**Table C-8-A**
**Comparison of Maximum Concentrations Detected in Surface Soil to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/kg) | Source of Type 3 Standard [a] | Type 4 RRS [b] (mg/kg) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 4.1 | SB-F3 | 10/24/2000 | 400 | GW | 400 | Type 3 | no | no |
| Acetonitrile | 0.075 | DS-18 | 11/10/2008 | 20 | GW | 20 | Type 3 | no | no |
| Acetophenone | <0.33 | NA | NA | 400 | GW | 400 | Type 3 | no | no |
| Acrolein | 0.11 | Confirmation_Sample | 12/1/2000 | 0.065 | PRGnc-Ind | 0.065 | Type 3 | YES | YES |
| Benzene | 0.38 | SD-F6 | 11/2/2000 | 0.50 | GW | 0.5 | Type 3 | no | no |
| Biphenyl | 700 | EX-19 | 7/27/2007 | 0.33 | PRGnc-Ind | 0.33 | Type 3 | YES | YES |
| Carbon disulfide | 0.0076 | SB-F6 | 10/19/2000 | 400 | GW | 400 | Type 3 | no | no |
| Chlorobenzene | 0.0011 | DS-16 | 11/10/2008 | 10 | GW | 10 | Type 3 | no | no |
| trans-1,4-Dichlorobutene | 0.020 | DS-15 | 11/10/2008 | 0.14167312 | PRGc-Ind | 0.14 | Type 3 | no | no |
| 1,2-Dichloropropane | <0.005 | NA | NA | 0.50 | GW | 0.50 | Type 3 | no | no |
| 1,4-Dichloro-2-butene | <0.005 | NA | NA | 0.14154216 | PRGc-Ind | 0.14 | Type 3 | no | no |
| Ethylbenzene | 3.3 | EX-19 | 7/27/2007 | 70 | GW | 70 | Type 3 | no | no |
| Ethyl Methacrylate | 0.89 | GP-16 | 7/27/2007 | 1,000 | A-I | 1,000 | Type 3 | no | no |
| Isobutyl alcohol | 0.17 | DS-13 | 11/10/2008 | 1,000 | GW | 1,000 | Type 3 | no | no |
| Methyl ethyl ketone | 0.49 | SD-F6 | 11/2/2000 | 200 | GW | 200 | Type 3 | no | no |
| Methyl isobutyl ketone | 0.0099 | DS-14 | 11/10/2008 | 200 | GW | 200 | Type 3 | no | no |
| Styrene | <0.005 | NA | NA | 14 | A-I | 14 | Type 3 | no | no |
| Tetrachloroethene | <0.005 | NA | NA | 0.5 | GW | 0.5 | Type 3 | no | no |
| Toluene | 2.8 | EX-19 | 7/27/2007 | 100 | GW | 100 | Type 3 | no | no |
| Xylenes (total) | 14 | EX-19 | 7/27/2007 | 1,000 | GW | 1,000 | Type 3 | no | no |
| m-Xylene | 0.024 | SS-31 | 11/8/2002 | 20 | A-I | 20 | Type 3 | no | no |
| o-Xylene | 0.035 | 50-SC Composite | 1/19/2000 | 20 | A-I | 20 | Type 3 | no | no |
| p-Xylene | 0.099 | 50-NC Composite | NA | 20 | A-I | 20 | Type 3 | no | no |
| m & p-Xylenes | 0.099 | 50-NC Composite | 1/19/2000 | 20 | A-I | 20 | Type 3 | no | no |
| **Semi Volatile Organic Compounds** | | | | | | | | | |
| Aniline | 3.3 | SB-F3 | 10/24/2000 | 0.66 | PRGc-Ind | 0.66 | Type 3 | YES | YES |
| Bis(2-ethylhexyl)phthalate | 2.2 | SS-32 | 11/8/2002 | 50 | A-I | 50 | Type 3 | no | no |
| Butyl benzyl phthalate | 0.072 | DS-10 | 11/7/2008 | 50 | A-I | 50 | Type 3 | no | no |
| Total Cresols | <0.33 | NA | NA | 3.8 | A-I | 8.1 | SSL | no | no |
| m & p-Cresols | <0.33 | NA | NA | 13.2 | A-I | 13 | Type 3 | no | no |
| m-Cresol | <0.33 | NA | NA | 3.8 | A-I | 4.1 | SSL | no | no |
| o-Cresol | <0.33 | NA | NA | 3.8 | A-I | 4.1 | SSL | no | no |
| p-Cresol | <0.33 | NA | NA | 3.8 | A-I | 3.8 | Type 3 | no | no |
| Dibenzofuran | 0.024 | DS-10 | 11/7/2008 | 0.33 | PRGnc-Ind | 1.9 | SSL | no | no |

**Table C-8-A**
**Comparison of Maximum Concentrations Detected in Surface Soil to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/kg) | Source of Type 3 Standard [a] | Type 4 RRS [b] (mg/kg) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dimethylphenol | <0.33 | NA | NA | 70 | GW | 70 | Type 3 | no | no |
| m-Dinitrobenzene | <0.33 | NA | NA | 1.05 | A-I | 1.05 | Type 3 | no | no |
| Di-n-octyl phthalate | 0.062 | DS-10 | 11/7/2008 | 70 | GW | 70 | Type 3 | no | no |
| 1,4-Dioxane | 0.05 | NA | NA | 7 | GW | 7 | Type 3 | no | no |
| Formaldehyde | 54 | SS-82 | 11/6/2008 | 100 | GW | 100 | Type 3 | no | no |
| N-Nitrosodi-n-butylamine | <0.33 | NA | NA | 0.33 | PRGc-Ind | 0.33 | Type 3 | no | no |
| N-Nitroso-n-methylethylamine | <0.33 | NA | NA | 0.33 | PRGc-Ind | 0.33 | Type 3 | no | no |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | |
| Acenaphthene | 0.054 | DS-10 | 11/7/2008 | 300 | A-I | 300 | Type 3 | no | no |
| Acenaphthylene | 0.18 | DS-1 | 11/7/2008 | 130 | A-I | 130 | Type 3 | no | no |
| Anthracene | 0.21 | DS-3 | 11/7/2008 | 500 | A-I | 1,020 | SSL | no | no |
| Benzo(a)anthracene | 0.4 | DS-10 | 11/7/2008 | 5 | A-I | 5 | Type 3 | no | no |
| Benzo(a)pyrene | 0.72 | SS-62 | 12/19/2002 | 1.64 | A-I | 1.64 | Type 3 | no | no |
| Benzo(b)fluoranthene | 0.77 | DS-7 | 11/7/2008 | 5 | A-I | 5 | Type 3 | no | no |
| Benzo(g,h,i)perylene | 0.31 | DS-18 | 11/10/2008 | 500 | A-I | 500 | Type 3 | no | no |
| Benzo(k)fluoranthene | 0.45 | DS-7 | 11/7/2008 | 5 | A-I | 46 | SSL | no | no |
| Chrysene | 0.65 | DS-7 | 11/7/2008 | 5 | A-I | 141 | SSL | no | no |
| Dibenzo(a,h)anthracene | 0.23 | DS-18 | 11/10/2008 | 5 | A-I | 5.0 | Type 3 | no | no |
| Fluoranthene | 1.5 | DS-10 | 11/7/2008 | 500 | A-I | 500 | Type 3 | no | no |
| Fluorene | 0.043 | DS-10 | 11/7/2008 | 360 | A-I | 360 | Type 3 | no | no |
| Indeno(1,2,3-cd)pyrene | 0.24 | DS-18DS-7 | .0/200811/7/20( | 5 | A-I | 15 | SSL | no | no |
| Naphthalene | <0.33 | NA | NA | 100 | A-I | 100 | Type 3 | no | no |
| Phenanthrene | 0.46 | SS-1 | 7/2/2004 | 110 | A-I | 110 | Type 3 | no | no |
| Pyrene | 0.81 | DS-7 | 11/7/2008 | 500 | A-I | 500 | Type 3 | no | no |
| **Dioxins** | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 0.0000062 | SB-F1 | 10/19/2000 | 0.00008 | A-I | 0.00022 | SSL | no | no |
| **Pesticides** | | | | | | | | | |
| Endrin | <0.0033 | NA | NA | 10 | A-I | 10 | Type 3 | no | no |
| Endrin aldehyde | <0.0033 | NA | NA | 10 | A-I | 10 | Type 3 | no | no |
| 4,4'-DDT | 0.0078 | SB-F6/F4/F15/F27 | 10/20/2000 | 0.66 | A-I | 2.8 | SSL | no | no |
| Methoxychlor | <0.0033 | NA | NA | 10 | A-I | 28 | SSL | no | no |
| Parathion | 2.1 | SB-F6 | 10/19/2000 | 20 | GW | 20 | Type 3 | no | no |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| Aroclor 1254 | 0.78 | SS-88 | 11/6/2008 | 1.55 | A-I | 1.55 | Type 3 | no | no |
| Aroclor 1260 | 0.25 | SS-88 | 11/6/2008 | 1.55 | A-I | 1.55 | Type 3 | no | no |
| Total PCBs | 1.03 | SS-88 | NA | 1.55 | A-I | 1.55 | Type 3 | no | no |

**Table C-8-A**
**Comparison of Maximum Concentrations Detected in Surface Soil to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/kg) | Source of Type 3 Standard [a] | Type 4 RRS [b] (mg/kg) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Inorganics** | | | | | | | | | |
| Ammonia (as N) | NA | NA | NA | 3,000 | GW | 3,000 | Type 3 | no | no |
| Asbestos | NA | NA | NA | 0.01 | DL | 0.01 | DL | no | no |

| | |
|---|---|
| | Risk Reduction Standard exceeded. |
| mg/kg | Milligrams per kilogram. |
| NA | Not applicable. |
| RRS | Risk Reduction Standard. |
| [a] | Source of Type 3 RRS:<br>A-1: Appendix I notification requirement (NC) ("App I NC").<br>A-III: Appendix III.<br>DL: Detection limit.<br>GW: Appendix III Table 1 times 100.<br>PRGc-Res: Calculated default industrial carcinogenic preliminary remediation goal.<br>PRGnc-Res: Calculated default industrial non-carcinogenic preliminary remediation goal. |
| [b] | Source of Type 4 RRS:<br>RRS: Calculated site-specific industrial risk reduction standard.<br>SSL: Soil screeening level for Migration to Groundwater.<br>Type 3 RRS. |
| [c] | Constituent detected in a composite sample but not in the grab samples. Therefore, a concentration is not reported. |

**Table C-8-B**
**Comparison of Maximum Concentrations Detected in Subsurface Soil to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/kg) | Source of Type 3 Standard [a] | Type 4 RRS [b] (mg/kg) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 10 | DS-14 | 11/10/2008 | 400 | GW | 400 | Type 3 | no | no |
| Acetonitrile | <0.2 | NA | NA | 20 | GW | 20 | Type 3 | no | no |
| Acetophenone | <0.33 | NA | NA | 400 | GW | 400 | Type 3 | no | no |
| Acrolein | 0.13 | Confirmation_Sample | 12/1/2000 | 70 | GW | 70 | Type 3 | no | no |
| Benzene | 0.11 | 50-NC Composite | 1/19/2000 | 0.50 | GW | 0.50 | Type 3 | no | no |
| Biphenyl | 9.0 | DS-9 | 11/7/2008 | 0.33 | DL | 0.33 | Type 3 | YES | YES |
| Carbon disulfide | 0.0083 | DS-9 | 11/7/2008 | 400 | GW | 400 | Type 3 | no | no |
| Chlorobenzene | <0.005 | NA | NA | 10 | GW | 10 | Type 3 | no | no |
| trans-1,4-Dichlorobutene | <0.01 | NA | NA | 25 | A-I | 25 | Type 3 | no | no |
| 1,2-Dichloropropane | <0.005 | NA | NA | 0.50 | GW | 0.50 | Type 3 | no | no |
| 1,4-Dichloro-2-butene | <0.005 | NA | NA | 25 | A-I | 25 | Type 3 | no | no |
| Ethylbenzene | 10 | SB-99 | 11/6/2008 | 70 | GW | 70 | Type 3 | no | no |
| Ethyl Methacrylate | <0.005 | NA | NA | 1,000 | A-I | 1,000 | Type 3 | no | no |
| Isobutyl alcohol | <0.2 | NA | NA | 1,000 | GW | 1,000 | Type 3 | no | no |
| Methyl ethyl ketone | 0.040 | DS-14 | 11/10/2008 | 200 | GW | 200 | Type 3 | no | no |
| Methyl isobutyl ketone | 0.0087 | DS-14 | 11/10/2008 | 200 | GW | 200 | Type 3 | no | no |
| Styrene | 0.0029 | DS-6 | 11/7/2008 | 14 | A-I | 14 | Type 3 | no | no |
| Tetrachloroethene | <0.005 | NA | NA | 0.5 | GW | 0.5 | Type 3 | no | no |
| Toluene | 8.9 | SB-99 | 11/6/2008 | 100 | GW | 100 | Type 3 | no | no |
| Xylenes (total) | 83 | SB-99 | 11/6/2008 | 1,000 | GW | 1,000 | Type 3 | no | no |
| m-Xylene | <0.005 | NA | NA | 20 | A-I | 20 | Type 3 | no | no |
| o-Xylene | 0.035 | 50-SC Composite | 1/19/2000 | 20 | A-I | 20 | Type 3 | no | no |
| p-Xylene | 0.005 | 50-NC Composite | NA | 20 | A-I | 20 | Type 3 | no | no |
| m & p-Xylenes | 0.099 | 50-NC Composite | 1/19/2000 | 20 | A-I | 20 | Type 3 | no | no |
| **Semi Volatile Organic Compounds** | | | | | | | | | |
| Aniline | <0.66 | NA | NA | 0.66 | DL | 0.66 | Type 3 | no | no |
| Bis(2-ethylhexyl)phthalate | 0.060 | DS-4 | 11/7/2008 | 50 | A-I | 50 | Type 3 | no | no |
| Butyl benzyl phthalate | <0.33 | NA | NA | 50 | A-I | 50 | Type 3 | no | no |
| Total Cresols | <0.33 | NA | NA | 3.8 | A-I | 8.1 | SSL | no | no |
| m & p-Cresols | <0.33 | NA | NA | 13.2 | A-I | 13.2 | Type 3 | no | no |
| m-Cresol | <0.33 | NA | NA | 3.8 | A-I | 4.1 | SSL | no | no |
| o-Cresol | <0.33 | NA | NA | 3.8 | A-I | 4.1 | SSL | no | no |

**Table C-8-B**
**Comparison of Maximum Concentrations Detected in Subsurface Soil to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/kg) | Source of Type 3 Standard [a] | Type 4 RRS [b] (mg/kg) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| p-Cresol | <0.33 | NA | NA | 3.8 | A-I | 3.8 | Type 3 | no | no |
| Dibenzofuran | 0.019 | DS-4 | 11/7/2008 | 0.33 | DL | 1.9 | SSL | no | no |
| 2,4-Dimethylphenol | <0.33 | NA | NA | 70 | GW | 70 | Type 3 | no | no |
| m-Dinitrobenzene | <0.33 | NA | NA | 1.05 | A-I | 1.05 | Type 3 | no | no |
| Di-n-octyl phthalate | <0.33 | NA | NA | 70 | GW | 70 | Type 3 | no | no |
| 1,4-Dioxane | 0.05 | NA | NA | 7.0 | GW | 7.0 | Type 3 | no | no |
| Formaldehyde | 1.2 | SS-78 | 8/15/2006 | 100 | GW | 100 | Type 3 | no | no |
| N-Nitrosodi-n-butylamine | <0.33 | NA | NA | 0.33 | DL | 0.33 | Type 3 | no | no |
| N-Nitroso-n-methylethylamine | <0.33 | NA | NA | 0.33 | DL | 0.33 | Type 3 | no | no |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | |
| Acenaphthene | 0.073 | DS-1 | 11/7/2008 | 300 | A-I | 300 | Type 3 | no | no |
| Acenaphthylene | 0.093 | DS-4 | 11/7/2008 | 130 | A-I | 130 | Type 3 | no | no |
| Anthracene | 0.11 | DS-4 | 11/7/2008 | 500 | A-I | 1,020 | SSL | no | no |
| Benzo(a)anthracene | 0.28 | DS-4 | 11/7/2008 | 5.0 | A-I | 5.0 | Type 3 | no | no |
| Benzo(a)pyrene | 0.27 | DS-4 | 11/7/2008 | 1.64 | A-I | 1.64 | Type 3 | no | no |
| Benzo(b)fluoranthene | 0.71 | DS-4 | 11/7/2008 | 5.0 | A-I | 5.0 | Type 3 | no | no |
| Benzo(g,h,i)perylene | 0.58 | DS-17 | 11/10/2008 | 500 | A-I | 500 | Type 3 | no | no |
| Benzo(k)fluoranthene | <0.33 | NA | NA | 5.0 | A-I | 46 | SSL | no | no |
| Chrysene | 0.52 | DS-4 | 11/7/2008 | 5.0 | A-I | 141 | SSL | no | no |
| Dibenzo(a,h)anthracene | 0.56 | DS-17 | 11/10/2008 | 5.0 | A-I | 5.0 | Type 3 | no | no |
| Fluoranthene | 1.2 | DS-4 | 11/7/2008 | 500 | A-I | 500 | Type 3 | no | no |
| Fluorene | 0.045 | DS-4 | 11/7/2008 | 360 | A-I | 360 | Type 3 | no | no |
| Indeno(1,2,3-cd)pyrene | 0.51 | DS-17 | 11/10/2008 | 5.0 | A-I | 15 | SSL | no | no |
| Naphthalene | <0.33 | NA | NA | 100 | A-I | 100 | Type 3 | no | no |
| Phenanthrene | 0.31 | DS-4 | 11/7/2008 | 110 | A-I | 110 | Type 3 | no | no |
| Pyrene | 1.0 | DS-4 | 11/7/2008 | 500 | A-I | 500 | Type 3 | no | no |
| **Dioxins** | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 0.0000062 | SB-F1 | 10/19/2000 | 0.00008 | A-I | 0.00022 | SSL | no | no |
| **Pesticides** | | | | | | | | | |
| Endrin | <0.0033 | NA | NA | 10 | A-I | 10 | Type 3 | no | no |
| Endrin aldehyde | <0.0033 | NA | NA | 10 | A-I | 10 | Type 3 | no | no |
| 4,4'-DDT | 0.0078 | SB-F6/F4/F15/F27 | 36819 | 0.66 | A-I | 2.8 | SSL | no | no |
| Methoxychlor | <0.0033 | NA | NA | 10 | A-I | 28 | SSL | no | no |

**Table C-8-B**
**Comparison of Maximum Concentrations Detected in Subsurface Soil to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/kg) | Source of Type 3 Standard [a] | Type 4 RRS [b] (mg/kg) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| Parathion | 2.1 | SB-F6 | 10/19/2000 | 20 | GW | 20 | Type 3 | no | no |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| Aroclor 1254 | 0.054 | SB-F14/F12 | 10/20/2000 | 1.55 | A-I | 1.55 | Type 3 | no | no |
| Aroclor 1260 | <0.033 | NA | NA | 1.55 | A-I | 1.55 | Type 3 | no | no |
| Total PCBs | 0.054 | SB-F14/F12 | 10/20/2000 | 1.55 | A-I | 1.55 | Type 3 | no | no |
| **Inorganics** | | | | | | | | | |
| Ammonia (as N) | NA | NA | NA | 3,000 | GW | 3,000 | Type 3 | no | no |
| Asbestos | NA | NA | NA | 0.01 | DL | 0.01 | DL | no | no |

| | |
|---|---|
| | Risk Reduction Standard exceeded. |
| mg/kg | Milligrams per kilogram. |
| NA | Not applicable. |
| RRS | Risk Reduction Standard. |
| [a] | Source of Type 3 RRS:<br>A-1: Appendix I notification requirement (NC) ("App I NC").<br>A-III: Appendix III.<br>DL: Detection limit.<br>GW: Appendix III Table 1 times 100. |
| [b] | Source of Type 4 RRS:<br>RRS: Calculated site-specific industrial risk reduction standard.<br>SSL: Soil screeening level for Migration to Groundwater.<br>Type 3 RRS. |
| [c] | Constituent detected in a composite sample but not in the grab samples. Therefore, a concentration is not reported. |

**Table C-9**
**Risk Reduction Standards for Potential Adult Industrial Exposure (Type 4) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRSs (mg/kg) Oral | Inhalation | RRSc (mg/kg) | NON-CANCER EFFECTS Route-Specific RRSs (mg/kg) Oral | Inhalation | RRSnc (mg/kg) | Calculated Goal (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | |
| Acetone | NA | NA | NA | 1.8E+06 | 3.0E+05 | 2.6E+05 | 2.6E+05 | N |
| Acetonitrile | NA | NA | NA | NA | 7.4E+02 | 7.4E+02 | 7.4E+02 | N |
| Acetophenone | NA | NA | NA | 2.0E+05 | NA | 2.0E+05 | 2.0E+05 | N |
| Acrolein | NA | NA | NA | 1.0E+03 | 6.5E-02 | 6.5E-02 | 6.5E-02 | N |
| Benzene | 1.0E+03 | 2.4E+01 | 2.3E+01 | 8.2E+03 | 2.0E+02 | 1.9E+02 | 2.3E+01 | C |
| Biphenyl | 7.2E+03 | NA | 7.2E+03 | 1.0E+05 | 9.3E+01 | 9.3E+01 | 9.3E+01 | N |
| Carbon disulfide | NA | NA | NA | 2.0E+05 | 9.1E+02 | 9.0E+02 | 9.0E+02 | N |
| Chlorobenzene | NA | NA | NA | 4.1E+04 | 6.3E+02 | 6.2E+02 | 6.2E+02 | N |
| trans-1,4-Dichlorobutene | NA | 1.4E-01 | 1.4E-01 | NA | NA | NA | 1.4E-01 | C |
| 1,2-Dichloropropane | 1.6E+03 | 1.9E+01 | 1.8E+01 | 1.8E+05 | 2.6E+01 | 2.6E+01 | 1.8E+01 | C |
| 1,4-Dichloro-2-butene | NA | 1.4E-01 | 1.4E-01 | NA | NA | NA | 1.4E-01 | C |
| Ethylbenzene | 5.2E+03 | 1.2E+02 | 1.2E+02 | 2.0E+05 | 1.1E+04 | 1.1E+04 | 1.2E+02 | C |
| Ethyl Methacrylate | NA | NA | NA | 1.8E+05 | NA | 1.8E+05 | 1.8E+05 | N |
| Isobutyl alcohol | NA | NA | NA | 6.1E+05 | NA | 6.1E+05 | 6.1E+05 | N |
| Methyl ethyl ketone | NA | NA | NA | 1.2E+06 | 5.7E+04 | 5.5E+04 | 5.5E+04 | N |
| Methyl isobutyl ketone | NA | NA | NA | 1.6E+05 | 4.2E+04 | 3.4E+04 | 3.4E+04 | N |
| Styrene | NA | NA | NA | 4.1E+05 | 1.9E+04 | 1.8E+04 | 1.8E+04 | N |
| Tetrachloroethene | 2.7E+04 | 4.2E+02 | 4.1E+02 | 1.2E+04 | 1.5E+02 | 1.5E+02 | 1.5E+02 | N |
| Toluene | NA | NA | NA | 1.6E+05 | 4.1E+04 | 3.3E+04 | 3.3E+04 | N |
| Xylenes (total) | NA | NA | NA | 4.1E+05 | 1.1E+03 | 1.1E+03 | 1.1E+03 | N |
| m-Xylene | NA | NA | NA | 4.1E+05 | 1.1E+03 | 1.1E+03 | 1.1E+03 | N |
| o-Xylene | NA | NA | NA | 4.1E+05 | 1.3E+03 | 1.3E+03 | 1.3E+03 | N |
| p-Xylene | NA | NA | NA | 4.1E+05 | 1.1E+03 | 1.1E+03 | 1.1E+03 | N |
| m & p-Xylenes | NA | NA | NA | 4.1E+05 | 6.6E+02 | 6.6E+02 | 6.6E+02 | N |
| **Semi Volatile Organic Compounds** | | | | | | | | |
| Aniline | 1.0E+04 | 1.2E+08 | 1.0E+04 | 1.4E+04 | 6.8E+06 | 1.4E+04 | 1.0E+04 | C |
| Bis(2-ethylhexyl)phthalate | 4.1E+03 | 7.9E+07 | 4.1E+03 | 4.1E+04 | NA | 4.1E+04 | 4.1E+03 | C |

**Table C-9**
**Risk Reduction Standards for Potential Adult Industrial Exposure (Type 4) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRSs (mg/kg) Oral | Inhalation | RRSc (mg/kg) | NON-CANCER EFFECTS Route-Specific RRSs (mg/kg) Oral | Inhalation | RRSnc (mg/kg) | Calculated Goal (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 3.0E+04 | NA | 3.0E+04 | 4.1E+05 | NA | 4.1E+05 | 3.0E+04 | C |
| Total Cresols | NA | NA | NA | 2.0E+05 | 4.1E+09 | 2.0E+05 | 2.0E+05 | N |
| m & p-Cresols | NA | NA | NA | 2.0E+05 | NA | 2.0E+05 | 2.0E+05 | N |
| m-Cresol | NA | NA | NA | 1.0E+05 | 4.1E+09 | 1.0E+05 | 1.0E+05 | N |
| o-Cresol | NA | NA | NA | 1.0E+05 | 4.1E+09 | 1.0E+05 | 1.0E+05 | N |
| p-Cresol | NA | NA | NA | 1.0E+04 | 4.1E+09 | 1.0E+04 | 1.0E+04 | N |
| Dibenzofuran | NA | NA | NA | 2.0E+03 | NA | 2.0E+03 | 2.0E+03 | N |
| 2,4-Dimethylphenol | NA | NA | NA | 4.1E+04 | NA | 4.1E+04 | 4.1E+04 | N |
| m-Dinitrobenzene | NA | NA | NA | 2.0E+02 | NA | 2.0E+02 | 2.0E+02 | N |
| Di-n-octyl phthalate | NA | NA | NA | NA | NA | NA | NA | |
| 1,4-Dioxane | 5.7E+02 | 2.5E+07 | 5.7E+02 | 6.1E+04 | 2.0E+10 | 6.1E+04 | 5.7E+02 | C |
| Formaldehyde | NA | 1.5E+07 | 1.5E+07 | 4.1E+05 | 6.6E+07 | 4.1E+05 | 4.1E+05 | N |
| N-Nitrosodi-n-butylamine | 1.1E+01 | 7.0E+00 | 4.2E+00 | NA | NA | NA | 4.2E+00 | C |
| N-Nitroso-n-methylethylamine | 2.6E+00 | 3.0E+04 | 2.6E+00 | NA | NA | NA | 2.6E+00 | C |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | |
| Acenaphthene | NA | NA | NA | 1.2E+05 | NA | 1.2E+05 | 1.2E+05 | N |
| Acenaphthylene | NA | NA | NA | NA | NA | NA | NA | |
| Anthracene | NA | NA | NA | 6.1E+05 | NA | 6.1E+05 | 6.1E+05 | N |
| Benzo(a)anthracene | 7.8E+01 | 1.7E+06 | 7.8E+01 | NA | NA | NA | 7.8E+01 | C |
| Benzo(a)pyrene | 7.8E+00 | 1.7E+05 | 7.8E+00 | NA | NA | NA | 7.8E+00 | C |
| Benzo(b)fluoranthene | 7.8E+01 | 1.7E+06 | 7.8E+01 | NA | NA | NA | 7.8E+01 | C |
| Benzo(g,h,i)perylene | NA | NA | NA | NA | NA | NA | NA | |
| Benzo(k)fluoranthene | 7.8E+02 | 1.7E+06 | 7.8E+02 | NA | NA | NA | 7.8E+02 | C |
| Chrysene | 7.8E+03 | 1.7E+07 | 7.8E+03 | NA | NA | NA | 7.8E+03 | C |
| Dibenzo(a,h)anthracene | 7.8E+00 | 1.6E+05 | 7.8E+00 | NA | NA | NA | 7.8E+00 | C |
| Fluoranthene | NA | NA | NA | 8.2E+04 | NA | 8.2E+04 | 8.2E+04 | N |
| Fluorene | NA | NA | NA | 8.2E+04 | NA | 8.2E+04 | 8.2E+04 | N |
| Indeno(1,2,3-cd)pyrene | 7.8E+01 | 1.7E+06 | 7.8E+01 | NA | NA | NA | 7.8E+01 | C |

**Table C-9**
**Risk Reduction Standards for Potential Adult Industrial Exposure (Type 4) to Soil**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRSs (mg/kg) Oral | Inhalation | RRSc (mg/kg) | NON-CANCER EFFECTS Route-Specific RRSs (mg/kg) Oral | Inhalation | RRSnc (mg/kg) | Calculated Goal (mg/kg) | |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | NA | 7.7E+01 | 7.7E+01 | 4.1E+04 | 2.8E+02 | 2.8E+02 | 7.7E+01 | C |
| Phenanthrene | NA | NA | NA | NA | NA | NA | NA | |
| Pyrene | NA | NA | NA | 6.1E+04 | NA | 6.1E+04 | 6.1E+04 | N |
| **Dioxins** | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 4.4E-04 | 5.0E+00 | 4.4E-04 | 2.0E-03 | 2.7E+02 | 2.0E-03 | 4.4E-04 | C |
| **Pesticides** | | | | | | | | |
| Endrin | NA | NA | NA | 6.1E+02 | NA | 6.1E+02 | 6.1E+02 | N |
| Endrin aldehyde | NA | NA | NA | NA | NA | NA | NA | |
| 4,4'-DDT | 1.7E+02 | 2.0E+06 | 1.7E+02 | 1.0E+03 | NA | 1.0E+03 | 1.7E+02 | C |
| Methoxychlor | NA | NA | NA | 1.0E+04 | NA | 1.0E+04 | 1.0E+04 | N |
| Parathion | NA | NA | NA | 1.2E+04 | NA | 1.2E+04 | 1.2E+04 | N |
| **Polychlorinated Biphenyls** | | | | | | | | |
| Aroclor 1254 | 2.9E+01 | 3.3E+05 | 2.9E+01 | 4.1E+01 | NA | 4.1E+01 | 2.9E+01 | C |
| Aroclor 1260 | 2.9E+01 | 3.3E+05 | 2.9E+01 | NA | NA | NA | 2.9E+01 | C |
| Total PCBs | 2.9E+01 | 3.3E+05 | 2.9E+01 | 4.1E+01 | NA | 4.1E+01 | 2.9E+01 | C |
| **Inorganics** | | | | | | | | |
| Ammonia (as N) | NA | NA | NA | NA | NA | NA | NA | |
| Asbestos | NA | NA | NA | NA | NA | NA | NA | |

The Type 4 RRSc (for carcinogens) is calculated using a target cancer risk (TCR) of 1E-05; RRSnc (for noncarcinogens) is calculated using a target hazard index (THI)

mg/kg Milligram per kilogram. NA Not available. RRS Risk Reduction Standard for Soil.

**Table C-10**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 1 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 1 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | |
| Acetone | 4.0E+00 | 8.0E+01 | 2.4E+00 | 3.5E-05 | 1.4E-03 | 1.6E+01 |
| Acetonitrile | 2.0E-01 | 4.0E+00 | 4.7E+00 | 3.5E-05 | 1.4E-03 | 8.4E-01 |
| Acetophenone | 4.0E+00 | 8.0E+01 | 5.2E+01 | 1.0E-05 | 4.3E-04 | 2.4E+01 |
| Acrolein | 7.0E-01 | 1.4E+01 | 1.0E+00 | 1.2E-04 | 5.0E-03 | 2.8E+00 |
| Benzene | 5.0E-03 | 1.0E-01 | 1.5E+02 | 5.6E-03 | 2.3E-01 | 5.1E-02 |
| Biphenyl | 1.0E-02 | 2.0E-01 | 5.1E+03 | 3.1E-04 | 1.3E-02 | 2.1E+00 |
| Carbon disulfide | 4.0E+00 | 8.0E+01 | 2.2E+01 | 1.4E-02 | 5.9E-01 | 2.4E+01 |
| Chlorobenzene | 1.0E-01 | 2.0E+00 | 2.3E+02 | 3.1E-03 | 1.3E-01 | 1.4E+00 |
| trans-1,4-Dichlorobutene | 2.0E-03 | 4.0E-02 | 1.3E+02 | 6.6E-04 | 2.7E-02 | 1.9E-02 |
| 1,2-Dichloropropane | 5.0E-03 | 1.0E-01 | 6.1E+01 | 2.8E-03 | 1.2E-01 | 3.3E-02 |
| 1,4-Dichloro-2-butene | 1.0E-03 | 2.0E-02 | 1.3E+02 | 6.6E-04 | 2.7E-02 | 9.3E-03 |
| Ethylbenzene | 7.0E-01 | 1.4E+01 | 4.5E+02 | 7.9E-03 | 3.2E-01 | 1.6E+01 |
| Ethyl Methacrylate | 3.0E+00 | 6.0E+01 | 1.7E+01 | 5.7E-04 | 2.3E-02 | 1.4E+01 |
| Isobutyl alcohol | 1.0E+01 | 2.0E+02 | 2.9E+00 | 9.8E-06 | 4.0E-04 | 4.1E+01 |
| Methyl ethyl ketone | 2.0E+00 | 4.0E+01 | 4.5E+00 | 5.7E-05 | 2.3E-03 | 8.4E+00 |
| Methyl isobutyl ketone | 2.0E+00 | 4.0E+01 | 1.3E+01 | 1.4E-04 | 5.6E-03 | 9.0E+00 |
| Styrene | 1.0E-01 | 2.0E+00 | 4.5E+02 | 2.8E-03 | 1.1E-01 | 2.2E+00 |
| Tetrachloroethene | 5.0E-03 | 1.0E-01 | 9.5E+01 | 1.8E-02 | 7.2E-01 | 4.5E-02 |
| Toluene | 1.0E+00 | 2.0E+01 | 2.3E+02 | 6.6E-03 | 2.7E-01 | 1.4E+01 |
| Xylenes (total) | 1.0E+01 | 2.0E+02 | 3.8E+02 | 5.2E-03 | 2.1E-01 | 2.0E+02 |
| m-Xylene | 1.0E-03 | 2.0E-02 | 3.8E+02 | 7.2E-03 | 2.9E-01 | 2.0E-02 |
| o-Xylene | 1.0E-03 | 2.0E-02 | 3.8E+02 | 5.2E-03 | 2.1E-01 | 2.0E-02 |
| p-Xylene | 1.0E-03 | 2.0E-02 | 3.8E+02 | 6.9E-03 | 2.8E-01 | 2.0E-02 |
| m & p-Xylenes | 2.0E-03 | 4.0E-02 | 1.6E+02 | 7.5E-03 | 3.1E-01 | 2.2E-02 |

**Table C-10**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 1 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 1 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| **Semi Volatile Organic Compounds** | | | | | | |
| Aniline | 6.0E-03 | 1.2E-01 | 7.0E+01 | 2.0E-06 | 8.3E-05 | 4.1E-02 |
| Bis(2-ethylhexyl)phthalate | 6.0E-03 | 1.2E-01 | 1.2E+05 | 2.7E-07 | 1.1E-05 | 2.9E+01 |
| Butyl benzyl phthalate | 1.0E-01 | 2.0E+00 | 7.2E+03 | 1.3E-06 | 5.1E-05 | 2.9E+01 |
| Total Cresols | 1.0E-02 | 2.0E-01 | 3.1E+02 | 1.2E-06 | 4.9E-05 | 1.6E-01 |
| m & p-Cresols | 1.0E-02 | 2.0E-01 | 4.9E+02 | 2.5E-06 | 1.0E-04 | 2.4E-01 |
| m-Cresol | 1.0E-02 | 2.0E-01 | 3.0E+02 | 8.6E-07 | 3.5E-05 | 1.6E-01 |
| o-Cresol | 1.0E-02 | 2.0E-01 | 3.1E+02 | 1.2E-06 | 4.9E-05 | 1.6E-01 |
| p-Cresol | 1.0E-02 | 2.0E-01 | 3.0E+02 | 1.0E-06 | 4.1E-05 | 1.6E-01 |
| Dibenzofuran | 1.0E-02 | 2.0E-01 | 9.2E+03 | 2.1E-04 | 8.7E-03 | 3.7E+00 |
| 2,4-Dimethylphenol | 7.0E-01 | 1.4E+01 | 4.9E+02 | 9.5E-07 | 3.9E-05 | 1.7E+01 |
| m-Dinitrobenzene | 1.0E-03 | 2.0E-02 | 3.5E+02 | 4.9E-08 | 2.0E-06 | 1.8E-02 |
| Di-n-octyl phthalate | 1.0E-02 | 2.0E-01 | 8.4E+07 | 6.7E-05 | 2.7E-03 | 3.4E+04 |
| 1,4-Dioxane | 7.0E-02 | 1.4E+00 | 2.6E+00 | 4.8E-06 | 2.0E-04 | 2.9E-01 |
| Formaldehyde | 1.0E+00 | 2.0E+01 | 1.0E+00 | 3.4E-07 | 1.4E-05 | 4.0E+00 |
| N-Nitrosodi-n-butylamine | 6.0E-06 | 1.2E-04 | 9.1E+02 | 1.3E-05 | 5.4E-04 | 2.4E-04 |
| N-Nitroso-n-methylethylamine | 2.0E-06 | 4.0E-05 | 4.3E+01 | 1.4E-06 | 5.9E-05 | 1.1E-05 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Acenaphthene | 2.0E+00 | 4.0E+01 | 5.0E+03 | 1.8E-04 | 7.5E-03 | 4.1E+02 |
| Acenaphthylene | 1.0E-02 | 2.0E-01 | 3.1E+03 | 1.1E-04 | 4.6E-03 | 1.3E+00 |
| Anthracene | 1.0E-02 | 2.0E-01 | 1.6E+04 | 5.6E-05 | 2.3E-03 | 6.6E+00 |
| Benzo(a)anthracene | 1.0E-04 | 2.0E-03 | 1.8E+05 | 1.2E-05 | 4.9E-04 | 7.1E-01 |
| Benzo(a)pyrene | 2.0E-04 | 4.0E-03 | 5.9E+05 | 4.6E-07 | 1.9E-05 | 4.7E+00 |
| Benzo(b)fluoranthene | 2.0E-04 | 4.0E-03 | 6.0E+05 | 6.6E-07 | 2.7E-05 | 4.8E+00 |
| Benzo(g,h,i)perylene | 1.0E-02 | 2.0E-01 | 3.9E+06 | 1.4E-07 | 5.8E-06 | 1.5E+03 |

**Table C-10**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 1 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 1 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| Benzo(k)fluoranthene | 1.0E-02 | 2.0E-01 | 5.9E+05 | 5.8E-07 | 2.4E-05 | 2.4E+02 |
| Chrysene | 2.0E-04 | 4.0E-03 | 1.8E+05 | 5.2E-06 | 2.1E-04 | 1.4E+00 |
| Dibenzo(a,h)anthracene | 3.0E-04 | 6.0E-03 | 1.9E+06 | 1.4E-07 | 5.8E-06 | 2.3E+01 |
| Fluoranthene | 1.0E+00 | 2.0E+01 | 5.5E+04 | 8.9E-06 | 3.6E-04 | 2.2E+03 |
| Fluorene | 1.0E+00 | 2.0E+01 | 9.2E+03 | 9.6E-05 | 3.9E-03 | 3.7E+02 |
| Indeno(1,2,3-cd)pyrene | 4.0E-04 | 8.0E-03 | 2.0E+06 | 3.5E-07 | 1.4E-05 | 3.1E+01 |
| Naphthalene | 2.0E-02 | 4.0E-01 | 1.5E+03 | 4.4E-04 | 1.8E-02 | 1.3E+00 |
| Phenanthrene | 1.0E-02 | 2.0E-01 | 3.0E+04 | 2.3E-05 | 9.5E-04 | 1.2E+01 |
| Pyrene | 1.0E+00 | 2.0E+01 | 5.4E+04 | 1.2E-05 | 4.9E-04 | 2.2E+03 |
| **Dioxins** | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 3.0E-08 | 6.0E-07 | 2.5E+05 | 5.0E-05 | 2.0E-03 | 3.0E-04 |
| **Pesticides** | | | | | | |
| Endrin | 2.0E-03 | 4.0E-02 | 2.0E+04 | 1.0E-05 | 4.1E-04 | 1.6E+00 |
| Endrin aldehyde | 1.0E-04 | 2.0E-03 | 3.3E+03 | 2.9E-09 | 1.2E-07 | 1.3E-02 |
| 4,4'-DDT | 1.0E-04 | 2.0E-03 | 1.7E+05 | 8.3E-06 | 3.4E-04 | 6.7E-01 |
| Methoxychlor | 4.0E-02 | 8.0E-01 | 2.7E+04 | 2.0E-07 | 8.3E-06 | 4.3E+01 |
| Parathion | 2.0E-01 | 4.0E+00 | 2.4E+03 | 3.0E-07 | 1.2E-05 | 2.0E+01 |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor 1254 | 5.0E-04 | 1.0E-02 | 1.3E+05 | 2.8E-04 | 1.2E-02 | 2.6E+00 |
| Aroclor 1260 | 5.0E-04 | 1.0E-02 | 3.5E+05 | 3.4E-04 | 1.4E-02 | 7.0E+00 |
| Total PCBs | 5.0E-04 | 1.0E-02 | 1.3E+05 | 2.8E-04 | 1.2E-02 | 2.6E+00 |
| **Inorganics** | | | | | | |
| Ammonia (as N) | 3.0E+01 | 6.0E+02 | 5.0E+03 | 1.6E-05 | 6.6E-04 | 6.1E+03 |
| Asbestos | 7.0E+00 | 1.4E+02 | NA | NA | NA | NA |

**Table C-10**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 1 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 1 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|

Equation 10 (USEPA Soil Screening Guidance, 1996):
Screening Level in Soil (mg/kg) = $Cw \times \left\{ K_d + \left[ \frac{\theta_w + \theta_a H'}{\rho_b} \right] \right\}$

| | | | |
|---|---|---|---|
| Cw | Type 1 GW RRS x DAF (mg/L). | = | constituent specific |
| DAF | Dilution attenuation factor. | = | 20 |
| $K_d$ | soil-water partition coefficient (L/kg). | = | $K_{oc} \times f_{oc}$ |
| $K_{oc}$ | soil organic carbon/water partition coefficient (L/kg). | = | constituent specific |
| $f_{oc}$ | fraction organic carbon in soil (g/g). | = | 0.002 |
| $\theta_w$ | water-filled soil porosity (Lwater/Lsoil). | = | 0.3 |
| $\theta_a$ | air-filled soil porosity (Lair/Lsoil). | = | $n-\theta_w = 0.134$ |
| $\rho_b$ | dry soil bulk density (kg/L). | = | 1.5 |
| n | soil porosity (Lpore/Lsoil). | = | $1-(\rho_b/\rho_s) = 0.43$ |
| $\rho_s$ | soil particle density (kg/L). | = | 2.65 |
| HLC | Henry's Law Constant (atm-m³/mol). | = | constituent specific |
| H' | dimensionless Henry's Law Constant (unitless) | = | HLC x 41 |

[a] Type 1 Groundwater Risk Reduction Standard (GW RRS) from Table C-13.

| | | | |
|---|---|---|---|
| atm-$m^3$/mole | Atmosphere - cubic meter per mole. | L = | Liter. |
| kg = | Kilogram. | mg = | Milligrams. |

**Table C-11**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 2 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | |
| Acetone | 8.0E+00 | 8.0E+00 | 2.4E+00 | 3.5E-05 | 1.4E-03 | 1.6E+00 |
| Acetonitrile | 2.0E-01 | 2.0E-01 | 4.7E+00 | 3.5E-05 | 1.4E-03 | 4.2E-02 |
| Acetophenone | 4.0E+00 | 4.0E+00 | 5.2E+01 | 1.0E-05 | 4.3E-04 | 1.2E+00 |
| Acrolein | 7.0E-01 | 7.0E-01 | 1.0E+00 | 1.2E-04 | 5.0E-03 | 1.4E-01 |
| Benzene | 5.4E-03 | 5.4E-03 | 1.5E+02 | 5.6E-03 | 2.3E-01 | 2.8E-03 |
| Biphenyl | 1.0E-02 | 1.0E-02 | 5.1E+03 | 3.1E-04 | 1.3E-02 | 1.0E-01 |
| Carbon disulfide | 4.0E+00 | 4.0E+00 | 2.2E+01 | 1.4E-02 | 5.9E-01 | 1.2E+00 |
| Chlorobenzene | 1.0E-01 | 1.0E-01 | 2.3E+02 | 3.1E-03 | 1.3E-01 | 6.8E-02 |
| trans-1,4-Dichlorobutene | 2.0E-03 | 2.0E-03 | 1.3E+02 | 6.6E-04 | 2.7E-02 | 9.3E-04 |
| 1,2-Dichloropropane | 5.0E-03 | 5.0E-03 | 6.1E+01 | 2.8E-03 | 1.2E-01 | 1.7E-03 |
| 1,4-Dichloro-2-butene | 1.0E-03 | 1.0E-03 | 1.3E+02 | 6.6E-04 | 2.7E-02 | 4.7E-04 |
| Ethylbenzene | 7.0E-01 | 7.0E-01 | 4.5E+02 | 7.9E-03 | 3.2E-01 | 7.8E-01 |
| Ethyl Methacrylate | 3.0E+00 | 3.0E+00 | 1.7E+01 | 5.7E-04 | 2.3E-02 | 7.1E-01 |
| Isobutyl alcohol | 1.0E+01 | 1.0E+01 | 2.9E+00 | 9.8E-06 | 4.0E-04 | 2.1E+00 |
| Methyl ethyl ketone | 2.3E+00 | 2.3E+00 | 4.5E+00 | 5.7E-05 | 2.3E-03 | 4.8E-01 |
| Methyl isobutyl ketone | 2.0E+00 | 2.0E+00 | 1.3E+01 | 1.4E-04 | 5.6E-03 | 4.5E-01 |
| Styrene | 5.0E-01 | 5.0E-01 | 4.5E+02 | 2.8E-03 | 1.1E-01 | 5.5E-01 |
| Tetrachloroethene | 1.9E-02 | 1.9E-02 | 9.5E+01 | 1.8E-02 | 7.2E-01 | 8.6E-03 |
| Toluene | 1.0E+00 | 1.0E+00 | 2.3E+02 | 6.6E-03 | 2.7E-01 | 6.9E-01 |
| Xylenes (total) | 1.0E+01 | 1.0E+01 | 3.8E+02 | 5.2E-03 | 2.1E-01 | 9.8E+00 |
| m-Xylene | 5.8E-02 | 5.8E-02 | 3.8E+02 | 7.2E-03 | 2.9E-01 | 5.7E-02 |
| o-Xylene | 5.8E-02 | 5.8E-02 | 3.8E+02 | 5.2E-03 | 2.1E-01 | 5.7E-02 |
| p-Xylene | 5.8E-02 | 5.8E-02 | 3.8E+02 | 6.9E-03 | 2.8E-01 | 5.7E-02 |
| m & p-Xylenes | 2.7E-01 | 5.4E+00 | 1.6E+02 | 7.5E-03 | 3.1E-01 | 3.0E+00 |
| **Semi Volatile Organic Compounds** | | | | | | |
| Aniline | 1.1E-01 | 1.1E-01 | 7.0E+01 | 2.0E-06 | 8.3E-05 | 3.7E-02 |
| Bis(2-ethylhexyl)phthalate | 6.1E-02 | 6.1E-02 | 1.2E+05 | 2.7E-07 | 1.1E-05 | 1.5E+01 |
| Butyl benzyl phthalate | 4.5E-01 | 4.5E-01 | 7.2E+03 | 1.3E-06 | 5.1E-05 | 6.5E+00 |
| Total Cresols | 1.6E+00 | 1.6E+00 | 3.1E+02 | 1.2E-06 | 4.9E-05 | 1.3E+00 |
| m & p-Cresols | 1.6E+00 | 1.6E+00 | 4.9E+02 | 2.5E-06 | 1.0E-04 | 1.9E+00 |
| m-Cresol | 7.8E-01 | 7.8E-01 | 3.0E+02 | 8.6E-07 | 3.5E-05 | 6.2E-01 |
| o-Cresol | 7.8E-01 | 7.8E-01 | 3.1E+02 | 1.2E-06 | 4.9E-05 | 6.3E-01 |

**Table C-11**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 2 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| p-Cresol | 6.4E-02 | 6.4E-02 | 3.0E+02 | 1.0E-06 | 4.1E-05 | 5.1E-02 |
| Dibenzofuran | 1.6E-02 | 1.6E-02 | 9.2E+03 | 2.1E-04 | 8.7E-03 | 3.0E-01 |
| 2,4-Dimethylphenol | 7.0E-01 | 7.0E-01 | 4.9E+02 | 9.5E-07 | 3.9E-05 | 8.3E-01 |
| m-Dinitrobenzene | 1.6E-03 | 1.6E-03 | 3.5E+02 | 4.9E-08 | 2.0E-06 | 1.4E-03 |
| Di-n-octyl phthalate | 1.0E-02 | 1.0E-02 | 8.4E+07 | 6.7E-05 | 2.7E-03 | 1.7E+03 |
| 1,4-Dioxane | 7.0E-02 | 7.0E-02 | 2.6E+00 | 4.8E-06 | 2.0E-04 | 1.4E-02 |
| Formaldehyde | 1.0E+00 | 1.0E+00 | 1.0E+00 | 3.4E-07 | 1.4E-05 | 2.0E-01 |
| N-Nitrosodi-n-butylamine | 3.2E-05 | 3.2E-05 | 9.1E+02 | 1.3E-05 | 5.4E-04 | 6.5E-05 |
| N-Nitroso-n-methylethylamine | 3.9E-05 | 3.9E-05 | 4.3E+01 | 1.4E-06 | 5.9E-05 | 1.1E-05 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Acenaphthene | 2.0E+00 | 2.0E+00 | 5.0E+03 | 1.8E-04 | 7.5E-03 | 2.1E+01 |
| Acenaphthylene | 1.0E-02 | 1.0E-02 | 3.1E+03 | 1.1E-04 | 4.6E-03 | 6.4E-02 |
| Anthracene | 4.7E+00 | 4.7E+00 | 1.6E+04 | 5.6E-05 | 2.3E-03 | 1.5E+02 |
| Benzo(a)anthracene | 1.2E-03 | 1.2E-03 | 1.8E+05 | 1.2E-05 | 4.9E-04 | 4.2E-01 |
| Benzo(a)pyrene | 2.0E-04 | 2.0E-04 | 5.9E+05 | 4.6E-07 | 1.9E-05 | 2.4E-01 |
| Benzo(b)fluoranthene | 1.2E-03 | 1.2E-03 | 6.0E+05 | 6.6E-07 | 2.7E-05 | 1.4E+00 |
| Benzo(g,h,i)perylene | 1.0E-02 | 1.0E-02 | 3.9E+06 | 1.4E-07 | 5.8E-06 | 7.7E+01 |
| Benzo(k)fluoranthene | 1.2E-02 | 1.2E-02 | 5.9E+05 | 5.8E-07 | 2.4E-05 | 1.4E+01 |
| Chrysene | 1.2E-01 | 1.2E-01 | 1.8E+05 | 5.2E-06 | 2.1E-04 | 4.3E+01 |
| Dibenzo(a,h)anthracene | 3.0E-04 | 3.0E-04 | 1.9E+06 | 1.4E-07 | 5.8E-06 | 1.1E+00 |
| Fluoranthene | 1.0E+00 | 1.0E+00 | 5.5E+04 | 8.9E-06 | 3.6E-04 | 1.1E+02 |
| Fluorene | 1.0E+00 | 1.0E+00 | 9.2E+03 | 9.6E-05 | 3.9E-03 | 1.9E+01 |
| Indeno(1,2,3-cd)pyrene | 5.0E-04 | 5.0E-04 | 2.0E+06 | 3.5E-07 | 1.4E-05 | 2.0E+00 |
| Naphthalene | 2.0E-02 | 2.0E-02 | 1.5E+03 | 4.4E-04 | 1.8E-02 | 6.6E-02 |
| Phenanthrene | 1.0E-02 | 1.0E-02 | 3.0E+04 | 2.3E-05 | 9.5E-04 | 6.0E-01 |
| Pyrene | 1.0E+00 | 1.0E+00 | 5.4E+04 | 1.2E-05 | 4.9E-04 | 1.1E+02 |
| **Dioxins** | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 3.0E-08 | 6.0E-07 | 2.5E+05 | 5.0E-05 | 2.0E-03 | 3.0E-04 |
| **Pesticides** | | | | | | |
| Endrin | 4.7E-03 | 4.7E-03 | 2.0E+04 | 1.0E-05 | 4.1E-04 | 1.9E-01 |
| Endrin aldehyde | 1.0E-04 | 1.0E-04 | 3.3E+03 | 2.9E-09 | 1.2E-07 | 6.7E-04 |
| 4,4'-DDT | 2.5E-03 | 2.5E-03 | 1.7E+05 | 8.3E-06 | 3.4E-04 | 8.4E-01 |
| Methoxychlor | 7.8E-02 | 7.8E-02 | 2.7E+04 | 2.0E-07 | 8.3E-06 | 4.2E+00 |

**Table C-11**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 2 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| Parathion | 2.0E-01 | 2.0E-01 | 2.4E+03 | 3.0E-07 | 1.2E-05 | 1.0E+00 |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor 1254 | 5.0E-04 | 5.0E-04 | 1.3E+05 | 2.8E-04 | 1.2E-02 | 1.3E-01 |
| Aroclor 1260 | 5.0E-04 | 5.0E-04 | 3.5E+05 | 3.4E-04 | 1.4E-02 | 3.5E-01 |
| Total PCBs | 5.0E-04 | 5.0E-04 | 1.3E+05 | 2.8E-04 | 1.2E-02 | 1.3E-01 |
| **Inorganics** | | | | | | |
| Ammonia (as N) | 3.0E+01 | 3.0E+01 | 5.0E+03 | 1.6E-05 | 6.6E-04 | 3.0E+02 |
| Asbestos | 7.0E+00 | 7.0E+00 | NA | NA | NA | NA |

Equation 10 (USEPA Soil Screening Guidance, 1996):
Screening Level in Soil (mg/kg) = $Cw \times \left\{ K_d + \left[ \frac{\theta_w + \theta_a H'}{\rho_b} \right] \right\}$

| | | | |
|---|---|---|---|
| Cw | Type 2 GW RRS x DAF (mg/L). | = | constituent specific |
| DAF | Dilution attenuation factor. | = | 1 |
| $K_d$ | soil-water partition coefficient (L/kg). | = | $K_{oc} \times f_{oc}$ |
| $K_{oc}$ | soil organic carbon/water partition coefficient (L/kg). | = | constituent specific |
| $f_{oc}$ | fraction organic carbon in soil (g/g). | = | 0.002 |
| $\theta_w$ | water-filled soil porosity (Lwater/Lsoil). | = | 0.3 |
| $\theta_a$ | air-filled soil porosity (Lair/Lsoil). | = | $n-\theta_w = 0.134$ |
| $\rho_b$ | dry soil bulk density (kg/L). | = | 1.5 |
| n | soil porosity (Lpore/Lsoil). | = | $1-(\rho_b/\rho_s) = 0.43$ |
| $\rho_s$ | soil particle density (kg/L). | = | 2.65 |
| HLC | Henry's Law Constant (atm-m³/mol). | = | constituent specific |
| H' | dimensionless Henry's Law Constant (unitless) | = | HLC x 41 |

[a] Type 2 Groundwater Risk Reduction Standard (GW RRS) from Table C-13.

Boxing indicates maximum soil concentration greater than screening level based on partitioning.

| | | | |
|---|---|---|---|
| atm-$m^3$/mole | Atmosphere - cubic meter per mole. | L = | Liter. |
| kg = | Kilogram. | mg = | Milligrams. |

**Table C-12**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 4 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | |
| Acetone | 4.6E+01 | 4.6E+01 | 2.4E+00 | 3.5E-05 | 1.4E-03 | 9.4E+00 |
| Acetonitrile | 1.8E-01 | 1.8E-01 | 4.7E+00 | 3.5E-05 | 1.4E-03 | 3.8E-02 |
| Acetophenone | 1.0E+01 | 1.0E+01 | 5.2E+01 | 1.0E-05 | 4.3E-04 | 3.0E+00 |
| Acrolein | 5.8E-05 | 5.8E-05 | 1.0E+00 | 1.2E-04 | 5.0E-03 | 1.2E-05 |
| Benzene | 8.7E-03 | 8.7E-03 | 1.5E+02 | 5.6E-03 | 2.3E-01 | 4.4E-03 |
| Biphenyl | 1.2E-03 | 1.2E-03 | 5.1E+03 | 3.1E-04 | 1.3E-02 | 1.3E-02 |
| Carbon disulfide | 1.7E+00 | 1.7E+00 | 2.2E+01 | 1.4E-02 | 5.9E-01 | 5.0E-01 |
| Chlorobenzene | 1.4E-01 | 1.4E-01 | 2.3E+02 | 3.1E-03 | 1.3E-01 | 9.5E-02 |
| trans-1,4-Dichlorobutene | 1.9E-05 | 1.9E-05 | 1.3E+02 | 6.6E-04 | 2.7E-02 | 8.8E-06 |
| 1,2-Dichloropropane | 7.4E-03 | 7.4E-03 | 6.1E+01 | 2.8E-03 | 1.2E-01 | 2.5E-03 |
| 1,4-Dichloro-2-butene | 1.9E-05 | 1.9E-05 | 1.3E+02 | 6.6E-04 | 2.7E-02 | 8.8E-06 |
| Ethylbenzene | 2.9E-02 | 2.9E-02 | 4.5E+02 | 7.9E-03 | 3.2E-01 | 3.2E-02 |
| Ethyl Methacrylate | 9.2E+00 | 9.2E+00 | 1.7E+01 | 5.7E-04 | 2.3E-02 | 2.2E+00 |
| Isobutyl alcohol | 3.1E+01 | 3.1E+01 | 2.9E+00 | 9.8E-06 | 4.0E-04 | 6.4E+00 |
| Methyl ethyl ketone | 1.2E+01 | 1.2E+01 | 4.5E+00 | 5.7E-05 | 2.3E-03 | 2.5E+00 |
| Methyl isobutyl ketone | 4.2E+00 | 4.2E+00 | 1.3E+01 | 1.4E-04 | 5.6E-03 | 9.5E-01 |
| Styrene | 2.6E+00 | 2.6E+00 | 4.5E+02 | 2.8E-03 | 1.1E-01 | 2.9E+00 |
| Tetrachloroethene | 9.8E-02 | 9.8E-02 | 9.5E+01 | 1.8E-02 | 7.2E-01 | 4.4E-02 |
| Toluene | 5.2E+00 | 5.2E+00 | 2.3E+02 | 6.6E-03 | 2.7E-01 | 3.6E+00 |
| Xylenes (total) | 2.9E-01 | 2.9E-01 | 3.8E+02 | 5.2E-03 | 2.1E-01 | 2.9E-01 |
| m-Xylene | 2.9E-01 | 2.9E-01 | 3.8E+02 | 7.2E-03 | 2.9E-01 | 2.8E-01 |
| o-Xylene | 2.9E-01 | 2.9E-01 | 3.8E+02 | 5.2E-03 | 2.1E-01 | 2.9E-01 |
| p-Xylene | 2.9E-01 | 2.9E-01 | 3.8E+02 | 6.9E-03 | 2.8E-01 | 2.8E-01 |
| m & p-Xylenes | 2.9E-01 | 5.8E+00 | 1.6E+02 | 7.5E-03 | 3.1E-01 | 3.2E+00 |
| **Semi Volatile Organic Compounds** | | | | | | |
| Aniline | 5.0E-01 | 5.0E-01 | 7.0E+01 | 2.0E-06 | 8.3E-05 | 1.7E-01 |
| Bis(2-ethylhexyl)phthalate | 2.0E-01 | 2.0E-01 | 1.2E+05 | 2.7E-07 | 1.1E-05 | 4.8E+01 |
| Butyl benzyl phthalate | 1.5E+00 | 1.5E+00 | 7.2E+03 | 1.3E-06 | 5.1E-05 | 2.2E+01 |
| Total Cresols | 1.0E+01 | 1.0E+01 | 3.1E+02 | 1.2E-06 | 4.9E-05 | 8.1E+00 |
| m & p-Cresols | 1.0E+01 | 1.0E+01 | 4.9E+02 | 2.5E-06 | 1.0E-04 | 1.2E+01 |
| m-Cresol | 5.1E+00 | 5.1E+00 | 3.0E+02 | 8.6E-07 | 3.5E-05 | 4.1E+00 |
| o-Cresol | 5.1E+00 | 5.1E+00 | 3.1E+02 | 1.2E-06 | 4.9E-05 | 4.1E+00 |
| p-Cresol | 5.1E-01 | 5.1E-01 | 3.0E+02 | 1.0E-06 | 4.1E-05 | 4.1E-01 |
| Dibenzofuran | 1.0E-01 | 1.0E-01 | 9.2E+03 | 2.1E-04 | 8.7E-03 | 1.9E+00 |

**Table C-12**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 4 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| 2,4-Dimethylphenol | 2.0E+00 | 2.0E+00 | 4.9E+02 | 9.5E-07 | 3.9E-05 | 2.4E+00 |
| m-Dinitrobenzene | 1.0E-02 | 1.0E-02 | 3.5E+02 | 4.9E-08 | 2.0E-06 | 9.0E-03 |
| Di-n-octyl phthalate | NA | NA | 8.4E+07 | 6.7E-05 | 2.7E-03 | NA |
| 1,4-Dioxane | 2.9E-02 | 2.9E-02 | 2.6E+00 | 4.8E-06 | 2.0E-04 | 6.0E-03 |
| Formaldehyde | 2.0E+01 | 2.0E+01 | 1.0E+00 | 3.4E-07 | 1.4E-05 | 4.0E+00 |
| N-Nitrosodi-n-butylamine | 4.7E-05 | 4.7E-05 | 9.1E+02 | 1.3E-05 | 5.4E-04 | 9.5E-05 |
| N-Nitroso-n-methylethylamine | 1.3E-04 | 1.3E-04 | 4.3E+01 | 1.4E-06 | 5.9E-05 | 3.7E-05 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | |
| Acenaphthene | 6.1E+00 | 6.1E+00 | 5.0E+03 | 1.8E-04 | 7.5E-03 | 6.3E+01 |
| Acenaphthylene | NA | NA | 3.1E+03 | 1.1E-04 | 4.6E-03 | NA |
| Anthracene | 3.1E+01 | 3.1E+01 | 1.6E+04 | 5.6E-05 | 2.3E-03 | 1.0E+03 |
| Benzo(a)anthracene | 3.9E-03 | 3.9E-03 | 1.8E+05 | 1.2E-05 | 4.9E-04 | 1.4E+00 |
| Benzo(a)pyrene | 3.9E-04 | 3.9E-04 | 5.9E+05 | 4.6E-07 | 1.9E-05 | 4.6E-01 |
| Benzo(b)fluoranthene | 3.9E-03 | 3.9E-03 | 6.0E+05 | 6.6E-07 | 2.7E-05 | 4.7E+00 |
| Benzo(g,h,i)perylene | NA | NA | 3.9E+06 | 1.4E-07 | 5.8E-06 | NA |
| Benzo(k)fluoranthene | 3.9E-02 | 3.9E-02 | 5.9E+05 | 5.8E-07 | 2.4E-05 | 4.6E+01 |
| Chrysene | 3.9E-01 | 3.9E-01 | 1.8E+05 | 5.2E-06 | 2.1E-04 | 1.4E+02 |
| Dibenzo(a,h)anthracene | 3.9E-04 | 3.9E-04 | 1.9E+06 | 1.4E-07 | 5.8E-06 | 1.5E+00 |
| Fluoranthene | 4.1E+00 | 4.1E+00 | 5.5E+04 | 8.9E-06 | 3.6E-04 | 4.6E+02 |
| Fluorene | 4.1E+00 | 4.1E+00 | 9.2E+03 | 9.6E-05 | 3.9E-03 | 7.6E+01 |
| Indeno(1,2,3-cd)pyrene | 3.9E-03 | 3.9E-03 | 2.0E+06 | 3.5E-07 | 1.4E-05 | 1.5E+01 |
| Naphthalene | 2.4E-03 | 2.4E-03 | 1.5E+03 | 4.4E-04 | 1.8E-02 | 7.9E-03 |
| Phenanthrene | NA | NA | 3.0E+04 | 2.3E-05 | 9.5E-04 | NA |
| Pyrene | 3.1E+00 | 3.1E+00 | 5.4E+04 | 1.2E-05 | 4.9E-04 | 3.4E+02 |
| **Dioxins** | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 2.2E-08 | 4.4E-07 | 2.5E+05 | 5.0E-05 | 2.0E-03 | 2.2E-04 |
| **Pesticides** | | | | | | |
| Endrin | 3.1E-02 | 3.1E-02 | 2.0E+04 | 1.0E-05 | 4.1E-04 | 1.3E+00 |
| Endrin aldehyde | NA | NA | 3.3E+03 | 2.9E-09 | 1.2E-07 | NA |

**Table C-12**
**Soil Screening Level Partitioning Equation for Migration to Groundwater - Type 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Type 4 GW RRS [a] (mg/L) | Cw (mg/L) | $K_{oc}$ (L/kg) | Henry's Law Constant (HLC) (atm-m³/mol) | H' (unitless) | Soil Screening Level (SSL) (mg/kg) |
|---|---|---|---|---|---|---|
| 4,4'-DDT | 8.4E-03 | 8.4E-03 | 1.7E+05 | 8.3E-06 | 3.4E-04 | 2.8E+00 |
| Methoxychlor | 5.1E-01 | 5.1E-01 | 2.7E+04 | 2.0E-07 | 8.3E-06 | 2.8E+01 |
| Parathion | 6.1E-01 | 6.1E-01 | 2.4E+03 | 3.0E-07 | 1.2E-05 | 3.1E+00 |
| **Polychlorinated Biphenyls** | | | | | | |
| Aroclor 1254 | 1.4E-03 | 1.4E-03 | 1.3E+05 | 2.8E-04 | 1.2E-02 | 3.7E-01 |
| Aroclor 1260 | 1.4E-03 | 1.4E-03 | 3.5E+05 | 3.4E-04 | 1.4E-02 | 9.8E-01 |
| Total PCBs | 1.4E-03 | 1.4E-03 | 1.3E+05 | 2.8E-04 | 1.2E-02 | 3.7E-01 |
| **Inorganics** | | | | | | |
| Ammonia (as N) | NA | NA | 5.0E+03 | 1.6E-05 | 6.6E-04 | NA |
| Asbestos | NA | NA | NA | NA | NA | NA |

Equation 10 (USEPA Soil Screening Guidance, 1996):
Screening Level in Soil (mg/kg) =

$$Cw \times \left\{ K_d + \left[ \frac{\theta_w + \theta_a H'}{\rho_b} \right] \right\}$$

| | | | |
|---|---|---|---|
| Cw | Type 4 GW RRS x DAF (mg/L). | = | constituent specific |
| DAF | Dilution attenuation factor. | = | 1 |
| $K_d$ | soil-water partition coefficient (L/kg). | = | $K_{oc}$ x $f_{oc}$ |
| $K_{oc}$ | soil organic carbon/water partition coefficient (L/kg). | = | constituent specific |
| $f_{oc}$ | fraction organic carbon in soil (g/g). | = | 0.002 |
| $\theta_w$ | water-filled soil porosity (Lwater/Lsoil). | = | 0.3 |
| $\theta_a$ | air-filled soil porosity (Lair/Lsoil). | = | n-$\theta_w$ = 0.134 |
| $\rho_b$ | dry soil bulk density (kg/L). | = | 1.5 |
| n | soil porosity (Lpore/Lsoil). | = | 1-($\rho_b$/$\rho_s$) = 0.43 |
| $\rho_s$ | soil particle density (kg/L). | = | 2.65 |
| HLC | Henry's Law Constant (atm-m³/mol). | = | constituent specific |
| H' | dimensionless Henry's Law Constant (unitless) | = | HLC x 41 |

[a] Type 4 Groundwater Risk Reduction Standard (GW RRS) from Table C-16.

atm-$m^3$/mole Atmosphere - cubic meter per mole. L = Liter.
kg = Kilogram. mg = Milligrams.

**Table C-13**

**Comparison of Maximum Concentrations in Groundwater to Types 1 and 2 Risk Reduction Standards**

**Voluntary Investigation and Remediation Plan**

**Hercules Inc.**

**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration Detected (mg/L) | Location of Maximum Detection | Sample Date | Type 1 RRS [a] (mg/L) | Source of Type 1 Standard | Type 2 RRS [b] (mg/L) | Source of Type 2 Standard | Type 1 Standard Exceeded? | Type 2 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | <0.025 | NA | July 2011 | 4.0 | A-III | 8.0 | RRSc | no | no |
| Acetonitrile | <0.04 | NA | NA | 0.20 | A-III | 0.20 | Type 1 | no | no |
| Acetophenone | <0.01 | NA | July 2011 | 4.0 | A-III | 4.0 | Type 1 | no | no |
| Acrolein | <0.020 | NA | July 2011 | 0.70 | A-III | 0.70 | Type 1 | no | no |
| Benzene | 0.016 | MW-F21 | 7/21/2011 | 0.0050 | A-III | 0.0054 | RRSa | YES | YES |
| Biphenyl | <0.01 | NA | NA | 0.010 | DL | 0.010 | Type 1 | no | no |
| Carbon disulfide | <0.002 | NA | July 2011 | 4.0 | A-III | 4.0 | Type 1 | no | no |
| Chlorobenzene | 0.0011 | MW-29 | 7/21/2011 | 0.10 | A-III | 0.10 | Type 1 | no | no |
| trans-1,4-Dichlorobutene | <0.002 | NA | NA | 0.002 | DL | 0.002 | Type 1 | no | no |
| 1,2-Dichloropropane | <0.001 | NA | July 2011 | 0.0050 | A-III | 0.0050 | Type 1 | no | no |
| 1,4-Dichloro-2-butene | <0.001 | NA | NA | 0.0010 | DL | 0.0010 | Type 1 | no | no |
| Ethylbenzene | <0.001 | NA | July 2011 | 0.70 | A-III | 0.70 | Type 1 | no | no |
| Ethyl Methacrylate | <0.001 | NA | NA | 3.0 | A-III | 3.0 | Type 1 | no | no |
| Isobutyl alcohol | <0.040 | NA | July 2011 | 10 | A-III | 10 | Type 1 | no | no |
| Methyl ethyl ketone | <0.01 | NA | NA | 2.0 | A-III | 2.3 | RRSc | no | no |
| Methyl isobutyl ketone | <0.01 | NA | NA | 2.0 | A-III | 2.0 | Type 1 | no | no |
| Styrene | <0.001 | NA | NA | 0.10 | A-III | 0.50 | RRSc | no | no |
| Tetrachloroethene | 0.0029 | MW-27 | 7/22/2011 | 0.005 | A-III | 0.019 | RRSc | no | no |
| Toluene | <0.001 | NA | July 2011 | 1.0 | A-III | 1.0 | Type 1 | no | no |
| Xylenes (total) | 0.0022 | MW-F21 | 7/21/2011 | 10 | A-III | 10 | Type 1 | no | no |
| m-Xylene | <0.001 | NA | NA | 0.0010 | DL | 0.058 | RRSc | no | no |
| o-Xylene | <0.001 | NA | NA | 0.0010 | DL | 0.058 | RRSc | no | no |
| p-Xylene | <0.001 | NA | NA | 0.0010 | DL | 0.058 | RRSc | no | no |
| m & p-Xylenes | <0.002 | NA | NA | 0.0020 | DL | 0.27 | RRSa | no | no |
| **Semi Volatile Organic Compound** | | | | | | | | | |
| Aniline | <0.02 | NA | NA | 0.0060 | A-III | 0.11 | RRSc | no | no |
| Bis(2-ethylhexyl)phthalate | 0.046 | MW-F11 | 7/19/2011 | 0.0060 | A-III | 0.061 | RRSa | YES | no |
| Butyl benzyl phthalate | <0.01 | NA | July 2011 | 0.10 | A-III | 0.45 | RRSa | no | no |
| Total Cresols | <0.01 | NA | NA | 0.010 | DL | 1.6 | RRSc | no | no |
| m & p-Cresols | <0.01 | NA | NA | 0.010 | DL | 1.6 | c | no | no |
| m-Cresol | <0.01 | NA | NA | 0.010 | DL | 0.78 | c | no | no |
| o-Cresol | <0.01 | NA | NA | 0.010 | DL | 0.78 | c | no | no |
| p-Cresol | <0.01 | NA | July 2011 | 0.010 | DL | 0.064 | RRSc | no | no |
| Dibenzofuran | <0.01 | NA | July 2011 | 0.010 | DL | 0.016 | RRSc | no | no |
| 2,4-Dimethylphenol | <0.01 | NA | July 2011 | 0.70 | A-III | 0.70 | Type 1 | no | no |
| m-Dinitrobenzene | <0.01 | NA | July 2011 | 0.001 | A-III | 0.0016 | RRSc | no | no |
| Di-n-octyl phthalate | <0.01 | NA | NA | 0.010 | DL | 0.010 | Type 1 | no | no |
| 1,4-Dioxane | 0.021 | MW-F21 | 7/21/2011 | 0.070 | A-III | 0.070 | Type 1 | no | no |
| Formaldehyde | <0.05 | NA | July 2011 | 1.0 | A-III | 1.0 | Type 1 | no | no |
| N-Nitrosodi-n-butylamine | <0.01 | NA | July 2011 | 0.000006 | A-III | 0.000032 | RRSa | no | no |
| N-Nitroso-n-methylethylamine | <0.01 | NA | July 2011 | 0.000002 | A-III | 0.000039 | RRSa | no | no |
| **Polycyclic Aromatic Hydrocarbon** | | | | | | | | | |
| Acenaphthene | 0.0062 | MW-F21 | 7/21/2011 | 2.0 | A-III | 2.0 | Type 1 | no | no |
| Acenaphthylene | <0.01 | NA | NA | 0.010 | DL | 0.010 | Type 1 | no | no |
| Anthracene | <0.01 | NA | NA | 0.010 | DL | 4.7 | RRSc | no | no |
| Benzo(a)anthracene | <0.01 | NA | NA | 0.0001 | A-III | 0.0012 | RRSa | no | no |
| Benzo(a)pyrene | <0.01 | NA | NA | 0.0002 | A-III | 0.0002 | Type 1 | no | no |
| Benzo(b)fluoranthene | <0.01 | NA | NA | 0.0002 | A-III | 0.0012 | RRSa | no | no |
| Benzo(g,h,i)perylene | <0.01 | NA | NA | 0.010 | DL | 0.010 | Type 1 | no | no |
| Benzo(k)fluoranthene | <0.01 | NA | NA | 0.010 | DL | 0.012 | RRSa | no | no |

**Table C-13**
**Comparison of Maximum Concentrations in Groundwater to Types 1 and 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration Detected (mg/L) | Location of Maximum Detection | Sample Date | Type 1 RRS [a] (mg/L) | Source of Type 1 Standard | Type 2 RRS [b] (mg/L) | Source of Type 2 Standard | Type 1 Standard Exceeded? | Type 2 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| Chrysene | <0.01 | NA | July 2011 | 0.0002 | A-III | 0.12 | RRSa | no | no |
| Dibenzo(a,h)anthracene | <0.01 | NA | NA | 0.0003 | A-III | 0.0003 | Type 1 | no | no |
| Fluoranthene | <0.01 | NA | July 2011 | 1.0 | A-III | 1.0 | Type 1 | no | no |
| Fluorene | <0.01 | NA | July 2011 | 1.0 | A-III | 1.0 | Type 1 | no | no |
| Indeno(1,2,3-cd)pyrene | <0.01 | NA | NA | 0.00040 | A-III | 0.00050 | RRSc | no | no |
| Naphthalene | 0.43 | MW-F21 | 7/21/2011 | 0.020 | A-III | 0.020 | Type 1 | YES | YES |
| Phenanthrene | <0.01 | NA | July 2011 | 0.010 | DL | 0.010 | Type 1 | no | no |
| Pyrene | <0.01 | NA | July 2011 | 1.0 | A-III | 1.0 | Type 1 | no | no |
| **Dioxins** | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | <0.00000001 | NA | NA | 0.00000003 | A-III | 0.00000003 | Type 1 | no | no |
| **Pesticides** | | | | | | | | | |
| Endrin | <0.0001 | NA | NA | 0.0020 | A-III | 0.0047 | RRSc | no | no |
| Endrin aldehyde | 0.00001 | MWD-F1 | 11/4/2000 | 0.00010 | DL | 0.00010 | Type 1 | no | no |
| 4,4'-DDT | <0.0001 | NA | NA | 0.00010 | A-III | 0.0025 | RRSa | no | no |
| Methoxychlor | <0.0001 | NA | NA | 0.040 | A-III | 0.078 | RRSc | no | no |
| Parathion | 0.01 | NA | NA | 0.20 | A-III | 0.20 | Type 1 | no | no |
| **Polychlorinated Biphenyls** | | | | | | | | | |
| Aroclor 1254 | <0.001 | NA | NA | 0.0005 | A-III | 0.0005 | Type 1 | no | no |
| Aroclor 1260 | <0.001 | NA | NA | 0.0005 | A-III | 0.0005 | Type 1 | no | no |
| Total PCBs | <0.001 | NA | NA | 0.0005 | A-III | 0.0005 | Type 1 | no | no |
| **Inorganics** | | | | | | | | | |
| Ammonia (as N) | 1.7 | MW-F6 | 10/28/2000 | 30 | A-III | 30 | Type 1 | no | no |
| Asbestos (million per liter) | 6.7 | TMW-5 | 7/6/2000 | 7.0 | A-III | 7.0 | Type 1 | no | no |
| Fluoride | 0.75 | MWD-F3 | 11/3/2000 | 4.0 | A-III | 4.0 | Type 1 | no | no |

Risk Reduction Standard exceeded.

Asbestos concentration and standard are reported in millions of fibers/structures per liter.

mg/L Milligrams per liter.
NA Not applicable.
RRS Risk Reduction Standard.

[a] Source of Type 1 RRS:
A-III: Appendix III.
DL: Detection limit.

[b] Source of Type 2 RRS:
RRSa: Calculated site-specific residential risk reduction standard based on adult exposure.
RRSc: Calculated site-specific residential risk reduction standard based on child exposure.
Type 1 RRS.

**Table C-14**
**Risk Reduction Standards for Potential Groundwater Ingestion Based on Residential Adult (Type 2) Exposure**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) | |
|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | |
| Acetone | NA | NA | NA | 3.3E+01 | 8.6E+01 | 2.4E+01 | 2.4E+01 | N |
| Acetonitrile | NA | NA | NA | NA | 1.7E-01 | 1.7E-01 | 1.7E-01 | N |
| Acetophenone | NA | NA | NA | 3.7E+00 | NA | 3.7E+00 | 3.7E+00 | N |
| Acrolein | NA | NA | NA | 1.8E-02 | 5.6E-05 | 5.5E-05 | 5.5E-05 | N |
| Benzene | 1.5E-02 | 8.3E-03 | 5.4E-03 | 1.5E-01 | 8.3E-02 | 5.3E-02 | 5.4E-03 | C |
| Biphenyl | 1.1E-01 | NA | 1.1E-01 | 1.8E+00 | 1.1E-03 | 1.1E-03 | 1.1E-03 | N |
| Carbon disulfide | NA | NA | NA | 3.7E+00 | 1.9E+00 | 1.3E+00 | 1.3E+00 | N |
| Chlorobenzene | NA | NA | NA | 7.3E-01 | 1.4E-01 | 1.2E-01 | 1.2E-01 | N |
| trans-1,4-Dichlorobutene | NA | 1.5E-05 | 1.5E-05 | NA | NA | NA | 1.5E-05 | C |
| 1,2-Dichloropropane | 2.4E-02 | 6.5E-03 | 5.1E-03 | 3.3E+00 | 1.1E-02 | 1.1E-02 | 5.1E-03 | C |
| 1,4-Dichloro-2-butene | NA | 1.5E-05 | 1.5E-05 | NA | NA | NA | 1.5E-05 | C |
| Ethylbenzene | 7.7E-02 | 2.6E-02 | 1.9E-02 | 3.7E+00 | 2.8E+00 | 1.6E+00 | 1.9E-02 | C |
| Ethyl Methacrylate | NA | NA | NA | 3.3E+00 | NA | 3.3E+00 | 3.3E+00 | N |
| Isobutyl alcohol | NA | NV | NA | 1.1E+01 | NV | 1.1E+01 | 1.1E+01 | N |
| Methyl ethyl ketone | NA | NA | NA | 2.2E+01 | 1.4E+01 | 8.5E+00 | 8.5E+00 | N |
| Methyl isobutyl ketone | NA | NA | NA | 2.9E+00 | 8.3E+00 | 2.2E+00 | 2.2E+00 | N |
| Styrene | NA | NA | NA | 7.3E+00 | 2.8E+00 | 2.0E+00 | 2.0E+00 | N |
| Tetrachloroethene | 4.1E-01 | 2.5E-01 | 1.5E-01 | 2.2E-01 | 1.1E-01 | 7.4E-02 | 7.4E-02 | N |
| Toluene | NA | NA | NA | 2.9E+00 | 1.4E+01 | 2.4E+00 | 2.4E+00 | N |
| Xylenes (total) | NA | NA | NA | 7.3E+00 | 2.8E-01 | 2.7E-01 | 2.7E-01 | N |
| m-Xylene | NA | NA | NA | 7.3E+00 | 2.8E-01 | 2.7E-01 | 2.7E-01 | N |
| o-Xylene | NA | NA | NA | 7.3E+00 | 2.8E-01 | 2.7E-01 | 2.7E-01 | N |
| p-Xylene | NA | NA | NA | 7.3E+00 | 2.8E-01 | 2.7E-01 | 2.7E-01 | N |
| m & p-Xylenes | NA | NA | NA | 7.3E+00 | 2.8E-01 | 2.7E-01 | 2.7E-01 | N |
| **Semi Volatile Organic Compounds** | | | | | | | | |
| Aniline | 1.5E-01 | NV | 1.5E-01 | 2.6E-01 | NV | 2.6E-01 | 1.5E-01 | C |
| Bis(2-ethylhexyl)phthalate | 6.1E-02 | NV | 6.1E-02 | 7.3E-01 | NV | 7.3E-01 | 6.1E-02 | C |

**Table C-14**
**Risk Reduction Standards for Potential Groundwater Ingestion Based on Residential Adult (Type 2) Exposure**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) | |
|---|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 4.5E-01 | NV | 4.5E-01 | 7.3E+00 | NV | 7.3E+00 | 4.5E-01 | C |
| Total Cresols | NA | NV | NA | 3.7E+00 | NV | 3.7E+00 | 3.7E+00 | N |
| m & p-Cresols | NA | NV | NA | 3.7E+00 | NV | 3.7E+00 | 3.7E+00 | N |
| m-Cresol | NA | NV | NA | 1.8E+00 | NV | 1.8E+00 | 1.8E+00 | N |
| o-Cresol | NA | NV | NA | 1.8E+00 | NV | 1.8E+00 | 1.8E+00 | N |
| p-Cresol | NA | NV | NA | 1.8E-01 | NV | 1.8E-01 | 1.8E-01 | N |
| Dibenzofuran | NA | NA | NA | 3.7E-02 | NA | 3.7E-02 | 3.7E-02 | N |
| 2,4-Dimethylphenol | NA | NV | NA | 7.3E-01 | NV | 7.3E-01 | 7.3E-01 | N |
| m-Dinitrobenzene | NA | NV | NA | 3.7E-03 | NV | 3.7E-03 | 3.7E-03 | N |
| Di-n-octyl phthalate | NA | NV | NA | NA | NV | NA | NA | |
| 1,4-Dioxane | 8.5E-03 | NV | 8.5E-03 | 1.1E+00 | NV | 1.1E+00 | 8.5E-03 | C |
| Formaldehyde | NA | NV | NA | 7.3E+00 | NV | 7.3E+00 | 7.3E+00 | N |
| N-Nitrosodi-n-butylamine | 1.6E-04 | 4.1E-05 | 3.2E-05 | NA | NA | NA | 3.2E-05 | C |
| N-Nitroso-n-methylethylamine | 3.9E-05 | NV | 3.9E-05 | NA | NV | NA | 3.9E-05 | C |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | |
| Acenaphthene | NA | NA | NA | 2.2E+00 | NA | 2.2E+00 | 2.2E+00 | N |
| Acenaphthylene | NA | NA | NA | NA | NA | NA | NA | |
| Anthracene | NA | NA | NA | 1.1E+01 | NA | 1.1E+01 | 1.1E+01 | N |
| Benzo(a)anthracene | 1.2E-03 | NV | 1.2E-03 | NA | NV | NA | 1.2E-03 | C |
| Benzo(a)pyrene | 1.2E-04 | NV | 1.2E-04 | NA | NV | NA | 1.2E-04 | C |
| Benzo(b)fluoranthene | 1.2E-03 | NV | 1.2E-03 | NA | NV | NA | 1.2E-03 | C |
| Benzo(g,h,i)perylene | NA | NV | NA | NA | NV | NA | NA | |
| Benzo(k)fluoranthene | 1.2E-02 | NV | 1.2E-02 | NA | NV | NA | 1.2E-02 | C |
| Chrysene | 1.2E-01 | NV | 1.2E-01 | NA | NV | NA | 1.2E-01 | C |
| Dibenzo(a,h)anthracene | 1.2E-04 | NV | 1.2E-04 | NA | NV | NA | 1.2E-04 | C |
| Fluoranthene | NA | NV | NA | 1.5E+00 | NV | 1.5E+00 | 1.5E+00 | N |
| Fluorene | NA | NA | NA | 1.5E+00 | NA | 1.5E+00 | 1.5E+00 | N |
| Indeno(1,2,3-cd)pyrene | 1.2E-03 | NV | 1.2E-03 | NA | NV | NA | 1.2E-03 | C |

**Table C-14**
**Risk Reduction Standards for Potential Groundwater Ingestion Based on Residential Adult (Type 2) Exposure**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) | |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | NA | 1.9E-03 | 1.9E-03 | 7.3E-01 | 8.3E-03 | 8.2E-03 | 1.9E-03 | C |
| Phenanthrene | NA | NA | NA | NA | NA | NA | NA | |
| Pyrene | NA | NV | NA | 1.1E+00 | NV | 1.1E+00 | 1.1E+00 | N |
| **Dioxins** | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 6.6E-09 | NV | 6.6E-09 | 3.7E-08 | NV | 3.7E-08 | 6.6E-09 | C |
| **Pesticides** | | | | | | | | |
| Endrin | NA | NV | NA | 1.1E-02 | NV | 1.1E-02 | 1.1E-02 | N |
| Endrin aldehyde | NA | NV | NA | NA | NV | NA | NA | |
| 4,4'-DDT | 2.5E-03 | NV | 2.5E-03 | 1.8E-02 | NV | 1.8E-02 | 2.5E-03 | C |
| Methoxychlor | NA | NV | NA | 1.8E-01 | NV | 1.8E-01 | 1.8E-01 | N |
| Parathion | NA | NV | NA | 2.2E-01 | NV | 2.2E-01 | 2.2E-01 | N |
| **Polychlorinated Biphenyls** | | | | | | | | |
| Aroclor 1254 | 4.3E-04 | NV | 4.3E-04 | 7.3E-04 | NV | 7.3E-04 | 4.3E-04 | C |
| Aroclor 1260 | 4.3E-04 | NV | 4.3E-04 | NA | NV | NA | 4.3E-04 | C |
| Total PCBs | 4.3E-04 | NV | 4.3E-04 | 7.3E-04 | NV | 7.3E-04 | 4.3E-04 | C |
| **Inorganics** | | | | | | | | |
| Ammonia (as N) | NA | NV | NA | NA | NV | NA | NA | |
| Fluoride | NA | NV | NA | 1.5E+00 | NV | 1.5E+00 | 1.5E+00 | N |

RRSc (cancer effects) is calculated using a target cancer risk (TCR) of 1E-05; RRSnc (non-cancer effects) is calculated using a target hazard index (THI) of 1.

mg/L Milligrams per liter.
NA Not available; insufficient toxicity data.
RRS Risk reduction standard (mg/L); for each constituent, the minimum of the cancer-effects (RRSc) and the non-cancer-effects (RRSnc).

**Table C-15**
**Risk Reduction Standards for Potential Groundwater Ingestion Based on Residential Child (Type 2) Exposure**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) | |
|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | |
| Acetone | NA | NA | NA | 1.4E+01 | 1.8E+01 | 8.0E+00 | 8.0E+00 | N |
| Acetonitrile | NA | NA | NA | NA | 3.6E-02 | 3.6E-02 | 3.6E-02 | N |
| Acetophenone | NA | NA | NA | 1.6E+00 | NA | 1.6E+00 | 1.6E+00 | N |
| Acrolein | NA | NA | NA | 7.8E-03 | 1.2E-05 | 1.2E-05 | 1.2E-05 | N |
| Benzene | 3.3E-02 | 8.9E-03 | 7.0E-03 | 6.3E-02 | 1.8E-02 | 1.4E-02 | 7.0E-03 | C |
| Biphenyl | 2.3E-01 | NA | 2.3E-01 | 7.8E-01 | 2.4E-04 | 2.4E-04 | 2.4E-04 | N |
| Carbon disulfide | NA | NA | NA | 1.6E+00 | 4.2E-01 | 3.3E-01 | 3.3E-01 | N |
| Chlorobenzene | NA | NA | NA | 3.1E-01 | 3.0E-02 | 2.7E-02 | 2.7E-02 | N |
| trans-1,4-Dichlorobutene | NA | 1.7E-05 | 1.7E-05 | NA | NA | NA | 1.7E-05 | C |
| 1,2-Dichloropropane | 5.1E-02 | 7.0E-03 | 6.1E-03 | 1.4E+00 | 2.4E-03 | 2.4E-03 | 2.4E-03 | N |
| 1,4-Dichloro-2-butene | NA | 1.7E-05 | 1.7E-05 | NA | NA | NA | 1.7E-05 | C |
| Ethylbenzene | 1.7E-01 | 2.8E-02 | 2.4E-02 | 1.6E+00 | 6.0E-01 | 4.3E-01 | 2.4E-02 | C |
| Ethyl Methacrylate | NA | NA | NA | 1.4E+00 | NA | 1.4E+00 | 1.4E+00 | N |
| Isobutyl alcohol | NA | NA | NA | 4.7E+00 | NA | 4.7E+00 | 4.7E+00 | N |
| Methyl ethyl ketone | NA | NA | NA | 9.4E+00 | 3.0E+00 | 2.3E+00 | 2.3E+00 | N |
| Methyl isobutyl ketone | NA | NA | NA | 1.3E+00 | 1.8E+00 | 7.4E-01 | 7.4E-01 | N |
| Styrene | NA | NA | NA | 3.1E+00 | 6.0E-01 | 5.0E-01 | 5.0E-01 | N |
| Tetrachloroethene | 8.7E-01 | 2.7E-01 | 2.0E-01 | 9.4E-02 | 2.4E-02 | 1.9E-02 | 1.9E-02 | N |
| Toluene | NA | NA | NA | 1.3E+00 | 3.0E+00 | 8.8E-01 | 8.8E-01 | N |
| Xylenes (total) | NA | NA | NA | 3.1E+00 | 6.0E-02 | 5.8E-02 | 5.8E-02 | N |
| m-Xylene | NA | NA | NA | 3.1E+00 | 6.0E-02 | 5.8E-02 | 5.8E-02 | N |
| o-Xylene | NA | NA | NA | 3.1E+00 | 6.0E-02 | 5.8E-02 | 5.8E-02 | N |
| p-Xylene | NA | NA | NA | 3.1E+00 | 6.0E-02 | 5.8E-02 | 5.8E-02 | N |
| m & p-Xylenes | NA | NV | NA | 3.1E+00 | NV | 3.1E+00 | 3.1E+00 | N |
| **Semi Volatile Organic Compounds** | | | | | | | | |
| Aniline | 3.2E-01 | NV | 3.2E-01 | 1.1E-01 | NV | 1.1E-01 | 1.1E-01 | N |
| Bis(2-ethylhexyl)phthalate | 1.3E-01 | NV | 1.3E-01 | 3.1E-01 | NV | 3.1E-01 | 1.3E-01 | C |
| Butyl benzyl phthalate | 9.6E-01 | NV | 9.6E-01 | 3.1E+00 | NV | 3.1E+00 | 9.6E-01 | C |

**Table C-15**
**Risk Reduction Standards for Potential Groundwater Ingestion Based on Residential Child (Type 2) Exposure**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) | |
|---|---|---|---|---|---|---|---|---|
| Total Cresols | NA | NV | NA | 1.6E+00 | NV | 1.6E+00 | 1.6E+00 | N |
| m & p-Cresols | NA | NV | NA | 1.6E+00 | NV | 1.6E+00 | 1.6E+00 | N |
| m-Cresol | NA | NV | NA | 7.8E-01 | NV | 7.8E-01 | 7.8E-01 | N |
| o-Cresol | NA | NV | NA | 7.8E-01 | NV | 7.8E-01 | 7.8E-01 | N |
| p-Cresol | NA | NA | NA | 7.8E-02 | 3.6E-01 | 6.4E-02 | 6.4E-02 | N |
| Dibenzofuran | NA | NV | NA | 1.6E-02 | NV | 1.6E-02 | 1.6E-02 | N |
| 2,4-Dimethylphenol | NA | NV | NA | 3.1E-01 | NV | 3.1E-01 | 3.1E-01 | N |
| m-Dinitrobenzene | NA | NV | NA | 1.6E-03 | NV | 1.6E-03 | 1.6E-03 | N |
| Di-n-octyl phthalate | NA | NV | NA | NA | NV | NA | NA | |
| 1,4-Dioxane | 1.8E-02 | NV | 1.8E-02 | 4.7E-01 | NV | 4.7E-01 | 1.8E-02 | C |
| Formaldehyde | NA | 5.3E-03 | 5.3E-03 | 3.1E+00 | 5.8E-03 | 5.8E-03 | 5.3E-03 | C |
| N-Nitrosodi-n-butylamine | 3.4E-04 | NV | 3.4E-04 | NA | NV | NA | 3.4E-04 | C |
| N-Nitroso-n-methylethylamine | 8.3E-05 | #N/A | 8.3E-05 | NA | #N/A | NA | 8.3E-05 | C |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | |
| Acenaphthene | NA | NA | NA | 9.4E-01 | NA | 9.4E-01 | 9.4E-01 | N |
| Acenaphthylene | NA | NA | NA | NA | NA | NA | NA | |
| Anthracene | NA | NV | NA | 4.7E+00 | NV | 4.7E+00 | 4.7E+00 | N |
| Benzo(a)anthracene | 2.5E-03 | NV | 2.5E-03 | NA | NV | NA | 2.5E-03 | C |
| Benzo(a)pyrene | 2.5E-04 | NV | 2.5E-04 | NA | NV | NA | 2.5E-04 | C |
| Benzo(b)fluoranthene | 2.5E-03 | NV | 2.5E-03 | NA | NV | NA | 2.5E-03 | C |
| Benzo(g,h,i)perylene | NA | NV | NA | NA | NV | NA | NA | |
| Benzo(k)fluoranthene | 2.5E-02 | NV | 2.5E-02 | NA | NV | NA | 2.5E-02 | C |
| Chrysene | 2.5E-01 | NV | 2.5E-01 | NA | NV | NA | 2.5E-01 | C |
| Dibenzo(a,h)anthracene | 2.5E-04 | NV | 2.5E-04 | NA | NV | NA | 2.5E-04 | C |
| Fluoranthene | NA | NA | NA | 6.3E-01 | NA | 6.3E-01 | 6.3E-01 | N |
| Fluorene | NA | NV | NA | 6.3E-01 | NV | 6.3E-01 | 6.3E-01 | N |
| Indeno(1,2,3-cd)pyrene | 2.5E-03 | 6.3E-04 | 5.0E-04 | NA | NA | NA | 5.0E-04 | C |
| Naphthalene | NA | 2.0E-03 | 2.0E-03 | 3.1E-01 | 1.8E-03 | 1.8E-03 | 1.8E-03 | N |
| Phenanthrene | NA | NV | NA | NA | NV | NA | NA | |

**Table C-15**
**Risk Reduction Standards for Potential Groundwater Ingestion Based on Residential Child (Type 2) Exposure**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) | |
|---|---|---|---|---|---|---|---|---|
| Pyrene | NA | NV | NA | 4.7E-01 | NV | 4.7E-01 | 4.7E-01 | N |
| **Dioxins** | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 1.4E-08 | NV | 1.4E-08 | 1.6E-08 | NV | 1.6E-08 | 1.4E-08 | C |
| **Pesticides** | | | | | | | | |
| Endrin | NA | NV | NA | 4.7E-03 | NV | 4.7E-03 | 4.7E-03 | N |
| Endrin aldehyde | NA | NV | NA | NA | NV | NA | NA | |
| 4,4'-DDT | 5.4E-03 | NV | 5.4E-03 | 7.8E-03 | NV | 7.8E-03 | 5.4E-03 | C |
| Methoxychlor | NA | NV | NA | 7.8E-02 | NV | 7.8E-02 | 7.8E-02 | N |
| Parathion | NA | NV | NA | 9.4E-02 | NV | 9.4E-02 | 9.4E-02 | N |
| **Polychlorinated Biphenyls** | | | | | | | | |
| Aroclor 1254 | 9.1E-04 | NV | 9.1E-04 | 3.1E-04 | NV | 3.1E-04 | 3.1E-04 | N |
| Aroclor 1260 | 9.1E-04 | NV | 9.1E-04 | NA | NV | NA | 9.1E-04 | C |
| Total PCBs | 9.1E-04 | NV | 9.1E-04 | 3.1E-04 | NV | 3.1E-04 | 3.1E-04 | N |
| **Inorganics** | | | | | | | | |
| Ammonia (as N) | NA | NV | NA | NA | NV | NA | NA | |
| Asbestos (million per liter) | NA | NV | NA | NA | NV | NA | NA | |
| Fluoride | NA | NV | NA | 6.3E-01 | NV | 6.3E-01 | 6.3E-01 | N |

RRSc (cancer effects) is calculated using a target cancer risk (TCR) of 1E-05; RRSnc (non-cancer effects) is calculated using a target hazard index (THI) of 1.

mg/L Milligrams per liter.
NA Not available; insufficient toxicity data.
NC Not a suspected carcinogen.
RRS Risk reduction standard (mg/L); for each constituent, the minimum of the cancer-effects (RRSc) and the non-cancer-effects (RRSnc).

**Table C-16**
**Comparison of Maximum Concentrations in Groundwater to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration Detected (mg/L) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/L) | Source of Type 3 Standard | Type 4 RRS [b] (mg/L) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | <0.025 | NA | July 2011 | 4.0 | A-III | 46.0 | RRS | no | no |
| Acetonitrile | <0.04 | NA | NA | 0.20 | A-III | 0.20 | Type 3 | no | no |
| Acetophenone | <0.01 | NA | July 2011 | 4.0 | A-III | 10.0 | RRS | no | no |
| Acrolein | <0.020 | NA | July 2011 | 0.70 | A-III | 0.70 | Type 3 | no | no |
| Benzene | 0.016 | MW-F21 | 7/21/2011 | 0.0050 | A-III | 0.0087 | RRS | YES | YES |
| Biphenyl | <0.01 | NA | NA | 0.010 | DL | 0.010 | Type 3 | no | no |
| Carbon disulfide | <0.002 | NA | July 2011 | 4.0 | A-III | 4.00 | Type 3 | no | no |
| Chlorobenzene | 0.0011 | MW-29 | 7/21/2011 | 0.10 | A-III | 0.1400 | RRS | no | no |
| trans-1,4-Dichlorobutene | <0.002 | NA | NA | 0.0020 | DL | 0.0020 | Type 3 | no | no |
| 1,2-Dichloropropane | <0.001 | NA | July 2011 | 0.0050 | A-III | 0.0074 | RRS | no | no |
| 1,4-Dichloro-2-butene | <0.001 | NA | NA | 0.0010 | DL | 0.00 | Type 3 | no | no |
| Ethylbenzene | <0.001 | NA | July 2011 | 0.70 | A-III | 0.7 | Type 3 | no | no |
| Ethyl Methacrylate | <0.001 | NA | NA | 3.0 | A-III | 9.2 | RRS | no | no |
| Isobutyl alcohol | <0.040 | NA | July 2011 | 10 | A-III | 31.0 | RRS | no | no |
| Methyl ethyl ketone | <0.01 | NA | NA | 2.0 | A-III | 12.00 | RRS | no | no |
| Methyl isobutyl ketone | <0.01 | NA | NA | 2.0 | A-III | 4.2000 | RRS | no | no |
| Styrene | <0.001 | NA | NA | 0.10 | A-III | 2.6 | RRS | no | no |
| Tetrachloroethene | 0.0029 | MW-27 | 7/22/2011 | 0.0050 | A-III | 0.098 | RRS | no | no |
| Toluene | <0.001 | NA | July 2011 | 1.0 | A-III | 5.2000 | RRS | no | no |
| Xylenes (total) | 0.0022 | MW-F21 | 7/21/2011 | 10 | A-III | 10.0000 | Type 3 | no | no |
| m-Xylene | <0.001 | NA | NA | 0.0010 | DL | 0.2900 | RRS | no | no |
| o-Xylene | <0.001 | NA | NA | 0.0010 | DL | 0.2900 | RRS | no | no |
| p-Xylene | <0.001 | NA | NA | 0.0010 | DL | 0.29 | RRS | no | no |
| m & p-Xylenes | 0.002 | NA | NA | 0.0020 | DL | 0.2900 | RRS | no | no |
| **Semi Volatile Organic Compounds** | | | | | | | | | |
| Aniline | <0.020 | NA | NA | 0.0060 | A-III | 0.50 | RRS | no | no |
| Bis(2-ethylhexyl)phthalate | 0.046 | MW-F11 | 7/19/2011 | 0.0060 | A-III | 0.200 | RRS | YES | no |
| Butyl benzyl phthalate | <0.01 | NA | July 2011 | 0.10 | A-III | 1.500 | RRS | no | no |
| Total Cresols | <0.01 | NA | NA | 0.010 | DL | 10.000 | RRS | no | no |
| m & p-Cresols | <0.01 | NA | NA | 0.010 | DL | 10.000 | RRS | no | no |
| m-Cresol | <0.01 | NA | NA | 0.010 | DL | 5.10 | RRS | no | no |
| o-Cresol | <0.01 | NA | NA | 0.010 | DL | 5.1000 | RRS | no | no |
| p-Cresol | <0.01 | NA | July 2011 | 0.010 | DL | 0.510 | RRS | no | no |
| Dibenzofuran | <0.01 | NA | July 2011 | 0.010 | DL | 0.100 | RRS | no | no |
| 2,4-Dimethylphenol | <0.01 | NA | July 2011 | 0.70 | A-III | 2.0 | RRS | no | no |
| m-Dinitrobenzene | <0.01 | NA | July 2011 | 0.0010 | A-III | 0.0100000 | RRS | no | no |
| Di-n-octyl phthalate | <0.01 | NA | NA | 0.010 | DL | 0.0100000 | Type 3 | no | no |
| 1,4-Dioxane | 0.021 | MW-F21 | 7/21/2011 | 0.070 | A-III | 0.07 | Type 3 | no | no |
| Formaldehyde | <0.05 | NA | July 2011 | 1.0 | A-III | 20.0 | RRS | no | no |
| N-Nitrosodi-n-butylamine | <0.01 | NA | July 2011 | 0.0000060 | A-III | 0.000 | RRS | no | no |
| N-Nitroso-n-methylethylamine | <0.01 | NA | July 2011 | 0.0000020 | A-III | 0.000 | RRS | no | no |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | |
| Acenaphthene | 0.0062 | MW-F21 | 7/21/2011 | 2.0 | A-III | 6.10000 | RRS | no | no |
| Acenaphthylene | <0.01 | NA | NA | 0.010 | DL | 0.010 | Type 3 | no | no |
| Anthracene | <0.01 | NA | NA | 0.010 | DL | 31.000 | RRS | no | no |
| Benzo(a)anthracene | <0.01 | NA | NA | 0.00010 | A-III | 0.00390 | RRS | no | no |
| Benzo(a)pyrene | <0.01 | NA | NA | 0.00020 | A-III | 0.00039 | RRS | no | no |
| Benzo(b)fluoranthene | <0.01 | NA | NA | 0.00020 | A-III | 0.0 | RRS | no | no |
| Benzo(g,h,i)perylene | <0.01 | NA | NA | 0.010 | DL | 0.0 | Type 3 | no | no |
| Benzo(k)fluoranthene | <0.01 | NA | NA | 0.010 | DL | 0.03900 | RRS | no | no |
| Chrysene | <0.01 | NA | July 2011 | 0.00020 | A-III | 0.390 | RRS | no | no |
| Dibenzo(a,h)anthracene | <0.01 | NA | NA | 0.00030 | A-III | 0.000 | RRS | no | no |
| Fluoranthene | <0.01 | NA | July 2011 | 1.0 | A-III | 4.1 | RRS | no | no |
| Fluorene | <0.01 | NA | July 2011 | 1.0 | A-III | 4.1 | RRS | no | no |
| Indeno(1,2,3-cd)pyrene | <0.01 | NA | NA | 0.00040 | A-III | 0.00390000 | RRS | no | no |
| Naphthalene | 0.43 | MW-F21 | 7/21/2011 | 0.020 | A-III | 0.02 | Type 3 | YES | YES |
| Phenanthrene | <0.01 | NA | July 2011 | 0.010 | DL | 0.0100 | Type 3 | no | no |
| Pyrene | <0.01 | NA | July 2011 | 1.0 | A-III | 3.1 | RRS | no | no |
| **Dioxins** | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | <0.00000001 | NA | NA | 0.00000003 | A-III | 0.000 | Type 3 | no | no |

**Table C-16**
**Comparison of Maximum Concentrations in Groundwater to Types 3 and 4 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | | Maximum Concentration Detected (mg/L) | Location of Maximum Detection | Sample Date | Type 3 RRS [a] (mg/L) | Source of Type 3 Standard | Type 4 RRS [b] (mg/L) | Source of Type 4 Standard | Type 3 Standard Exceeded? | Type 4 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|---|
| **Pesticides** | | | | | | | | | | |
| Endrin | | <0.0001 | NA | NA | 0.0020 | A-III | 0.031000000 | RRS | no | no |
| Endrin aldehyde | | 0.00001 | MWD-F1 | 11/4/2000 | 0.0001 | DL | 0.00010 | Type 3 | no | no |
| 4,4'-DDT | | <0.0001 | NA | NA | 0.00010 | A-III | 0.00840 | RRS | no | no |
| Methoxychlor | | <0.0001 | NA | NA | 0.040 | A-III | 0.51000 | RRS | no | no |
| Parathion | | <0.01 | NA | NA | 0.20 | A-III | 0.61 | RRS | no | no |
| **Polychlorinated Biphenyls** | | | | | | | | | | |
| Aroclor 1254 | | <0.001 | NA | NA | 0.00050 | A-III | 0.0 | RRS | no | no |
| Aroclor 1260 | | <0.001 | NA | NA | 0.00050 | A-III | 0.0 | RRS | no | no |
| Total PCBs | | <0.001 | NA | NA | 0.00050 | A-III | 0.0014 | RRS | no | no |
| **Inorganics** | | | | | | | | | | |
| Ammonia (as N) | | 1.7 | MW-F6 | 10/28/2000 | 30 | A-III | 30 | Type 3 | no | no |
| Asbestos | (million per liter) | 6.7 | TMW-5 | 7/6/2000 | 7.0 | A-III | 7 | Type 3 | no | no |
| Fluoride | | 0.75 | MWD-F3 | 11/3/2000 | 4.0 | A-III | 4.1 | RRS | no | no |

| | |
|---|---|
| | Risk Reduction Standard exceeded. |
| mg/L | Milligrams per liter. |
| NA | Not applicable. |
| RRS | Risk Reduction Standard. |
| [a] | Source of Type 3 RRS:<br>A-III: Appendix III.<br>DL: Detection limit.<br>BKG: Background. |
| [b] | Source of Type 4 RRS:<br>RRS: Calculated site-specific industrial risk reduction standard.<br>Type 3 RRS. |

**Table C-17**

**Risk Reduction Standards for Potential Groundwater Ingestion Based on Industrial (Type 4) Exposure**

**Voluntary Investigation and Remediation Plan**

**Hercules Inc.**

**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) |
|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | |
| Acetone | NA | NA | NA | 9.2E+01 | 9.1E+01 | 4.6E+01 | 4.6E+01 |
| Acetonitrile | NA | NA | NA | NA | 1.8E-01 | 1.8E-01 | 1.8E-01 |
| Acetophenone | NA | NA | NA | 1.0E+01 | NA | 1.0E+01 | 1.0E+01 |
| Acrolein | NA | NA | NA | 5.1E-02 | 5.8E-05 | 5.8E-05 | 5.8E-05 |
| Benzene | 5.2E-02 | 1.0E-02 | 8.7E-03 | 4.1E-01 | 8.8E-02 | 7.2E-02 | 8.7E-03 |
| Biphenyl | 3.6E-01 | NA | 3.6E-01 | 5.1E+00 | 1.2E-03 | 1.2E-03 | 1.2E-03 |
| Carbon disulfide | NA | NA | NA | 1.0E+01 | 2.0E+00 | 1.7E+00 | 1.7E+00 |
| Chlorobenzene | NA | NA | NA | 2.0E+00 | 1.5E-01 | 1.4E-01 | 1.4E-01 |
| trans-1,4-Dichlorobutene | NA | 1.9E-05 | 1.9E-05 | NA | NA | NA | 1.9E-05 |
| 1,2-Dichloropropane | 7.9E-02 | 8.2E-03 | 7.4E-03 | 9.2E+00 | 1.2E-02 | 1.2E-02 | 7.4E-03 |
| 1,4-Dichloro-2-butene | NA | 1.9E-05 | 1.9E-05 | NA | NA | NA | 1.9E-05 |
| Ethylbenzene | 2.6E-01 | 3.3E-02 | 2.9E-02 | 1.0E+01 | 2.9E+00 | 2.3E+00 | 2.9E-02 |
| Ethyl Methacrylate | NA | NA | NA | 9.2E+00 | NA | 9.2E+00 | 9.2E+00 |
| Isobutyl alcohol | NA | NV | NA | 3.1E+01 | NV | 3.1E+01 | 3.1E+01 |
| Methyl ethyl ketone | NA | NA | NA | 6.1E+01 | 1.5E+01 | 1.2E+01 | 1.2E+01 |
| Methyl isobutyl ketone | NA | NA | NA | 8.2E+00 | 8.8E+00 | 4.2E+00 | 4.2E+00 |
| Styrene | NA | NA | NA | 2.0E+01 | 2.9E+00 | 2.6E+00 | 2.6E+00 |
| Tetrachloroethene | 1.4E+00 | 3.1E-01 | 2.6E-01 | 6.1E-01 | 1.2E-01 | 9.8E-02 | 9.8E-02 |
| Toluene | NA | NA | NA | 8.2E+00 | 1.5E+01 | 5.2E+00 | 5.2E+00 |
| Xylenes (total) | NA | NA | NA | 2.0E+01 | 2.9E-01 | 2.9E-01 | 2.9E-01 |
| m-Xylene | NA | NA | NA | 2.0E+01 | 2.9E-01 | 2.9E-01 | 2.9E-01 |
| o-Xylene | NA | NA | NA | 2.0E+01 | 2.9E-01 | 2.9E-01 | 2.9E-01 |
| p-Xylene | NA | NA | NA | 2.0E+01 | 2.9E-01 | 2.9E-01 | 2.9E-01 |
| m & p-Xylenes | NA | NA | NA | 2.0E+01 | 2.9E-01 | 2.9E-01 | 2.9E-01 |
| **Semi Volatile Organic Compounds** | | | | | | | |
| Aniline | 5.0E-01 | NV | 5.0E-01 | 7.2E-01 | NV | 7.2E-01 | 5.0E-01 |
| Bis(2-ethylhexyl)phthalate | 2.0E-01 | NV | 2.0E-01 | 2.0E+00 | NV | 2.0E+00 | 2.0E-01 |
| Butyl benzyl phthalate | 1.5E+00 | NV | 1.5E+00 | 2.0E+01 | NV | 2.0E+01 | 1.5E+00 |
| Total Cresols | NA | NV | NA | 1.0E+01 | NV | 1.0E+01 | 1.0E+01 |

**Table C-17**

**Risk Reduction Standards for Potential Groundwater Ingestion Based on Industrial (Type 4) Exposure**

**Voluntary Investigation and Remediation Plan**

**Hercules Inc.**

**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) |
|---|---|---|---|---|---|---|---|
| m & p-Cresols | NA | NV | NA | 1.0E+01 | NV | 1.0E+01 | 1.0E+01 |
| m-Cresol | NA | NV | NA | 5.1E+00 | NV | 5.1E+00 | 5.1E+00 |
| o-Cresol | NA | NV | NA | 5.1E+00 | NV | 5.1E+00 | 5.1E+00 |
| p-Cresol | NA | NV | NA | 5.1E-01 | NV | 5.1E-01 | 5.1E-01 |
| Dibenzofuran | NA | NA | NA | 1.0E-01 | NA | 1.0E-01 | 1.0E-01 |
| 2,4-Dimethylphenol | NA | NV | NA | 2.0E+00 | NV | 2.0E+00 | 2.0E+00 |
| m-Dinitrobenzene | NA | NV | NA | 1.0E-02 | NV | 1.0E-02 | 1.0E-02 |
| Di-n-octyl phthalate | NA | NV | NA | NA | NV | NA | NA |
| 1,4-Dioxane | 2.9E-02 | NV | 2.9E-02 | 3.1E+00 | NV | 3.1E+00 | 2.9E-02 |
| Formaldehyde | NA | NV | NA | 2.0E+01 | NV | 2.0E+01 | 2.0E+01 |
| N-Nitrosodi-n-butylamine | 5.3E-04 | 5.1E-05 | 4.7E-05 | NA | NA | NA | 4.7E-05 |
| N-Nitroso-n-methylethylamine | 1.3E-04 | NV | 1.3E-04 | NA | NV | NA | 1.3E-04 |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | |
| Acenaphthene | NA | NA | NA | 6.1E+00 | NA | 6.1E+00 | 6.1E+00 |
| Acenaphthylene | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | NA | NA | NA | 3.1E+01 | NA | 3.1E+01 | 3.1E+01 |
| Benzo(a)anthracene | 3.9E-03 | NV | 3.9E-03 | NA | NV | NA | 3.9E-03 |
| Benzo(a)pyrene | 3.9E-04 | NV | 3.9E-04 | NA | NV | NA | 3.9E-04 |
| Benzo(b)fluoranthene | 3.9E-03 | NV | 3.9E-03 | NA | NV | NA | 3.9E-03 |
| Benzo(g,h,i)perylene | NA | NV | NA | NA | NV | NA | NA |
| Benzo(k)fluoranthene | 3.9E-02 | NV | 3.9E-02 | NA | NV | NA | 3.9E-02 |
| Chrysene | 3.9E-01 | NV | 3.9E-01 | NA | NV | NA | 3.9E-01 |
| Dibenzo(a,h)anthracene | 3.9E-04 | NV | 3.9E-04 | NA | NV | NA | 3.9E-04 |
| Fluoranthene | NA | NV | NA | 4.1E+00 | NV | 4.1E+00 | 4.1E+00 |
| Fluorene | NA | NA | NA | 4.1E+00 | NA | 4.1E+00 | 4.1E+00 |
| Indeno(1,2,3-cd)pyrene | 3.9E-03 | NV | 3.9E-03 | NA | NV | NA | 3.9E-03 |
| Naphthalene | NA | 2.4E-03 | 2.4E-03 | 2.0E+00 | 8.8E-03 | 8.7E-03 | 2.4E-03 |
| Phenanthrene | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | NA | NV | NA | 3.1E+00 | NV | 3.1E+00 | 3.1E+00 |
| **Dioxins** | | | | | | | |

**Table C-17**

**Risk Reduction Standards for Potential Groundwater Ingestion Based on Industrial (Type 4) Exposure**

**Voluntary Investigation and Remediation Plan**

**Hercules Inc.**

**Savannah, GA**

| Detected Regulated Substance | CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSc (mg/L) | NON-CANCER EFFECTS Route-Specific RRS (mg/L) Oral | Inhalation | RRSnc (mg/L) | RRS (mg/L) |
|---|---|---|---|---|---|---|---|
| 2,3,7,8-TCDD Toxicity Equivalents | 2.2E-08 | NV | 2.2E-08 | 1.0E-07 | NV | 1.0E-07 | 2.2E-08 |
| **Pesticides** | | | | | | | |
| Endrin | NA | NV | NA | 3.1E-02 | NV | 3.1E-02 | 3.1E-02 |
| Endrin aldehyde | NA | NV | NA | NA | NV | NA | NA |
| 4,4'-DDT | 8.4E-03 | NV | 8.4E-03 | 5.1E-02 | NV | 5.1E-02 | 8.4E-03 |
| Methoxychlor | NA | NV | NA | 5.1E-01 | NV | 5.1E-01 | 5.1E-01 |
| Parathion | NA | NV | NA | 6.1E-01 | NV | 6.1E-01 | 6.1E-01 |
| **Polychlorinated Biphenyls** | | | | | | | |
| Aroclor 1254 | 1.4E-03 | NV | 1.4E-03 | 2.0E-03 | NV | 2.0E-03 | 1.4E-03 |
| Aroclor 1260 | 1.4E-03 | NV | 1.4E-03 | NA | NV | NA | 1.4E-03 |
| Total PCBs | 1.4E-03 | NV | 1.4E-03 | 2.0E-03 | NV | 2.0E-03 | 1.4E-03 |
| **Inorganics** | | | | | | | |
| Ammonia (as N) | NA | NV | NA | NA | NV | NA | NA |
| Asbestos (million per liter) | NA | NV | NA | NA | NV | NA | NA |
| Fluoride | NA | NV | NA | 4.1E+00 | NV | 4.1E+00 | 4.1E+00 |

RRSc (cancer effects) is calculated using a target cancer risk (TCR) of 1E-05; RRSnc (non-cancer effects) is calculated using a target hazard index (TH

mg/L Milligrams per liter.
NA Not available; insufficient toxicity data.
NC Not a suspected carcinogen.
RRS Risk reduction standard (mg/L); for each constituent, the minimum of the cancer-effects (RRSc) and the non-cancer-effects (RRSnc).

**Table C-18**
**Comparison of Maximum Concentrations Detected in Sediment to Type 1 and 2 Risk Reduction Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration (mg/kg) | Location of Maximum Detection | Sample Date | Type 1 RRS [a] (mg/kg) | Source of Type 1 Standard | Type 2 RRS [b] (mg/kg) | Source of Type 2 Standard | Type 1 Standard Exceeded? | Type 2 Standard Exceeded? |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | | | | |
| Acetone | 2.2E-01 | SD-F3 | 11/2/2000 | 4.0E+02 | GW | 4.0E+02 | Type 1 | no | no |
| **Semi Volatile Organic Compounds** | | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 5.4E-01 | SD-F2 | 11/2/2000 | 5.0E+01 | A-I | 5.0E+01 | Type 1 | no | no |
| **Polycyclic Aromatic Hydrocarbons** | | | | | | | | | |
| Benzo(a)pyrene | 8.0E-01 | SD-F5 | 11/2/2000 | 1.6E+00 | A-I | 1.6E+00 | Type 1 | no | no |
| **Dioxins** | | | | | | | | | |
| 2,3,7,8-TCDD Toxicity Equivalents | 4.4E-05 | SD-F2/F3/F4/F5 | 11/2/2000 | 8.0E-05 | A-I | 8.0E-05 | Type 1 | no | no |

| | |
|---|---|
| | Maximum exceeds Risk Reduction Standard. |
| mg/kg | Milligrams per kilogram. |
| NA | Not applicable. |
| RRS | Risk Reduction Standard. |

[a] Source of Type 1 RRS:
A-1: Appendix I notification requirement (NC) ("App I NC").
A-III: Appendix III Table 2 (16 metals).
GW: Appendix III Table 1 times 100.
PRGc-Res: Calculated default residential carcinogenic preliminary remediation goal.
PRGnc-Res: Calculated default residential non-carcinogenic preliminary remediation goal.

[b] Source of Type 2 RRS:
RRSa: Calculated site-specific residential risk reduction standard based on adult.
RRSc: Calculated site-specific residential risk reduction standard based on child.
SSL: Soil screeening level for Migration to Groundwater.
Type 1 RRS.

**Table C-19**
**Comparison of Maximum Concentrations Detected in Surface Water to Georgia In-Stream Standards**
**Voluntary Investigation and Remediation Plan**
**Hercules Inc.**
**Savannah, GA**

| Detected Regulated Substance | Maximum Concentration Detected (mg/L) | Location of Maximum Detection | Georgia In-Stream Standard (mg/L) | Georgia In-Stream Standard Exceeded? | Type 1 Groundwater RRS (mg/L) | Type 1 Standard Exceeded? |
|---|---|---|---|---|---|---|
| **Volatile Organic Compounds** | | | | | | |
| 1,4-Dioxane | 0.012 | SW-F3SW-F4 | NA | no | 0.070 | no |
| Ammonia (as N) | 0.79 | SW-F5 | NA | no | 30 | no |
| Fluoride | 0.69 | SW-F3 | NA | no | 4 | no |

| | |
|---|---|
| mg/L | Milligrams per liter. |
| NA | Not available. |
| RRS | Risk reduction standard. |

ARCADIS

# Appendix D

Water Well Survey Summary

| Map Symbol | Site | Well ID | Database | Location From Site (mile) | TD (ft) | DTW (ft) | Description |
|---|---|---|---|---|---|---|---|
| A | Hercules 03 | USGS2280449 | FED USGS | 0-1/8 mi | 1006 | 120.9 | |
| | | 1836 | GA Wells | 0-1/8 mi | 1006 | | Hercules 03, unused, open hole from 275-1006 |
| | | 1837 | GA Wells | 0-1/8 mi | 275 | | Hercules 03"unused" |
| | Hercules 02 | USGS2280453 | FED USGS | 0-1/8 mi | 755 | 55.00 | WL collected in 1946 |
| | | 1842 | GA Wells | 0-1/8 mi | 244 | | Hercules 02 Casing to 244' |
| | | 1841 | GA Wells | 0-1/8 mi | 755 | | Hercules 02, open hole 244-755' (same as above) |
| B | Hercules 04 | 1835 | GA Wells | 0-1/8 mi | 921 | | Hercules 04, 270'-921' |
| | | USGS2280448 | FED USGS | 0-1/8 mi | 1000' | 85 | usege not listed. WL 85' measured in 1956 |
| P(9) | Roger Wood Packing* | GA0510171 | FEDS PWS | 1/8-1/4 | | | Roger Wood Packing. Population served: 250. No info on well construction |
| C | Hercules 01 | 1844 | GA Wells | 1/8-1/4 | 750 | | Hercules 01, open hole from 251-750'. Use: "Industrial" |
| | | 1845 | GA Wells | 1/8-1/4 | 750 | | same as above |
| | | USGS2280455 | FED USGS | 1/8-1/4 | 750 | 40 | WL collected in 1940, no information on usage |
| D | | USGS2280460 | FED USGS | 1/4-1/2 | 413 | 82.49 | no infor on usage. Multiple WL measurements, most recent 82.49 from 2005 |
| | Layne Atlantic | 1849 | GA Wells | 1/4-1/2 | 406 | | "Layne Atlantic" open hole 205-406', "unused" |
| E | State Farmers Market | 1850 | GA Wells | 1/4-1/2 | 500 | | "State Farmers Market" open hole 280-500' Primary use: "Public Supply" |
| | | USGS2280461 | FED USGS | 1/4-1/2 | 500 | 57 | WL collected in 1953, no inofrmation on usage |
| 17-22 | | 11598 | AQUIFLOW | 1/2 1 | | 16.34-20.38 | this appears to be WL meaurements from undisclosed well/stream |
| | | 11643 | AQUIFLOW | 1/2 1 | | 2.00-3.00 | this appears to be WL meaurements from undisclosed well/stream |
| | | 19273 | AQUIFLOW | 1/2 1 | | 7-8.5 | this appears to be WL meaurements from undisclosed well/stream |
| | | 11642 | AQUIFLOW | 1/2 1 | | 6.00-9.00 | this appears to be WL meaurements from undisclosed well/stream |
| | | 11649 | AQUIFLOW | 1/2 1 | | 2.5 | this appears to be WL meaurements from undisclosed well/stream |
| | | 19116 | AQUIFLOW | 1/2 1 | | 3.84-19.11 | this appears to be WL meaurements from undisclosed well/stream |
| G | Bradley Plywood | USGS2280451 | FED USGS | 1/2 1 | 320 | 101.57 | WL measured in 1955, no usage information |
| | | 1839 | GA Wells | 1/2 1 | 320 | | Usage: "Commercial) Bradley Plywood Co. Open hole from 248-320' |

* See Below

## Drinking Water Branch

### Water System Details

| | | | |
|---|---|---|---|
| **Water System No. :** | GA0510171 | **Federal Type :** | NTNC |
| **Water System Name :** | ROGER WOOD PACKING COMPANY | **State Type :** | NTNC |
| **Principal County Served :** | CHATHAM | **Primary Source :** | GW |
| **Status :** | A | **Activity Date :** | 03-12-1980 |

### Points of Contact

| Name | Job Title | Type | Phone | Address | Email |
|---|---|---|---|---|---|
| SMITH, DONALD S | null | DO | 912-352-9339 | POB 13705, SAVANNAH, GA-31416-3705 | dsmithsav@bellsouth.net |
| SMITH, DONALD S | null | EC | 912-352-9339 | POB 13705, SAVANNAH, GA-31416-3705 | dsmithsav@bellsouth.net |
| PHILLIPS, SHANE | PLANT ENGINEER | OW | 912-964-5335 | POB 2926, SAVANNAH, GA-31402-2926 | Not Available |
| SPIRES, SHARON | ADM CONTACT/OPR. | AC | 813-763-3068 | POB 2926, SAVANNAH, GA-31402-2926 | ss2010ecx@gmail.com |
| SPIRES, SHARON | ADM CONTACT/OPR. | EC | 813-763-3068 | POB 2926, SAVANNAH, GA-31402-2926 | ss2010ecx@gmail.com |
| SPIRES, SHARON | ADM CONTACT/OPR. | LE | 813-763-3068 | POB 2926, SAVANNAH, GA-31402-2926 | ss2010ecx@gmail.com |
| SPIRES, SHARON | ADM CONTACT/OPR. | LC | 813-763-3068 | POB 2926, SAVANNAH, GA-31402-2926 | ss2010ecx@gmail.com |
| BLAKE, CHRISTINE | ACCTS PAYABLE | FC | 912-652-9602 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |
| PHILLIPS, JODIE | OPR. | EC | 912-652-9607 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |
| PHILLIPS, JODIE | OPR. | LE | 912-652-9607 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |
| PHILLIPS, JODIE | OPR. | LC | 912-652-9607 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |
| PHILLIPS, JODIE | OPR. | OP | 912-652-9607 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |
| PHILLIPS, JODIE | OPR. | SA | 912-652-9607 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |
| PHILLIPS, JODIE (UPS) | OPR. | SA | 912-652-9607 | 7 ALFRED ST, SAVANNAH, GA-31408 | Not Available |

### Annual Operating Periods & Population Served

| Start Month | Start Day | End Month | End Day | Population Type | Population Served |
|---|---|---|---|---|---|
| 1 | 1 | 12 | 31 | NT | 220 |

### Service Connections

| Type | Count | Meter Type | Meter Size Measure |
|---|---|---|---|
| IN | 1 | UN | 0 |

### Sources of Water

| Name | Type Code | Status |
|---|---|---|
| WELL #1 | WL | A |

### Service Areas

| Code | Name |
|---|---|
| NT | INDUSTRIAL/AGRICULTURAL |


Alfred St
Layne Rd
Transfer Rd
Dixiana Dr
Savannah and Atlanta Railroad
Seaboard Coastline Railroad
CSX Railroad
Georgia Southern and Florida Railroad
Savannah Coastline Railroad
Savannah and Atlanta Railroad
Savannah and Atlanta Railroad
Savannah and Atlanta

# Appendix E

Laboratory Analytical Data

SEVERN TRENT SERVICES
STL Savannah
5102 LaRoche Avenue • Savannah, GA 31404 • Tel: 912 354 7858 • Fax: 912 352 0165 • www.stl-inc.com

LOG NO: S0-07599
Received: 03 NOV 00
Reported: 14 NOV 00
Revised: 29 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14130124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07599-1 | SW-F3 | 11-02-00 | SAV08 |
| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Acids and Base Neutrals (8270-APP9) | | | |
| Acenaphthene, ug/l | 10U | 10U | 10U |
| Acenaphthylene, ug/l | 10U | 10U | 10U |
| Acetophenone, ug/l | 10U | 10U | 10U |
| 2-Acetylaminofluorene, ug/l | 10U | 10U | 10U |
| 4-Aminobiphenyl, ug/l | 10U | 10U | 10U |
| Aniline, ug/l | 20U | 20U | 20U |
| Anthracene, ug/l | 10U | 10U | 10U |
| Aramite, Total, ug/l | 10U | 10U | 10U |
| Benzo(a)anthracene, ug/l | 10U | 10U | 10U |
| Benzo(b)fluoranthene, ug/l | 10U | 10U | 10U |
| Benzo(k)fluoranthene, ug/l | 10U | 10U | 10U |
| Benzo(g,h,i)perylene, ug/l | 10U | 10U | 10U |
| Benzo(a)pyrene, ug/l | 10U | 10U | 10U |
| Benzyl alcohol, ug/l | 10U | 10U | 10U |
| bis(2-Chloroethoxy)methane, ug/l | 10U | 10U | 10U |
| bis(2-Chloroethyl)ether, ug/l | 10U | 10U | 10U |
| 2,2'-Oxybis(1-chloropropane)[bis(2-Chloroisopropyl)ether], ug/l | 10U | 10U | 10U |
| bis(2-Ethylhexyl)phthalate, ug/l | 10U | 10U | 10U |
| 4-Bromophenylphenyl ether, ug/l | 10U | 10U | 10U |

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|---|---|---|---|
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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Butylbenzylphthalate, ug/l | 10U | 10U | 10U |
| 4-Chloroaniline (p-Chloroaniline), ug/l | 20U | 20U | 20U |
| 4-Chloro-3-methylphenol (p-Chloro-m-cresol), ug/l | 10U | 10U | 10U |
| 2-Chloronaphthalene, ug/l | 10U | 10U | 10U |
| 2-Chlorophenol, ug/l | 10U | 10U | 10U |
| 4-Chlorophenylphenyl ether, ug/l | 10U | 10U | 10U |
| Chrysene, ug/l | 10U | 10U | 10U |
| Cresol, m & p, ug/l | 10U | 10U | 10U |
| Cresol (ortho), ug/l | 10U | 10U | 10U |
| Diallate, Total, ug/l | 10U | 10U | 10U |
| Dibenzo(a,h)anthracene, ug/l | 10U | 10U | 10U |
| Dibenzofuran, ug/l | 10U | 10U | 10U |
| Di-n-butylphthalate, ug/l | 10U | 10U | 10U |
| 1,2-Dichlorobenzene (o-Dichlorobenzene), ug/l | 10U | 10U | 10U |
| 1,3-Dichlorobenzene (m-Dichlorobenzene), ug/l | 10U | 10U | 10U |
| 1,4-Dichlorobenzene (p-Dichlorobenzene), ug/l | 10U | 10U | 10U |
| 3,3'-Dichlorobenzidine, ug/l | 20U | 20U | 20U |
| 2,4-Dichlorophenol, ug/l | 10U | 10U | 10U |
| 2,6-Dichlorophenol, ug/l | 10U | 10U | 10U |
| Diethylphthalate, ug/l | 10U | 10U | 10U |
| p-(Dimethylamino)azobenzene, ug/l | 10U | 10U | 10U |

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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| 7,12-Dimethylbenz(a)anthracene, ug/l | 10U | 10U | 10U |
| 3,3'-Dimethylbenzidine, ug/l | 20U | 20U | 20U |
| alpha,alpha-Dimethylphenethylamine, ug/l | 2000U | 2000U | 2000U |
| 2,4-Dimethylphenol, ug/l | 10U | 10U | 10U |
| Dimethylphthalate, ug/l | 10U | 10U | 10U |
| m-Dinitrobenzene, ug/l | 10U | 10U | 10U |
| 4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol), ug/l | 50U | 50U | 50U |
| 2,4-Dinitrophenol, ug/l | 50U | 50U | 50U |
| 2,4-Dinitrotoluene, ug/l | 10U | 10U | 10U |
| 2,6-Dinitrotoluene, ug/l | 10U | 10U | 10U |
| Dinoseb (2-sec-Butyl-4,6-dinitrophenol), ug/l | 10U | 10U | 10U |
| Di-n-octylphthalate, ug/l | 10U | 10U | 10U |
| 1,4-Dioxane, ug/l | 12 | 12 | 10 |
| Ethyl methanesulfonate, ug/l | 10U | 10U | 10U |
| Fluoranthene, ug/l | 10U | 10U | 10U |
| Fluorene, ug/l | 10U | 10U | 10U |
| Hexachlorobenzene, ug/l | 10U | 10U | 10U |
| Hexachlorobutadiene, ug/l | 10U | 10U | 10U |
| Hexachlorocyclopentadiene, ug/l | 10U | 10U | 10U |
| Hexachloroethane, ug/l | 10U | 10U | 10U |
| Hexachlorophene, ug/l | 5000U | 5000U | 5000U |

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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Hexachloropropene, ug/l | 10U | 10U | 10U |
| Indeno(1,2,3-cd)pyrene, ug/l | 10U | 10U | 10U |
| Isophorone, ug/l | 10U | 10U | 10U |
| Isosafrole, ug/l | 10U | 10U | 10U |
| Methapyrilene, ug/l | 2000U | 2000U | 2000U |
| 3-Methylcholanthrene, ug/l | 10U | 10U | 10U |
| Methyl methanesulfonate, ug/l | 10U | 10U | 10U |
| 2-Methylnaphthalene, ug/l | 10U | 10U | 10U |
| Naphthalene, ug/l | 10U | 10U | 10U |
| 1,4-Naphthoquinone, ug/l | 10U | 10U | 10U |
| 1-Naphthylamine, ug/l | 10U | 10U | 10U |
| 2-Naphthylamine, ug/l | 10U | 10U | 10U |
| 2-Nitroaniline (o-Nitroaniline), ug/l | 50U | 50U | 50U |
| 3-Nitroaniline (m-Nitroaniline), ug/l | 50U | 50U | 50U |
| 4-Nitroaniline (p-Nitroaniline), ug/l | 50U | 50U | 50U |
| Nitrobenzene, ug/l | 10U | 10U | 10U |
| 2-Nitrophenol (o-Nitrophenol), ug/l | 10U | 10U | 10U |
| 4-Nitrophenol (p-Nitrophenol), ug/l | 50U | 50U | 50U |
| 4-Nitroquinoline-1-oxide, ug/l | 20U | 20U | 20U |
| N-Nitrosodi-n-butylamine, ug/l | 10U | 10U | 10U |
| N-Nitrosodiethylamine, ug/l | 10U | 10U | 10U |

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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| N-Nitrosodimethylamine, ug/l | 10U | 10U | 10U |
| N-Nitrosodiphenylamine, ug/l | 10U | 10U | 10U |
| n-Nitrosodi-n-propylamine, ug/l | 10U | 10U | 10U |
| N-Nitrosomethylethylamine, ug/l | 10U | 10U | 10U |
| N-Nitrosomorpholine, ug/l | 10U | 10U | 10U |
| N-Nitrosopiperidine, ug/l | 10U | 10U | 10U |
| N-Nitrosopyrrolidine, ug/l | 10U | 10U | 10U |
| 5-Nitro-o-toluidine, ug/l | 10U | 10U | 10U |
| Pentachlorobenzene, ug/l | 10U | 10U | 10U |
| Pentachloronitrobenzene, ug/l | 10U | 10U | 10U |
| Pentachlorophenol, ug/l | 50U | 50U | 50U |
| Phenacetin, ug/l | 10U | 10U | 10U |
| Phenanthrene, ug/l | 10U | 10U | 10U |
| Phenol, ug/l | 10U | 10U | 10U |
| 1,4-Phenylenediamine (p-Phenylenediamine), ug/l | 2000U | 2000U | 2000U |
| 2-Picoline, ug/l | 10U | 10U | 10U |
| Pronamide, ug/l | 10U | 10U | 10U |
| Pyrene, ug/l | 10U | 10U | 10U |
| Pyridine, ug/l | 50U | 50U | 50U |
| Safrole, ug/l | 10U | 10U | 10U |
| 1,2,4,5-Tetrachlorobenzene, ug/l | 10U | 10U | 10U |

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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| 2,3,4,6-Tetrachlorophenol, ug/l | 10U | 10U | 10U |
| o-Toluidine, ug/l | 10U | 10U | 10U |
| 1,2,4-Trichlorobenzene, ug/l | 10U | 10U | 10U |
| 2,4,5-Trichlorophenol, ug/l | 10U | 10U | 10U |
| 2,4,6-Trichlorophenol, ug/l | 10U | 10U | 10U |
| O,O,O-Triethyl phosphorothioate, ug/l | 10U | 10U | 10U |
| 1,3,5-Trinitrobenzene, ug/l | 10U | 10U | 10U |
| Disulfoton, ug/l | 10U | 10U | 10U |
| Methyl parathion, ug/l | 10U | 10U | 10U |
| Ethyl parathion (Parathion), ug/l | 10U | 10U | 10U |
| Famphur, ug/l | 10U | 10U | 10U |
| Phorate, ug/l | 10U | 10U | 10U |
| Thionazin (O,O-Diethyl-O-pyrazinyl phosphorothioate), ug/l | 10U | 10U | 10U |
| Dimethoate, ug/l | 10U | 10U | 10U |
| Sulfotepp (Tetraethyl dithiopyrophosphate), ug/l | 10U | 10U | 10U |
| Alpha Pinene, ug/l | 100U | 100U | 100U |
| Beta Pinene, ug/l | 100U | 100U | 100U |
| Biphenyl, ug/l | 10U | 10U | 10U |
| Biphenyl Ether, ug/l | 10U | 10U | 10U |
| Surrogate - Phenol-d5 | 90 % | 99 % | 110 % |

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|---|---|---|---|
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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Surrogate - 2-Fluorophenol | 86 % | 94 % | 110 % |
| Surrogate - 2,4,6-Tribromophenol | 110 % | 97 % | 110 % |
| Surrogate - Nitrobenzene-d5 | 92 % | 100 % | 108 % |
| Surrogate - 2-Fluorobiphenyl | 88 % | 92 % | 108 % |
| Surrogate - Terphenyl-d14 | 124 % | 102 % | 100 % |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 1106B | 1106B | 1106B |

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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Appendix IX Chlorinated Pesticides (8081) | | | |
| Aldrin, ug/l | 0.050U | 0.050U | 0.050U |
| Isodrin, ug/l | 0.050U | 0.050U | 0.050U |
| Chlordane (technical), ug/l | 0.50U | 0.50U | 0.50U |
| Chlorobenzilate, ug/l | 0.50U | 0.50U | 0.50U |
| 4,4'-DDD, ug/l | 0.10U | 0.10U | 0.10U |
| 4,4'-DDE, ug/l | 0.10U | 0.10U | 0.10U |
| 4,4'-DDT, ug/l | 0.10U | 0.10U | 0.10U |
| Dieldrin, ug/l | 0.10U | 0.10U | 0.10U |
| Endosulfan I, ug/l | 0.050U | 0.050U | 0.050U |
| Endosulfan II, ug/l | 0.10U | 0.10U | 0.10U |
| Endosulfan sulfate, ug/l | 0.10U | 0.10U | 0.10U |
| Endrin, ug/l | 0.10U | 0.10U | 0.10U |
| Endrin aldehyde, ug/l | 0.10U | 0.10U | 0.10U |
| Heptachlor, ug/l | 0.050U | 0.050U | 0.050U |
| Heptachlor epoxide, ug/l | 0.050U | 0.050U | 0.050U |
| alpha-BHC, ug/l | 0.050U | 0.050U | 0.050U |
| beta-BHC, ug/l | 0.050U | 0.050U | 0.050U |
| gamma-BHC (Lindane), ug/l | 0.050U | 0.050U | 0.050U |
| delta-BHC, ug/l | 0.050U | 0.050U | 0.050U |
| Methoxychlor, ug/l | 0.50U | 0.50U | 0.50U |

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| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Toxaphene, ug/l | 5.0U | 5.0U | 5.0U |
| Kepone, ug/l | 1.0U | 1.0U | 1.0U |
| Surrogate - 2,4,5,6-Tetrachloro-m-xylene (TCMX) | 70 % | 75 % | 80 % |
| Surrogate - DCB | 36 % | 32 % | 19 % |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1106N | 1106N | 1106N |
| Herbicides (8151) | | | |
| 2,4-D, ug/l | 0.50U | 0.50U | 0.50U |
| 2,4,5-T, ug/l | 0.50U | 0.50U | 0.50U |
| 2,4,5-TP (Silvex), ug/l | 0.50U | 0.50U | 0.50U |
| Surrogate-2,4-Dichlorophenyl acetic acid (DCAA) | 72 % | 62 % | 60 % |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 1107N | 1107N | 1107N |

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Reported: 14 NOV 00
Revised: 29 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14130124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07599-1 | SW-F3 | 11-02-00 | SAV08 |
| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Diesel Range Organics (8015) | | | |
| Hydrocarbons as DRO, mg/l | 0.14 | 0.10U | 0.11 |
| Surrogate - o-Terphenyl | 70 % | 75 % | 75 % |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1106U | 1106U | 1106U |

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|---|---|---|---|
| 07599-1 | SW-F3 | 11-02-00 | SAV08 |
| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Metals (6010) | | | |
| Antimony, ug/l | 20U | 20U | 20U |
| Arsenic, ug/l | 10U | 10U | 10U |
| Barium, ug/l | 28 | 28 | 27 |
| Beryllium, ug/l | 4.0U | 4.0U | 4.0U |
| Cadmium, ug/l | 5.0U | 5.0U | 5.0U |
| Chromium, ug/l | 10U | 10U | 10U |
| Cobalt, ug/l | 10U | 10U | 10U |
| Copper, ug/l | 20U | 20U | 20U |
| Nickel, ug/l | 40U | 40U | 40U |
| Lead, ug/l | 5.0U | 5.0U | 5.0U |
| Selenium, ug/l | 10U | 10U | 10U |
| Silver, ug/l | 10U | 10U | 10U |
| Tin, ug/l | 50U | 50U | 50U |
| Thallium, ug/l | 10U | 10U | 10U |
| Vanadium, ug/l | 10U | 10U | 10U |
| Zinc, ug/l | 27 | 25 | 26 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1106J | 1106J | 1106J |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07599-1 | SW-F3 | 11-02-00 | SAV08 |
| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Mercury (7470) | | | |
| Mercury, ug/l | 0.20U | 0.20U | 0.20U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1106R | 1106R | 1106R |
| Sulfate as SO4 (300.0), mg/l | 38 | 32 | 74 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1107B | 1107B | 1107B |
| Fluoride (340.2), mg/l | 0.69 | 0.66 | 0.58 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1107A | 1107A | 1107A |
| Chloride (325.2), mg/l | 65 | 89 | 400 |
| Dilution Factor | 5 | 5 | 20 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Batch ID | 1106D | 1106D | 1106D |

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|---|---|---|---|
| 07599-1 | SW-F3 | 11-02-00 | SAV08 |
| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Ammonia (as N) (350.1), mg/l | 0.53 | 0.090 | 0.79 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1108A | 1108A | 1108A |
| Cyanide, Total (9012), mg/l | 0.010U | 0.010U | 0.010U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1106S | 1106S | 1106S |
| Total Dissolved Solids (160.1), mg/l | 360 | 400 | 1100 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1107A | 1107A | 1107A |
| Sulfide (9030), mg/l | 1.0U | 1.0U | 1.0U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1107A | 1107A | 1107A |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07599-1 | SW-F3 | 11-02-00 | SAV08 |
| 07599-2 | SW-F4 | 11-02-00 | SAV08 |
| 07599-3 | SW-F5 | 11-02-00 | SAV08 |

| PARAMETER | 07599-1 | 07599-2 | 07599-3 |
|---|---|---|---|
| Nitrate + Nitrite-N (353.2), mg/l | 0.050U | 0.050U | 0.050U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 1109B | 1109B | 1109B |
| Formaldehyde (8315), ug/l | 50U | 50U | 50U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.05.00 | 11.05.00 | 11.05.00 |
| Analysis Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Batch ID | 1105F | 1105F | 1105F |
| Total Organic Carbon (9060), mg/l | 6.2 | 5.7 | 5.8 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Analysis Date | 11.06.00 | 11.06.00 | 11.06.00 |
| Batch ID | 1106A | 1106A | 1106A |
| NIST Library Search (BN/A-TIC) | * | * | * |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Acids and Base Neutrals (8270-APP9) | | |
| Acenaphthene, ug/l | 10U | 10U |
| Acenaphthylene, ug/l | 10U | 10U |
| Acetophenone, ug/l | 10U | 10U |
| 2-Acetylaminofluorene, ug/l | 10U | 10U |
| 4-Aminobiphenyl, ug/l | 10U | 10U |
| Aniline, ug/l | 20U | 20U |
| Anthracene, ug/l | 10U | 10U |
| Aramite, Total, ug/l | 10U | 10U |
| Benzo(a)anthracene, ug/l | 10U | 10U |
| Benzo(b)fluoranthene, ug/l | 10U | 10U |
| Benzo(k)fluoranthene, ug/l | 10U | 10U |
| Benzo(g,h,i)perylene, ug/l | 10U | 10U |
| Benzo(a)pyrene, ug/l | 10U | 10U |
| Benzyl alcohol, ug/l | 10U | 10U |
| bis(2-Chloroethoxy)methane, ug/l | 10U | 10U |
| bis(2-Chloroethyl)ether, ug/l | 10U | 10U |
| 2,2'-Oxybis(1-chloropropane )[bis(2-Chloroisopropyl)ether], ug/l | 10U | 10U |
| bis(2-Ethylhexyl)phthalate, ug/l | 10U | 10U |
| 4-Bromophenylphenyl ether, ug/l | 10U | 10U |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Butylbenzylphthalate, ug/l | 10U | 10U |
| 4-Chloroaniline (p-Chloroaniline), ug/l | 20U | 20U |
| 4-Chloro-3-methylphenol (p-Chloro-m-cresol), ug/l | 10U | 10U |
| 2-Chloronaphthalene, ug/l | 10U | 10U |
| 2-Chlorophenol, ug/l | 10U | 10U |
| 4-Chlorophenylphenyl ether, ug/l | 10U | 10U |
| Chrysene, ug/l | 10U | 10U |
| Cresol, m & p, ug/l | 10U | 10U |
| Cresol (ortho), ug/l | 10U | 10U |
| Diallate, Total, ug/l | 10U | 10U |
| Dibenzo(a,h)anthracene, ug/l | 10U | 10U |
| Dibenzofuran, ug/l | 10U | 10U |
| Di-n-butylphthalate, ug/l | 10U | 10U |
| 1,2-Dichlorobenzene (o-Dichlorobenzene), ug/l | 10U | 10U |
| 1,3-Dichlorobenzene (m-Dichlorobenzene), ug/l | 10U | 10U |
| 1,4-Dichlorobenzene (p-Dichlorobenzene), ug/l | 10U | 10U |
| 3,3'-Dichlorobenzidine, ug/l | 20U | 20U |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| 2,4-Dichlorophenol, ug/l | 10U | 10U |
| 2,6-Dichlorophenol, ug/l | 10U | 10U |
| Diethylphthalate, ug/l | 10U | 10U |
| p-(Dimethylamino)azobenzene, ug/l | 10U | 10U |
| 7,12-Dimethylbenz(a)anthracene, ug/l | 10U | 10U |
| 3,3'-Dimethylbenzidine, ug/l | 20U | 20U |
| alpha,alpha-Dimethylphenethylamine, ug/l | 2000U | 2000U |
| 2,4-Dimethylphenol, ug/l | 10U | 10U |
| Dimethylphthalate, ug/l | 10U | 10U |
| m-Dinitrobenzene , ug/l | 10U | 10U |
| 4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol), ug/l | 50U | 50U |
| 2,4-Dinitrophenol, ug/l | 50U | 50U |
| 2,4-Dinitrotoluene, ug/l | 10U | 10U |
| 2,6-Dinitrotoluene, ug/l | 10U | 10U |
| Dinoseb (2-sec-Butyl-4,6-dinitrophenol), ug/l | 10U | 10U |
| Di-n-octylphthalate, ug/l | 10U | 10U |
| 1,4-Dioxane, ug/l | 10U | 10U |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Ethyl methanesulfonate, ug/l | 10U | 10U |
| Fluoranthene, ug/l | 10U | 10U |
| Fluorene, ug/l | 10U | 10U |
| Hexachlorobenzene, ug/l | 10U | 10U |
| Hexachlorobutadiene, ug/l | 10U | 10U |
| Hexachlorocyclopentadiene, ug/l | 10U | 10U |
| Hexachloroethane, ug/l | 10U | 10U |
| Hexachlorophene, ug/l | 5000U | 5000U |
| Hexachloropropene, ug/l | 10U | 10U |
| Indeno(1,2,3-cd)pyrene, ug/l | 10U | 10U |
| Isophorone, ug/l | 10U | 10U |
| Isosafrole, ug/l | 10U | 10U |
| Methapyrilene, ug/l | 2000U | 2000U |
| 3-Methylcholanthrene, ug/l | 10U | 10U |
| Methyl methanesulfonate, ug/l | 10U | 10U |
| 2-Methylnaphthalene, ug/l | 10U | 10U |
| Naphthalene, ug/l | 10U | 10U |
| 1,4-Naphthoquinone, ug/l | 10U | 10U |
| 1-Naphthylamine, ug/l | 10U | 10U |
| 2-Naphthylamine, ug/l | 10U | 10U |
| 2-Nitroaniline (o-Nitroaniline), ug/l | 50U | 50U |

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| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| 3-Nitroaniline (m-Nitroaniline), ug/l | 50U | 50U |
| 4-Nitroaniline (p-Nitroaniline), ug/l | 50U | 50U |
| Nitrobenzene, ug/l | 10U | 10U |
| 2-Nitrophenol (o-Nitrophenol), ug/l | 10U | 10U |
| 4-Nitrophenol (p-Nitrophenol), ug/l | 50U | 50U |
| 4-Nitroquinoline-1-oxide, ug/l | 20U | 20U |
| N-Nitrosodi-n-butylamine, ug/l | 10U | 10U |
| N-Nitrosodiethylamine, ug/l | 10U | 10U |
| N-Nitrosodimethylamine, ug/l | 10U | 10U |
| N-Nitrosodiphenylamine, ug/l | 10U | 10U |
| n-Nitrosodi-n-propylamine, ug/l | 10U | 10U |
| N-Nitrosomethylethylamine, ug/l | 10U | 10U |
| N-Nitrosomorpholine, ug/l | 10U | 10U |
| N-Nitrosopiperidine, ug/l | 10U | 10U |
| N-Nitrosopyrrolidine, ug/l | 10U | 10U |
| 5-Nitro-o-toluidine, ug/l | 10U | 10U |
| Pentachlorobenzene, ug/l | 10U | 10U |
| Pentachloronitrobenzene, ug/l | 10U | 10U |
| Pentachlorophenol, ug/l | 50U | 50U |
| Phenacetin, ug/l | 10U | 10U |

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| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Phenanthrene, ug/l | 10U | 10U |
| Phenol, ug/l | 10U | 10U |
| 1,4-Phenylenediamine (p-Phenylenediamine), ug/l | 2000U | 2000U |
| 2-Picoline, ug/l | 10U | 10U |
| Pronamide, ug/l | 10U | 10U |
| Pyrene, ug/l | 10U | 10U |
| Pyridine, ug/l | 50U | 50U |
| Safrole, ug/l | 10U | 10U |
| 1,2,4,5-Tetrachlorobenzene, ug/l | 10U | 10U |
| 2,3,4,6-Tetrachlorophenol, ug/l | 10U | 10U |
| o-Toluidine, ug/l | 10U | 10U |
| 1,2,4-Trichlorobenzene, ug/l | 10U | 10U |
| 2,4,5-Trichlorophenol, ug/l | 10U | 10U |
| 2,4,6-Trichlorophenol, ug/l | 10U | 10U |
| O,O,O-Triethyl phosphorothioate, ug/l | 10U | 10U |
| 1,3,5-Trinitrobenzene, ug/l | 10U | 10U |
| Disulfoton, ug/l | 10U | 10U |
| Methyl parathion, ug/l | 10U | 10U |
| Ethyl parathion (Parathion), ug/l | 10U | 10U |
| Famphur, ug/l | 10U | 10U |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Phorate, ug/l | 10U | 10U |
| Thionazin (O,O-Diethyl-O-pyrazinyl phosphorothioate), ug/l | 10U | 10U |
| Dimethoate, ug/l | 10U | 10U |
| Sulfotepp (Tetraethyl dithiopyrophosphate), ug/l | 10U | 10U |
| Alpha Pinene, ug/l | 100U | 100U |
| Beta Pinene, ug/l | 100U | 100U |
| Biphenyl, ug/l | 10U | 10U |
| Biphenyl Ether, ug/l | 10U | 10U |
| Surrogate - Phenol-d5 | 110 % | 110 % |
| Surrogate - 2-Fluorophenol | 120 % | 110 % |
| Surrogate - 2,4,6-Tribromophenol | 99 % | 110 % |
| Surrogate - Nitrobenzene-d5 | 110 % | 118 % |
| Surrogate - 2-Fluorobiphenyl | 104 % | 116 % |
| Surrogate - Terphenyl-d14 | 108 % | 114 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.09.00 | 11.06.00 |
| Analysis Date | 11.14.00 | 11.09.00 |
| Batch ID | 1109C | 1106B |

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Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Appendix IX Chlorinated Pesticides (8081) | | |
| Aldrin, ug/l | 0.050U | 0.050U |
| Isodrin, ug/l | 0.050U | 0.050U |
| Chlordane (technical), ug/l | 0.50U | 0.50U |
| Chlorobenzilate, ug/l | 0.50U | 0.50U |
| 4,4'-DDD, ug/l | 0.10U | 0.10U |
| 4,4'-DDE, ug/l | 0.10U | 0.10U |
| 4,4'-DDT, ug/l | 0.10U | 0.10U |
| Dieldrin, ug/l | 0.10U | 0.10U |
| Endosulfan I, ug/l | 0.050U | 0.050U |
| Endosulfan II, ug/l | 0.10U | 0.10U |
| Endosulfan sulfate, ug/l | 0.10U | 0.10U |
| Endrin, ug/l | 0.10U | 0.10U |
| Endrin aldehyde, ug/l | 0.10U | 0.10U |
| Heptachlor, ug/l | 0.050U | 0.050U |
| Heptachlor epoxide, ug/l | 0.050U | 0.050U |
| alpha-BHC, ug/l | 0.050U | 0.050U |
| beta-BHC, ug/l | 0.050U | 0.050U |
| gamma-BHC (Lindane), ug/l | 0.050U | 0.050U |
| delta-BHC, ug/l | 0.050U | 0.050U |
| Methoxychlor, ug/l | 0.50U | 0.50U |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Toxaphene, ug/l | 5.0U | 5.0U |
| Kepone, ug/l | 1.0U | 1.0U |
| Surrogate - 2,4,5,6-Tetrachloro-m-xylene (TCMX) | 75 % | 70 % |
| Surrogate - DCB | 36 % | 47 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.10.00 | 11.10.00 |
| Batch ID | 1107S | 1107S |
| Herbicides (8151) | | |
| 2,4-D, ug/l | 0.50U | 0.50U |
| 2,4,5-T, ug/l | 0.50U | 0.50U |
| 2,4,5-TP (Silvex), ug/l | 0.50U | 0.50U |
| Surrogate-2,4-Dichlorophenyl acetic acid (DCAA) | 60 % | 65 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.09.00 | 11.09.00 |
| Batch ID | 1107N | 1107N |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Diesel Range Organics (8015) | | |
| Hydrocarbons as DRO, mg/l | 0.10U | 0.10U |
| Surrogate - o-Terphenyl | 75 % | 70 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.09.00 | 11.09.00 |
| Batch ID | 1107U | 1107U |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Metals (6010) | | |
| Antimony, ug/l | 20U | 20U |
| Arsenic, ug/l | 10U | 10U |
| Barium, ug/l | 13 | 28 |
| Beryllium, ug/l | 4.0U | 4.0U |
| Cadmium, ug/l | 5.0U | 5.0U |
| Chromium, ug/l | 10U | 10U |
| Cobalt, ug/l | 10U | 10U |
| Copper, ug/l | 20U | 20U |
| Nickel, ug/l | 40U | 40U |
| Lead, ug/l | 5.0U | 5.0U |
| Selenium, ug/l | 10U | 10U |
| Silver, ug/l | 10U | 10U |
| Tin, ug/l | 50U | 50U |
| Thallium, ug/l | 10U | 10U |
| Vanadium, ug/l | 10U | 10U |
| Zinc, ug/l | 29 | 23 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 |
| Batch ID | 1107I | 1107I |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Mercury (7470) | | |
| Mercury, ug/l | 0.20U | 0.20U |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 |
| Batch ID | 1107R | 1107R |
| Sulfate as SO4 (300.0), mg/l | 57 | 35 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.08.00 |
| Batch ID | 1107B | 1107B |
| Fluoride (340.2), mg/l | 0.75 | 0.61 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.07.00 |
| Batch ID | 1107B | 1107B |
| Chloride (325.2), mg/l | 5.3 | 39 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.12.00 | 11.12.00 |
| Analysis Date | 11.12.00 | 11.12.00 |
| Batch ID | 1112C | 1112C |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Ammonia (as N) (350.1), mg/l | 0.18 | 0.13 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 |
| Analysis Date | 11.08.00 | 11.08.00 |
| Batch ID | 1108A | 1108A |
| Cyanide, Total (9012), mg/l | 0.010U | 0.010U |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 |
| Batch ID | 1107S | 1107S |
| Total Dissolved Solids (160.1), mg/l | 300 | 310 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 |
| Batch ID | 1107A | 1107A |
| Sulfide (9030), mg/l | 1.0U | 1.0U |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 |
| Analysis Date | 11.09.00 | 11.09.00 |
| Batch ID | 1108A | 1108A |

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| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Nitrate + Nitrite-N (353.2), mg/l | 0.050U | 0.050U |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.09.00 | 11.09.00 |
| Analysis Date | 11.09.00 | 11.09.00 |
| Batch ID | 1109D | 1109B |
| Formaldehyde (8315), ug/l | 50U | 50U |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.05.00 | 11.05.00 |
| Analysis Date | 11.06.00 | 11.06.00 |
| Batch ID | 1105F | 1105F |
| Total Organic Carbon (9060), mg/l | 1.5 | 5.5 |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.07.00 |
| Batch ID | 1107A | 1107A |
| Gasoline Range Organics (8015M) | | |
| Hydrocarbons as GRO, mg/l | 0.050U | 0.050U |
| Surrogate - a,a,a-Trifluorotoluene | 83 % | 80 % |
| Dilution Factor | 1 | 1 |
| Analysis Date | 11.07.00 | 11.07.00 |
| Batch ID | 1D1107 | 1D1107 |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Volatile Organic Compounds (8260) | | |
| Acetone, ug/l | 25U | 25U |
| Acetonitrile, ug/l | 40U | 40U |
| Acrolein (Propenal), ug/l | 20U | 20U |
| Acrylonitrile, ug/l | 20U | 20U |
| Benzene, ug/l | 1.0U | 1.0U |
| Bromodichloromethane, ug/l | 1.0U | 1.0U |
| Bromoform, ug/l | 1.0U | 1.0U |
| Bromomethane (Methyl Bromide), ug/l | 1.0U | 1.0U |
| 2-Butanone (Methyl ethyl ketone), ug/l | 10U | 10U |
| Carbon disulfide, ug/l | 1.0U | 1.0U |
| Carbon tetrachloride, ug/l | 1.0U | 1.0U |
| Chlorobenzene, ug/l | 1.0U | 1.0U |
| Chloroethane, ug/l | 1.0U | 1.0U |
| Chloroform, ug/l | 1.0U | 1.0U |
| Chloromethane (Methyl Chloride), ug/l | 1.0U | 1.0U |
| Chloroprene, ug/l | 1.0U | 1.0U |
| 3-Chloropropene (Allylchloride), ug/l | 1.0U | 1.0U |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Dibromochloromethane, ug/l | 1.0U | 1.0U |
| 1,2-Dibromo-3-chloropropane, ug/l | 1.0U | 1.0U |
| 1,2-Dibromoethane (EDB), ug/l | 1.0U | 1.0U |
| Dibromomethane (Methylene bromide), ug/l | 1.0U | 1.0U |
| trans-1,4-Dichloro-2-butene, ug/l | 2.0U | 2.0U |
| Dichlorodifluoromethane, ug/l | 1.0U | 1.0U |
| 1,1-Dichloroethane, ug/l | 1.0U | 1.0U |
| 1,2-Dichloroethane, ug/l | 1.0U | 1.0U |
| 1,1-Dichloroethene, ug/l | 1.0U | 1.0U |
| trans-1,2-Dichloroethene, ug/l | 1.0U | 1.0U |
| 1,2-Dichloropropane, ug/l | 1.0U | 1.0U |
| cis-1,3-Dichloropropene, ug/l | 1.0U | 1.0U |
| trans-1,3-Dichloropropene, ug/l | 1.0U | 1.0U |
| Ethylbenzene, ug/l | 1.0U | 1.0U |
| Ethyl methacrylate, ug/l | 1.0U | 1.0U |
| 2-Hexanone, ug/l | 10U | 10U |
| Iodomethane (Methyl iodide), ug/l | 1.0U | 1.0U |
| Isobutanol (Isobutyl alcohol), ug/l | 40U | 40U |
| Methacrylonitrile, ug/l | 20U | 20U |
| Methylene chloride (Dichloromethane), ug/l | 5.0U | 5.0U |

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| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| Methyl methacrylate, ug/l | 1.0U | 1.0U |
| 4-Methyl-2-pentanone (MIBK), ug/l | 10U | 10U |
| Pentachloroethane, ug/l | 5.0U | 5.0U |
| Propionitrile, ug/l | 20U | 20U |
| Styrene, ug/l | 1.0U | 1.0U |
| 1,1,1,2-Tetrachloroethane, ug/l | 1.0U | 1.0U |
| 1,1,2,2-Tetrachloroethane, ug/l | 1.0U | 1.0U |
| Tetrachloroethene, ug/l | 1.0U | 1.0U |
| Toluene, ug/l | 1.0U | 1.0U |
| 1,1,1-Trichloroethane, ug/l | 1.0U | 1.0U |
| 1,1,2-Trichloroethane, ug/l | 1.0U | 1.0U |
| Trichloroethene, ug/l | 1.0U | 1.0U |
| Trichlorofluoromethane, ug/l | 1.0U | 1.0U |
| 1,2,3-Trichloropropane, ug/l | 1.0U | 1.0U |
| Vinyl acetate, ug/l | 2.0U | 2.0U |
| Vinyl chloride, ug/l | 1.0U | 1.0U |
| Xylenes, Total, ug/l | 2.0U | 2.0U |
| Surrogate - Toluene-d8 | 98 % | 104 % |
| Surrogate - 4-Bromofluorobenzene | 92 % | 96 % |
| Surrogate - Dibromofluoromethane | 84 % | 86 % |
| Dilution Factor | 1 | 1 |
| Analysis Date | 11.09.00 | 11.09.00 |
| Batch ID | 2A1108 | 2A1108 |
| NIST Library Search (VOC-TIC) | * | * |

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|---|---|---|---|
| 07601-1 | MWD-F3 | 11-03-00/12:45 | SAV09 |
| 07601-2 | SW-F2 | 11-03-00/12:45 | SAV09 |

| PARAMETER | 07601-1 | 07601-2 |
|---|---|---|
| NIST Library Search (BN/A-TIC) | * | * |

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|---|---|---|---|
| 07601-3 | SW-F3 | 11-02-00/12:45 | SAV09 |
| 07601-4 | SW-F4 | 11-02-00/15:35 | SAV09 |
| 07601-5 | SW-F5 | 11-02-00/13:10 | SAV09 |

| PARAMETER | 07601-3 | 07601-4 | 07601-5 |
|---|---|---|---|
| Gasoline Range Organics (8015M) | | | |
| Hydrocarbons as GRO, mg/l | 0.050U | 0.050U | 0.050U |
| Surrogate - a,a,a-Trifluorotoluene | 80 % | 80 % | 80 % |
| Dilution Factor | 1 | 1 | 1 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1D1107 | 1D1107 | 1D1107 |

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|---|---|---|---|
| 07601-3 | SW-F3 | 11-02-00/12:45 | SAV09 |
| 07601-4 | SW-F4 | 11-02-00/15:35 | SAV09 |
| 07601-5 | SW-F5 | 11-02-00/13:10 | SAV09 |

| PARAMETER | 07601-3 | 07601-4 | 07601-5 |
|---|---|---|---|
| Volatile Organic Compounds (8260) | | | |
| Acetone, ug/l | 25U | 25U | 25U |
| Acetonitrile, ug/l | 40U | 40U | 40U |
| Acrolein (Propenal), ug/l | 20U | 20U | 20U |
| Acrylonitrile, ug/l | 20U | 20U | 20U |
| Benzene, ug/l | 1.0U | 1.0U | 1.0U |
| Bromodichloromethane, ug/l | 1.0U | 1.0U | 1.0U |
| Bromoform, ug/l | 1.0U | 1.0U | 1.0U |
| Bromomethane (Methyl Bromide), ug/l | 1.0U | 1.0U | 1.0U |
| 2-Butanone (Methyl ethyl ketone), ug/l | 10U | 10U | 10U |
| Carbon disulfide, ug/l | 1.0U | 1.0U | 1.0U |
| Carbon tetrachloride, ug/l | 1.0U | 1.0U | 1.0U |
| Chlorobenzene, ug/l | 1.0U | 1.0U | 1.0U |
| Chloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| Chloroform, ug/l | 1.0U | 1.0U | 1.0U |
| Chloromethane (Methyl Chloride), ug/l | 1.0U | 1.0U | 1.0U |
| Chloroprene, ug/l | 1.0U | 1.0U | 1.0U |
| 3-Chloropropene (Allylchloride), ug/l | 1.0U | 1.0U | 1.0U |

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Oak Ridge, TN 37830

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Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-3 | SW-F3 | 11-02-00/12:45 | SAV09 |
| 07601-4 | SW-F4 | 11-02-00/15:35 | SAV09 |
| 07601-5 | SW-F5 | 11-02-00/13:10 | SAV09 |

| PARAMETER | 07601-3 | 07601-4 | 07601-5 |
|---|---|---|---|
| Dibromochloromethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,2-Dibromo-3-chloropropane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,2-Dibromoethane (EDB), ug/l | 1.0U | 1.0U | 1.0U |
| Dibromomethane (Methylene bromide), ug/l | 1.0U | 1.0U | 1.0U |
| trans-1,4-Dichloro-2-butene, ug/l | 2.0U | 2.0U | 2.0U |
| Dichlorodifluoromethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,1-Dichloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,2-Dichloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,1-Dichloroethene, ug/l | 1.0U | 1.0U | 1.0U |
| trans-1,2-Dichloroethene, ug/l | 1.0U | 1.0U | 1.0U |
| 1,2-Dichloropropane, ug/l | 1.0U | 1.0U | 1.0U |
| cis-1,3-Dichloropropene, ug/l | 1.0U | 1.0U | 1.0U |
| trans-1,3-Dichloropropene, ug/l | 1.0U | 1.0U | 1.0U |
| Ethylbenzene, ug/l | 1.0U | 1.0U | 1.0U |
| Ethyl methacrylate, ug/l | 1.0U | 1.0U | 1.0U |
| 2-Hexanone, ug/l | 10U | 10U | 10U |
| Iodomethane (Methyl iodide), ug/l | 1.0U | 1.0U | 1.0U |
| Isobutanol (Isobutyl alcohol), ug/l | 40U | 40U | 40U |
| Methacrylonitrile, ug/l | 20U | 20U | 20U |
| Methylene chloride (Dichloromethane), ug/l | 5.0U | 5.0U | 5.0U |

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LOG NO: S0-07601
Received: 03 NOV 00
Reported: 28 NOV 00
Revised: 29 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-3 | SW-F3 | 11-02-00/12:45 | SAV09 |
| 07601-4 | SW-F4 | 11-02-00/15:35 | SAV09 |
| 07601-5 | SW-F5 | 11-02-00/13:10 | SAV09 |

| PARAMETER | 07601-3 | 07601-4 | 07601-5 |
|---|---|---|---|
| Methyl methacrylate, ug/l | 1.0U | 1.0U | 1.0U |
| 4-Methyl-2-pentanone (MIBK), ug/l | 10U | 10U | 10U |
| Pentachloroethane, ug/l | 5.0U | 5.0U | 5.0U |
| Propionitrile, ug/l | 20U | 20U | 20U |
| Styrene, ug/l | 1.0U | 1.0U | 1.0U |
| 1,1,1,2-Tetrachloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,1,2,2-Tetrachloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| Tetrachloroethene, ug/l | 1.0U | 1.0U | 1.0U |
| Toluene, ug/l | 1.0U | 1.0U | 1.0U |
| 1,1,1-Trichloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,1,2-Trichloroethane, ug/l | 1.0U | 1.0U | 1.0U |
| Trichloroethene, ug/l | 1.0U | 1.0U | 1.0U |
| Trichlorofluoromethane, ug/l | 1.0U | 1.0U | 1.0U |
| 1,2,3-Trichloropropane, ug/l | 1.0U | 1.0U | 1.0U |
| Vinyl acetate, ug/l | 2.0U | 2.0U | 2.0U |
| Vinyl chloride, ug/l | 1.0U | 1.0U | 1.0U |
| Xylenes, Total, ug/l | 2.0U | 2.0U | 2.0U |
| Surrogate - Toluene-d8 | 98 % | 102 % | 102 % |
| Surrogate - 4-Bromofluorobenzene | 92 % | 94 % | 94 % |
| Surrogate - Dibromofluoromethane | 84 % | 82 % | 78 % |
| Dilution Factor | 1 | 1 | 1 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 2A1108 | 2A1108 | 2A1108 |

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LOG NO: S0-07601
Received: 03 NOV 00
Reported: 28 NOV 00
Revised: 29 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-3 | SW-F3 | 11-02-00/12:45 | SAV09 |
| 07601-4 | SW-F4 | 11-02-00/15:35 | SAV09 |
| 07601-5 | SW-F5 | 11-02-00/13:10 | SAV09 |

| PARAMETER | 07601-3 | 07601-4 | 07601-5 |
|---|---|---|---|
| NIST Library Search (VOC-TIC) | * | * | * |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-6 | Trip Blank | 11-03-00 | SAV09 |

| PARAMETER | 07601-6 |
|---|---|
| Volatile Organic Compounds (8260) | |
| Acetone, ug/l | 25U |
| Acetonitrile, ug/l | 40U |
| Acrolein (Propenal), ug/l | 20U |
| Acrylonitrile, ug/l | 20U |
| Benzene, ug/l | 1.0U |
| Bromodichloromethane, ug/l | 1.0U |
| Bromoform, ug/l | 1.0U |
| Bromomethane (Methyl Bromide), ug/l | 1.0U |
| 2-Butanone (Methyl ethyl ketone), ug/l | 10U |
| Carbon disulfide, ug/l | 1.0U |
| Carbon tetrachloride, ug/l | 1.0U |
| Chlorobenzene, ug/l | 1.0U |
| Chloroethane, ug/l | 1.0U |
| Chloroform, ug/l | 1.0U |
| Chloromethane (Methyl Chloride), ug/l | 1.0U |
| Chloroprene, ug/l | 1.0U |
| 3-Chloropropene (Allylchloride), ug/l | 1.0U |
| Dibromochloromethane, ug/l | 1.0U |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-6 | Trip Blank | 11-03-00 | SAV09 |

| PARAMETER | 07601-6 |
|---|---|
| 1,2-Dibromo-3-chloropropane, ug/l | 1.0U |
| 1,2-Dibromoethane (EDB), ug/l | 1.0U |
| Dibromomethane (Methylene bromide), ug/l | 1.0U |
| trans-1,4-Dichloro-2-butene, ug/l | 2.0U |
| Dichlorodifluoromethane, ug/l | 1.0U |
| 1,1-Dichloroethane, ug/l | 1.0U |
| 1,2-Dichloroethane, ug/l | 1.0U |
| 1,1-Dichloroethene, ug/l | 1.0U |
| trans-1,2-Dichloroethene, ug/l | 1.0U |
| 1,2-Dichloropropane, ug/l | 1.0U |
| cis-1,3-Dichloropropene, ug/l | 1.0U |
| trans-1,3-Dichloropropene, ug/l | 1.0U |
| Ethylbenzene, ug/l | 1.0U |
| Ethyl methacrylate, ug/l | 1.0U |
| 2-Hexanone, ug/l | 10U |
| Iodomethane (Methyl iodide), ug/l | 1.0U |
| Isobutanol (Isobutyl alcohol), ug/l | 40U |
| Methacrylonitrile, ug/l | 20U |
| Methylene chloride (Dichloromethane), ug/l | 5.0U |
| Methyl methacrylate, ug/l | 1.0U |
| 4-Methyl-2-pentanone (MIBK), ug/l | 10U |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601-6 | Trip Blank | 11-03-00 | SAV09 |

| PARAMETER | 07601-6 |
|---|---|
| Pentachloroethane, ug/l | 5.0U |
| Propionitrile, ug/l | 20U |
| Styrene, ug/l | 1.0U |
| 1,1,1,2-Tetrachloroethane, ug/l | 1.0U |
| 1,1,2,2-Tetrachloroethane, ug/l | 1.0U |
| Tetrachloroethene, ug/l | 1.0U |
| Toluene, ug/l | 1.0U |
| 1,1,1-Trichloroethane, ug/l | 1.0U |
| 1,1,2-Trichloroethane, ug/l | 1.0U |
| Trichloroethene, ug/l | 1.0U |
| Trichlorofluoromethane, ug/l | 1.0U |
| 1,2,3-Trichloropropane, ug/l | 1.0U |
| Vinyl acetate, ug/l | 2.0U |
| Vinyl chloride, ug/l | 1.0U |
| Xylenes, Total, ug/l | 2.0U |
| Surrogate - Toluene-d8 | 108 % |
| Surrogate - 4-Bromofluorobenzene | 94 % |
| Surrogate - Dibromofluoromethane | 86 % |
| Dilution Factor | 1 |
| Analysis Date | 11.09.00 |
| Batch ID | 2A1108 |
| NIST Library Search (VOC-TIC) | * |

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LOG NO: S0-07601A
Received: 04 NOV 00
Reported: 21 NOV 00

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97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
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Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Acids and Base Neutrals (8270-APP9) | | | | | |
| Acenaphthene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Acenaphthylene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Acetophenone, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2-Acetylaminofluorene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 4-Aminobiphenyl, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Aniline, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Anthracene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Aramite, Total, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Benzo(a)anthracene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Benzo(b)fluoranthene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Benzo(k)fluoranthene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Benzo(g,h,i)perylene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Benzo(a)pyrene, ug/kg dw | 520U | 470U | 460U | 800 | 4100U |
| Benzyl alcohol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| bis(2-Chloroethoxy)methane, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| bis(2-Chloroethyl)ether, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2,2'-Oxybis(1-chloropropane )[bis(2-Chloroisopropyl)ether], ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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Final Page Of Report

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LOG NO: S0-07601A
Received: 04 NOV 00
Reported: 21 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| bis(2-Ethylhexyl)phthalate, ug/kg dw | 540 | 470U | 460U | 650U | 4100U |
| 4-Bromophenylphenyl ether, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Butylbenzylphthalate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 4-Chloroaniline (p-Chloroaniline), ug/kg dw | 1000U | 940U | 930U | 1300U | 8200U |
| 4-Chloro-3-methylphenol (p-Chloro-m-cresol), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2-Chloronaphthalene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2-Chlorophenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 4-Chlorophenylphenyl ether, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Chrysene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Cresol, m & p, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Cresol (ortho), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Diallate, Total, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Dibenzo(a,h)anthracene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Dibenzofuran, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Di-n-butylphthalate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,2-Dichlorobenzene (o-Dichlorobenzene), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,3-Dichlorobenzene (m-Dichlorobenzene), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,4-Dichlorobenzene (p-Dichlorobenzene), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 3,3'-Dichlorobenzidine, ug/kg dw | 1000U | 940U | 930U | 1300U | 8200U |
| 2,4-Dichlorophenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2,6-Dichlorophenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Diethylphthalate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| p-(Dimethylamino)azobenzene , ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 7,12-Dimethylbenz(a)anthrac ene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
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| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| 3,3'-Dimethylbenzidine, ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| alpha,alpha-Dimethylpheneth ylamine, ug/kg dw | 100000U | 96000U | 94000U | 130000U | 840000U |
| 2,4-Dimethylphenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Dimethylphthalate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| m-Dinitrobenzene , ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol), ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| 2,4-Dinitrophenol, ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| 2,4-Dinitrotoluene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2,6-Dinitrotoluene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Dinoseb (2-sec-Butyl-4,6-dinitrophen ol), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Di-n-octylphthalate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,4-Dioxane, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Ethyl methanesulfonate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Fluoranthene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Fluorene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Hexachlorobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Hexachlorobutadiene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Hexachlorocyclopentadiene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Hexachloroethane, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Hexachlorophene, ug/kg dw | 260000U | 240000U | 240000U | 330000U | 2100000U |
| Hexachloropropene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Indeno(1,2,3-cd)pyrene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Isophorone, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Isosafrole, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Methapyrilene, ug/kg dw | 100000U | 96000U | 94000U | 130000U | 840000U |
| 3-Methylcholanthrene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Methyl methanesulfonate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2-Methylnaphthalene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Naphthalene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,4-Naphthoquinone, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1-Naphthylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2-Naphthylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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Received: 04 NOV 00
Reported: 21 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| 2-Nitroaniline (o-Nitroaniline), ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| 3-Nitroaniline (m-Nitroaniline), ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| 4-Nitroaniline (p-Nitroaniline), ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| Nitrobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2-Nitrophenol (o-Nitrophenol), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 4-Nitrophenol (p-Nitrophenol), ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| 4-Nitroquinoline-1-oxide, ug/kg dw | 5200U | 4700U | 4600U | 6500U | 41000U |
| N-Nitrosodi-n-butylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| N-Nitrosodiethylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| N-Nitrosodimethylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| N-Nitrosodiphenylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| n-Nitrosodi-n-propylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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|---|---|---|---|
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| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| N-Nitrosomethylethylamine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| N-Nitrosomorpholine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| N-Nitrosopiperidine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| N-Nitrosopyrrolidine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 5-Nitro-o-toluidine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Pentachlorobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Pentachloronitrobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Pentachlorophenol, ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| Phenacetin, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Phenanthrene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Phenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,4-Phenylenediamine (p-Phenylenediamine), ug/kg dw | 2600U | 2400U | 2400U | 3300U | 21000U |
| 2-Picoline, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Pronamide, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Pyrene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Pyridine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Safrole, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,2,4,5-Tetrachlorobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2,3,4,6-Tetrachlorophenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| o-Toluidine, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,2,4-Trichlorobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2,4,5-Trichlorophenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 2,4,6-Trichlorophenol, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| O,O,O-Triethyl phosphorothioate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| 1,3,5-Trinitrobenzene, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Disulfoton, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Methyl parathion, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Ethyl parathion (Parathion), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Famphur, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Phorate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Thionazin (O,O-Diethyl-O-pyrazinyl phosphorothioate), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Dimethoate, ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Sulfotepp (Tetraethyl dithiopyrophosphate), ug/kg dw | 520U | 470U | 460U | 650U | 4100U |
| Alpha Pinene, ug/kg dw | 5200U | 4700U | 4600U | 6500U | 41000U |
| Beta Pinene, ug/kg dw | 5200U | 4700U | 4600U | 6500U | 41000U |
| Biphenyl, ug/kg dw | 1000U | 940U | 930U | 1300U | 8200U |
| Biphenyl Ether, ug/kg dw | 1000U | 940U | 4000 | 1300U | 8200U |
| Surrogate - Phenol-d5 | 58 % | 54 % | 66 % | 35 % | *F33 |
| Surrogate - 2-Fluorophenol | 56 % | 50 % | 62 % | 40 % | *F33 |
| Surrogate - 2,4,6-Tribromophenol | 42 % | 44 % | 55 % | 43 % | *F33 |
| Surrogate - Nitrobenzene-d5 | 50 % | 42 % | 56 % | 39 % | *F33 |
| Surrogate - 2-Fluorobiphenyl | 58 % | 54 % | 70 % | 48 % | *F33 |
| Surrogate - Terphenyl-d14 | 54 % | 54 % | 61 % | 52 % | *F33 |
| Dilution Factor | 1 | 1 | 1 | 1 | 10 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.14.00 | 11.14.00 | 11.14.00 | 11.14.00 | 11.14.00 |
| Batch ID | 1107A | 1107A | 1107A | 1107A | 1107A |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Diesel Range Organics (8015) | | | | | |
| Hydrocarbons as DRO, mg/kg dw | 10 | 17 | 580 | 9.2 | 30000 |
| Surrogate - o-Terphenyl | 33 % | 29 % | 53 % | 38 % | 0 %D |
| Dilution Factor | 1 | 1 | 5 | 1 | 20 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.09.00 | 11.08.00 | 11.09.00 |
| Batch ID | 1107V | 1107V | 1107V | 1107V | 1107V |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Metals (6010) | | | | | |
| Antimony, mg/kg dw | 3.1UN | 2.6UN | 2.6UN | 3.9UN | 2.5UN |
| Arsenic, mg/kg dw | 3.0 | 1.4 | 2.0 | 5.2 | 1.8 |
| Barium, mg/kg dw | 170 | 90 | 29 | 100 | 39 |
| Beryllium, mg/kg dw | 0.63 | 0.68 | 0.56U | 0.89 | 0.5U |
| Cadmium, mg/kg dw | 0.71U | 0.65U | 0.70U | 0.98U | 0.62U |
| Chromium, mg/kg dw | 7.6 | 5.5 | 5.2 | 15 | 7.9 |
| Cobalt, mg/kg dw | 8.9 | 1.8 | 1.3 | 2.3 | 1.4 |
| Copper, mg/kg dw | 3.2 | 3.7 | 7.0 | 11 | 16 |
| Nickel, mg/kg dw | 6.2U | 5.7U | 5.6U | 7.8U | 8.4 |
| Lead, mg/kg dw | 14 | 12 | 43 | 37 | 37 |
| Selenium, mg/kg dw | 1.4U | 1.3U | 1.3U | 2.0U | 1.2U |
| Silver, mg/kg dw | 1.4U | 1.3U | 1.3U | 2.0U | 1.3U |
| Tin, mg/kg dw | 7.8U | 7.1U | 7.0U | 9.8U | 6.2U |
| Thallium, mg/kg dw | 1.4U | 1.3U | 1.3U | 2.0U | 1.3U |
| Vanadium, mg/kg dw | 11 | 6.5 | 6.2 | 23 | 33 |
| Zinc, mg/kg dw | 22 | 23 | 42 | 170 | 83 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1107B | 1107B | 1107B | 1107B | 1107B |

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|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Mercury (7471) | | | | | |
| Mercury, mg/kg dw | 0.074 | 0.076 | 0.092 | 0.16 | 3.6 |
| Dilution Factor | 1 | 1 | 1 | 1 | 20 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 | 11.10.00 |
| Batch ID | 1107S | 1107S | 1107S | 1107S | 1107S |
| Organic Carbon (WALKLEY-BLACK), mg/kg dw | 2900 | 6000 | 6600 | 52000 | 430000 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 11.15.00 | 11.15.00 | 11.15.00 | 11.15.00 | 11.15.00 |
| Analysis Date | 11.15.00 | 11.15.00 | 11.15.00 | 11.15.00 | 11.15.00 |
| Batch ID | 1115A | 1115A | 1115A | 1115A | 1115A |
| Gasoline Range Organics (8015M) | | | | | |
| Hydrocarbons as GRO, mg/kg dw | 0.39U | 0.38U | 0.38U | 0.48U | 26 |
| Surrogate - a,a,a-Trifluorotoluene | 109 % | 104 % | 100 % | 114 % | 30 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 5 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 2A1107 | 2A1107 | 2A1107 | 1A1108 | 2A1107 |

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| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Volatile Organic Compounds (8260) | | | | | |
| Acetone, ug/kg dw | 100 | 220 | 78 | 120 | 1400E |
| Acetonitrile, ug/kg dw | 310U | 280U | 280U | 400U | 230U |
| Acrolein (Propenal), ug/kg dw | 150U | 140U | 140U | 200U | 120U |
| Acrylonitrile, ug/kg dw | 150U | 140U | 140U | 200U | 120U |
| Benzene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 36 |
| Bromodichloromethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Bromoform, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Bromomethane (Methyl Bromide), ug/kg dw | 15U | 14U | 35U | 20U | 12U |
| 2-Butanone (Methyl ethyl ketone), ug/kg dw | 39U | 36U | 35U | 49U | 120 |
| Carbon disulfide, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Carbon tetrachloride, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Chlorobenzene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Chloroethane, ug/kg dw | 15U | 14U | 14U | 20U | 12U |
| Chloroform, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Chloromethane (Methyl Chloride), ug/kg dw | 15U | 14U | 14U | 20U | 12U |

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| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Chloroprene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 3-Chloropropene (Allylchloride), ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Dibromochloromethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,2-Dibromo-3-chloropropane , ug/kg dw | 15U | 14U | 14U | 20U | 12U |
| 1,2-Dibromoethane (EDB), ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Dibromomethane (Methylene bromide), ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| trans-1,4-Dichloro-2-butene , ug/kg dw | 15U | 14U | 14U | 20U | 12U |
| Dichlorodifluoromethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,1-Dichloroethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,2-Dichloroethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,1-Dichloroethene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| trans-1,2-Dichloroethene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,2-Dichloropropane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| cis-1,3-Dichloropropene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| trans-1,3-Dichloropropene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |

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LOG NO: S0-07601A
Received: 04 NOV 00
Reported: 21 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Ethylbenzene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 55 |
| Ethyl methacrylate, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 2-Hexanone, ug/kg dw | 38U | 35U | 34U | 50U | 29U |
| Iodomethane (Methyl iodide), ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Isobutanol (Isobutyl alcohol), ug/kg dw | 310U | 280U | 280U | 400U | 230U |
| Methacrylonitrile, ug/kg dw | 150U | 140U | 140U | 200U | 120U |
| Methylene chloride (Dichloromethane), ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Methyl methacrylate, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 4-Methyl-2-pentanone (MIBK), ug/kg dw | 38U | 35U | 34U | 50U | 29U |
| Pentachloroethane, ug/kg dw | 38U | 35U | 34U | 50U | 29U |
| Propionitrile, ug/kg dw | 150U | 140U | 140U | 200U | 120U |
| Styrene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,1,1,2-Tetrachloroethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,1,2,2-Tetrachloroethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| Tetrachloroethene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Toluene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 100 |
| 1,1,1-Trichloroethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,1,2-Trichloroethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Trichloroethene, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Trichlorofluoromethane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| 1,2,3-Trichloropropane, ug/kg dw | 7.6U | 7.0U | 6.9U | 10U | 5.8U |
| Vinyl acetate, ug/kg dw | 15U | 14U | 14U | 20U | 12U |
| Vinyl chloride, ug/kg dw | 15U | 14U | 14U | 20U | 12U |
| Xylenes, Total, ug/kg dw | 15U | 14U | 14U | 20U | 38 |
| Surrogate - Toluene-d8 | 103 % | 100 % | 100 % | 100 % | 103 % |
| Surrogate - 4-Bromofluorobenzene | 113 % | 101 % | 100 % | 84 % | 103 % |
| Surrogate - Dibromofluoromethane | 101 % | 100 % | 100 % | 98 % | 93 % |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 3M1109 | 3M1109 | 3M1109 | 3M1109 | 3M1109 |
| NIST Library Search (VOC-TIC) | * | * | * | * | * |
| NIST Library Search (BN/A-TIC) | * | * | * | * | * |

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Received: 04 NOV 00
Reported: 21 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-1 | SD-F2 | 11-03-00/13:40 | SAV10 |
| 07601A-2 | SD-F3 | 11-02-00/17:15 | SAV10 |
| 07601A-3 | SD-F4 | 11-02-00/15:40 | SAV10 |
| 07601A-4 | SD-F5 | 11-02-00/14:00 | SAV10 |
| 07601A-5 | SD-F6 | 11-03-00/14:00 | SAV10 |

| PARAMETER | 07601A-1 | 07601A-2 | 07601A-3 | 07601A-4 | 07601A-5 |
|---|---|---|---|---|---|
| pH (9045), units | 6.87 | 7.14 | 7.24 | 6.88 | 5.84 |
| Dilution Factor | 1 | 1 | 1 | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1108Y | 1108Y | 1108Y | 1108Y | 1108Y |
| Percent Solids | 64 | 70 | 71 | 51 | 80 |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Acids and Base Neutrals (8270-APP9) | | | | |
| Acenaphthene, ug/kg dw | --- | --- | 410U | 450U |
| Acenaphthylene, ug/kg dw | --- | --- | 410U | 450U |
| Acetophenone, ug/kg dw | --- | --- | 410U | 450U |
| 2-Acetylaminofluorene, ug/kg dw | --- | --- | 410U | 450U |
| 4-Aminobiphenyl, ug/kg dw | --- | --- | 410U | 450U |
| Aniline, ug/kg dw | --- | --- | 410U | 450U |
| Anthracene, ug/kg dw | --- | --- | 410U | 450U |
| Aramite, Total, ug/kg dw | --- | --- | 410U | 450U |
| Benzo(a)anthracene, ug/kg dw | --- | --- | 410U | 450U |
| Benzo(b)fluoranthene, ug/kg dw | --- | --- | 410U | 450U |
| Benzo(k)fluoranthene, ug/kg dw | --- | --- | 410U | 450U |
| Benzo(g,h,i)perylene, ug/kg dw | --- | --- | 410U | 450U |
| Benzo(a)pyrene, ug/kg dw | --- | --- | 410U | 450U |
| Benzyl alcohol, ug/kg dw | --- | --- | 410U | 450U |
| bis(2-Chloroethoxy)methane, ug/kg dw | --- | --- | 410U | 450U |
| bis(2-Chloroethyl)ether, ug/kg dw | --- | --- | 410U | 450U |
| 2,2'-Oxybis(1-chloropropane )[bis(2-Chloroisopropyl)ether], ug/kg dw | --- | --- | 410U | 450U |

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| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| bis(2-Ethylhexyl)phthalate, ug/kg dw | --- | --- | 410U | 410U |
| 4-Bromophenylphenyl ether, ug/kg dw | --- | --- | 410U | 450U |
| Butylbenzylphthalate, ug/kg dw | --- | --- | 410U | 450U |
| 4-Chloroaniline (p-Chloroaniline), ug/kg dw | --- | --- | 810U | 900U |
| 4-Chloro-3-methylphenol (p-Chloro-m-cresol), ug/kg dw | --- | --- | 410U | 450U |
| 2-Chloronaphthalene, ug/kg dw | --- | --- | 410U | 450U |
| 2-Chlorophenol, ug/kg dw | --- | --- | 410U | 450U |
| 4-Chlorophenylphenyl ether, ug/kg dw | --- | --- | 410U | 450U |
| Chrysene, ug/kg dw | --- | --- | 410U | 450U |
| Cresol, m & p, ug/kg dw | --- | --- | 410U | 450U |
| Cresol (ortho), ug/kg dw | --- | --- | 410U | 450U |
| Diallate, Total, ug/kg dw | --- | --- | 410U | 450U |
| Dibenzo(a,h)anthracene, ug/kg dw | --- | --- | 410U | 450U |
| Dibenzofuran, ug/kg dw | --- | --- | 410U | 450U |
| Di-n-butylphthalate, ug/kg dw | --- | --- | 410U | 450U |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| 1,2-Dichlorobenzene (o-Dichlorobenzene), ug/kg dw | --- | --- | 410U | 450U |
| 1,3-Dichlorobenzene (m-Dichlorobenzene), ug/kg dw | --- | --- | 410U | 450U |
| 1,4-Dichlorobenzene (p-Dichlorobenzene), ug/kg dw | --- | --- | 410U | 450U |
| 3,3'-Dichlorobenzidine, ug/kg dw | --- | --- | 810U | 900U |
| 2,4-Dichlorophenol, ug/kg dw | --- | --- | 410U | 450U |
| 2,6-Dichlorophenol, ug/kg dw | --- | --- | 410U | 450U |
| Diethylphthalate, ug/kg dw | --- | --- | 410U | 450U |
| p-(Dimethylamino)azobenzene , ug/kg dw | --- | --- | 410U | 450U |
| 7,12-Dimethylbenz(a)anthrac ene, ug/kg dw | --- | --- | 410U | 450U |
| 3,3'-Dimethylbenzidine, ug/kg dw | --- | --- | 2100U | 2300U |
| alpha,alpha-Dimethylpheneth ylamine, ug/kg dw | --- | --- | 83000U | 92000U |

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| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| 2,4-Dimethylphenol, ug/kg dw | --- | --- | 410U | 450U |
| Dimethylphthalate, ug/kg dw | --- | --- | 410U | 450U |
| m-Dinitrobenzene , ug/kg dw | --- | --- | 410U | 450U |
| 4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol), ug/kg dw | --- | --- | 2100U | 2300U |
| 2,4-Dinitrophenol, ug/kg dw | --- | --- | 2100U | 2300U |
| 2,4-Dinitrotoluene, ug/kg dw | --- | --- | 410U | 450U |
| 2,6-Dinitrotoluene, ug/kg dw | --- | --- | 410U | 450U |
| Dinoseb (2-sec-Butyl-4,6-dinitrophenol), ug/kg dw | --- | --- | 410U | 450U |
| Di-n-octylphthalate, ug/kg dw | --- | --- | 410U | 450U |
| 1,4-Dioxane, ug/kg dw | --- | --- | 410U | 450U |
| Ethyl methanesulfonate, ug/kg dw | --- | --- | 410U | 450U |
| Fluoranthene, ug/kg dw | --- | --- | 410U | 450U |
| Fluorene, ug/kg dw | --- | --- | 410U | 450U |
| Hexachlorobenzene, ug/kg dw | --- | --- | 410U | 450U |
| Hexachlorobutadiene, ug/kg dw | --- | --- | 410U | 450U |
| Hexachlorocyclopentadiene, ug/kg dw | --- | --- | 410U | 450U |

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|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Hexachloroethane, ug/kg dw | --- | --- | 410U | 450U |
| Hexachlorophene, ug/kg dw | --- | --- | 210000U | 230000U |
| Hexachloropropene, ug/kg dw | --- | --- | 410U | 450U |
| Indeno(1,2,3-cd)pyrene, ug/kg dw | --- | --- | 410U | 450U |
| Isophorone, ug/kg dw | --- | --- | 410U | 450U |
| Isosafrole, ug/kg dw | --- | --- | 410U | 450U |
| Methapyrilene, ug/kg dw | --- | --- | 83000U | 92000U |
| 3-Methylcholanthrene, ug/kg dw | --- | --- | 410U | 450U |
| Methyl methanesulfonate, ug/kg dw | --- | --- | 410U | 450U |
| 2-Methylnaphthalene, ug/kg dw | --- | --- | 410U | 450U |
| Naphthalene, ug/kg dw | --- | --- | 410U | 450U |
| 1,4-Naphthoquinone, ug/kg dw | --- | --- | 410U | 450U |
| 1-Naphthylamine, ug/kg dw | --- | --- | 410U | 450U |
| 2-Naphthylamine, ug/kg dw | --- | --- | 410U | 450U |
| 2-Nitroaniline (o-Nitroaniline), ug/kg dw | --- | --- | 2100U | 2300U |
| 3-Nitroaniline (m-Nitroaniline), ug/kg dw | --- | --- | 2100U | 2300U |
| 4-Nitroaniline (p-Nitroaniline), ug/kg dw | --- | --- | 2100U | 2300U |

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| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Nitrobenzene, ug/kg dw | --- | --- | 410U | 450U |
| 2-Nitrophenol (o-Nitrophenol), ug/kg dw | --- | --- | 410U | 450U |
| 4-Nitrophenol (p-Nitrophenol), ug/kg dw | --- | --- | 2100U | 2300U |
| 4-Nitroquinoline-1-oxide, ug/kg dw | --- | --- | 4100U | 4500U |
| N-Nitrosodi-n-butylamine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosodiethylamine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosodimethylamine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosodiphenylamine, ug/kg dw | --- | --- | 410U | 450U |
| n-Nitrosodi-n-propylamine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosomethylethylamine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosomorpholine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosopiperidine, ug/kg dw | --- | --- | 410U | 450U |
| N-Nitrosopyrrolidine, ug/kg dw | --- | --- | 410U | 450U |
| 5-Nitro-o-toluidine, ug/kg dw | --- | --- | 410U | 450U |
| Pentachlorobenzene, ug/kg dw | --- | --- | 410U | 450U |
| Pentachloronitrobenzene, ug/kg dw | --- | --- | 410U | 450U |
| Pentachlorophenol, ug/kg dw | --- | --- | 2100U | 2300U |
| Phenacetin, ug/kg dw | --- | --- | 410U | 450U |

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|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Phenanthrene, ug/kg dw | --- | --- | 410U | 450U |
| Phenol, ug/kg dw | --- | --- | 410U | 450U |
| 1,4-Phenylenediamine (p-Phenylenediamine), ug/kg dw | --- | --- | 2100U | 2300U |
| 2-Picoline, ug/kg dw | --- | --- | 410U | 450U |
| Pronamide, ug/kg dw | --- | --- | 410U | 450U |
| Pyrene, ug/kg dw | --- | --- | 410U | 450U |
| Pyridine, ug/kg dw | --- | --- | 410U | 450U |
| Safrole, ug/kg dw | --- | --- | 410U | 450U |
| 1,2,4,5-Tetrachlorobenzene, ug/kg dw | --- | --- | 410U | 450U |
| 2,3,4,6-Tetrachlorophenol, ug/kg dw | --- | --- | 410U | 450U |
| o-Toluidine, ug/kg dw | --- | --- | 410U | 450U |
| 1,2,4-Trichlorobenzene, ug/kg dw | --- | --- | 410U | 450U |
| 2,4,5-Trichlorophenol, ug/kg dw | --- | --- | 410U | 450U |
| 2,4,6-Trichlorophenol, ug/kg dw | --- | --- | 410U | 450U |
| O,O,O-Triethyl phosphorothioate, ug/kg dw | --- | --- | 410U | 450U |
| 1,3,5-Trinitrobenzene, ug/kg dw | --- | --- | 410U | 450U |

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LOG NO: S0-07601A
Received: 04 NOV 00
Reported: 21 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Disulfoton, ug/kg dw | --- | --- | 410U | 450U |
| Methyl parathion, ug/kg dw | --- | --- | 410U | 450U |
| Ethyl parathion (Parathion), ug/kg dw | --- | --- | 410U | 450U |
| Famphur, ug/kg dw | --- | --- | 410U | 450U |
| Phorate, ug/kg dw | --- | --- | 410U | 450U |
| Thionazin (O,O-Diethyl-O-pyrazinyl phosphorothioate), ug/kg dw | --- | --- | 410U | 450U |
| Dimethoate, ug/kg dw | --- | --- | 410U | 450U |
| Sulfotepp (Tetraethyl dithiopyrophosphate), ug/kg dw | --- | --- | 410U | 450U |
| Alpha Pinene, ug/kg dw | --- | --- | 4100U | 4500U |
| Beta Pinene, ug/kg dw | --- | --- | 4100U | 4500U |
| Biphenyl, ug/kg dw | --- | --- | 810U | 900U |
| Biphenyl Ether, ug/kg dw | --- | --- | 810U | 900U |
| Surrogate - Phenol-d5 | --- | --- | 61 % | 54 % |
| Surrogate - 2-Fluorophenol | --- | --- | 58 % | 52 % |
| Surrogate - 2,4,6-Tribromophenol | --- | --- | 68 % | 61 % |

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| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Surrogate - Nitrobenzene-d5 | --- | --- | 60 % | 43 % |
| Surrogate - 2-Fluorobiphenyl | --- | --- | 65 % | 56 % |
| Surrogate - Terphenyl-d14 | --- | --- | 80 % | 78 % |
| Dilution Factor | --- | --- | 1 | 1 |
| Prep Date | --- | --- | 11.07.00 | 11.07.00 |
| Analysis Date | --- | --- | 11.09.00 | 11.14.00 |
| Batch ID | --- | --- | 1107A | 1107A |
| Diesel Range Organics (8015) | | | | |
| Hydrocarbons as DRO, mg/kg dw | --- | --- | 220 | 5.2 |
| Surrogate - o-Terphenyl | --- | --- | 46 % | 65 % |
| Dilution Factor | --- | --- | 2 | 1 |
| Prep Date | --- | --- | 11.07.00 | 11.07.00 |
| Analysis Date | --- | --- | 11.09.00 | 11.08.00 |
| Batch ID | --- | --- | 1107V | 1107V |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Metals (6010) | | | | |
| Antimony, mg/kg dw | --- | --- | 2.2UN | 2.7U |
| Arsenic, mg/kg dw | --- | --- | 2.5 | 3.7 |
| Barium, mg/kg dw | --- | --- | 81 | 42 |
| Beryllium, mg/kg dw | --- | --- | 0.93 | 0.55U |
| Cadmium, mg/kg dw | --- | --- | 0.56U | 0.62U |
| Chromium, mg/kg dw | --- | --- | 5.9 | 7.9 |
| Cobalt, mg/kg dw | --- | --- | 3.3 | 2.3 |
| Copper, mg/kg dw | --- | --- | 2.5U | 2.7U |
| Nickel, mg/kg dw | --- | --- | 4.9U | 5.5U |
| Lead, mg/kg dw | --- | --- | 16 | 15 |
| Selenium, mg/kg dw | --- | --- | 1.1U | 1.2U |
| Silver, mg/kg dw | --- | --- | 1.1U | 1.2U |
| Tin, mg/kg dw | --- | --- | 6.2U | 6.8U |
| Thallium, mg/kg dw | --- | --- | 1.1U | 1.2U |
| Vanadium, mg/kg dw | --- | --- | 9.0 | 16 |
| Zinc, mg/kg dw | --- | --- | 4.4 | 3.9 |
| Dilution Factor | --- | --- | 1 | 1 |
| Prep Date | --- | --- | 11.07.00 | 11.07.00 |
| Analysis Date | --- | --- | 11.08.00 | 11.08.00 |
| Batch ID | --- | --- | 1107B | 1107B |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Mercury (7471) | | | | |
| Mercury, mg/kg dw | --- | --- | 0.067 | 0.061 |
| Dilution Factor | --- | --- | 1 | 1 |
| Prep Date | --- | --- | 11.07.00 | 11.07.00 |
| Analysis Date | --- | --- | 11.08.00 | 11.08.00 |
| Batch ID | --- | --- | 1107S | 1107S |
| Organic Carbon (WALKLEY-BLACK), mg/kg dw | | | 6700 | 3800 |
| Dilution Factor | --- | --- | 1 | 1 |
| Prep Date | --- | --- | 11.15.00 | 11.15.00 |
| Analysis Date | --- | --- | 11.15.00 | 11.15.00 |
| Batch ID | --- | --- | 1115A | 1115A |
| Gasoline Range Organics (8015M) | | | | |
| Hydrocarbons as GRO, mg/kg dw | --- | 22 | 0.31U | 0.34U |
| Surrogate - a,a,a-Trifluorotoluene | --- | 36 % | 100 % | 132 % |
| Dilution Factor | --- | 5 | 1 | 1 |
| Analysis Date | --- | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | --- | 1A1108 | 1A1108 | 2A1107 |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Volatile Organic Compounds (8260) | | | | |
| Acetone, ug/kg dw | 4500D | --- | 350 | 70U |
| Acetonitrile, ug/kg dw | 11000U | --- | 200U | 280U |
| Acrolein (Propenal), ug/kg dw | 5600U | --- | 100U | 140U |
| Acrylonitrile, ug/kg dw | 5600U | --- | 100U | 140U |
| Benzene, ug/kg dw | 380D | --- | 5.1U | 7.0U |
| Bromodichloromethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Bromoform, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Bromomethane (Methyl Bromide), ug/kg dw | 560U | --- | 10U | 14U |
| 2-Butanone (Methyl ethyl ketone), ug/kg dw | 490D | --- | 31 | 35U |
| Carbon disulfide, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Carbon tetrachloride, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Chlorobenzene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Chloroethane, ug/kg dw | 560U | --- | 10U | 14U |
| Chloroform, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Chloromethane (Methyl Chloride), ug/kg dw | 560U | --- | 10U | 14U |
| Chloroprene, ug/kg dw | 280U | --- | 5.1U | 7.0U |

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| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| 3-Chloropropene (Allylchloride), ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Dibromochloromethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,2-Dibromo-3-chloropropane , ug/kg dw | 560U | --- | 10U | 14U |
| 1,2-Dibromoethane (EDB), ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Dibromomethane (Methylene bromide), ug/kg dw | 280U | --- | 5.1U | 7.0U |
| trans-1,4-Dichloro-2-butene , ug/kg dw | 560U | --- | 10U | 14U |
| Dichlorodifluoromethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,1-Dichloroethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,2-Dichloroethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,1-Dichloroethene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| trans-1,2-Dichloroethene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,2-Dichloropropane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| cis-1,3-Dichloropropene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| trans-1,3-Dichloropropene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Ethylbenzene, ug/kg dw | 2500D | --- | 5.1U | 7.0U |

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|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Ethyl methacrylate, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 2-Hexanone, ug/kg dw | 1400U | --- | 26U | 35U |
| Iodomethane (Methyl iodide), ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Isobutanol (Isobutyl alcohol), ug/kg dw | 56000U | --- | 200U | 280U |
| Methacrylonitrile, ug/kg dw | 5600U | --- | 100U | 140U |
| Methylene chloride (Dichloromethane), ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Methyl methacrylate, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 4-Methyl-2-pentanone (MIBK), ug/kg dw | 1400U | --- | 26U | 35U |
| Pentachloroethane, ug/kg dw | 1400U | --- | 26U | 35U |
| Propionitrile, ug/kg dw | 5600U | --- | 100U | 140U |
| Styrene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,1,1,2-Tetrachloroethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,1,2,2-Tetrachloroethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Tetrachloroethene, ug/kg dw | 280U | --- | 5.1U | 7.0U |

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|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| Toluene, ug/kg dw | 2400D | --- | 5.1U | 7.0U |
| 1,1,1-Trichloroethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,1,2-Trichloroethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Trichloroethene, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Trichlorofluoromethane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| 1,2,3-Trichloropropane, ug/kg dw | 280U | --- | 5.1U | 7.0U |
| Vinyl acetate, ug/kg dw | 560U | --- | 10U | 14U |
| Vinyl chloride, ug/kg dw | 560U | --- | 10U | 14U |
| Xylenes, Total, ug/kg dw | 1800D | --- | 10U | 14U |
| Surrogate - Toluene-d8 | 94 % | --- | 100 % | 106 % |
| Surrogate - 4-Bromofluorobenzene | 97 % | --- | 102 % | 100 % |
| Surrogate - Dibromofluoromethane | 97 % | --- | 90 % | 91 % |
| Dilution Factor | 40 | --- | 1 | 1 |
| Analysis Date | 11.10.00 | --- | 11.09.00 | 11.09.00 |
| Batch ID | 1A1110 | --- | 3M1109 | 3M1109 |
| NIST Library Search (VOC-TIC) | | | * | * |
| NIST Library Search (BN/A-TIC) | | | * | * |

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|---|---|---|---|
| 07601A-5-DL | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-5-RE | SD-F6 | 11-03-00/14:00 | SAV10 |
| 07601A-6 | SD-F7 | 11-03-00/17:45 | SAV10 |
| 07601A-7 | SD-F8 | 11-02-00/16:40 | SAV10 |

| PARAMETER | 07601A-5-DL | 07601A-5-RE | 07601A-6 | 07601A-7 |
|---|---|---|---|---|
| pH (9045), units | | | 6.47 | 5.13 |
| Dilution Factor | --- | --- | 1 | 1 |
| Prep Date | --- | --- | 11.08.00 | 11.08.00 |
| Analysis Date | --- | --- | 11.08.00 | 11.08.00 |
| Batch ID | --- | --- | 1108Y | 1108Y |
| Percent Solids | --- | --- | 81 | 73 |

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

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|---|---|---|---|
| 07601A-8 | SD-F2/F3/F4/F5 | 11-03-00/15:15 | SAV10 |
| 07601A-9 | SD-F6/F7/F8 | 11-03-00/15:15 | SAV10 |

| PARAMETER | 07601A-8 | 07601A-9 |
|---|---|---|
| Appendix IX Chlorinated Pesticides (8081) | | |
| Aldrin, ug/kg dw | 3.0U | 2.3U |
| Isodrin, ug/kg dw | 5.9U | 4.4U |
| Chlordane (technical), ug/kg dw | 30U | 23U |
| Chlorobenzilate, ug/kg dw | 30U | 23U |
| 4,4'-DDD, ug/kg dw | 5.9U | 4.4U |
| 4,4'-DDE, ug/kg dw | 5.9U | 4.4U |
| 4,4'-DDT, ug/kg dw | 5.9U | 4.4U |
| Dieldrin, ug/kg dw | 5.9U | 4.4U |
| Endosulfan I, ug/kg dw | 3.0U | 2.3U |
| Endosulfan II, ug/kg dw | 5.9U | 4.4U |
| Endosulfan sulfate, ug/kg dw | 5.9U | 4.4U |
| Endrin, ug/kg dw | 5.9U | 4.4U |
| Endrin aldehyde, ug/kg dw | 5.9U | 4.4U |
| Heptachlor, ug/kg dw | 3.0U | 2.3U |
| Heptachlor epoxide, ug/kg dw | 3.0U | 2.3U |
| alpha-BHC, ug/kg dw | 3.0U | 2.3U |
| beta-BHC, ug/kg dw | 3.0U | 2.3U |
| gamma-BHC (Lindane), ug/kg dw | 3.0U | 2.3U |
| delta-BHC, ug/kg dw | 3.0U | 2.3U |
| Methoxychlor, ug/kg dw | 30U | 23U |

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|---|---|---|---|
| 07601A-8 | SD-F2/F3/F4/F5 | 11-03-00/15:15 | SAV10 |
| 07601A-9 | SD-F6/F7/F8 | 11-03-00/15:15 | SAV10 |

| PARAMETER | 07601A-8 | 07601A-9 |
|---|---|---|
| Toxaphene, ug/kg dw | 300U | 230U |
| Kepone, ug/kg dw | 300U | 230U |
| Surrogate - 2,4,5,6-Tetrachloro-m-xylene (TCMX) | 48 % | 50 % |
| Surrogate - DCB | 59 % | 58 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.10.00 | 11.10.00 |
| Batch ID | 1107Q | 1107Q |
| **Herbicides (8151)** | | |
| 2,4-D, ug/kg dw | 15U | 11U |
| 2,4,5-T, ug/kg dw | 15U | 11U |
| 2,4,5-TP (Silvex), ug/kg dw | 15U | 11U |
| Surrogate-2,4-Dichlorophenyl acetic acid (DCAA) | 68 % | 53 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 |
| Analysis Date | 11.10.00 | 11.10.00 |
| Batch ID | 1108N | 1108N |

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LOG NO: S0-07601A
Received: 04 NOV 00
Reported: 21 NOV 00

Ms. Sally Almond
ARCADIS Geraghty & Miller, Inc.
97 Midway Lane
Oak Ridge, TN 37830

Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-8 | SD-F2/F3/F4/F5 | 11-03-00/15:15 | SAV10 |
| 07601A-9 | SD-F6/F7/F8 | 11-03-00/15:15 | SAV10 |

| PARAMETER | 07601A-8 | 07601A-9 |
|---|---|---|
| PCB's (8082) | | |
| Aroclor-1016, ug/kg dw | 59U | 44U |
| Aroclor-1221, ug/kg dw | 120U | 90U |
| Aroclor-1232, ug/kg dw | 59U | 44U |
| Aroclor-1242, ug/kg dw | 59U | 44U |
| Aroclor-1248, ug/kg dw | 59U | 44U |
| Aroclor-1254, ug/kg dw | 59U | 44U |
| Aroclor-1260, ug/kg dw | 59U | 44U |
| Surrogate - TCX | 50 % | 48 % |
| Surrogate - DCB | 75 % | 77 % |
| Dilution Factor | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 |
| Analysis Date | 11.29.00 | 11.29.00 |
| Batch ID | 1107Q | 1107Q |
| Percent Solids | 56 | 74 |

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REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-10 | MW(IDW)-F20 | 11-03-00/07:45 | SAV10 |
| 07601A-11 | MW(IDS)-F3/F5/F7/F11/F12 | 11-03-00/09:25 | SAV10 |
| 07601A-12 | MWD-F2IDW | 11-03-00/08:30 | SAV10 |

| PARAMETER | 07601A-10 | 07601A-11 | 07601A-12 |
|---|---|---|---|
| Semivolatiles in TCLP Extract (8270) | | | |
| Cresol (ortho) (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Cresol m & p (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Cresol o,m,p (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| 1,4-Dichlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| 2,4-Dinitrotoluene (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Hexachlorobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Hexachlorobutadiene (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Hexachloroethane (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Nitrobenzene (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Pentachlorophenol (TCLP), mg/l | 0.25U | 0.25U | 0.25U |
| 2,4,5-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| 2,4,6-Trichlorophenol (TCLP), mg/l | 0.050U | 0.050U | 0.050U |
| Pyridine (TCLP), mg/l | 0.25U | 0.25U | 0.25U |
| Surrogate-2FP | 100 % | 114 % | 104 % |
| Surrogate-PHL | 92 % | 104 % | 94 % |
| Surrogate-NBZ | 92 % | 104 % | 96 % |
| Surrogate-2FBP | 84 % | 96 % | 88 % |
| Surrogate-TBP | 86 % | 100 % | 92 % |

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Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-10 | MW(IDW)-F20 | 11-03-00/07:45 | SAV10 |
| 07601A-11 | MW(IDS)-F3/F5/F7/F11/F12 | 11-03-00/09:25 | SAV10 |
| 07601A-12 | MWD-F2IDW | 11-03-00/08:30 | SAV10 |

| PARAMETER | 07601A-10 | 07601A-11 | 07601A-12 |
|---|---|---|---|
| Surrogate-TPH | 100 % | 100 % | 104 % |
| TCLP (1311) Sec. 7.2 Extraction Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Extraction Date (Extract) | 11.08.00 | 11.08.00 | 11.08.00 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Analysis Date | 11.11.00 | 11.11.00 | 11.11.00 |
| Batch ID | 1108A | 1108A | 1108A |
| **Metals in TCLP Extract (6010)** | | | |
| Arsenic (TCLP), ug/l | 200U | 200U | 200U |
| Barium (TCLP), ug/l | 1000U | 1300 | 1000U |
| Cadmium (TCLP), ug/l | 100U | 100U | 100U |
| Chromium (TCLP), ug/l | 200U | 200U | 200U |
| Lead (TCLP), ug/l | 200U | 200U | 200U |
| Selenium (TCLP), ug/l | 500U | 500U | 500U |
| Silver (TCLP), ug/l | 100U | 100U | 100U |
| TCLP (1311) Sec. 7.2 Extraction Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 1108P | 1108P | 1108P |

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Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-10 | MW(IDW)-F20 | 11-03-00/07:45 | SAV10 |
| 07601A-11 | MW(IDS)-F3/F5/F7/F11/F12 | 11-03-00/09:25 | SAV10 |
| 07601A-12 | MWD-F2IDW | 11-03-00/08:30 | SAV10 |

| PARAMETER | 07601A-10 | 07601A-11 | 07601A-12 |
|---|---|---|---|
| Mercury in TCLP Extract (7471) | | | |
| Mercury (TCLP), ug/l | 20U | 20U | 20U |
| TCLP (1311) Sec. 7.2 Extraction Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 1108R | 1108R | 1108R |

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Project: TN000545.0007.5/Savannah
Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-10 | MW(IDW)-F20 | 11-03-00/07:45 | SAV10 |
| 07601A-11 | MW(IDS)-F3/F5/F7/F11/F12 | 11-03-00/09:25 | SAV10 |
| 07601A-12 | MWD-F2IDW | 11-03-00/08:30 | SAV10 |

| PARAMETER | 07601A-10 | 07601A-11 | 07601A-12 |
|---|---|---|---|
| Volatiles in TCLP Extract (8260) | | | |
| Benzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| Carbon tetrachloride (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| Chlorobenzene (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| Chloroform (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| 1,2-Dichloroethane (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| 1,1-Dichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| Methyl ethyl ketone (TCLP), mg/l | 0.10U | 0.10U | 0.10U |
| Tetrachloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| Trichloroethylene (TCLP), mg/l | 0.020U | 0.020U | 0.020U |
| Vinyl chloride (TCLP), mg/l | 0.040U | 0.040U | 0.040U |
| Surrogate - Toluene-d8 | 95 % | 100 % | 100 % |
| Surrogate - 4-Bromofluorobenzene | 95 % | 95 % | 95 % |
| Surrogate - Dibromofluoromethane | 85 % | 80 % | 85 % |
| TCLP (1311) Sec. 7.3 Extraction Date | 11.03.00 | 11.03.00 | 11.03.00 |
| Dilution Factor | 1 | 1 | 1 |
| Analysis Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Batch ID | 1A1109 | 1A1109 | 1A1109 |

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Sampled By: Client
Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-10 | MW(IDW)-F20 | 11-03-00/07:45 | SAV10 |
| 07601A-11 | MW(IDS)-F3/F5/F7/F11/F12 | 11-03-00/09:25 | SAV10 |
| 07601A-12 | MWD-F2IDW | 11-03-00/08:30 | SAV10 |

| PARAMETER | 07601A-10 | 07601A-11 | 07601A-12 |
|---|---|---|---|
| pH (9045), units | 7.90 | 7.56 | 7.19 |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Analysis Date | 11.08.00 | 11.08.00 | 11.08.00 |
| Batch ID | 1108Y | 1108Y | 1108Y |
| Ignitability - Burn Rate (1030), mm/sec | NB | NB | NB |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Analysis Date | 11.07.00 | 11.07.00 | 11.07.00 |
| Batch ID | 1107A | 1107A | 1107A |
| Total Releasable Cyanide (SW7.3.3.2), mg HCN/kg | 100U | 100U | 100U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Analysis Date | 11.10.00 | 11.10.00 | 11.10.00 |
| Batch ID | 1109R | 1109R | 1109R |

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Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , SOLID OR SEMISOLID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-10 | MW(IDW)-F20 | 11-03-00/07:45 | SAV10 |
| 07601A-11 | MW(IDS)-F3/F5/F7/F11/F12 | 11-03-00/09:25 | SAV10 |
| 07601A-12 | MWD-F2IDW | 11-03-00/08:30 | SAV10 |

| PARAMETER | 07601A-10 | 07601A-11 | 07601A-12 |
|---|---|---|---|
| Total Releasable Sulfide (SW7.3.4.2), mg H2S/kg | 50U | 50U | 50U |
| Dilution Factor | 1 | 1 | 1 |
| Prep Date | 11.09.00 | 11.09.00 | 11.09.00 |
| Analysis Date | 11.10.00 | 11.10.00 | 11.10.00 |
| Batch ID | 1109R | 1109R | 1109R |
| Percent Solids | 70 | 73 | 66 |

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Code: 14120124

REPORT OF RESULTS



| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-13 | Trip Blank | 11-03-00 | SAV10 |

| PARAMETER | 07601A-13 |
|---|---|
| 1,2-Dibromo-3-chloropropane, ug/l | 1.0U |
| 1,2-Dibromoethane (EDB), ug/l | 1.0U |
| Dibromomethane (Methylene bromide), ug/l | 1.0U |
| trans-1,4-Dichloro-2-butene, ug/l | 2.0U |
| Dichlorodifluoromethane, ug/l | 1.0U |
| 1,1-Dichloroethane, ug/l | 1.0U |
| 1,2-Dichloroethane, ug/l | 1.0U |
| 1,1-Dichloroethene, ug/l | 1.0U |
| trans-1,2-Dichloroethene, ug/l | 1.0U |
| 1,2-Dichloropropane, ug/l | 1.0U |
| cis-1,3-Dichloropropene, ug/l | 1.0U |
| trans-1,3-Dichloropropene, ug/l | 1.0U |
| Ethylbenzene, ug/l | 1.0U |
| Ethyl methacrylate, ug/l | 1.0U |
| 2-Hexanone, ug/l | 10U |
| Iodomethane (Methyl iodide), ug/l | 1.0U |
| Isobutanol (Isobutyl alcohol), ug/l | 40U |
| Methacrylonitrile, ug/l | 20U |
| Methylene chloride (Dichloromethane), ug/l | 5.0U |
| Methyl methacrylate, ug/l | 1.0U |
| 4-Methyl-2-pentanone (MIBK), ug/l | 10U |

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|---|---|---|---|
| 07601A-13 | Trip Blank | 11-03-00 | SAV10 |

| PARAMETER | 07601A-13 |
|---|---|
| Volatile Organic Compounds (8260) | |
| Acetone, ug/l | 25U |
| Acetonitrile, ug/l | 40U |
| Acrolein (Propenal), ug/l | 20U |
| Acrylonitrile, ug/l | 20U |
| Benzene, ug/l | 1.0U |
| Bromodichloromethane, ug/l | 1.0U |
| Bromoform, ug/l | 1.0U |
| Bromomethane (Methyl Bromide), ug/l | 1.0U |
| 2-Butanone (Methyl ethyl ketone), ug/l | 10U |
| Carbon disulfide, ug/l | 1.0U |
| Carbon tetrachloride, ug/l | 1.0U |
| Chlorobenzene, ug/l | 1.0U |
| Chloroethane, ug/l | 1.0U |
| Chloroform, ug/l | 1.0U |
| Chloromethane (Methyl Chloride), ug/l | 1.0U |
| Chloroprene, ug/l | 1.0U |
| 3-Chloropropene (Allylchloride), ug/l | 1.0U |
| Dibromochloromethane, ug/l | 1.0U |

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| LOG NO | SAMPLE DESCRIPTION , LIQUID SAMPLES | DATE/ TIME SAMPLED | SDG# |
|---|---|---|---|
| 07601A-13 | Trip Blank | 11-03-00 | SAV10 |

| PARAMETER | 07601A-13 |
|---|---|
| Pentachloroethane, ug/l | 5.0U |
| Propionitrile, ug/l | 20U |
| Styrene, ug/l | 1.0U |
| 1,1,1,2-Tetrachloroethane, ug/l | 1.0U |
| 1,1,2,2-Tetrachloroethane, ug/l | 1.0U |
| Tetrachloroethene, ug/l | 1.0U |
| Toluene, ug/l | 1.0U |
| 1,1,1-Trichloroethane, ug/l | 1.0U |
| 1,1,2-Trichloroethane, ug/l | 1.0U |
| Trichloroethene, ug/l | 1.0U |
| Trichlorofluoromethane, ug/l | 1.0U |
| 1,2,3-Trichloropropane, ug/l | 1.0U |
| Vinyl acetate, ug/l | 2.0U |
| Vinyl chloride, ug/l | 1.0U |
| Xylenes, Total, ug/l | 2.0U |
| Surrogate - Toluene-d8 | 100 % |
| Surrogate - 4-Bromofluorobenzene | 94 % |
| Surrogate - Dibromofluoromethane | 84 % |
| Dilution Factor | 1 |
| Analysis Date | 11.10.00 |
| Batch ID | 2A1109 |
| NIST Library Search (VOC-TIC) | * |

ALTA

# PCDD & PCDF
## EPA METHOD 8290

**Method Blank** | **Date Extracted:** 11/9/00 | **Lab ID:** MB001
**Matrix:** Solid | **Sample Amount:** 10 g | **QC Set:** 1,108
**TEQ (Min-Max):** 0 - 1.03 | **Units:** pg/g

| Compound | Conc. | DL [b] | EMPC[c] | MDL [d] | Qualifier |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 0.359 | | 0.0889 | |
| 1,2,3,7,8-PeCDD | ND | 0.479 | | 0.262 | |
| 1,2,3,4,7,8-HxCDD | ND | 0.486 | | 0.820 | |
| 1,2,3,6,7,8-HxCDD | ND | 0.533 | | 0.818 | |
| 1,2,3,7,8,9-HxCDD | ND | 0.478 | | 0.528 | |
| 1,2,3,4,6,7,8-HpCDD | ND | 0.876 | | 0.347 | |
| OCDD | ND | 1.17 | | 2.03 | |
| 2,3,7,8-TCDF | ND | 0.484 | | 0.0940 | |
| 1,2,3,7,8-PeCDF | ND | 0.215 | | 0.294 | |
| 2,3,4,7,8-PeCDF | ND | 0.216 | | 0.245 | |
| 1,2,3,4,7,8-HxCDF | ND | 0.210 | | 0.270 | |
| 1,2,3,6,7,8-HxCDF | ND | 0.197 | | 0.201 | |
| 2,3,4,6,7,8-HxCDF | ND | 0.252 | | 0.273 | |
| 1,2,3,7,8,9-HxCDF | ND | 0.330 | | 0.297 | |
| 1,2,3,4,6,7,8-HpCDF | ND | 0.437 | | 0.232 | |
| 1,2,3,4,7,8,9-HpCDF | ND | 0.580 | | 0.295 | |
| OCDF | ND | 0.918 | | 0.512 | |
| | | | | | |
| Total TCDD | ND | 0.359 | | | |
| Total PeCDD | ND | 0.479 | | | |
| Total HxCDD | ND | 0.499 | | | |
| Total HpCDD | ND | 0.876 | | | |
| Total TCDF | ND | 0.484 | | | |
| Total PeCDF | ND | 0.215 | | | |
| Total HxCDF | ND | 0.243 | | | |
| Total HpCDF | ND | 0.502 | | | |

# PCDD & PCDF
## EPA METHOD 8290

**Method Blank** **QC Set:** 1,108
**Lab ID:** MB001

| Internal Standards | %R | LCL-UCL[e] | Qualifier |
|---|---|---|---|
| 13C-2,3,7,8-TCDD | 52.3 | 40 - 135 | |
| 13C-1,2,3,7,8-PeCDD | 48.8 | 40 - 135 | |
| 13C-1,2,3,4,7,8-HxCDD | 54.6 | 40 - 135 | |
| 13C-1,2,3,6,7,8-HxCDD | 55.3 | 40 - 135 | |
| 13C-1,2,3,4,6,7,8-HpCDD | 55.8 | 40 - 135 | |
| 13C-OCDD | 68.1 | 40 - 135 | |
| 13C-2,3,7,8-TCDF | 54.6 | 40 - 135 | |
| 13C-1,2,3,7,8-PeCDF | 44.5 | 40 - 135 | |
| 13C-2,3,4,7,8-PeCDF | 46.7 | 40 - 135 | |
| 13C-1,2,3,4,7,8-HxCDF | 52.3 | 40 - 135 | |
| 13C-1,2,3,6,7,8-HxCDF | 64.4 | 40 - 135 | |
| 13C-2,3,4,6,7,8-HxCDF | 57.3 | 40 - 135 | |
| 13C-1,2,3,7,8,9-HxCDF | 61.7 | 40 - 135 | |
| 13C-1,2,3,4,6,7,8-HpCDF | 51.9 | 40 - 135 | |
| 13C-1,2,3,4,7,8,9-HpCDF | 56.0 | 40 - 135 | |
| 13C-OCDF | 73.3 | 40 - 135 | |
| **Clean-up Recovery Standard** | | | |
| 37Cl-2,3,7,8-TCDD | 46.3 | 40 - 135 | |

**Analysis Dates**
**DB-5:** 11/12/00

a. Toxic Equivalent Quotient (TEQ) based on USEPA Toxic Equivalent Factors.
b. Sample specific estimated detection limit.
c. Estimated maximum possible concentration
d. Method Detection Limit
e. Lower Control Limit - Upper Control Limit

ALTA

# PCDD & PCDF
## EPA METHOD 8290

**OPR RESULTS**
**Lab ID:** OPR001
**Matrix:** Solid

**Date Received:** NA
**Date Extracted:** 11/9/00
**Sample Amount:** 10 g

**QC Set:** 1,108
**Units:** ng/mL

| Compound | Spike Conc. | Conc. Found | OPR Limits |
|---|---|---|---|
| 2,3,7,8-TCDD | 10.0 | 8.21 | 7 - 13 |
| 1,2,3,7,8-PeCDD | 50.0 | 42.9 | 35 - 65 |
| 1,2,3,4,7,8-HxCDD | 50.0 | 42.9 | 35 - 65 |
| 1,2,3,6,7,8-HxCDD | 50.0 | 46.3 | 35 - 65 |
| 1,2,3,7,8,9-HxCDD | 50.0 | 44.3 | 35 - 65 |
| 1,2,3,4,6,7,8-HpCDD | 50.0 | 40.0 | 35 - 65 |
| OCDD | 100 | 90.8 | 70 - 130 |
| 2,3,7,8-TCDF | 10.0 | 9.19 | 7 - 13 |
| 1,2,3,7,8-PeCDF | 50.0 | 41.7 | 35 - 65 |
| 2,3,4,7,8-PeCDF | 50.0 | 43.2 | 35 - 65 |
| 1,2,3,4,7,8-HxCDF | 50.0 | 45.2 | 35 - 65 |
| 1,2,3,6,7,8-HxCDF | 50.0 | 42.2 | 35 - 65 |
| 2,3,4,6,7,8-HxCDF | 50.0 | 43.2 | 35 - 65 |
| 1,2,3,7,8,9-HxCDF | 50.0 | 44.2 | 35 - 65 |
| 1,2,3,4,6,7,8-HpCDF | 50.0 | 44.4 | 35 - 65 |
| 1,2,3,4,7,8,9-HpCDF | 50.0 | 46.8 | 35 - 65 |
| OCDF | 100 | 88.2 | 70 - 130 |

ALTA

# PCDD & PCDF
## EPA METHOD 8290

**OPR RESULTS** **QC Set:** 1,108
**Lab ID:** OPR001

| Internal Standards | Spike Conc. | %R | OPR Limits |
|---|---|---|---|
| 13C-2,3,7,8-TCDD | 100 | 77.4 | 40 - 135 |
| 13C-1,2,3,7,8-PeCDD | 100 | 64.2 | 40 - 135 |
| 13C-1,2,3,4,7,8-HxCDD | 100 | 75.3 | 40 - 135 |
| 13C-1,2,3,6,7,8-HxCDD | 100 | 68.9 | 40 - 135 |
| 13C-1,2,3,4,6,7,8-HpCDD | 100 | 68.1 | 40 - 135 |
| 13C-OCDD | 200 | 82.3 | 40 - 135 |
| 13C-2,3,7,8-TCDF | 100 | 65.9 | 40 - 135 |
| 13C-1,2,3,7,8-PeCDF | 100 | 55.3 | 40 - 135 |
| 13C-2,3,4,7,8-PeCDF | 100 | 56.7 | 40 - 135 |
| 13C-1,2,3,4,7,8-HxCDF | 100 | 64.1 | 40 - 135 |
| 13C-1,2,3,6,7,8-HxCDF | 100 | 81.2 | 40 - 135 |
| 13C-2,3,4,6,7,8-HxCDF | 100 | 72.4 | 40 - 135 |
| 13C-1,2,3,7,8,9-HxCDF | 100 | 78.0 | 40 - 135 |
| 13C-1,2,3,4,6,7,8-HpCDF | 100 | 64.3 | 40 - 135 |
| 13C-1,2,3,4,7,8,9-HpCDF | 100 | 70.8 | 40 - 135 |
| 13C-OCDF | 200 | 85.9 | 40 - 135 |

| Clean-up Recovery Standard | Spike Conc. | %R | OPR Limits |
|---|---|---|---|
| 37Cl-2,3,7,8-TCDD | 40.0 | 62.9 | 40 - 135 |

**Analysis Dates**
**DB-5:** 11/12/00

ALTA

# PCDD & PCDF
## EPA METHOD 8290

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID:** | SD-F2/F3/F4/F5 | | | **Lab ID:** | 9365-001 |
| **Project:** | TN000545.0007 | | | **QC Set:** | 1,108 |
| **Matrix:** | Sediment | **Date Received:** | 11/4/00 | **%Solids:** | 50.0 |
| **Sample Amount:** | 19.96 g | **Date Extracted:** | 11/9/00 | **Units:** | pg/g |

[a] **TEQ (Min-Max):** 43.5 - 44.4

| Compound | Conc. | DL [b] | EMPC [c] | MDL [d] | Qualifier |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 0.328 | | 0.0889 | |
| 1,2,3,7,8-PeCDD | 1.65 | | | 0.262 | A |
| 1,2,3,4,7,8-HxCDD | ND | 1.98 | | 0.820 | |
| 1,2,3,6,7,8-HxCDD | 27.0 | | | 0.818 | |
| 1,2,3,7,8,9-HxCDD | 83.9 | | | 0.528 | |
| 1,2,3,4,6,7,8-HpCDD | 917 | | | 0.347 | |
| OCDD | 21900 | | | 2.03 | |
| 2,3,7,8-TCDF | ND | 0.379 | | 0.0940 | |
| 1,2,3,7,8-PeCDF | ND | 0.267 | | 0.294 | |
| 2,3,4,7,8-PeCDF | 0.802 | | | 0.245 | A |
| 1,2,3,4,7,8-HxCDF | ND | 0.602 | | 0.270 | |
| 1,2,3,6,7,8-HxCDF | ND | 0.555 | | 0.201 | |
| 2,3,4,6,7,8-HxCDF | ND | 0.680 | | 0.273 | |
| 1,2,3,7,8,9-HxCDF | ND | 0.863 | | 0.297 | |
| 1,2,3,4,6,7,8-HpCDF | 10.2 | | | 0.232 | |
| 1,2,3,4,7,8,9-HpCDF | ND | 0.840 | | 0.295 | |
| OCDF | 28.1 | | | 0.512 | |
| | | | | | |
| Total TCDD | 42.1 | | 44.3 | | |
| Total PeCDD | 59.2 | | 85.5 | | |
| Total HxCDD | 534 | | | | |
| Total HpCDD | 1470 | | | | |
| Total TCDF | 3.70 | | | | |
| Total PeCDF | 11.0 | | 11.6 | | |
| Total HxCDF | 14.1 | | | | |
| Total HpCDF | 37.6 | | | | |

ALTA

# PCDD & PCDF
## EPA METHOD 8290

**Sample ID:** SD-F2/F3/F4/F5
**Lab ID:** 9365-001

| Internal Standards | %R | LCL-UCL[e] | Qualifier |
|---|---|---|---|
| 13C-2,3,7,8-TCDD | 53.4 | 40 - 135 | |
| 13C-1,2,3,7,8-PeCDD | 49.4 | 40 - 135 | |
| 13C-1,2,3,4,7,8-HxCDD | 58.7 | 40 - 135 | |
| 13C-1,2,3,6,7,8-HxCDD | 45.4 | 40 - 135 | |
| 13C-1,2,3,4,6,7,8-HpCDD | 53.2 | 40 - 135 | |
| 13C-OCDD | 78.4 | 40 - 135 | |
| 13C-2,3,7,8-TCDF | 50.7 | 40 - 135 | |
| 13C-1,2,3,7,8-PeCDF | 43.8 | 40 - 135 | |
| 13C-2,3,4,7,8-PeCDF | 44.7 | 40 - 135 | |
| 13C-1,2,3,4,7,8-HxCDF | 48.7 | 40 - 135 | |
| 13C-1,2,3,6,7,8-HxCDF | 54.5 | 40 - 135 | |
| 13C-2,3,4,6,7,8-HxCDF | 51.0 | 40 - 135 | |
| 13C-1,2,3,7,8,9-HxCDF | 55.8 | 40 - 135 | |
| 13C-1,2,3,4,6,7,8-HpCDF | 46.4 | 40 - 135 | |
| 13C-1,2,3,4,7,8,9-HpCDF | 50.3 | 40 - 135 | |
| 13C-OCDF | 73.1 | 40 - 135 | |
| **Clean-up Recovery Standard** | | | |
| 37Cl-2,3,7,8-TCDD | 45.9 | 40 - 135 | |

**Analysis Dates**

**DB-5:** 11/12/00 **DB-225:** NA

a. Toxic Equivalent Quotient (TEQ) based on USEPA Toxic Equivalent Factors.
b. Sample specific estimated detection limit.
c. Estimated maximum possible concentration
d. Method Detection Limit
e. Lower control limit - upper control limit

ALTA

# PCDD & PCDF
## EPA METHOD 8290

| | | | | | |
|---|---|---|---|---|---|
| **Sample ID:** | SD-F6/F7/F8 | | | **Lab ID:** | 9365-002 |
| **Project:** | TN000545.0007 | | | **QC Set:** | 1,108 |
| **Matrix:** | Sediment | **Date Received:** | 11/4/00 | **%Solids:** | 73.3 |
| **Sample Amount:** | 13.76 g | **Date Extracted:** | 11/9/00 | **Units:** | pg/g |
| [a] **TEQ (Min-Max):** | 162 - 163 | | | | |

| Compound | Conc. | DL [b] | EMPC [c] | MDL [d] | Qualifier |
|---|---|---|---|---|---|
| 2,3,7,8-TCDD | ND | 0.354 | | 0.0889 | |
| 1,2,3,7,8-PeCDD | 7.13 | | | 0.262 | |
| 1,2,3,4,7,8-HxCDD | 14.6 | | | 0.820 | |
| 1,2,3,6,7,8-HxCDD | 21.4 | | | 0.818 | |
| 1,2,3,7,8,9-HxCDD | 52.2 | | | 0.528 | |
| 1,2,3,4,6,7,8-HpCDD | 1380 | | | 0.347 | |
| OCDD | 136000 | | | 2.03 | * |
| 2,3,7,8-TCDF | ND | 0.438 | | 0.0940 | |
| 1,2,3,7,8-PeCDF | ND | 0.422 | | 0.294 | |
| 2,3,4,7,8-PeCDF | ND | 0.346 | | 0.245 | |
| 1,2,3,4,7,8-HxCDF | ND | 0.379 | | 0.270 | |
| 1,2,3,6,7,8-HxCDF | ND | 0.370 | | 0.201 | |
| 2,3,4,6,7,8-HxCDF | ND | 0.461 | | 0.273 | |
| 1,2,3,7,8,9-HxCDF | ND | 0.614 | | 0.297 | |
| 1,2,3,4,6,7,8-HpCDF | 3.18 | | | 0.232 | |
| 1,2,3,4,7,8,9-HpCDF | ND | 0.399 | | 0.295 | |
| OCDF | 6.96 | | | 0.512 | |
| | | | | | |
| Total TCDD | 41.6 | | 43.6 | | |
| Total PeCDD | 136 | | | | |
| Total HxCDD | 936 | | | | |
| Total HpCDD | 4190 | | | | |
| Total TCDF | 2.01 | | | | |
| Total PeCDF | 1.94 | | | | |
| Total HxCDF | 4.06 | | | | |
| Total HpCDF | 14.3 | | | | |

ALTA

# PCDD & PCDF
## EPA METHOD 8290

**Sample ID:** SD-F6/F7/F8
**Lab ID:** 9365-002

| Internal Standards | %R | LCL-UCL[e] | Qualifier |
|---|---|---|---|
| 13C-2,3,7,8-TCDD | 61.0 | 40 - 135 | |
| 13C-1,2,3,7,8-PeCDD | 52.3 | 40 - 135 | |
| 13C-1,2,3,4,7,8-HxCDD | 57.5 | 40 - 135 | |
| 13C-1,2,3,6,7,8-HxCDD | 57.0 | 40 - 135 | |
| 13C-1,2,3,4,6,7,8-HpCDD | 56.4 | 40 - 135 | |
| 13C-OCDD | 122 | 40 - 135 | * |
| 13C-2,3,7,8-TCDF | 57.3 | 40 - 135 | |
| 13C-1,2,3,7,8-PeCDF | 47.7 | 40 - 135 | |
| 13C-2,3,4,7,8-PeCDF | 60.2 | 40 - 135 | |
| 13C-1,2,3,4,7,8-HxCDF | 53.2 | 40 - 135 | |
| 13C-1,2,3,6,7,8-HxCDF | 59.0 | 40 - 135 | |
| 13C-2,3,4,6,7,8-HxCDF | 55.9 | 40 - 135 | |
| 13C-1,2,3,7,8,9-HxCDF | 60.0 | 40 - 135 | |
| 13C-1,2,3,4,6,7,8-HpCDF | 50.3 | 40 - 135 | |
| 13C-1,2,3,4,7,8,9-HpCDF | 56.3 | 40 - 135 | |
| 13C-OCDF | 80.9 | 40 - 135 | |
| **Clean-up Recovery Standard** | | | |
| 37Cl-2,3,7,8-TCDD | 57.0 | 40 - 135 | |

**Analysis Dates**

**DB-5:** 11/12/00 **DB-225:** NA

a. Toxic Equivalent Quotient (TEQ) based on USEPA Toxic Equivalent Factors.
b. Sample specific estimated detection limit.
c. Estimated maximum possible concentration
d. Method Detection Limit
e. Lower control limit - upper control limit

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-70633-1
Client Project/Site: Hercules Savannah - GW July 2011

For:
Ashland Inc.
Ashland Hercules Research Center
500 Hercules Rd Bldg 8139
Wilmington, Delaware 19808

Attn: Timothy Hassett

*Authorized for release by:*
*08/22/2011 05:28:38 PM*

Lidya Gulizia
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cc: Holly English

LINKS

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*Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Job ID: 680-70633-1

### Laboratory: TestAmerica Savannah

**Narrative**

**Job Narrative**
**680-70633-1**

**Receipt**
All samples were received in good condition within temperature requirements.

**GC/MS VOA**
Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS/LCSD associated with batch 210132 had 1 analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 210251 had 1 analyte outside control limits; therefore, re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS and LCSD associated with batch 210497 had 2 and 1 analytes outside control limits, repsectively; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: The following compound was outside control limits in the continuing calibration verification (CCV) associated with batch 210251: isobutyl alcohol. This compound is not classified as a Calibration Check Compound (CCC) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. There is insufficient holding time remaining for re-analysis; therefore, the data have been reported. The associated samples were non-detect for the affected analyte.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**
Method(s) 8270C LL: The following sample(s) was diluted due to abundance of target analytes : MW-F21 (072111) (680-70633-18). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: The following sample(s) was diluted due to the nature of the sample matrix : MW-F11 (071911) (680-70633-2), MW-F12 (071911) (680-70633-1 MS), MW-F12 (071911) (680-70633-1 MSD),DUP-02 (072111) (680-70633-19), MW-F12 (071911) (680-70633-1). As such, surrogate recoveries are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: The following sample(s) contained one acid and/or one base surrogate outside acceptance limits: MW-25 (072011) (680-70633-7), MWD-25 (072011) (680-70633-8). The laboratory's SOP allows one acid surrogate and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8270C LL: Internal standard (ISTD) response for the following sample(s) was outside control limits: MW-F14 (072111) (680-70633-17). The sample(s) was re-analyzed with concurring results. The original set of data has been reported.

Method(s) 8270C LL: Surrogate recovery for the following sample(s) was outside acceptance limits: MW-F1 (071911) (680-70633-11).

Method(s) 8270C LL: The method blank for batches 209662 and 209813 have bis(2-ethylhexyl) phthalate, a common lab contaminate, above the RL. The data has been qualified and reported.

Method(s) 8270C LL: The laboratory control sample (LCS) for batch 209662 exceeded control limits for the following analytes: Anthracene, 2,4,5 and 2,4,6 trichlorophenol, bis(2-ethylhexyl)phthalate, 4 chloro-3-methylphenol, 2 methylphenol, 2,4 dichlorophenol, 2,4 dinitrotoluene, dibenzofuran, and 3,4 methylphenol. Famphur and hexachlorophene, which are poor performers, also recovered outside of control limits. The data has been qualified and reported per pm instructions.

Method(s) 8270C LL: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 209813

## Job ID: 680-70633-1 (Continued)

### Laboratory: TestAmerica Savannah (Continued)

exceeded control limits for the following analytes: bis(2-ethylhexyl)phthalate, aramite, p-dimethylamino azobenzene, and dinoseb. P-phenylenediamine, hexachlorophene, methapyrilene, aa-dimethylphenethylamine, 3,3 dimethylbenzidine, which are poor performers, also recovered outside of control limits. The data have been qualifed and reported.

Method(s) 8270C LL: Matrix spikes for batch 209662 required sample dilution due to sample matrix interferences. Recoveries for all analytes could not be recovered.

Method(s) 8270C LL: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 209813 exceeded control limits.

No other analytical or quality issues were noted.

**HPLC**
No analytical or quality issues were noted.

**Comments**
No additional comments.

# Sample Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 680-70633-1 | MW-F12 (071911) | Water | 07/19/11 14:38 | 07/21/11 15:25 |
| 680-70633-2 | MW-F11 (071911) | Water | 07/19/11 17:20 | 07/21/11 15:25 |
| 680-70633-3 | MW-F6 (072011) | Water | 07/20/11 07:53 | 07/21/11 15:25 |
| 680-70633-4 | MW-F5 (072011) | Water | 07/20/11 09:13 | 07/21/11 15:25 |
| 680-70633-5 | MW-F3R (072011) | Water | 07/20/11 10:27 | 07/21/11 15:25 |
| 680-70633-6 | MW-F16 (072011) | Water | 07/20/11 13:12 | 07/21/11 15:25 |
| 680-70633-7 | MW-25 (072011) | Water | 07/20/11 14:38 | 07/21/11 15:25 |
| 680-70633-8 | MWD-25 (072011) | Water | 07/20/11 15:47 | 07/21/11 15:25 |
| 680-70633-9 | MW-F2 (071911) | Water | 07/19/11 16:45 | 07/21/11 15:25 |
| 680-70633-10 | MW-F19 (071911) | Water | 07/19/11 13:05 | 07/21/11 15:25 |
| 680-70633-11 | MW-F1 (071911) | Water | 07/19/11 15:25 | 07/21/11 15:25 |
| 680-70633-12 | TB01 (072011) | Water | 07/20/11 12:00 | 07/21/11 15:25 |
| 680-70633-13 | MW-24 (072011) | Water | 07/20/11 08:25 | 07/21/11 15:25 |
| 680-70633-14 | MWD-24 (072011) | Water | 07/20/11 09:40 | 07/21/11 15:25 |
| 680-70633-15 | MW-23 (072011) | Water | 07/20/11 17:00 | 07/21/11 15:25 |
| 680-70633-16 | MW-F13 (072111) | Water | 07/21/11 07:48 | 07/21/11 15:25 |
| 680-70633-17 | MW-F14 (072111) | Water | 07/21/11 09:17 | 07/21/11 15:25 |
| 680-70633-18 | MW-F21 (072111) | Water | 07/21/11 10:47 | 07/21/11 15:25 |
| 680-70633-19 | DUP-02 (072111) | Water | 07/21/11 12:00 | 07/21/11 15:25 |
| 680-70633-20 | MWD-23 (072011) | Water | 07/20/11 17:35 | 07/21/11 15:25 |
| 680-70633-21 | MW-F8 (072111) | Water | 07/21/11 08:20 | 07/21/11 15:25 |
| 680-70633-22 | MW-F9 (072111) | Water | 07/21/11 10:15 | 07/21/11 15:25 |
| 680-70633-23 | MW-22 (072111) | Water | 07/21/11 12:00 | 07/21/11 15:25 |
| 680-70633-24 | MWD-22 (072111) | Water | 07/21/11 13:25 | 07/21/11 15:25 |
| 680-70633-25 | MW-29 (072111) | Water | 07/21/11 12:57 | 07/21/11 15:25 |
| 680-70633-26 | MWD-29 (072111) | Water | 07/21/11 14:05 | 07/21/11 15:25 |

# Method Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL SAV |
| 8270C LL | Semivolatile Organic Compounds by GCMS - Low Levels | SW846 | TAL SAV |
| 8315A | Carbonyl Compounds (HPLC) | SW846 | TAL TAL |
| Asbestos | EPA 100.2 Asbestos in Drinking Water | NONE | EMSL |

**Protocol References:**

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAL = TestAmerica Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301, TEL (850)878-3994

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |
| * | LCS or LCSD exceeds the control limits |
| * | RPD of the LCS and LCSD exceeds the control limits |

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |
| * | LCS or LCSD exceeds the control limits |
| D | Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D. |
| B | Compound was found in the blank and sample. |
| F | MS or MSD exceeds the control limits |
| 4 | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |
| F | RPD of the MS and MSD exceeds the control limits |
| X | Surrogate is outside control limits |
| * | RPD of the LCS and LCSD exceeds the control limits |

### HPLC/IC

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| EDL | Estimated Detection Limit (Dioxin) |
| EPA | United States Environmental Protection Agency |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| ND | Not detected at the reporting limit (or method detection limit if shown) |
| PQL | Practical Quantitation Limit |
| RL | Reporting Limit |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

# Detection Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Client Sample ID: MW-F12 (071911) — Lab Sample ID: 680-70633-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 41 | * B | 20 | | ug/L | 10 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F11 (071911) — Lab Sample ID: 680-70633-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 46 | B * | 20 | | ug/L | 10 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F6 (072011) — Lab Sample ID: 680-70633-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 24 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F5 (072011) — Lab Sample ID: 680-70633-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 4.9 | | 0.19 | | ug/L | 1 | | 8270C LL | Total/NA |
| Bis(2-ethylhexyl) phthalate | 22 | B * | 1.9 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F3R (072011) — Lab Sample ID: 680-70633-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.43 | | 0.19 | | ug/L | 1 | | 8270C LL | Total/NA |
| Bis(2-ethylhexyl) phthalate | 2.5 | B * | 1.9 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F16 (072011) — Lab Sample ID: 680-70633-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 23 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-25 (072011) — Lab Sample ID: 680-70633-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 20 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MWD-25 (072011) — Lab Sample ID: 680-70633-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 18 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F2 (071911) — Lab Sample ID: 680-70633-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 18 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F19 (071911) — Lab Sample ID: 680-70633-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 19 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F1 (071911) — Lab Sample ID: 680-70633-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 22 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

# Detection Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Client Sample ID: TB01 (072011) — Lab Sample ID: 680-70633-12

No Detections

## Client Sample ID: MW-24 (072011) — Lab Sample ID: 680-70633-13

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 30 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MWD-24 (072011) — Lab Sample ID: 680-70633-14

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 28 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-23 (072011) — Lab Sample ID: 680-70633-15

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 25 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F13 (072111) — Lab Sample ID: 680-70633-16

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 16 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F14 (072111) — Lab Sample ID: 680-70633-17

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 3.1 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |
| Bis(2-ethylhexyl) phthalate | 16 | B * | 1.9 | | ug/L | 1 | | 8270C LL | Total/NA |
| 1,4-Dioxane | 18 | | 1.9 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F21 (072111) — Lab Sample ID: 680-70633-18

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 14 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |
| 2-Methylnaphthalene | 15 | | 9.6 | | ug/L | 50 | | 8270C LL | Total/NA |
| Naphthalene | 430 | | 9.6 | | ug/L | 50 | | 8270C LL | Total/NA |

## Client Sample ID: DUP-02 (072111) — Lab Sample ID: 680-70633-19

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 16 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |
| Xylenes, Total | 2.2 | | 2.0 | | ug/L | 1 | | 8260B | Total/NA |
| Acenaphthene | 6.2 | | 1.9 | | ug/L | 10 | | 8270C LL | Total/NA |
| 1,4-Dioxane | 21 | | 19 | | ug/L | 10 | | 8270C LL | Total/NA |
| 2-Methylnaphthalene | 23 | | 1.9 | | ug/L | 10 | | 8270C LL | Total/NA |
| Naphthalene | 400 | | 1.9 | | ug/L | 10 | | 8270C LL | Total/NA |

## Client Sample ID: MWD-23 (072011) — Lab Sample ID: 680-70633-20

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 19 | B * | 1.9 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-F8 (072111) — Lab Sample ID: 680-70633-21

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 20 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

# Detection Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Client Sample ID: MW-F9 (072111) — Lab Sample ID: 680-70633-22

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 3.8 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-22 (072111) — Lab Sample ID: 680-70633-23

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 3.4 | * B | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MWD-22 (072111) — Lab Sample ID: 680-70633-24

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 4.3 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-29 (072111) — Lab Sample ID: 680-70633-25

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | 1.1 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |
| Bis(2-ethylhexyl) phthalate | 3.7 | B * | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MWD-29 (072111) — Lab Sample ID: 680-70633-26

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Bis(2-ethylhexyl) phthalate | 2.7 | * B | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |
| Naphthalene | 0.22 | | 0.20 | | ug/L | 1 | | 8270C LL | Total/NA |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F12 (071911)**
**Date Collected: 07/19/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-1**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 00:56 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 00:56 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 00:56 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 00:56 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 00:56 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 00:56 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 00:56 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 00:56 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 00:56 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 00:56 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 00:56 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |

**Client Sample ID: MW-F12 (071911)**
**Date Collected: 07/19/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-1**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 00:56 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 00:56 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *91* | | *70 - 130* | | *07/24/11 00:56* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/24/11 00:56* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 00:56* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Acenaphthylene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Acetophenone | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Acetylaminofluorene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| alpha,alpha-Dimethyl phenethylamine | 100 | U | 100 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Aminobiphenyl | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Aniline | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Anthracene | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Aramite, Total | 15 | U | 15 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Benzo[a]anthracene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Benzo[a]pyrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Benzo[b]fluoranthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Benzo[g,h,i]perylene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Benzo[k]fluoranthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Benzyl alcohol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Bis(2-chloroethoxy)methane | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Bis(2-chloroethyl)ether | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| bis (2-chloroisopropyl) ether | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| **Bis(2-ethylhexyl) phthalate** | **41** | *** B** | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Bromophenyl phenyl ether | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Butyl benzyl phthalate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Chloroaniline | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Chloro-3-methylphenol | 10 | U * | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Chloronaphthalene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Chlorophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Chlorophenyl phenyl ether | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Chrysene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Diallate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Dibenz(a,h)anthracene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Dibenzofuran | 10 | U * | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,4-Dichlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F12 (071911)**
**Date Collected: 07/19/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-1**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,2-Dichlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 3,3'-Dichlorobenzidine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,4-Dichlorophenol | 10 | U * | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,6-Dichlorophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Diethyl phthalate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Dimethoate | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 7,12-Dimethylbenz(a)anthracene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 3,3'-Dimethylbenzidine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,4-Dimethylphenol | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Dimethyl phthalate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Di-n-butyl phthalate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,3-Dinitrobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4,6-Dinitro-2-methylphenol | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,4-Dinitrophenol | 100 | U | 100 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,4-Dinitrotoluene | 10 | U * | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,6-Dinitrotoluene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Di-n-octyl phthalate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Dinoseb | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,4-Dioxane | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Disulfoton | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Ethyl methanesulfonate | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Ethyl Parathion | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Famphur | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Fluoranthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Fluorene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Hexachlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Hexachlorobutadiene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Hexachlorocyclopentadiene | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Hexachloroethane | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Hexachlorophene | 5000 | U | 5000 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Hexachloropropene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Indeno[1,2,3-cd]pyrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Isophorone | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Isosafrole | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Methapyrilene | 2000 | U | 2000 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 3-Methylcholanthrene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Methyl methanesulfonate | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Methylnaphthalene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Methyl parathion | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Methylphenol | 20 | U * | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 3 & 4 Methylphenol | 20 | U * | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Naphthalene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,4-Naphthoquinone | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1-Naphthylamine | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Naphthylamine | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Nitroaniline | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Nitroaniline | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 3-Nitroaniline | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Nitrobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |

**Client Sample ID: MW-F12 (071911)**
**Date Collected: 07/19/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-1**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Nitrophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 4-Nitroquinoline-1-oxide | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitro-o-toluidine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosodiethylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosodimethylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosodi-n-butylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosodi-n-propylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosodiphenylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosomethylethylamine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosomorpholine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosopiperidine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| N-Nitrosopyrrolidine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| o,o',o''-Triethylphosphorothioate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| p-Dimethylamino azobenzene | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Pentachlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Pentachloronitrobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Pentachlorophenol | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Phenacetin | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Phenanthrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Phenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Phorate | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Picoline | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| p-Phenylene diamine | 2000 | U | 2000 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Pronamide | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Pyrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Pyridine | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Safrole, Total | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Sulfotepp | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| Thionazin | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2-Toluidine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,2,4-Trichlorobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,4,6-Trichlorophenol | 10 | U * | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 2,4,5-Trichlorophenol | 10 | U * | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |
| 1,3,5-Trinitrobenzene | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 20:06 | 10 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *0* | *D* | *27 - 130* | *07/22/11 15:26* | *08/08/11 20:06* | *10* |
| *Nitrobenzene-d5 (Surr)* | *0* | *D* | *32 - 130* | *07/22/11 15:26* | *08/08/11 20:06* | *10* |
| *Terphenyl-d14 (Surr)* | *0* | *D* | *36 - 130* | *07/22/11 15:26* | *08/08/11 20:06* | *10* |
| *2,4,6-Tribromophenol (Surr)* | *0* | *D* | *30 - 130* | *07/22/11 15:26* | *08/08/11 20:06* | *10* |
| *2-Fluorophenol (Surr)* | *0* | *D* | *25 - 130* | *07/22/11 15:26* | *08/08/11 20:06* | *10* |
| *2-Fluorobiphenyl* | *0* | *D* | *34 - 130* | *07/22/11 15:26* | *08/08/11 20:06* | *10* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F11 (071911)**
**Date Collected: 07/19/11 17:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-2**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 01:17 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 01:17 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 01:17 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:17 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:17 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 01:17 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:17 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 01:17 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:17 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:17 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:17 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |

**Client Sample ID: MW-F11 (071911)**
**Date Collected: 07/19/11 17:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-2**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:17 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:17 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *91* | | *70 - 130* | | *07/24/11 01:17* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/24/11 01:17* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 01:17* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Acenaphthylene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Acetophenone | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Acetylaminofluorene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| alpha,alpha-Dimethyl phenethylamine | 99 | U | 99 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Aminobiphenyl | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Aniline | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Anthracene | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Aramite, Total | 15 | U | 15 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Benzo[a]anthracene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Benzo[a]pyrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Benzo[b]fluoranthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Benzo[g,h,i]perylene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Benzo[k]fluoranthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Benzyl alcohol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Bis(2-chloroethoxy)methane | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Bis(2-chloroethyl)ether | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| bis (2-chloroisopropyl) ether | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| **Bis(2-ethylhexyl) phthalate** | **46** | **B *** | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Bromophenyl phenyl ether | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Butyl benzyl phthalate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Chloroaniline | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Chloro-3-methylphenol | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Chloronaphthalene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Chlorophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Chlorophenyl phenyl ether | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Chrysene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Diallate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Dibenz(a,h)anthracene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Dibenzofuran | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,4-Dichlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F11 (071911)**
**Date Collected: 07/19/11 17:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-2**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,2-Dichlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 3,3'-Dichlorobenzidine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,4-Dichlorophenol | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,6-Dichlorophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Diethyl phthalate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Dimethoate | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 7,12-Dimethylbenz(a)anthracene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 3,3'-Dimethylbenzidine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,4-Dimethylphenol | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Dimethyl phthalate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Di-n-butyl phthalate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,3-Dinitrobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4,6-Dinitro-2-methylphenol | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,4-Dinitrophenol | 99 | U | 99 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,4-Dinitrotoluene | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,6-Dinitrotoluene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Di-n-octyl phthalate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Dinoseb | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,4-Dioxane | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Disulfoton | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Ethyl methanesulfonate | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Ethyl Parathion | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Famphur | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Fluoranthene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Fluorene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Hexachlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Hexachlorobutadiene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Hexachlorocyclopentadiene | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Hexachloroethane | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Hexachlorophene | 5000 | U * | 5000 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Hexachloropropene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Indeno[1,2,3-cd]pyrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Isophorone | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Isosafrole | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Methapyrilene | 2000 | U | 2000 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 3-Methylcholanthrene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Methyl methanesulfonate | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Methylnaphthalene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Methyl parathion | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Methylphenol | 20 | U * | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 3 & 4 Methylphenol | 20 | U * | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Naphthalene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,4-Naphthoquinone | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1-Naphthylamine | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Naphthylamine | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Nitroaniline | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Nitroaniline | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 3-Nitroaniline | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Nitrobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |

**Client Sample ID: MW-F11 (071911)**
**Date Collected: 07/19/11 17:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-2**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Nitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 4-Nitroquinoline-1-oxide | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitro-o-toluidine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosodiethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosodimethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosodi-n-butylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosodi-n-propylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosodiphenylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosomethylethylamine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosomorpholine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosopiperidine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| N-Nitrosopyrrolidine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| o,o',o''-Triethylphosphorothioate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| p-Dimethylamino azobenzene | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Pentachlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Pentachloronitrobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Pentachlorophenol | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Phenacetin | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Phenanthrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Phenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Phorate | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Picoline | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| p-Phenylene diamine | 2000 | U | 2000 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Pronamide | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Pyrene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Pyridine | 50 | U | 50 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Safrole, Total | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Sulfotepp | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,3,4,6-Tetrachlorophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| Thionazin | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2-Toluidine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,2,4-Trichlorobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,4,6-Trichlorophenol | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 2,4,5-Trichlorophenol | 9.9 | U * | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |
| 1,3,5-Trinitrobenzene | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 17:07 | 10 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *0* | *D* | *27 - 130* | *07/22/11 15:26* | *08/09/11 17:07* | *10* |
| *Nitrobenzene-d5 (Surr)* | *0* | *D* | *32 - 130* | *07/22/11 15:26* | *08/09/11 17:07* | *10* |
| *Terphenyl-d14 (Surr)* | *0* | *D* | *36 - 130* | *07/22/11 15:26* | *08/09/11 17:07* | *10* |
| *2,4,6-Tribromophenol (Surr)* | *0* | *D* | *30 - 130* | *07/22/11 15:26* | *08/09/11 17:07* | *10* |
| *2-Fluorophenol (Surr)* | *0* | *D* | *25 - 130* | *07/22/11 15:26* | *08/09/11 17:07* | *10* |
| *2-Fluorobiphenyl* | *0* | *D* | *34 - 130* | *07/22/11 15:26* | *08/09/11 17:07* | *10* |

**Client Sample ID: MW-F6 (072011)**
**Date Collected: 07/20/11 07:53**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-3**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 04:45 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 04:45 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 04:45 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:45 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:45 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 04:45 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:45 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 04:45 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:45 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:45 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:45 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |

**Client Sample ID: MW-F6 (072011)**
**Date Collected: 07/20/11 07:53**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-3**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:45 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:45 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *88* | | *70 - 130* | | *07/24/11 04:45* | *1* |
| *Dibromofluoromethane* | *96* | | *70 - 130* | | *07/24/11 04:45* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *70 - 130* | | *07/24/11 04:45* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **24** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Dibenzofuran | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F6 (072011)**
**Date Collected: 07/20/11 07:53**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-3**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,4-Dichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |

**Client Sample ID: MW-F6 (072011)**
**Date Collected: 07/20/11 07:53**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-3**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:24 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *40* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 17:24* | *1* |
| *Nitrobenzene-d5 (Surr)* | *47* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 17:24* | *1* |
| *Terphenyl-d14 (Surr)* | *61* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 17:24* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *58* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 17:24* | *1* |
| *2-Fluorophenol (Surr)* | *42* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 17:24* | *1* |
| *2-Fluorobiphenyl* | *44* | | *34 - 130* | *07/22/11 15:26* | *08/03/11 17:24* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F5 (072011)**
**Date Collected: 07/20/11 09:13**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-4**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 02:40 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 02:40 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 02:40 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 02:40 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 02:40 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 02:40 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 02:40 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 02:40 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 02:40 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 02:40 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 02:40 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |

**Client Sample ID: MW-F5 (072011)**
**Date Collected: 07/20/11 09:13**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-4**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:40 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:40 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *89* | | *70 - 130* | | *07/24/11 02:40* | *1* |
| *Dibromofluoromethane* | *99* | | *70 - 130* | | *07/24/11 02:40* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 02:40* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **4.9** | | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Acetophenone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Acetylaminofluorene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.7 | U | 9.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Aminobiphenyl | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Anthracene | 0.19 | U * | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Benzyl alcohol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Bis(2-chloroethoxy)methane | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Bis(2-chloroethyl)ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| bis (2-chloroisopropyl) ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **22** | **B *** | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Bromophenyl phenyl ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Butyl benzyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Chloro-3-methylphenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Chloronaphthalene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Chlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Chlorophenyl phenyl ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Diallate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Dibenzofuran | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,4-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |

**Client Sample ID: MW-F5 (072011)**
**Date Collected: 07/20/11 09:13**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-4**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,2-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,4-Dichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,6-Dichlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Diethyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Dimethyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Di-n-butyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,3-Dinitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,4-Dinitrophenol | 9.7 | U | 9.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,4-Dinitrotoluene | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,6-Dinitrotoluene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Di-n-octyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,4-Dioxane | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Disulfoton | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Famphur | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Hexachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Hexachlorobutadiene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Hexachloroethane | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Hexachlorophene | 480 | U * | 480 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Hexachloropropene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Isophorone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Isosafrole | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 3-Methylcholanthrene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Methyl parathion | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 3 & 4 Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,4-Naphthoquinone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Nitroaniline | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 3-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Nitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |

**Client Sample ID: MW-F5 (072011)**
**Date Collected: 07/20/11 09:13**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-4**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Nitrophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitro-o-toluidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosodiethylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosodimethylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosodi-n-butylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosodi-n-propylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosodiphenylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosomorpholine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosopiperidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| N-Nitrosopyrrolidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| p-Dimethylamino azobenzene | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Pentachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Pentachloronitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Pentachlorophenol | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Phenacetin | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Phenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Phorate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Pronamide | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Pyridine | 4.8 | U | 4.8 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Safrole, Total | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Sulfotepp | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| Thionazin | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2-Toluidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,2,4-Trichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,4,6-Trichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 2,4,5-Trichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |
| 1,3,5-Trinitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/03/11 17:50 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *40* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 17:50* | *1* |
| *Nitrobenzene-d5 (Surr)* | *45* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 17:50* | *1* |
| *Terphenyl-d14 (Surr)* | *56* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 17:50* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *57* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 17:50* | *1* |
| *2-Fluorophenol (Surr)* | *41* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 17:50* | *1* |
| *2-Fluorobiphenyl* | *41* | | *34 - 130* | *07/22/11 15:26* | *08/03/11 17:50* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F3R (072011)**
**Date Collected: 07/20/11 10:27**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-5**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 05:06 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 05:06 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 05:06 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:06 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:06 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 05:06 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:06 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 05:06 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:06 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:06 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:06 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |

**Client Sample ID: MW-F3R (072011)**
**Date Collected: 07/20/11 10:27**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-5**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:06 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:06 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *90* | | *70 - 130* | | *07/24/11 05:06* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/24/11 05:06* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *70 - 130* | | *07/24/11 05:06* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **0.43** | | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Acetophenone | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Acetylaminofluorene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Aminobiphenyl | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Anthracene | 0.19 | U * | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Aramite, Total | 1.4 | U | 1.4 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Benzyl alcohol | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Bis(2-chloroethoxy)methane | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Bis(2-chloroethyl)ether | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| bis (2-chloroisopropyl) ether | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **2.5** | **B *** | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Bromophenyl phenyl ether | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Butyl benzyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Chloro-3-methylphenol | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Chloronaphthalene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Chlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Chlorophenyl phenyl ether | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Diallate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Dibenzofuran | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,4-Dichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F3R (072011)**
**Date Collected: 07/20/11 10:27**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-5**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,2-Dichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,4-Dichlorophenol | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,6-Dichlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Diethyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Dimethyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Di-n-butyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,3-Dinitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,4-Dinitrophenol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,4-Dinitrotoluene | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,6-Dinitrotoluene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Di-n-octyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,4-Dioxane | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Disulfoton | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Famphur | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Hexachlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Hexachlorobutadiene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Hexachloroethane | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Hexachlorophene | 470 | U * | 470 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Hexachloropropene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Isophorone | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Isosafrole | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 3-Methylcholanthrene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Methyl parathion | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 3 & 4 Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,4-Naphthoquinone | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1-Naphthylamine | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Naphthylamine | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Nitroaniline | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Nitroaniline | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 3-Nitroaniline | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Nitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |

**Client Sample ID: MW-F3R (072011)**
**Date Collected: 07/20/11 10:27**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-5**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Nitrophenol | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitro-o-toluidine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosodiethylamine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosodimethylamine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosodi-n-butylamine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosodi-n-propylamine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosodiphenylamine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosomorpholine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosopiperidine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| N-Nitrosopyrrolidine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| p-Dimethylamino azobenzene | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Pentachlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Pentachloronitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Pentachlorophenol | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Phenacetin | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Phenol | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Phorate | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Pronamide | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Pyridine | 4.7 | U | 4.7 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Safrole, Total | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Sulfotepp | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| Thionazin | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2-Toluidine | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,2,4-Trichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,4,6-Trichlorophenol | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 2,4,5-Trichlorophenol | 0.95 | U * | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |
| 1,3,5-Trinitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:16 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *45* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 18:16* | *1* |
| *Nitrobenzene-d5 (Surr)* | *47* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 18:16* | *1* |
| *Terphenyl-d14 (Surr)* | *61* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 18:16* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *65* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 18:16* | *1* |
| *2-Fluorophenol (Surr)* | *43* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 18:16* | *1* |
| *2-Fluorobiphenyl* | *44* | | *34 - 130* | *07/22/11 15:26* | *08/03/11 18:16* | *1* |

**Client Sample ID: MW-F16 (072011)**
**Date Collected: 07/20/11 13:12**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-6**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 03:01 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 03:01 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 03:01 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:01 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:01 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 03:01 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:01 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 03:01 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:01 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:01 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:01 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |

**Client Sample ID: MW-F16 (072011)**
**Date Collected: 07/20/11 13:12**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-6**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:01 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:01 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *91* | | *70 - 130* | | *07/24/11 03:01* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/24/11 03:01* | *1* |
| *Toluene-d8 (Surr)* | *110* | | *70 - 130* | | *07/24/11 03:01* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **23** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |

**Client Sample ID: MW-F16 (072011)**
**Date Collected: 07/20/11 13:12**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-6**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F16 (072011)**
**Date Collected: 07/20/11 13:12**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-6**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 18:42 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *42* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 18:42* | *1* |
| *Nitrobenzene-d5 (Surr)* | *49* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 18:42* | *1* |
| *Terphenyl-d14 (Surr)* | *60* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 18:42* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *59* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 18:42* | *1* |
| *2-Fluorophenol (Surr)* | *46* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 18:42* | *1* |
| *2-Fluorobiphenyl* | *42* | | *34 - 130* | *07/22/11 15:26* | *08/03/11 18:42* | *1* |

**Client Sample ID: MW-25 (072011)**
**Date Collected: 07/20/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-7**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 05:27 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 05:27 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 05:27 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:27 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:27 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 05:27 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:27 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 05:27 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:27 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:27 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:27 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |

**Client Sample ID: MW-25 (072011)**
**Date Collected: 07/20/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-7**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:27 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:27 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *89* | | *70 - 130* | | *07/24/11 05:27* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/24/11 05:27* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 05:27* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **20** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Dibenzofuran | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-25 (072011)**
**Date Collected: 07/20/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-7**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,4-Dichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |

**Client Sample ID: MW-25 (072011)**
**Date Collected: 07/20/11 14:38**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-7**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:07 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *33* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 19:07* | *1* |
| *Nitrobenzene-d5 (Surr)* | *39* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 19:07* | *1* |
| *Terphenyl-d14 (Surr)* | *56* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 19:07* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *51* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 19:07* | *1* |
| *2-Fluorophenol (Surr)* | *35* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 19:07* | *1* |
| *2-Fluorobiphenyl* | *32* | *X* | *34 - 130* | *07/22/11 15:26* | *08/03/11 19:07* | *1* |

**Client Sample ID: MWD-25 (072011)**
**Date Collected: 07/20/11 15:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-8**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 05:48 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 05:48 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 05:48 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:48 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:48 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 05:48 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:48 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 05:48 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:48 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 05:48 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 05:48 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |

**Client Sample ID: MWD-25 (072011)**
**Date Collected: 07/20/11 15:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-8**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 05:48 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 05:48 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *91* | | *70 - 130* | | *07/24/11 05:48* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/24/11 05:48* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *70 - 130* | | *07/24/11 05:48* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **18** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-25 (072011)**
**Date Collected: 07/20/11 15:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-8**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-25 (072011)**
**Date Collected: 07/20/11 15:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-8**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:33 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *33* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 19:33* | *1* |
| *Nitrobenzene-d5 (Surr)* | *35* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 19:33* | *1* |
| *Terphenyl-d14 (Surr)* | *53* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 19:33* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *46* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 19:33* | *1* |
| *2-Fluorophenol (Surr)* | *33* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 19:33* | *1* |
| *2-Fluorobiphenyl* | *31* | *X* | *34 - 130* | *07/22/11 15:26* | *08/03/11 19:33* | *1* |

**Client Sample ID: MW-F2 (071911)**
**Date Collected: 07/19/11 16:45**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-9**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 01:38 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 01:38 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 01:38 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:38 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:38 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 01:38 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:38 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 01:38 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:38 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:38 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:38 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |

**Client Sample ID: MW-F2 (071911)**
**Date Collected: 07/19/11 16:45**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-9**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:38 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:38 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *90* | | *70 - 130* | | *07/24/11 01:38* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/24/11 01:38* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *70 - 130* | | *07/24/11 01:38* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **18** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F2 (071911)**
**Date Collected: 07/19/11 16:45**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-9**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F2 (071911)**
**Date Collected: 07/19/11 16:45**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-9**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/03/11 19:59 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *41* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 19:59* | *1* |
| *Nitrobenzene-d5 (Surr)* | *44* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 19:59* | *1* |
| *Terphenyl-d14 (Surr)* | *58* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 19:59* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *60* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 19:59* | *1* |
| *2-Fluorophenol (Surr)* | *39* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 19:59* | *1* |
| *2-Fluorobiphenyl* | *39* | | *34 - 130* | *07/22/11 15:26* | *08/03/11 19:59* | *1* |

**Client Sample ID: MW-F19 (071911)**
**Date Collected: 07/19/11 13:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-10**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 01:59 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 01:59 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 01:59 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:59 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:59 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 01:59 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:59 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 01:59 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:59 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 01:59 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 01:59 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |

**Client Sample ID: MW-F19 (071911)**
**Date Collected: 07/19/11 13:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-10**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 01:59 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 01:59 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *90* | | *70 - 130* | | *07/24/11 01:59* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/24/11 01:59* | *1* |
| *Toluene-d8 (Surr)* | *108* | | *70 - 130* | | *07/24/11 01:59* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Acetophenone | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Acetylaminofluorene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.8 | U | 9.8 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Benzyl alcohol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Bis(2-chloroethoxy)methane | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Bis(2-chloroethyl)ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| bis (2-chloroisopropyl) ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **19** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Bromophenyl phenyl ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Butyl benzyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Chloro-3-methylphenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Chloronaphthalene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Chlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Chlorophenyl phenyl ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Diallate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Dibenzofuran | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,4-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F19 (071911)**
**Date Collected: 07/19/11 13:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-10**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,2-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,4-Dichlorophenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,6-Dichlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Diethyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Dimethyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Di-n-butyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,3-Dinitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,4-Dinitrophenol | 9.8 | U | 9.8 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,4-Dinitrotoluene | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,6-Dinitrotoluene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Di-n-octyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Disulfoton | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Famphur | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Hexachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Hexachlorobutadiene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Hexachloroethane | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Hexachloropropene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Isophorone | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Isosafrole | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 3-Methylcholanthrene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Methyl parathion | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,4-Naphthoquinone | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Nitroaniline | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Nitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F19 (071911)**
**Date Collected: 07/19/11 13:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-10**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Nitrophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitro-o-toluidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosodiethylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosodimethylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosodi-n-butylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosodi-n-propylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosodiphenylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosomorpholine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosopiperidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| N-Nitrosopyrrolidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Pentachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Pentachloronitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Phenacetin | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Phenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Phorate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Pronamide | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Safrole, Total | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Sulfotepp | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| Thionazin | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2-Toluidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,2,4-Trichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,4,6-Trichlorophenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 2,4,5-Trichlorophenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |
| 1,3,5-Trinitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/09/11 16:38 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *44* | | *27 - 130* | *07/22/11 15:26* | *08/09/11 16:38* | *1* |
| *Nitrobenzene-d5 (Surr)* | *47* | | *32 - 130* | *07/22/11 15:26* | *08/09/11 16:38* | *1* |
| *Terphenyl-d14 (Surr)* | *54* | | *36 - 130* | *07/22/11 15:26* | *08/09/11 16:38* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *53* | | *30 - 130* | *07/22/11 15:26* | *08/09/11 16:38* | *1* |
| *2-Fluorophenol (Surr)* | *47* | | *25 - 130* | *07/22/11 15:26* | *08/09/11 16:38* | *1* |
| *2-Fluorobiphenyl* | *45* | | *34 - 130* | *07/22/11 15:26* | *08/09/11 16:38* | *1* |

**Client Sample ID: MW-F1 (071911)**
**Date Collected: 07/19/11 15:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-11**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 02:20 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 02:20 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 02:20 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 02:20 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 02:20 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 02:20 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 02:20 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 02:20 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 02:20 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 02:20 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 02:20 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |

**Client Sample ID: MW-F1 (071911)**
**Date Collected: 07/19/11 15:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-11**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 02:20 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 02:20 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *88* | | *70 - 130* | | *07/24/11 02:20* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/24/11 02:20* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 02:20* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **22** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F1 (071911)**
**Date Collected: 07/19/11 15:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-11**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F1 (071911)**
**Date Collected: 07/19/11 15:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-11**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 15:43 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *30* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 15:43* | *1* |
| *Nitrobenzene-d5 (Surr)* | *31* | *X* | *32 - 130* | *07/22/11 15:26* | *08/08/11 15:43* | *1* |
| *Terphenyl-d14 (Surr)* | *37* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 15:43* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *33* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 15:43* | *1* |
| *2-Fluorophenol (Surr)* | *30* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 15:43* | *1* |
| *2-Fluorobiphenyl* | *29* | *X* | *34 - 130* | *07/22/11 15:26* | *08/08/11 15:43* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: TB01 (072011)**
**Date Collected: 07/20/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-12**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 03:22 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 03:22 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 03:22 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:22 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:22 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 03:22 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:22 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 03:22 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:22 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:22 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:22 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: TB01 (072011)**
**Date Collected: 07/20/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-12**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:22 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:22 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *89* | | *70 - 130* | | *07/24/11 03:22* | *1* |
| *Dibromofluoromethane* | *99* | | *70 - 130* | | *07/24/11 03:22* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 03:22* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-24 (072011)**
**Date Collected: 07/20/11 08:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-13**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 14:03 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 14:03 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 14:03 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:03 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:03 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 14:03 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:03 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 14:03 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:03 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:03 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:03 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |

**Client Sample ID: MW-24 (072011)**
**Date Collected: 07/20/11 08:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-13**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U * | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:03 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:03 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *70 - 130* | | *07/26/11 14:03* | *1* |
| *Dibromofluoromethane* | *111* | | *70 - 130* | | *07/26/11 14:03* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/26/11 14:03* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **30** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-24 (072011)**
**Date Collected: 07/20/11 08:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-13**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-24 (072011)**
**Date Collected: 07/20/11 08:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-13**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:10 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *43* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 16:10* | *1* |
| *Nitrobenzene-d5 (Surr)* | *49* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 16:10* | *1* |
| *Terphenyl-d14 (Surr)* | *49* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 16:10* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *45* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 16:10* | *1* |
| *2-Fluorophenol (Surr)* | *45* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 16:10* | *1* |
| *2-Fluorobiphenyl* | *42* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 16:10* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-24 (072011)**
**Date Collected: 07/20/11 09:40**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-14**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/27/11 17:17 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/27/11 17:17 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/27/11 17:17 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/27/11 17:17 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/27/11 17:17 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/27/11 17:17 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/27/11 17:17 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/27/11 17:17 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/27/11 17:17 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/27/11 17:17 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/27/11 17:17 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |

**Client Sample ID: MWD-24 (072011)**
**Date Collected: 07/20/11 09:40**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-14**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 17:17 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 17:17 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *70 - 130* | | *07/27/11 17:17* | *1* |
| *Dibromofluoromethane* | *103* | | *70 - 130* | | *07/27/11 17:17* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/27/11 17:17* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **28** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Dibenzofuran | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-24 (072011)**
**Date Collected: 07/20/11 09:40**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-14**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,4-Dichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |

**Client Sample ID: MWD-24 (072011)**
**Date Collected: 07/20/11 09:40**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-14**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U * | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 16:36 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *45* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 16:36* | *1* |
| *Nitrobenzene-d5 (Surr)* | *47* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 16:36* | *1* |
| *Terphenyl-d14 (Surr)* | *52* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 16:36* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *49* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 16:36* | *1* |
| *2-Fluorophenol (Surr)* | *47* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 16:36* | *1* |
| *2-Fluorobiphenyl* | *42* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 16:36* | *1* |

**Client Sample ID: MW-23 (072011)**
**Date Collected: 07/20/11 17:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-15**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 14:49 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 14:49 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 14:49 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:49 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:49 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 14:49 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:49 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 14:49 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:49 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:49 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:49 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |

**Client Sample ID: MW-23 (072011)**
**Date Collected: 07/20/11 17:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-15**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U * | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:49 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:49 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *70 - 130* | | *07/26/11 14:49* | *1* |
| *Dibromofluoromethane* | *113* | | *70 - 130* | | *07/26/11 14:49* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *70 - 130* | | *07/26/11 14:49* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **25** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-23 (072011)**
**Date Collected: 07/20/11 17:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-15**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-23 (072011)**
**Date Collected: 07/20/11 17:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-15**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:02 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *47* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 17:02* | *1* |
| *Nitrobenzene-d5 (Surr)* | *48* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 17:02* | *1* |
| *Terphenyl-d14 (Surr)* | *47* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 17:02* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *51* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 17:02* | *1* |
| *2-Fluorophenol (Surr)* | *47* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 17:02* | *1* |
| *2-Fluorobiphenyl* | *42* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 17:02* | *1* |

**Client Sample ID: MW-F13 (072111)**
**Date Collected: 07/21/11 07:48**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-16**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 03:43 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 03:43 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 03:43 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:43 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:43 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 03:43 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:43 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 03:43 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:43 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 03:43 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 03:43 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |

**Client Sample ID: MW-F13 (072111)**
**Date Collected: 07/21/11 07:48**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-16**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 03:43 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 03:43 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *90* | | *70 - 130* | | *07/24/11 03:43* | *1* |
| *Dibromofluoromethane* | *96* | | *70 - 130* | | *07/24/11 03:43* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 03:43* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **16** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Dibenzofuran | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F13 (072111)**
**Date Collected: 07/21/11 07:48**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-16**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,4-Dichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |

**Client Sample ID: MW-F13 (072111)**
**Date Collected: 07/21/11 07:48**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-16**
**Matrix: Water**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U * | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:29 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *55* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 17:29* | *1* |
| *Nitrobenzene-d5 (Surr)* | *59* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 17:29* | *1* |
| *Terphenyl-d14 (Surr)* | *82* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 17:29* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *77* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 17:29* | *1* |
| *2-Fluorophenol (Surr)* | *52* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 17:29* | *1* |
| *2-Fluorobiphenyl* | *61* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 17:29* | *1* |

### Method: 8315A - Carbonyl Compounds (HPLC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50 | U | 50 | | ug/L | | 07/22/11 10:05 | 07/22/11 14:00 | 1 |

**Client Sample ID: MW-F14 (072111)**
**Date Collected: 07/21/11 09:17**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-17**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 04:04 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 04:04 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 04:04 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:04 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| **Benzene** | **3.1** | | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:04 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 04:04 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:04 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 04:04 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:04 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:04 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:04 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |

**Client Sample ID: MW-F14 (072111)**
**Date Collected: 07/21/11 09:17**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-17**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:04 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:04 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *89* | | *70 - 130* | | *07/24/11 04:04* | *1* |
| *Dibromofluoromethane* | *99* | | *70 - 130* | | *07/24/11 04:04* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/24/11 04:04* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Acetophenone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Acetylaminofluorene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.7 | U | 9.7 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Anthracene | 0.19 | U * | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Benzyl alcohol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Bis(2-chloroethoxy)methane | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Bis(2-chloroethyl)ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| bis (2-chloroisopropyl) ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **16** | **B *** | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Bromophenyl phenyl ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Butyl benzyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Chloro-3-methylphenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Chloronaphthalene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Chlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Chlorophenyl phenyl ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Diallate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Dibenzofuran | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,4-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F14 (072111)**
**Date Collected: 07/21/11 09:17**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-17**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,2-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,4-Dichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,6-Dichlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Diethyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Dimethyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Di-n-butyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,3-Dinitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,4-Dinitrophenol | 9.7 | U | 9.7 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,4-Dinitrotoluene | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,6-Dinitrotoluene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Di-n-octyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| **1,4-Dioxane** | **18** | | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Disulfoton | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Famphur | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Hexachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Hexachlorobutadiene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Hexachloroethane | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Hexachloropropene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Isophorone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Isosafrole | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 3-Methylcholanthrene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Methyl parathion | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 3 & 4 Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,4-Naphthoquinone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Nitroaniline | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Nitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |

**Client Sample ID: MW-F14 (072111)**
**Date Collected: 07/21/11 09:17**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-17**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Nitrophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitro-o-toluidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosodiethylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosodimethylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosodi-n-butylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosodi-n-propylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosodiphenylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosomorpholine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosopiperidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| N-Nitrosopyrrolidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Pentachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Pentachloronitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Phenacetin | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Phenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Phorate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Pronamide | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Safrole, Total | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Sulfotepp | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| Thionazin | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2-Toluidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,2,4-Trichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,4,6-Trichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 2,4,5-Trichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |
| 1,3,5-Trinitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 17:55 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *44* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 17:55* | *1* |
| *Nitrobenzene-d5 (Surr)* | *59* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 17:55* | *1* |
| *Terphenyl-d14 (Surr)* | *82* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 17:55* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *61* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 17:55* | *1* |
| *2-Fluorophenol (Surr)* | *55* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 17:55* | *1* |
| *2-Fluorobiphenyl* | *50* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 17:55* | *1* |

**Client Sample ID: MW-F21 (072111)**
**Date Collected: 07/21/11 10:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-18**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/24/11 04:24 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/24/11 04:24 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/24/11 04:24 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:24 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| **Benzene** | **14** | | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:24 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/24/11 04:24 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:24 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/24/11 04:24 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:24 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/24/11 04:24 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/24/11 04:24 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |

**Client Sample ID: MW-F21 (072111)**
**Date Collected: 07/21/11 10:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-18**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/24/11 04:24 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/24/11 04:24 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *89* | | *70 - 130* | | *07/24/11 04:24* | *1* |
| *Dibromofluoromethane* | *104* | | *70 - 130* | | *07/24/11 04:24* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *70 - 130* | | *07/24/11 04:24* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Acenaphthylene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Acetophenone | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Acetylaminofluorene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| alpha,alpha-Dimethyl phenethylamine | 480 | U | 480 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Aminobiphenyl | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Aniline | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Anthracene | 9.6 | U * | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Aramite, Total | 72 | U | 72 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Benzo[a]anthracene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Benzo[a]pyrene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Benzo[b]fluoranthene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Benzo[g,h,i]perylene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Benzo[k]fluoranthene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Benzyl alcohol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Bis(2-chloroethoxy)methane | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Bis(2-chloroethyl)ether | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| bis (2-chloroisopropyl) ether | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Bis(2-ethylhexyl) phthalate | 96 | U * | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Bromophenyl phenyl ether | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Butyl benzyl phthalate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Chloroaniline | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Chloro-3-methylphenol | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Chloronaphthalene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Chlorophenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Chlorophenyl phenyl ether | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Chrysene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Diallate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Dibenz(a,h)anthracene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Dibenzofuran | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,4-Dichlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |

**Client Sample ID: MW-F21 (072111)**
**Date Collected: 07/21/11 10:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-18**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,2-Dichlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 3,3'-Dichlorobenzidine | 960 | U | 960 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,4-Dichlorophenol | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,6-Dichlorophenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Diethyl phthalate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Dimethoate | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 7,12-Dimethylbenz(a)anthracene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 3,3'-Dimethylbenzidine | 960 | U | 960 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,4-Dimethylphenol | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Dimethyl phthalate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Di-n-butyl phthalate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,3-Dinitrobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4,6-Dinitro-2-methylphenol | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,4-Dinitrophenol | 480 | U | 480 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,4-Dinitrotoluene | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,6-Dinitrotoluene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Di-n-octyl phthalate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Dinoseb | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,4-Dioxane | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Disulfoton | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Ethyl methanesulfonate | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Ethyl Parathion | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Famphur | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Fluoranthene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Fluorene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Hexachlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Hexachlorobutadiene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Hexachlorocyclopentadiene | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Hexachloroethane | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Hexachlorophene | 24000 | U * | 24000 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Hexachloropropene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Indeno[1,2,3-cd]pyrene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Isophorone | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Isosafrole | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Methapyrilene | 9600 | U | 9600 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 3-Methylcholanthrene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Methyl methanesulfonate | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| **2-Methylnaphthalene** | **15** | | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Methyl parathion | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Methylphenol | 96 | U * | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 3 & 4 Methylphenol | 96 | U * | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| **Naphthalene** | **430** | | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,4-Naphthoquinone | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1-Naphthylamine | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Naphthylamine | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Nitroaniline | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Nitroaniline | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 3-Nitroaniline | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Nitrobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F21 (072111)**
**Date Collected: 07/21/11 10:47**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-18**
**Matrix: Water**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Nitrophenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 4-Nitroquinoline-1-oxide | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitro-o-toluidine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosodiethylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosodimethylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosodi-n-butylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosodi-n-propylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosodiphenylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosomethylethylamine | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosomorpholine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosopiperidine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| N-Nitrosopyrrolidine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| o,o',o''-Triethylphosphorothioate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| p-Dimethylamino azobenzene | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Pentachlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Pentachloronitrobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Pentachlorophenol | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Phenacetin | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Phenanthrene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Phenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Phorate | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Picoline | 96 | U | 96 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| p-Phenylene diamine | 9600 | U | 9600 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Pronamide | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Pyrene | 9.6 | U | 9.6 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Pyridine | 240 | U | 240 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Safrole, Total | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Sulfotepp | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,2,4,5-Tetrachlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,3,4,6-Tetrachlorophenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| Thionazin | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2-Toluidine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,2,4-Trichlorobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,4,6-Trichlorophenol | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 2,4,5-Trichlorophenol | 48 | U * | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |
| 1,3,5-Trinitrobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/10/11 15:13 | 50 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *0* | *D* | *27 - 130* | *07/22/11 15:26* | *08/10/11 15:13* | *50* |
| *Nitrobenzene-d5 (Surr)* | *0* | *D* | *32 - 130* | *07/22/11 15:26* | *08/10/11 15:13* | *50* |
| *Terphenyl-d14 (Surr)* | *0* | *D* | *36 - 130* | *07/22/11 15:26* | *08/10/11 15:13* | *50* |
| *2,4,6-Tribromophenol (Surr)* | *0* | *D* | *30 - 130* | *07/22/11 15:26* | *08/10/11 15:13* | *50* |
| *2-Fluorophenol (Surr)* | *0* | *D* | *25 - 130* | *07/22/11 15:26* | *08/10/11 15:13* | *50* |
| *2-Fluorobiphenyl* | *0* | *D* | *34 - 130* | *07/22/11 15:26* | *08/10/11 15:13* | *50* |

### Method: 8315A - Carbonyl Compounds (HPLC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50 | U | 50 | | ug/L | | 07/22/11 10:05 | 07/22/11 14:12 | 1 |

**Client Sample ID: DUP-02 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-19**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 13:40 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 13:40 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 13:40 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 13:40 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| **Benzene** | **16** | | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 13:40 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 13:40 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 13:40 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 13:40 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 13:40 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 13:40 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 13:40 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |

**Client Sample ID: DUP-02 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-19**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| **Xylenes, Total** | **2.2** | | 2.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:40 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:40 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *70 - 130* | | *07/28/11 13:40* | *1* |
| *Dibromofluoromethane* | *101* | | *70 - 130* | | *07/28/11 13:40* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/28/11 13:40* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Acenaphthene** | **6.2** | | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Acenaphthylene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Acetophenone | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Acetylaminofluorene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| alpha,alpha-Dimethyl phenethylamine | 95 | U | 95 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Aminobiphenyl | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Aniline | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Anthracene | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Aramite, Total | 14 | U | 14 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Benzo[a]anthracene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Benzo[a]pyrene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Benzo[b]fluoranthene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Benzo[g,h,i]perylene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Benzo[k]fluoranthene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Benzyl alcohol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Bis(2-chloroethoxy)methane | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Bis(2-chloroethyl)ether | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| bis (2-chloroisopropyl) ether | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Bis(2-ethylhexyl) phthalate | 19 | U * | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Bromophenyl phenyl ether | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Butyl benzyl phthalate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Chloroaniline | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Chloro-3-methylphenol | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Chloronaphthalene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Chlorophenol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Chlorophenyl phenyl ether | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Chrysene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Diallate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Dibenz(a,h)anthracene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Dibenzofuran | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,4-Dichlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |

**Client Sample ID: DUP-02 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-19**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,2-Dichlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 3,3'-Dichlorobenzidine | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,4-Dichlorophenol | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,6-Dichlorophenol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Diethyl phthalate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Dimethoate | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 7,12-Dimethylbenz(a)anthracene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 3,3'-Dimethylbenzidine | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,4-Dimethylphenol | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Dimethyl phthalate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Di-n-butyl phthalate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,3-Dinitrobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4,6-Dinitro-2-methylphenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,4-Dinitrophenol | 95 | U | 95 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,4-Dinitrotoluene | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,6-Dinitrotoluene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Di-n-octyl phthalate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Dinoseb | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| **1,4-Dioxane** | **21** | | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Disulfoton | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Ethyl methanesulfonate | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Ethyl Parathion | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Famphur | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Fluoranthene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Fluorene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Hexachlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Hexachlorobutadiene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Hexachlorocyclopentadiene | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Hexachloroethane | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Hexachlorophene | 4800 | U * | 4800 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Hexachloropropene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Indeno[1,2,3-cd]pyrene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Isophorone | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Isosafrole | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Methapyrilene | 1900 | U | 1900 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 3-Methylcholanthrene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Methyl methanesulfonate | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| **2-Methylnaphthalene** | **23** | | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Methyl parathion | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Methylphenol | 19 | U * | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 3 & 4 Methylphenol | 19 | U * | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| **Naphthalene** | **400** | | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,4-Naphthoquinone | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1-Naphthylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Naphthylamine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Nitroaniline | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Nitroaniline | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 3-Nitroaniline | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Nitrobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |

**Client Sample ID: DUP-02 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-19**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Nitrophenol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 4-Nitroquinoline-1-oxide | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitro-o-toluidine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosodiethylamine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosodimethylamine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosodi-n-butylamine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosodi-n-propylamine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosodiphenylamine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosomethylethylamine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosomorpholine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosopiperidine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| N-Nitrosopyrrolidine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| o,o',o''-Triethylphosphorothioate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| p-Dimethylamino azobenzene | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Pentachlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Pentachloronitrobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Pentachlorophenol | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Phenacetin | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Phenanthrene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Phenol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Phorate | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Picoline | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| p-Phenylene diamine | 1900 | U | 1900 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Pronamide | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Pyrene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Pyridine | 48 | U | 48 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Safrole, Total | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Sulfotepp | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,2,4,5-Tetrachlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,3,4,6-Tetrachlorophenol | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| Thionazin | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2-Toluidine | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,2,4-Trichlorobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,4,6-Trichlorophenol | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 2,4,5-Trichlorophenol | 9.5 | U * | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |
| 1,3,5-Trinitrobenzene | 9.5 | U | 9.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 18:47 | 10 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *0* | *D* | *27 - 130* | *07/22/11 15:26* | *08/08/11 18:47* | *10* |
| *Nitrobenzene-d5 (Surr)* | *0* | *D* | *32 - 130* | *07/22/11 15:26* | *08/08/11 18:47* | *10* |
| *Terphenyl-d14 (Surr)* | *0* | *D* | *36 - 130* | *07/22/11 15:26* | *08/08/11 18:47* | *10* |
| *2,4,6-Tribromophenol (Surr)* | *0* | *D* | *30 - 130* | *07/22/11 15:26* | *08/08/11 18:47* | *10* |
| *2-Fluorophenol (Surr)* | *0* | *D* | *25 - 130* | *07/22/11 15:26* | *08/08/11 18:47* | *10* |
| *2-Fluorobiphenyl* | *0* | *D* | *34 - 130* | *07/22/11 15:26* | *08/08/11 18:47* | *10* |

**Client Sample ID: MWD-23 (072011)**
**Date Collected: 07/20/11 17:35**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-20**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 14:26 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 14:26 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 14:26 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:26 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:26 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 14:26 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:26 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 14:26 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:26 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 14:26 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 14:26 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |

**Client Sample ID: MWD-23 (072011)**
**Date Collected: 07/20/11 17:35**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-20**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U * | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 14:26 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 14:26 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *70 - 130* | | *07/26/11 14:26* | *1* |
| *Dibromofluoromethane* | *112* | | *70 - 130* | | *07/26/11 14:26* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *70 - 130* | | *07/26/11 14:26* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Acetophenone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Acetylaminofluorene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.7 | U | 9.7 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Anthracene | 0.19 | U * | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Benzyl alcohol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Bis(2-chloroethoxy)methane | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Bis(2-chloroethyl)ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| bis (2-chloroisopropyl) ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **19** | **B *** | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Bromophenyl phenyl ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Butyl benzyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Chloro-3-methylphenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Chloronaphthalene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Chlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Chlorophenyl phenyl ether | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Diallate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Dibenzofuran | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,4-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-23 (072011)**
**Date Collected: 07/20/11 17:35**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-20**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,2-Dichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,4-Dichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,6-Dichlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Diethyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Dimethyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Di-n-butyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,3-Dinitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,4-Dinitrophenol | 9.7 | U | 9.7 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,4-Dinitrotoluene | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,6-Dinitrotoluene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Di-n-octyl phthalate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,4-Dioxane | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Disulfoton | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Famphur | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Hexachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Hexachlorobutadiene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Hexachloroethane | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Hexachloropropene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Isophorone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Isosafrole | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 3-Methylcholanthrene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Methyl parathion | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 3 & 4 Methylphenol | 1.9 | U * | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,4-Naphthoquinone | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Nitroaniline | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Nitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |

**Client Sample ID: MWD-23 (072011)**
**Date Collected: 07/20/11 17:35**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-20**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Nitrophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitro-o-toluidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosodiethylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosodimethylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosodi-n-butylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosodi-n-propylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosodiphenylamine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosomorpholine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosopiperidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| N-Nitrosopyrrolidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Pentachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Pentachloronitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Phenacetin | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Phenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Phorate | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Pronamide | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Safrole, Total | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Sulfotepp | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| Thionazin | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2-Toluidine | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,2,4-Trichlorobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,4,6-Trichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 2,4,5-Trichlorophenol | 0.97 | U * | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |
| 1,3,5-Trinitrobenzene | 0.97 | U | 0.97 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:13 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *60* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 19:13* | *1* |
| *Nitrobenzene-d5 (Surr)* | *72* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 19:13* | *1* |
| *Terphenyl-d14 (Surr)* | *73* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 19:13* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *85* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 19:13* | *1* |
| *2-Fluorophenol (Surr)* | *66* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 19:13* | *1* |
| *2-Fluorobiphenyl* | *70* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 19:13* | *1* |

**Client Sample ID: MW-F8 (072111)**
**Date Collected: 07/21/11 08:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-21**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/27/11 05:29 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/27/11 05:29 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/27/11 05:29 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/27/11 05:29 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/27/11 05:29 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/27/11 05:29 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/27/11 05:29 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/27/11 05:29 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/27/11 05:29 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/27/11 05:29 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/27/11 05:29 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |

**Client Sample ID: MW-F8 (072111)**
**Date Collected: 07/21/11 08:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-21**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 05:29 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 05:29 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/27/11 05:29* | *1* |
| *Dibromofluoromethane* | *108* | | *70 - 130* | | *07/27/11 05:29* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/27/11 05:29* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Acetophenone | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Acetylaminofluorene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.8 | U | 9.8 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Anthracene | 0.20 | U * | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Benzyl alcohol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Bis(2-chloroethoxy)methane | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Bis(2-chloroethyl)ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| bis (2-chloroisopropyl) ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **20** | **B *** | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Bromophenyl phenyl ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Butyl benzyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Chloro-3-methylphenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Chloronaphthalene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Chlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Chlorophenyl phenyl ether | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Diallate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Dibenzofuran | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,4-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |

**Client Sample ID: MW-F8 (072111)**
**Date Collected: 07/21/11 08:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-21**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,2-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,4-Dichlorophenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,6-Dichlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Diethyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Dimethyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Di-n-butyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,3-Dinitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,4-Dinitrophenol | 9.8 | U | 9.8 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,4-Dinitrotoluene | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,6-Dinitrotoluene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Di-n-octyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Disulfoton | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Famphur | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Hexachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Hexachlorobutadiene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Hexachloroethane | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Hexachloropropene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Isophorone | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Isosafrole | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 3-Methylcholanthrene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Methyl parathion | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 3 & 4 Methylphenol | 2.0 | U * | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,4-Naphthoquinone | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Nitroaniline | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Nitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |

**Client Sample ID: MW-F8 (072111)**
**Date Collected: 07/21/11 08:20**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-21**
**Matrix: Water**

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Nitrophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitro-o-toluidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosodiethylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosodimethylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosodi-n-butylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosodi-n-propylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosodiphenylamine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosomorpholine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosopiperidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| N-Nitrosopyrrolidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Pentachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Pentachloronitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Phenacetin | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Phenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Phorate | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Pronamide | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Safrole, Total | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Sulfotepp | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| Thionazin | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2-Toluidine | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,2,4-Trichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,4,6-Trichlorophenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 2,4,5-Trichlorophenol | 0.98 | U * | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |
| 1,3,5-Trinitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/22/11 15:26 | 08/08/11 19:40 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *62* | | *27 - 130* | *07/22/11 15:26* | *08/08/11 19:40* | *1* |
| *Nitrobenzene-d5 (Surr)* | *72* | | *32 - 130* | *07/22/11 15:26* | *08/08/11 19:40* | *1* |
| *Terphenyl-d14 (Surr)* | *76* | | *36 - 130* | *07/22/11 15:26* | *08/08/11 19:40* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *80* | | *30 - 130* | *07/22/11 15:26* | *08/08/11 19:40* | *1* |
| *2-Fluorophenol (Surr)* | *67* | | *25 - 130* | *07/22/11 15:26* | *08/08/11 19:40* | *1* |
| *2-Fluorobiphenyl* | *71* | | *34 - 130* | *07/22/11 15:26* | *08/08/11 19:40* | *1* |

## Method: 8315A - Carbonyl Compounds (HPLC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50 | U | 50 | | ug/L | | 07/22/11 10:05 | 07/22/11 14:24 | 1 |

**Client Sample ID: MW-F9 (072111)**
**Date Collected: 07/21/11 10:15**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-22**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/25/11 04:01 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/25/11 04:01 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/25/11 04:01 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/25/11 04:01 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/25/11 04:01 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/25/11 04:01 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/25/11 04:01 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/25/11 04:01 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/25/11 04:01 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/25/11 04:01 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/25/11 04:01 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |

**Client Sample ID: MW-F9 (072111)**
**Date Collected: 07/21/11 10:15**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-22**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 04:01 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 04:01 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *91* | | *70 - 130* | | *07/25/11 04:01* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/25/11 04:01* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/25/11 04:01* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U * | 10 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Aminobiphenyl | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Aramite, Total | 1.5 | U * | 1.5 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **3.8** | **B *** | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-F9 (072111)**
**Date Collected: 07/21/11 10:15**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-22**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U * | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Dinoseb | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Disulfoton | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Methapyrilene | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 3-Methylcholanthrene | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |

**Client Sample ID: MW-F9 (072111)**
**Date Collected: 07/21/11 10:15**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-22**
**Matrix: Water**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitro-o-toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Picoline | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| p-Phenylene diamine | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2-Toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 19:43 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *55* | | *27 - 130* | *07/23/11 13:18* | *08/09/11 19:43* | *1* |
| *Nitrobenzene-d5 (Surr)* | *65* | | *32 - 130* | *07/23/11 13:18* | *08/09/11 19:43* | *1* |
| *Terphenyl-d14 (Surr)* | *91* | | *36 - 130* | *07/23/11 13:18* | *08/09/11 19:43* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *61* | | *30 - 130* | *07/23/11 13:18* | *08/09/11 19:43* | *1* |
| *2-Fluorophenol (Surr)* | *59* | | *25 - 130* | *07/23/11 13:18* | *08/09/11 19:43* | *1* |
| *2-Fluorobiphenyl* | *65* | | *34 - 130* | *07/23/11 13:18* | *08/09/11 19:43* | *1* |

### Method: 8315A - Carbonyl Compounds (HPLC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50 | U | 50 | | ug/L | | 07/22/11 10:05 | 07/22/11 14:36 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-22 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-23**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 14:10 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 14:10 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 14:10 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 14:10 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 14:10 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 14:10 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 14:10 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 14:10 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 14:10 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 14:10 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 14:10 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |

**Client Sample ID: MW-22 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-23**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:10 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:10 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/28/11 14:10* | *1* |
| *Dibromofluoromethane* | *101* | | *70 - 130* | | *07/28/11 14:10* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/28/11 14:10* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U * | 10 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Aminobiphenyl | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Aramite, Total | 1.5 | U * | 1.5 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **3.4** | *** B** | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MW-22 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-23**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U * | 20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Dinoseb | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Disulfoton | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Methapyrilene | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 3-Methylcholanthrene | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |

**Client Sample ID: MW-22 (072111)**
**Date Collected: 07/21/11 12:00**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-23**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitro-o-toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Picoline | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| p-Phenylene diamine | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2-Toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:05 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *59* | | *27 - 130* | *07/23/11 13:18* | *08/10/11 16:05* | *1* |
| *Nitrobenzene-d5 (Surr)* | *61* | | *32 - 130* | *07/23/11 13:18* | *08/10/11 16:05* | *1* |
| *Terphenyl-d14 (Surr)* | *78* | | *36 - 130* | *07/23/11 13:18* | *08/10/11 16:05* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *71* | | *30 - 130* | *07/23/11 13:18* | *08/10/11 16:05* | *1* |
| *2-Fluorophenol (Surr)* | *58* | | *25 - 130* | *07/23/11 13:18* | *08/10/11 16:05* | *1* |
| *2-Fluorobiphenyl* | *63* | | *34 - 130* | *07/23/11 13:18* | *08/10/11 16:05* | *1* |

**Client Sample ID: MWD-22 (072111)**
**Date Collected: 07/21/11 13:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-24**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 14:39 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 14:39 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 14:39 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 14:39 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 14:39 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 14:39 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 14:39 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 14:39 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 14:39 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 14:39 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 14:39 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |

**Client Sample ID: MWD-22 (072111)**
**Date Collected: 07/21/11 13:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-24**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 14:39 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 14:39 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/28/11 14:39* | *1* |
| *Dibromofluoromethane* | *104* | | *70 - 130* | | *07/28/11 14:39* | *1* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 130* | | *07/28/11 14:39* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U * | 10 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Aminobiphenyl | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Aramite, Total | 1.5 | U * | 1.5 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **4.3** | **B *** | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-22 (072111)**
**Date Collected: 07/21/11 13:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-24**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U * | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Dinoseb | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Disulfoton | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Methapyrilene | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 3-Methylcholanthrene | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |

**Client Sample ID: MWD-22 (072111)**
**Date Collected: 07/21/11 13:25**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-24**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitro-o-toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Picoline | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| p-Phenylene diamine | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2-Toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 20:35 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *53* | | *27 - 130* | *07/23/11 13:18* | *08/09/11 20:35* | *1* |
| *Nitrobenzene-d5 (Surr)* | *62* | | *32 - 130* | *07/23/11 13:18* | *08/09/11 20:35* | *1* |
| *Terphenyl-d14 (Surr)* | *85* | | *36 - 130* | *07/23/11 13:18* | *08/09/11 20:35* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *65* | | *30 - 130* | *07/23/11 13:18* | *08/09/11 20:35* | *1* |
| *2-Fluorophenol (Surr)* | *58* | | *25 - 130* | *07/23/11 13:18* | *08/09/11 20:35* | *1* |
| *2-Fluorobiphenyl* | *64* | | *34 - 130* | *07/23/11 13:18* | *08/09/11 20:35* | *1* |

**Client Sample ID: MW-29 (072111)**
**Date Collected: 07/21/11 12:57**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-25**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 15:09 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 15:09 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 15:09 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 15:09 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 15:09 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| **Chlorobenzene** | **1.1** | | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 15:09 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 15:09 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 15:09 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 15:09 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 15:09 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 15:09 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |

**Client Sample ID: MW-29 (072111)**
**Date Collected: 07/21/11 12:57**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-25**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:09 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:09 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* | | *07/28/11 15:09* | *1* |
| *Dibromofluoromethane* | *103* | | *70 - 130* | | *07/28/11 15:09* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/28/11 15:09* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U * | 9.9 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Aminobiphenyl | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Aramite, Total | 1.5 | U * | 1.5 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **3.7** | **B *** | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |

**Client Sample ID: MW-29 (072111)**
**Date Collected: 07/21/11 12:57**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-25**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U * | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Dinoseb | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Disulfoton | 0.99 | U * | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Famphur | 0.99 | U * | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Methapyrilene | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 3-Methylcholanthrene | 0.99 | U * | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |

**Client Sample ID: MW-29 (072111)**
**Date Collected: 07/21/11 12:57**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-25**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitro-o-toluidine | 0.99 | U * | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Picoline | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| p-Phenylene diamine | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2-Toluidine | 0.99 | U * | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/23/11 13:18 | 08/09/11 21:01 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *57* | | *27 - 130* | *07/23/11 13:18* | *08/09/11 21:01* | *1* |
| *Nitrobenzene-d5 (Surr)* | *62* | | *32 - 130* | *07/23/11 13:18* | *08/09/11 21:01* | *1* |
| *Terphenyl-d14 (Surr)* | *96* | | *36 - 130* | *07/23/11 13:18* | *08/09/11 21:01* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *71* | | *30 - 130* | *07/23/11 13:18* | *08/09/11 21:01* | *1* |
| *2-Fluorophenol (Surr)* | *56* | | *25 - 130* | *07/23/11 13:18* | *08/09/11 21:01* | *1* |
| *2-Fluorobiphenyl* | *71* | | *34 - 130* | *07/23/11 13:18* | *08/09/11 21:01* | *1* |

**Client Sample ID: MWD-29 (072111)**
**Date Collected: 07/21/11 14:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-26**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 15:38 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 15:38 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 15:38 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 15:38 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 15:38 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 15:38 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 15:38 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 15:38 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 15:38 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 15:38 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 15:38 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |

**Client Sample ID: MWD-29 (072111)**
**Date Collected: 07/21/11 14:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-26**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 15:38 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 15:38 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *70 - 130* | | *07/28/11 15:38* | *1* |
| *Dibromofluoromethane* | *101* | | *70 - 130* | | *07/28/11 15:38* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/28/11 15:38* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U * | 10 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Aminobiphenyl | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Aramite, Total | 1.5 | U * | 1.5 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| **Bis(2-ethylhexyl) phthalate** | **2.7** | *** B** | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |

**Client Sample ID: MWD-29 (072111)**
**Date Collected: 07/21/11 14:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-26**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U * | 20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Dinoseb | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Disulfoton | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Famphur | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Methapyrilene | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 3-Methylcholanthrene | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| **Naphthalene** | **0.22** | | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Naphthylamine | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |

**Client Sample ID: MWD-29 (072111)**
**Date Collected: 07/21/11 14:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-26**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitro-o-toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U * | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Picoline | 2.0 | U * | 2.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| p-Phenylene diamine | 200 | U * | 200 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2-Toluidine | 1.0 | U * | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/10/11 16:31 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *60* | | *27 - 130* | *07/23/11 13:18* | *08/10/11 16:31* | *1* |
| *Nitrobenzene-d5 (Surr)* | *62* | | *32 - 130* | *07/23/11 13:18* | *08/10/11 16:31* | *1* |
| *Terphenyl-d14 (Surr)* | *84* | | *36 - 130* | *07/23/11 13:18* | *08/10/11 16:31* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *79* | | *30 - 130* | *07/23/11 13:18* | *08/10/11 16:31* | *1* |
| *2-Fluorophenol (Surr)* | *58* | | *25 - 130* | *07/23/11 13:18* | *08/10/11 16:31* | *1* |
| *2-Fluorobiphenyl* | *66* | | *34 - 130* | *07/23/11 13:18* | *08/10/11 16:31* | *1* |

# Surrogate Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) | (70-130) |
| 680-70633-1 | MW-F12 (071911) | 91 | 100 | 106 |
| 680-70633-1 MS | MW-F12 (071911) | 106 | 100 | 105 |
| 680-70633-1 MSD | MW-F12 (071911) | 101 | 99 | 98 |
| 680-70633-2 | MW-F11 (071911) | 91 | 100 | 106 |
| 680-70633-3 | MW-F6 (072011) | 88 | 96 | 107 |
| 680-70633-4 | MW-F5 (072011) | 89 | 99 | 106 |
| 680-70633-5 | MW-F3R (072011) | 90 | 98 | 108 |
| 680-70633-6 | MW-F16 (072011) | 91 | 98 | 110 |
| 680-70633-7 | MW-25 (072011) | 89 | 100 | 106 |
| 680-70633-8 | MWD-25 (072011) | 91 | 100 | 107 |
| 680-70633-9 | MW-F2 (071911) | 90 | 98 | 108 |
| 680-70633-10 | MW-F19 (071911) | 90 | 98 | 108 |
| 680-70633-11 | MW-F1 (071911) | 88 | 100 | 106 |
| 680-70633-12 | TB01 (072011) | 89 | 99 | 106 |
| 680-70633-13 | MW-24 (072011) | 101 | 111 | 101 |
| 680-70633-14 | MWD-24 (072011) | 102 | 103 | 102 |
| 680-70633-15 | MW-23 (072011) | 98 | 113 | 100 |
| 680-70633-16 | MW-F13 (072111) | 90 | 96 | 106 |
| 680-70633-17 | MW-F14 (072111) | 89 | 99 | 106 |
| 680-70633-18 | MW-F21 (072111) | 89 | 104 | 107 |
| 680-70633-19 | DUP-02 (072111) | 100 | 101 | 102 |
| 680-70633-20 | MWD-23 (072011) | 102 | 112 | 100 |
| 680-70633-21 | MW-F8 (072111) | 103 | 108 | 101 |
| 680-70633-22 | MW-F9 (072111) | 91 | 98 | 106 |
| 680-70633-23 | MW-22 (072111) | 103 | 101 | 101 |
| 680-70633-24 | MWD-22 (072111) | 103 | 104 | 99 |
| 680-70633-25 | MW-29 (072111) | 104 | 103 | 101 |
| 680-70633-26 | MWD-29 (072111) | 102 | 101 | 101 |
| LCS 680-209886/5 | Lab Control Sample | 106 | 101 | 104 |
| LCS 680-209908/13 | Lab Control Sample | 104 | 92 | 102 |
| LCS 680-210132/16 | Lab Control Sample | 107 | 116 | 98 |
| LCS 680-210192/5 | Lab Control Sample | 107 | 114 | 99 |
| LCS 680-210251/9 | Lab Control Sample | 104 | 102 | 104 |
| LCS 680-210497/4 | Lab Control Sample | 100 | 100 | 98 |
| LCSD 680-209886/6 | Lab Control Sample Dup | 104 | 97 | 103 |
| LCSD 680-209908/14 | Lab Control Sample Dup | 109 | 94 | 103 |
| LCSD 680-210132/17 | Lab Control Sample Dup | 107 | 116 | 96 |
| LCSD 680-210192/6 | Lab Control Sample Dup | 105 | 115 | 97 |
| LCSD 680-210251/10 | Lab Control Sample Dup | 101 | 103 | 102 |
| LCSD 680-210497/5 | Lab Control Sample Dup | 98 | 101 | 98 |
| MB 680-209886/8 | Method Blank | 91 | 98 | 107 |
| MB 680-209908/16 | Method Blank | 90 | 100 | 106 |
| MB 680-210132/19 | Method Blank | 103 | 115 | 101 |
| MB 680-210192/8 | Method Blank | 101 | 101 | 104 |
| MB 680-210251/12 | Method Blank | 103 | 101 | 101 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

# Surrogate Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---|---|---|---|---|---|---|---|
| | | PHL | NBZ | TPH | TBP | 2FP | FBP |
| Lab Sample ID | Client Sample ID | (27-130) | (32-130) | (36-130) | (30-130) | (25-130) | (34-130) |
| 680-70633-1 | MW-F12 (071911) | 0 D | 0 D | 0 D | 0 D | 0 D | 0 D |
| 680-70633-1 MS | MW-F12 (071911) | 0 D | 0 D | 0 D | 0 D | 0 D | 0 D |
| 680-70633-1 MSD | MW-F12 (071911) | 0 D | 0 D | 0 D | 0 D | 0 D | 0 D |
| 680-70633-2 | MW-F11 (071911) | 0 D | 0 D | 0 D | 0 D | 0 D | 0 D |
| 680-70633-3 | MW-F6 (072011) | 40 | 47 | 61 | 58 | 42 | 44 |
| 680-70633-4 | MW-F5 (072011) | 40 | 45 | 56 | 57 | 41 | 41 |
| 680-70633-5 | MW-F3R (072011) | 45 | 47 | 61 | 65 | 43 | 44 |
| 680-70633-6 | MW-F16 (072011) | 42 | 49 | 60 | 59 | 46 | 42 |
| 680-70633-7 | MW-25 (072011) | 33 | 39 | 56 | 51 | 35 | 32 X |
| 680-70633-8 | MWD-25 (072011) | 33 | 35 | 53 | 46 | 33 | 31 X |
| 680-70633-9 | MW-F2 (071911) | 41 | 44 | 58 | 60 | 39 | 39 |
| 680-70633-10 | MW-F19 (071911) | 44 | 47 | 54 | 53 | 47 | 45 |
| 680-70633-11 | MW-F1 (071911) | 30 | 31 X | 37 | 33 | 30 | 29 X |
| 680-70633-13 | MW-24 (072011) | 43 | 49 | 49 | 45 | 45 | 42 |
| 680-70633-14 | MWD-24 (072011) | 45 | 47 | 52 | 49 | 47 | 42 |
| 680-70633-15 | MW-23 (072011) | 47 | 48 | 47 | 51 | 47 | 42 |
| 680-70633-16 | MW-F13 (072111) | 55 | 59 | 82 | 77 | 52 | 61 |
| 680-70633-17 | MW-F14 (072111) | 44 | 59 | 82 | 61 | 55 | 50 |
| 680-70633-18 | MW-F21 (072111) | 0 D | 0 D | 0 D | 0 D | 0 D | 0 D |
| 680-70633-19 | DUP-02 (072111) | 0 D | 0 D | 0 D | 0 D | 0 D | 0 D |
| 680-70633-20 | MWD-23 (072011) | 60 | 72 | 73 | 85 | 66 | 70 |
| 680-70633-21 | MW-F8 (072111) | 62 | 72 | 76 | 80 | 67 | 71 |
| 680-70633-22 | MW-F9 (072111) | 55 | 65 | 91 | 61 | 59 | 65 |
| 680-70633-23 | MW-22 (072111) | 59 | 61 | 78 | 71 | 58 | 63 |
| 680-70633-24 | MWD-22 (072111) | 53 | 62 | 85 | 65 | 58 | 64 |
| 680-70633-25 | MW-29 (072111) | 57 | 62 | 96 | 71 | 56 | 71 |
| 680-70633-26 | MWD-29 (072111) | 60 | 62 | 84 | 79 | 58 | 66 |
| LCS 680-209662/22-A | Lab Control Sample | 55 | 57 | 67 | 66 | 55 | 56 |
| LCS 680-209662/25-A | Lab Control Sample | 49 | 52 | 64 | 62 | 47 | 49 |
| LCS 680-209813/7-A | Lab Control Sample | 76 | 83 | 113 | 82 | 77 | 91 |
| LCS 680-209813/9-A | Lab Control Sample | 63 | 68 | 115 | 82 | 64 | 76 |
| LCSD 680-209813/10-A | Lab Control Sample Dup | 71 | 80 | 127 | 80 | 74 | 84 |
| LCSD 680-209813/8-A | Lab Control Sample Dup | 68 | 79 | 115 | 77 | 69 | 87 |
| MB 680-209662/21-A | Method Blank | 55 | 57 | 68 | 62 | 54 | 56 |
| MB 680-209813/6-A | Method Blank | 61 | 78 | 111 | 62 | 65 | 86 |

**Surrogate Legend**

PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 680-209886/8**
**Matrix: Water**
**Analysis Batch: 209886**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/23/11 23:33 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/23/11 23:33 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/23/11 23:33 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/23/11 23:33 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/23/11 23:33 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/23/11 23:33 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/23/11 23:33 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/23/11 23:33 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/23/11 23:33 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/23/11 23:33 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/23/11 23:33 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-209886/8**
**Matrix: Water**
**Analysis Batch: 209886**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/23/11 23:33 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/23/11 23:33 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *91* | | *70 - 130* | | *07/23/11 23:33* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/23/11 23:33* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *70 - 130* | | *07/23/11 23:33* | *1* |

**Lab Sample ID: LCS 680-209886/5**
**Matrix: Water**
**Analysis Batch: 209886**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 95.7 | | ug/L | | 96 | 26 - 180 |
| Benzene | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 |
| Bromodichloromethane | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Bromoform | 50.0 | 47.3 | | ug/L | | 95 | 70 - 130 |
| Bromomethane | 50.0 | 32.1 | | ug/L | | 64 | 23 - 165 |
| 2-Butanone | 100 | 97.6 | | ug/L | | 98 | 49 - 172 |
| Carbon disulfide | 50.0 | 51.2 | | ug/L | | 102 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 49.7 | | ug/L | | 99 | 70 - 130 |
| Chlorobenzene | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 |
| Chloroethane | 50.0 | 56.7 | | ug/L | | 113 | 56 - 152 |
| Chloroform | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Chloromethane | 50.0 | 47.8 | | ug/L | | 96 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 53.7 | | ug/L | | 107 | 70 - 130 |
| Dibromochloromethane | 50.0 | 49.0 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 46.4 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 50.1 | | ug/L | | 100 | 70 - 130 |
| Dibromomethane | 50.0 | 50.1 | | ug/L | | 100 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 45.1 | | ug/L | | 90 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 44.0 | | ug/L | | 88 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 45.0 | | ug/L | | 90 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 53.1 | | ug/L | | 106 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 53.7 | | ug/L | | 107 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 48.8 | | ug/L | | 98 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 |
| Ethylbenzene | 50.0 | 54.0 | | ug/L | | 108 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-209886/5**
**Matrix: Water**
**Analysis Batch: 209886**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2-Hexanone | 100 | 106 | | ug/L | | 106 | 42 - 185 |
| Methylene Chloride | 50.0 | 50.1 | | ug/L | | 100 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 101 | | ug/L | | 101 | 70 - 130 |
| Styrene | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 44.1 | | ug/L | | 88 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 52.5 | | ug/L | | 105 | 70 - 130 |
| Tetrachloroethene | 50.0 | 51.5 | | ug/L | | 103 | 70 - 130 |
| Toluene | 50.0 | 54.5 | | ug/L | | 109 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 54.0 | | ug/L | | 108 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 47.5 | | ug/L | | 95 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 47.5 | | ug/L | | 95 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 52.7 | | ug/L | | 105 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| Trichloroethene | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 48.2 | | ug/L | | 96 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 |
| Vinyl acetate | 100 | 110 | | ug/L | | 110 | 60 - 176 |
| Vinyl chloride | 50.0 | 47.9 | | ug/L | | 96 | 67 - 134 |
| Xylenes, Total | 150 | 136 | | ug/L | | 91 | 70 - 130 |
| m-Xylene & p-Xylene | 100 | 90.5 | | ug/L | | 90 | 70 - 130 |
| o-Xylene | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* |
| *Dibromofluoromethane* | *101* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* |

**Lab Sample ID: LCSD 680-209886/6**
**Matrix: Water**
**Analysis Batch: 209886**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 93.6 | | ug/L | | 94 | 26 - 180 | 2 | 50 |
| Benzene | 50.0 | 51.4 | | ug/L | | 103 | 70 - 130 | 1 | 30 |
| Bromodichloromethane | 50.0 | 51.2 | | ug/L | | 102 | 70 - 130 | 3 | 30 |
| Bromoform | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 3 | 30 |
| Bromomethane | 50.0 | 42.0 | | ug/L | | 84 | 23 - 165 | 27 | 50 |
| 2-Butanone | 100 | 94.3 | | ug/L | | 94 | 49 - 172 | 3 | 30 |
| Carbon disulfide | 50.0 | 47.7 | | ug/L | | 95 | 54 - 132 | 7 | 30 |
| Carbon tetrachloride | 50.0 | 49.1 | | ug/L | | 98 | 70 - 130 | 1 | 30 |
| Chlorobenzene | 50.0 | 49.7 | | ug/L | | 99 | 70 - 130 | 4 | 30 |
| Chloroethane | 50.0 | 54.1 | | ug/L | | 108 | 56 - 152 | 5 | 40 |
| Chloroform | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 | 3 | 30 |
| Chloromethane | 50.0 | 47.2 | | ug/L | | 94 | 70 - 130 | 1 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 54.5 | | ug/L | | 109 | 70 - 130 | 1 | 30 |
| Dibromochloromethane | 50.0 | 47.7 | | ug/L | | 95 | 70 - 130 | 3 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 45.5 | | ug/L | | 91 | 70 - 130 | 2 | 50 |
| 1,2-Dibromoethane | 50.0 | 50.0 | | ug/L | | 100 | 70 - 130 | 0 | 30 |
| Dibromomethane | 50.0 | 50.0 | | ug/L | | 100 | 70 - 130 | 0 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-209886/6**
**Matrix: Water**
**Analysis Batch: 209886**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 50.0 | 43.1 | | ug/L | | 86 | 70 - 130 | 5 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 3 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 44.0 | | ug/L | | 88 | 70 - 130 | 2 | 30 |
| Dichlorodifluoromethane | 50.0 | 50.6 | | ug/L | | 101 | 44 - 146 | 5 | 50 |
| 1,1-Dichloroethane | 50.0 | 51.9 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| 1,2-Dichloroethane | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 | 0 | 30 |
| 1,1-Dichloroethene | 50.0 | 48.4 | | ug/L | | 97 | 66 - 131 | 1 | 30 |
| 1,2-Dichloropropane | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 | 2 | 30 |
| Ethylbenzene | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 | 3 | 30 |
| 2-Hexanone | 100 | 104 | | ug/L | | 104 | 42 - 185 | 2 | 30 |
| Methylene Chloride | 50.0 | 48.3 | | ug/L | | 97 | 67 - 130 | 4 | 30 |
| 4-Methyl-2-pentanone | 100 | 101 | | ug/L | | 101 | 70 - 130 | 1 | 30 |
| Styrene | 50.0 | 43.4 | | ug/L | | 87 | 70 - 130 | 4 | 30 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 43.0 | | ug/L | | 86 | 70 - 130 | 3 | 30 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 51.5 | | ug/L | | 103 | 70 - 130 | 2 | 30 |
| Tetrachloroethene | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 | 7 | 30 |
| Toluene | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 | 4 | 30 |
| trans-1,2-Dichloroethene | 50.0 | 51.9 | | ug/L | | 104 | 70 - 130 | 4 | 30 |
| trans-1,3-Dichloropropene | 50.0 | 47.8 | | ug/L | | 96 | 70 - 130 | 1 | 50 |
| 1,2,4-Trichlorobenzene | 50.0 | 46.2 | | ug/L | | 92 | 65 - 130 | 3 | 30 |
| 1,1,1-Trichloroethane | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 | 3 | 30 |
| 1,1,2-Trichloroethane | 50.0 | 51.9 | | ug/L | | 104 | 70 - 130 | 2 | 30 |
| Trichloroethene | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 | 2 | 30 |
| Trichlorofluoromethane | 50.0 | 46.7 | | ug/L | | 93 | 55 - 156 | 3 | 30 |
| 1,2,3-Trichloropropane | 50.0 | 51.3 | | ug/L | | 103 | 70 - 130 | 2 | 30 |
| Vinyl acetate | 100 | 107 | | ug/L | | 107 | 60 - 176 | 3 | 30 |
| Vinyl chloride | 50.0 | 46.7 | | ug/L | | 93 | 67 - 134 | 3 | 30 |
| Xylenes, Total | 150 | 130 | | ug/L | | 87 | 70 - 130 | 4 | 30 |
| m-Xylene & p-Xylene | 100 | 86.6 | | ug/L | | 87 | 70 - 130 | 4 | 30 |
| o-Xylene | 50.0 | 43.6 | | ug/L | | 87 | 70 - 130 | 4 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* |
| *Dibromofluoromethane* | *97* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *103* | | *70 - 130* |

**Lab Sample ID: MB 680-209908/16**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/25/11 03:19 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/25/11 03:19 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/25/11 03:19 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/25/11 03:19 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-209908/16**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/25/11 03:19 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/25/11 03:19 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/25/11 03:19 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/25/11 03:19 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/25/11 03:19 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/25/11 03:19 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/25/11 03:19 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-209908/16**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/25/11 03:19 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/25/11 03:19 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *90* | | *70 - 130* | | *07/25/11 03:19* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/25/11 03:19* | *1* |
| *Toluene-d8 (Surr)* | *106* | | *70 - 130* | | *07/25/11 03:19* | *1* |

**Lab Sample ID: LCS 680-209908/13**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 100 | | ug/L | | 100 | 26 - 180 |
| Benzene | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 |
| Bromodichloromethane | 50.0 | 46.8 | | ug/L | | 94 | 70 - 130 |
| Bromoform | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 |
| Bromomethane | 50.0 | 39.4 | | ug/L | | 79 | 23 - 165 |
| 2-Butanone | 100 | 99.7 | | ug/L | | 100 | 49 - 172 |
| Carbon disulfide | 50.0 | 45.1 | | ug/L | | 90 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 |
| Chlorobenzene | 50.0 | 49.9 | | ug/L | | 100 | 70 - 130 |
| Chloroethane | 50.0 | 54.4 | | ug/L | | 109 | 56 - 152 |
| Chloroform | 50.0 | 45.6 | | ug/L | | 91 | 70 - 130 |
| Chloromethane | 50.0 | 40.1 | | ug/L | | 80 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 51.5 | | ug/L | | 103 | 70 - 130 |
| Dibromochloromethane | 50.0 | 44.8 | | ug/L | | 90 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| Dibromomethane | 50.0 | 49.5 | | ug/L | | 99 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 43.8 | | ug/L | | 88 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 42.5 | | ug/L | | 85 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 43.7 | | ug/L | | 87 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 41.0 | | ug/L | | 82 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 49.4 | | ug/L | | 99 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 42.1 | | ug/L | | 84 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 51.1 | | ug/L | | 102 | 70 - 130 |
| 1,4-Dioxane | 500 | 543 | | ug/L | | 109 | 50 - 150 |
| Ethylbenzene | 50.0 | 53.2 | | ug/L | | 106 | 70 - 130 |
| 2-Hexanone | 100 | 108 | | ug/L | | 108 | 42 - 185 |
| Methylene Chloride | 50.0 | 43.0 | | ug/L | | 86 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 105 | | ug/L | | 105 | 70 - 130 |
| Styrene | 50.0 | 44.3 | | ug/L | | 89 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 42.4 | | ug/L | | 85 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 |
| Tetrachloroethene | 50.0 | 48.3 | | ug/L | | 97 | 70 - 130 |
| Toluene | 50.0 | 52.8 | | ug/L | | 106 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-209908/13**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| trans-1,2-Dichloroethene | 50.0 | 45.5 | | ug/L | | 91 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 45.6 | | ug/L | | 91 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 43.7 | | ug/L | | 87 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 51.5 | | ug/L | | 103 | 70 - 130 |
| Trichloroethene | 50.0 | 45.5 | | ug/L | | 91 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 44.3 | | ug/L | | 89 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 |
| Vinyl acetate | 100 | 115 | | ug/L | | 115 | 60 - 176 |
| Vinyl chloride | 50.0 | 43.5 | | ug/L | | 87 | 67 - 134 |
| Xylenes, Total | 150 | 129 | | ug/L | | 86 | 70 - 130 |
| m-Xylene & p-Xylene | 100 | 85.8 | | ug/L | | 86 | 70 - 130 |
| o-Xylene | 50.0 | 43.1 | | ug/L | | 86 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* |
| *Dibromofluoromethane* | *92* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: LCSD 680-209908/14**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 104 | | ug/L | | 104 | 26 - 180 | 4 | 50 |
| Benzene | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 | 0 | 30 |
| Bromodichloromethane | 50.0 | 48.8 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| Bromoform | 50.0 | 46.5 | | ug/L | | 93 | 70 - 130 | 3 | 30 |
| Bromomethane | 50.0 | 42.4 | | ug/L | | 85 | 23 - 165 | 7 | 50 |
| 2-Butanone | 100 | 103 | | ug/L | | 103 | 49 - 172 | 3 | 30 |
| Carbon disulfide | 50.0 | 45.8 | | ug/L | | 92 | 54 - 132 | 2 | 30 |
| Carbon tetrachloride | 50.0 | 45.6 | | ug/L | | 91 | 70 - 130 | 1 | 30 |
| Chlorobenzene | 50.0 | 51.1 | | ug/L | | 102 | 70 - 130 | 2 | 30 |
| Chloroethane | 50.0 | 54.0 | | ug/L | | 108 | 56 - 152 | 1 | 40 |
| Chloroform | 50.0 | 48.8 | | ug/L | | 98 | 70 - 130 | 7 | 30 |
| Chloromethane | 50.0 | 40.2 | | ug/L | | 80 | 70 - 130 | 0 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 52.8 | | ug/L | | 106 | 70 - 130 | 2 | 30 |
| Dibromochloromethane | 50.0 | 45.8 | | ug/L | | 92 | 70 - 130 | 2 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 48.3 | | ug/L | | 97 | 70 - 130 | 4 | 50 |
| 1,2-Dibromoethane | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 | 6 | 30 |
| Dibromomethane | 50.0 | 50.4 | | ug/L | | 101 | 70 - 130 | 2 | 30 |
| 1,2-Dichlorobenzene | 50.0 | 44.4 | | ug/L | | 89 | 70 - 130 | 1 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 43.8 | | ug/L | | 88 | 70 - 130 | 3 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 | 4 | 30 |
| Dichlorodifluoromethane | 50.0 | 42.1 | | ug/L | | 84 | 44 - 146 | 2 | 50 |
| 1,1-Dichloroethane | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 | 2 | 30 |
| 1,2-Dichloroethane | 50.0 | 48.9 | | ug/L | | 98 | 70 - 130 | 1 | 30 |
| 1,1-Dichloroethene | 50.0 | 43.0 | | ug/L | | 86 | 66 - 131 | 2 | 30 |
| 1,2-Dichloropropane | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 | 2 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-209908/14**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | | | 500 | 50 | U * | ug/L | | 0 | 50 - 150 | 200 | 50 |
| Ethylbenzene | | | 50.0 | 54.2 | | ug/L | | 108 | 70 - 130 | 2 | 30 |
| 2-Hexanone | | | 100 | 110 | | ug/L | | 110 | 42 - 185 | 2 | 30 |
| Methylene Chloride | | | 50.0 | 44.3 | | ug/L | | 89 | 67 - 130 | 3 | 30 |
| 4-Methyl-2-pentanone | | | 100 | 105 | | ug/L | | 105 | 70 - 130 | 0 | 30 |
| Styrene | | | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 | 3 | 30 |
| 1,1,1,2-Tetrachloroethane | | | 50.0 | 44.1 | | ug/L | | 88 | 70 - 130 | 4 | 30 |
| 1,1,2,2-Tetrachloroethane | | | 50.0 | 53.4 | | ug/L | | 107 | 70 - 130 | 2 | 30 |
| Tetrachloroethene | | | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 | 4 | 30 |
| Toluene | | | 50.0 | 53.1 | | ug/L | | 106 | 70 - 130 | 0 | 30 |
| trans-1,2-Dichloroethene | | | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 | 5 | 30 |
| trans-1,3-Dichloropropene | | | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 1 | 50 |
| 1,2,4-Trichlorobenzene | | | 50.0 | 46.1 | | ug/L | | 92 | 65 - 130 | 5 | 30 |
| 1,1,1-Trichloroethane | | | 50.0 | 49.1 | | ug/L | | 98 | 70 - 130 | 2 | 30 |
| 1,1,2-Trichloroethane | | | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 | 1 | 30 |
| Trichloroethene | | | 50.0 | 48.4 | | ug/L | | 97 | 70 - 130 | 6 | 30 |
| Trichlorofluoromethane | | | 50.0 | 44.6 | | ug/L | | 89 | 55 - 156 | 1 | 30 |
| 1,2,3-Trichloropropane | | | 50.0 | 53.3 | | ug/L | | 107 | 70 - 130 | 2 | 30 |
| Vinyl acetate | | | 100 | 117 | | ug/L | | 117 | 60 - 176 | 1 | 30 |
| Vinyl chloride | | | 50.0 | 43.9 | | ug/L | | 88 | 67 - 134 | 1 | 30 |
| Xylenes, Total | | | 150 | 132 | | ug/L | | 88 | 70 - 130 | 2 | 30 |
| m-Xylene & p-Xylene | | | 100 | 88.2 | | ug/L | | 88 | 70 - 130 | 3 | 30 |
| o-Xylene | | | 50.0 | 43.8 | | ug/L | | 88 | 70 - 130 | 2 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *109* | | *70 - 130* |
| *Dibromofluoromethane* | *94* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *103* | | *70 - 130* |

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 100 | 116 | | ug/L | | 104 | 26 - 180 |
| Benzene | 1.0 | U | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 |
| Bromodichloromethane | 1.0 | U | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 |
| Bromoform | 1.0 | U | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 |
| Bromomethane | 1.0 | U | 50.0 | 33.4 | | ug/L | | 67 | 23 - 165 |
| 2-Butanone | 10 | U | 100 | 101 | | ug/L | | 101 | 49 - 172 |
| Carbon disulfide | 2.0 | U | 50.0 | 49.9 | | ug/L | | 100 | 54 - 132 |
| Carbon tetrachloride | 1.0 | U | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| Chlorobenzene | 1.0 | U | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 |
| Chloroethane | 1.0 | U | 50.0 | 53.6 | | ug/L | | 107 | 56 - 152 |
| Chloroform | 1.0 | U | 50.0 | 49.6 | | ug/L | | 99 | 70 - 130 |
| Chloromethane | 1.0 | U | 50.0 | 39.1 | | ug/L | | 78 | 70 - 130 |
| cis-1,3-Dichloropropene | 1.0 | U | 50.0 | 51.3 | | ug/L | | 103 | 70 - 130 |
| Dibromochloromethane | 1.0 | U | 50.0 | 44.6 | | ug/L | | 89 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 50.0 | 47.7 | | ug/L | | 95 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 1.0 | U | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 |
| Dibromomethane | 1.0 | U | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dichlorobenzene | 1.0 | U | 50.0 | 44.8 | | ug/L | | 90 | 70 - 130 |
| 1,3-Dichlorobenzene | 1.0 | U | 50.0 | 44.8 | | ug/L | | 90 | 70 - 130 |
| 1,4-Dichlorobenzene | 1.0 | U | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 |
| Dichlorodifluoromethane | 1.0 | U | 50.0 | 37.2 | | ug/L | | 74 | 44 - 146 |
| 1,1-Dichloroethane | 1.0 | U | 50.0 | 50.6 | | ug/L | | 101 | 70 - 130 |
| 1,2-Dichloroethane | 1.0 | U | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| 1,1-Dichloroethene | 1.0 | U | 50.0 | 45.3 | | ug/L | | 91 | 66 - 131 |
| 1,2-Dichloropropane | 1.0 | U | 50.0 | 48.3 | | ug/L | | 97 | 70 - 130 |
| Ethylbenzene | 1.0 | U | 50.0 | 55.2 | | ug/L | | 110 | 70 - 130 |
| 2-Hexanone | 10 | U | 100 | 109 | | ug/L | | 109 | 42 - 185 |
| Methylene Chloride | 5.0 | U | 50.0 | 46.3 | | ug/L | | 93 | 67 - 130 |
| 4-Methyl-2-pentanone | 10 | U | 100 | 104 | | ug/L | | 104 | 70 - 130 |
| Styrene | 1.0 | U | 50.0 | 45.9 | | ug/L | | 92 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 50.0 | 43.6 | | ug/L | | 87 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Tetrachloroethene | 1.0 | U | 50.0 | 51.6 | | ug/L | | 103 | 70 - 130 |
| Toluene | 1.0 | U | 50.0 | 54.1 | | ug/L | | 108 | 70 - 130 |
| trans-1,2-Dichloroethene | 1.0 | U | 50.0 | 49.5 | | ug/L | | 99 | 70 - 130 |
| trans-1,3-Dichloropropene | 1.0 | U | 50.0 | 44.0 | | ug/L | | 88 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 50.0 | 46.9 | | ug/L | | 94 | 65 - 130 |
| 1,1,1-Trichloroethane | 1.0 | U | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 |
| 1,1,2-Trichloroethane | 1.0 | U | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 |
| Trichloroethene | 1.0 | U | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 |
| Trichlorofluoromethane | 1.0 | U | 50.0 | 45.7 | | ug/L | | 91 | 55 - 156 |
| 1,2,3-Trichloropropane | 1.0 | U | 50.0 | 50.6 | | ug/L | | 101 | 70 - 130 |
| Vinyl acetate | 2.0 | U | 100 | 86.3 | | ug/L | | 86 | 60 - 176 |
| Vinyl chloride | 1.0 | U | 50.0 | 43.4 | | ug/L | | 87 | 67 - 134 |
| Xylenes, Total | 2.0 | U | 150 | 135 | | ug/L | | 90 | 70 - 130 |
| m-Xylene & p-Xylene | 2.0 | U | 100 | 90.9 | | ug/L | | 91 | 70 - 130 |
| o-Xylene | 1.0 | U | 50.0 | 44.5 | | ug/L | | 89 | 70 - 130 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* |
| *Dibromofluoromethane* | *100* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *105* | | *70 - 130* |

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 100 | 111 | | ug/L | | 99 | 26 - 180 | 5 | 50 |
| Benzene | 1.0 | U | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 7 | 30 |
| Bromodichloromethane | 1.0 | U | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 | 6 | 30 |
| Bromoform | 1.0 | U | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 3 | 30 |
| Bromomethane | 1.0 | U | 50.0 | 41.5 | | ug/L | | 83 | 23 - 165 | 22 | 50 |
| 2-Butanone | 10 | U | 100 | 94.4 | | ug/L | | 94 | 49 - 172 | 7 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 209908**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon disulfide | 2.0 | U | 50.0 | 47.9 | | ug/L | | 96 | 54 - 132 | 4 | 30 |
| Carbon tetrachloride | 1.0 | U | 50.0 | 45.0 | | ug/L | | 90 | 70 - 130 | 6 | 30 |
| Chlorobenzene | 1.0 | U | 50.0 | 48.8 | | ug/L | | 98 | 70 - 130 | 6 | 30 |
| Chloroethane | 1.0 | U | 50.0 | 47.5 | | ug/L | | 95 | 56 - 152 | 12 | 40 |
| Chloroform | 1.0 | U | 50.0 | 47.0 | | ug/L | | 94 | 70 - 130 | 5 | 30 |
| Chloromethane | 1.0 | U | 50.0 | 36.0 | | ug/L | | 72 | 70 - 130 | 8 | 30 |
| cis-1,3-Dichloropropene | 1.0 | U | 50.0 | 47.7 | | ug/L | | 95 | 70 - 130 | 7 | 30 |
| Dibromochloromethane | 1.0 | U | 50.0 | 43.0 | | ug/L | | 86 | 70 - 130 | 4 | 50 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 50.0 | 44.1 | | ug/L | | 88 | 70 - 130 | 8 | 50 |
| 1,2-Dibromoethane | 1.0 | U | 50.0 | 46.9 | | ug/L | | 94 | 70 - 130 | 5 | 30 |
| Dibromomethane | 1.0 | U | 50.0 | 45.6 | | ug/L | | 91 | 70 - 130 | 4 | 30 |
| 1,2-Dichlorobenzene | 1.0 | U | 50.0 | 42.5 | | ug/L | | 85 | 70 - 130 | 5 | 30 |
| 1,3-Dichlorobenzene | 1.0 | U | 50.0 | 41.7 | | ug/L | | 83 | 70 - 130 | 7 | 30 |
| 1,4-Dichlorobenzene | 1.0 | U | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 8 | 30 |
| Dichlorodifluoromethane | 1.0 | U | 50.0 | 34.5 | | ug/L | | 69 | 44 - 146 | 8 | 50 |
| 1,1-Dichloroethane | 1.0 | U | 50.0 | 48.4 | | ug/L | | 97 | 70 - 130 | 5 | 30 |
| 1,2-Dichloroethane | 1.0 | U | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 | 7 | 30 |
| 1,1-Dichloroethene | 1.0 | U | 50.0 | 43.8 | | ug/L | | 88 | 66 - 131 | 3 | 30 |
| 1,2-Dichloropropane | 1.0 | U | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 | 4 | 30 |
| Ethylbenzene | 1.0 | U | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 | 6 | 30 |
| 2-Hexanone | 10 | U | 100 | 101 | | ug/L | | 101 | 42 - 185 | 8 | 30 |
| Methylene Chloride | 5.0 | U | 50.0 | 45.3 | | ug/L | | 91 | 67 - 130 | 2 | 30 |
| 4-Methyl-2-pentanone | 10 | U | 100 | 95.5 | | ug/L | | 95 | 70 - 130 | 8 | 30 |
| Styrene | 1.0 | U | 50.0 | 43.2 | | ug/L | | 86 | 70 - 130 | 6 | 30 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 50.0 | 42.0 | | ug/L | | 84 | 70 - 130 | 4 | 30 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 50.0 | 49.3 | | ug/L | | 99 | 70 - 130 | 6 | 30 |
| Tetrachloroethene | 1.0 | U | 50.0 | 49.9 | | ug/L | | 100 | 70 - 130 | 3 | 30 |
| Toluene | 1.0 | U | 50.0 | 50.3 | | ug/L | | 101 | 70 - 130 | 7 | 30 |
| trans-1,2-Dichloroethene | 1.0 | U | 50.0 | 47.2 | | ug/L | | 94 | 70 - 130 | 5 | 30 |
| trans-1,3-Dichloropropene | 1.0 | U | 50.0 | 41.1 | | ug/L | | 82 | 70 - 130 | 7 | 50 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 50.0 | 44.1 | | ug/L | | 88 | 65 - 130 | 6 | 30 |
| 1,1,1-Trichloroethane | 1.0 | U | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 | 5 | 30 |
| 1,1,2-Trichloroethane | 1.0 | U | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 | 5 | 30 |
| Trichloroethene | 1.0 | U | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 5 | 30 |
| Trichlorofluoromethane | 1.0 | U | 50.0 | 42.1 | | ug/L | | 84 | 55 - 156 | 8 | 30 |
| 1,2,3-Trichloropropane | 1.0 | U | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 | 5 | 30 |
| Vinyl acetate | 2.0 | U | 100 | 81.8 | | ug/L | | 82 | 60 - 176 | 5 | 30 |
| Vinyl chloride | 1.0 | U | 50.0 | 40.2 | | ug/L | | 80 | 67 - 134 | 8 | 30 |
| Xylenes, Total | 2.0 | U | 150 | 127 | | ug/L | | 85 | 70 - 130 | 6 | 30 |
| m-Xylene & p-Xylene | 2.0 | U | 100 | 85.1 | | ug/L | | 85 | 70 - 130 | 7 | 30 |
| o-Xylene | 1.0 | U | 50.0 | 42.3 | | ug/L | | 85 | 70 - 130 | 5 | 30 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *70 - 130* |
| *Dibromofluoromethane* | *99* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210132/19**
**Matrix: Water**
**Analysis Batch: 210132**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 11:44 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 11:44 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 11:44 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 11:44 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 11:44 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 11:44 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 11:44 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 11:44 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 11:44 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 11:44 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 11:44 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210132/19**
**Matrix: Water**
**Analysis Batch: 210132**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 11:44 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 11:44 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/26/11 11:44* | *1* |
| *Dibromofluoromethane* | *115* | | *70 - 130* | | *07/26/11 11:44* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/26/11 11:44* | *1* |

**Lab Sample ID: LCS 680-210132/16**
**Matrix: Water**
**Analysis Batch: 210132**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 96.8 | | ug/L | | 97 | 26 - 180 |
| Benzene | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| Bromodichloromethane | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 |
| Bromoform | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Bromomethane | 50.0 | 45.8 | | ug/L | | 92 | 23 - 165 |
| 2-Butanone | 100 | 93.5 | | ug/L | | 94 | 49 - 172 |
| Carbon disulfide | 50.0 | 55.2 | | ug/L | | 110 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 |
| Chlorobenzene | 50.0 | 52.9 | | ug/L | | 106 | 70 - 130 |
| Chloroethane | 50.0 | 37.9 | | ug/L | | 76 | 56 - 152 |
| Chloroform | 50.0 | 55.9 | | ug/L | | 112 | 70 - 130 |
| Chloromethane | 50.0 | 42.8 | | ug/L | | 86 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 49.8 | | ug/L | | 100 | 70 - 130 |
| Dibromochloromethane | 50.0 | 53.6 | | ug/L | | 107 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 53.0 | | ug/L | | 106 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 53.7 | | ug/L | | 107 | 70 - 130 |
| Dibromomethane | 50.0 | 45.3 | | ug/L | | 91 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 60.1 | | ug/L | | 120 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 57.8 | | ug/L | | 116 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 59.6 | | ug/L | | 119 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 47.7 | | ug/L | | 95 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 41.0 | | ug/L | | 82 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 55.1 | | ug/L | | 110 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 45.2 | | ug/L | | 90 | 70 - 130 |
| 1,4-Dioxane | 500 | 529 | | ug/L | | 106 | 50 - 150 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210132/16**
**Matrix: Water**
**Analysis Batch: 210132**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ethylbenzene | 50.0 | 53.0 | | ug/L | | 106 | 70 - 130 |
| 2-Hexanone | 100 | 97.5 | | ug/L | | 97 | 42 - 185 |
| Methylene Chloride | 50.0 | 57.1 | | ug/L | | 114 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 85.3 | | ug/L | | 85 | 70 - 130 |
| Styrene | 50.0 | 44.7 | | ug/L | | 89 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 51.4 | | ug/L | | 103 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 54.1 | | ug/L | | 108 | 70 - 130 |
| Tetrachloroethene | 50.0 | 59.2 | | ug/L | | 118 | 70 - 130 |
| Toluene | 50.0 | 49.4 | | ug/L | | 99 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 54.3 | | ug/L | | 109 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 44.6 | | ug/L | | 89 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 66.7 | * | ug/L | | 133 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| Trichloroethene | 50.0 | 53.3 | | ug/L | | 107 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 40.2 | | ug/L | | 80 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 56.5 | | ug/L | | 113 | 70 - 130 |
| Vinyl acetate | 100 | 143 | | ug/L | | 143 | 60 - 176 |
| Vinyl chloride | 50.0 | 42.6 | | ug/L | | 85 | 67 - 134 |
| Xylenes, Total | 150 | 132 | | ug/L | | 88 | 70 - 130 |
| m-Xylene & p-Xylene | 100 | 86.5 | | ug/L | | 87 | 70 - 130 |
| o-Xylene | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *107* | | *70 - 130* |
| *Dibromofluoromethane* | *116* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

**Lab Sample ID: LCSD 680-210132/17**
**Matrix: Water**
**Analysis Batch: 210132**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 92.4 | | ug/L | | 92 | 26 - 180 | 5 | 50 |
| Benzene | 50.0 | 46.2 | | ug/L | | 92 | 70 - 130 | 3 | 30 |
| Bromodichloromethane | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 | 2 | 30 |
| Bromoform | 50.0 | 52.4 | | ug/L | | 105 | 70 - 130 | 0 | 30 |
| Bromomethane | 50.0 | 45.2 | | ug/L | | 90 | 23 - 165 | 1 | 50 |
| 2-Butanone | 100 | 95.5 | | ug/L | | 95 | 49 - 172 | 2 | 30 |
| Carbon disulfide | 50.0 | 56.3 | | ug/L | | 113 | 54 - 132 | 2 | 30 |
| Carbon tetrachloride | 50.0 | 43.6 | | ug/L | | 87 | 70 - 130 | 3 | 30 |
| Chlorobenzene | 50.0 | 52.4 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| Chloroethane | 50.0 | 36.6 | | ug/L | | 73 | 56 - 152 | 3 | 40 |
| Chloroform | 50.0 | 55.5 | | ug/L | | 111 | 70 - 130 | 1 | 30 |
| Chloromethane | 50.0 | 42.7 | | ug/L | | 85 | 70 - 130 | 0 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 | 2 | 30 |
| Dibromochloromethane | 50.0 | 52.2 | | ug/L | | 104 | 70 - 130 | 3 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 53.4 | | ug/L | | 107 | 70 - 130 | 1 | 50 |
| 1,2-Dibromoethane | 50.0 | 54.1 | | ug/L | | 108 | 70 - 130 | 1 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210132/17**
**Matrix: Water**
**Analysis Batch: 210132**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dibromomethane | | | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 2 | 30 |
| 1,2-Dichlorobenzene | | | 50.0 | 60.1 | | ug/L | | 120 | 70 - 130 | 0 | 30 |
| 1,3-Dichlorobenzene | | | 50.0 | 58.5 | | ug/L | | 117 | 70 - 130 | 1 | 30 |
| 1,4-Dichlorobenzene | | | 50.0 | 58.3 | | ug/L | | 117 | 70 - 130 | 2 | 30 |
| Dichlorodifluoromethane | | | 50.0 | 46.1 | | ug/L | | 92 | 44 - 146 | 3 | 50 |
| 1,1-Dichloroethane | | | 50.0 | 51.1 | | ug/L | | 102 | 70 - 130 | 2 | 30 |
| 1,2-Dichloroethane | | | 50.0 | 41.8 | | ug/L | | 84 | 70 - 130 | 2 | 30 |
| 1,1-Dichloroethene | | | 50.0 | 55.9 | | ug/L | | 112 | 66 - 131 | 1 | 30 |
| 1,2-Dichloropropane | | | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 | 1 | 30 |
| 1,4-Dioxane | | | 500 | 499 | | ug/L | | 100 | 50 - 150 | 6 | 50 |
| Ethylbenzene | | | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 | 2 | 30 |
| 2-Hexanone | | | 100 | 95.8 | | ug/L | | 96 | 42 - 185 | 2 | 30 |
| Methylene Chloride | | | 50.0 | 58.7 | | ug/L | | 117 | 67 - 130 | 3 | 30 |
| 4-Methyl-2-pentanone | | | 100 | 83.1 | | ug/L | | 83 | 70 - 130 | 3 | 30 |
| Styrene | | | 50.0 | 44.4 | | ug/L | | 89 | 70 - 130 | 1 | 30 |
| 1,1,1,2-Tetrachloroethane | | | 50.0 | 50.3 | | ug/L | | 101 | 70 - 130 | 2 | 30 |
| 1,1,2,2-Tetrachloroethane | | | 50.0 | 53.0 | | ug/L | | 106 | 70 - 130 | 2 | 30 |
| Tetrachloroethene | | | 50.0 | 57.5 | | ug/L | | 115 | 70 - 130 | 3 | 30 |
| Toluene | | | 50.0 | 47.7 | | ug/L | | 95 | 70 - 130 | 3 | 30 |
| trans-1,2-Dichloroethene | | | 50.0 | 54.3 | | ug/L | | 109 | 70 - 130 | 0 | 30 |
| trans-1,3-Dichloropropene | | | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 | 1 | 50 |
| 1,2,4-Trichlorobenzene | | | 50.0 | 69.5 | * | ug/L | | 139 | 65 - 130 | 4 | 30 |
| 1,1,1-Trichloroethane | | | 50.0 | 46.9 | | ug/L | | 94 | 70 - 130 | 5 | 30 |
| 1,1,2-Trichloroethane | | | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 | 1 | 30 |
| Trichloroethene | | | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| Trichlorofluoromethane | | | 50.0 | 38.2 | | ug/L | | 76 | 55 - 156 | 5 | 30 |
| 1,2,3-Trichloropropane | | | 50.0 | 56.7 | | ug/L | | 113 | 70 - 130 | 0 | 30 |
| Vinyl acetate | | | 100 | 142 | | ug/L | | 142 | 60 - 176 | 1 | 30 |
| Vinyl chloride | | | 50.0 | 42.6 | | ug/L | | 85 | 67 - 134 | 0 | 30 |
| Xylenes, Total | | | 150 | 132 | | ug/L | | 88 | 70 - 130 | 0 | 30 |
| m-Xylene & p-Xylene | | | 100 | 86.4 | | ug/L | | 86 | 70 - 130 | 0 | 30 |
| o-Xylene | | | 50.0 | 45.2 | | ug/L | | 90 | 70 - 130 | 0 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *107* | | *70 - 130* |
| *Dibromofluoromethane* | *116* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *96* | | *70 - 130* |

**Lab Sample ID: MB 680-210192/8**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 23:20 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 23:20 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 23:20 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 23:20 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210192/8**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 23:20 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 23:20 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 23:20 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 23:20 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 23:20 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 23:20 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 23:20 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210192/8**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 23:20 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 23:20 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *70 - 130* | | *07/26/11 23:20* | *1* |
| *Dibromofluoromethane* | *101* | | *70 - 130* | | *07/26/11 23:20* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* | | *07/26/11 23:20* | *1* |

**Lab Sample ID: LCS 680-210192/5**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 89.9 | | ug/L | | 90 | 26 - 180 |
| Benzene | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 |
| Bromodichloromethane | 50.0 | 49.6 | | ug/L | | 99 | 70 - 130 |
| Bromoform | 50.0 | 53.1 | | ug/L | | 106 | 70 - 130 |
| Bromomethane | 50.0 | 42.5 | | ug/L | | 85 | 23 - 165 |
| 2-Butanone | 100 | 96.4 | | ug/L | | 96 | 49 - 172 |
| Carbon disulfide | 50.0 | 54.1 | | ug/L | | 108 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 46.4 | | ug/L | | 93 | 70 - 130 |
| Chlorobenzene | 50.0 | 53.0 | | ug/L | | 106 | 70 - 130 |
| Chloroethane | 50.0 | 38.7 | | ug/L | | 77 | 56 - 152 |
| Chloroform | 50.0 | 55.4 | | ug/L | | 111 | 70 - 130 |
| Chloromethane | 50.0 | 41.3 | | ug/L | | 83 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 |
| Dibromochloromethane | 50.0 | 54.3 | | ug/L | | 109 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 54.0 | | ug/L | | 108 | 70 - 130 |
| Dibromomethane | 50.0 | 46.6 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 57.3 | | ug/L | | 115 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 57.6 | | ug/L | | 115 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 57.3 | | ug/L | | 115 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 45.2 | | ug/L | | 90 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 52.5 | | ug/L | | 105 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 42.0 | | ug/L | | 84 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 55.1 | | ug/L | | 110 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 46.8 | | ug/L | | 94 | 70 - 130 |
| 1,4-Dioxane | 500 | 590 | | ug/L | | 118 | 50 - 150 |
| Ethylbenzene | 50.0 | 53.2 | | ug/L | | 106 | 70 - 130 |
| 2-Hexanone | 100 | 96.4 | | ug/L | | 96 | 42 - 185 |
| Methylene Chloride | 50.0 | 54.4 | | ug/L | | 109 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 84.2 | | ug/L | | 84 | 70 - 130 |
| Styrene | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 51.4 | | ug/L | | 103 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 53.1 | | ug/L | | 106 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210192/5**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 50.0 | 59.2 | | ug/L | | 118 | 70 - 130 |
| Toluene | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 55.0 | | ug/L | | 110 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 45.8 | | ug/L | | 92 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 63.4 | | ug/L | | 127 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 50.0 | | ug/L | | 100 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 47.8 | | ug/L | | 96 | 70 - 130 |
| Trichloroethene | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 42.3 | | ug/L | | 85 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 55.1 | | ug/L | | 110 | 70 - 130 |
| Vinyl acetate | 100 | 148 | | ug/L | | 148 | 60 - 176 |
| Vinyl chloride | 50.0 | 43.1 | | ug/L | | 86 | 67 - 134 |
| Xylenes, Total | 150 | 133 | | ug/L | | 89 | 70 - 130 |
| m-Xylene & p-Xylene | 100 | 88.0 | | ug/L | | 88 | 70 - 130 |
| o-Xylene | 50.0 | 45.3 | | ug/L | | 91 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *107* | | *70 - 130* |
| *Dibromofluoromethane* | *114* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *99* | | *70 - 130* |

**Lab Sample ID: LCSD 680-210192/6**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 95.2 | | ug/L | | 95 | 26 - 180 | 6 | 50 |
| Benzene | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 | 1 | 30 |
| Bromodichloromethane | 50.0 | 48.6 | | ug/L | | 97 | 70 - 130 | 2 | 30 |
| Bromoform | 50.0 | 53.3 | | ug/L | | 107 | 70 - 130 | 0 | 30 |
| Bromomethane | 50.0 | 46.1 | | ug/L | | 92 | 23 - 165 | 8 | 50 |
| 2-Butanone | 100 | 96.6 | | ug/L | | 97 | 49 - 172 | 0 | 30 |
| Carbon disulfide | 50.0 | 52.6 | | ug/L | | 105 | 54 - 132 | 3 | 30 |
| Carbon tetrachloride | 50.0 | 45.1 | | ug/L | | 90 | 70 - 130 | 3 | 30 |
| Chlorobenzene | 50.0 | 52.4 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| Chloroethane | 50.0 | 35.7 | | ug/L | | 71 | 56 - 152 | 8 | 40 |
| Chloroform | 50.0 | 55.0 | | ug/L | | 110 | 70 - 130 | 1 | 30 |
| Chloromethane | 50.0 | 40.5 | | ug/L | | 81 | 70 - 130 | 2 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 50.0 | | ug/L | | 100 | 70 - 130 | 1 | 30 |
| Dibromochloromethane | 50.0 | 54.3 | | ug/L | | 109 | 70 - 130 | 0 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 51.9 | | ug/L | | 104 | 70 - 130 | 9 | 50 |
| 1,2-Dibromoethane | 50.0 | 53.9 | | ug/L | | 108 | 70 - 130 | 0 | 30 |
| Dibromomethane | 50.0 | 46.6 | | ug/L | | 93 | 70 - 130 | 0 | 30 |
| 1,2-Dichlorobenzene | 50.0 | 60.2 | | ug/L | | 120 | 70 - 130 | 5 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 58.6 | | ug/L | | 117 | 70 - 130 | 2 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 59.5 | | ug/L | | 119 | 70 - 130 | 4 | 30 |
| Dichlorodifluoromethane | 50.0 | 43.6 | | ug/L | | 87 | 44 - 146 | 4 | 50 |
| 1,1-Dichloroethane | 50.0 | 51.9 | | ug/L | | 104 | 70 - 130 | 1 | 30 |
| 1,2-Dichloroethane | 50.0 | 42.6 | | ug/L | | 85 | 70 - 130 | 1 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210192/6**
**Matrix: Water**
**Analysis Batch: 210192**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | | | 50.0 | 54.3 | | ug/L | | 109 | 66 - 131 | 1 | 30 |
| 1,2-Dichloropropane | | | 50.0 | 45.0 | | ug/L | | 90 | 70 - 130 | 4 | 30 |
| 1,4-Dioxane | | | 500 | 457 | | ug/L | | 91 | 50 - 150 | 25 | 50 |
| Ethylbenzene | | | 50.0 | 52.7 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| 2-Hexanone | | | 100 | 97.1 | | ug/L | | 97 | 42 - 185 | 1 | 30 |
| Methylene Chloride | | | 50.0 | 55.0 | | ug/L | | 110 | 67 - 130 | 1 | 30 |
| 4-Methyl-2-pentanone | | | 100 | 86.0 | | ug/L | | 86 | 70 - 130 | 2 | 30 |
| Styrene | | | 50.0 | 43.3 | | ug/L | | 87 | 70 - 130 | 2 | 30 |
| 1,1,1,2-Tetrachloroethane | | | 50.0 | 52.2 | | ug/L | | 104 | 70 - 130 | 2 | 30 |
| 1,1,2,2-Tetrachloroethane | | | 50.0 | 54.2 | | ug/L | | 108 | 70 - 130 | 2 | 30 |
| Tetrachloroethene | | | 50.0 | 57.5 | | ug/L | | 115 | 70 - 130 | 3 | 30 |
| Toluene | | | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 | 2 | 30 |
| trans-1,2-Dichloroethene | | | 50.0 | 54.6 | | ug/L | | 109 | 70 - 130 | 1 | 30 |
| trans-1,3-Dichloropropene | | | 50.0 | 45.9 | | ug/L | | 92 | 70 - 130 | 0 | 50 |
| 1,2,4-Trichlorobenzene | | | 50.0 | 61.1 | | ug/L | | 122 | 65 - 130 | 4 | 30 |
| 1,1,1-Trichloroethane | | | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 | 3 | 30 |
| 1,1,2-Trichloroethane | | | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| Trichloroethene | | | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 | 1 | 30 |
| Trichlorofluoromethane | | | 50.0 | 39.9 | | ug/L | | 80 | 55 - 156 | 6 | 30 |
| 1,2,3-Trichloropropane | | | 50.0 | 59.0 | | ug/L | | 118 | 70 - 130 | 7 | 30 |
| Vinyl acetate | | | 100 | 151 | | ug/L | | 151 | 60 - 176 | 2 | 30 |
| Vinyl chloride | | | 50.0 | 40.6 | | ug/L | | 81 | 67 - 134 | 6 | 30 |
| Xylenes, Total | | | 150 | 131 | | ug/L | | 87 | 70 - 130 | 2 | 30 |
| m-Xylene & p-Xylene | | | 100 | 86.4 | | ug/L | | 86 | 70 - 130 | 2 | 30 |
| o-Xylene | | | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 | 2 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *105* | | *70 - 130* |
| *Dibromofluoromethane* | *115* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 130* |

**Lab Sample ID: MB 680-210251/12**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/27/11 12:39 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/27/11 12:39 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/27/11 12:39 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/27/11 12:39 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/27/11 12:39 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210251/12**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/27/11 12:39 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/27/11 12:39 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/27/11 12:39 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/27/11 12:39 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/27/11 12:39 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/27/11 12:39 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| m-Xylene & p-Xylene | 2.0 | U | 2.0 | | ug/L | | | 07/27/11 12:39 | 1 |
| o-Xylene | 1.0 | U | 1.0 | | ug/L | | | 07/27/11 12:39 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210251/12**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Surrogate | MB % Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 103 | | 70 - 130 | | 07/27/11 12:39 | 1 |
| Dibromofluoromethane | 101 | | 70 - 130 | | 07/27/11 12:39 | 1 |
| Toluene-d8 (Surr) | 101 | | 70 - 130 | | 07/27/11 12:39 | 1 |

**Lab Sample ID: LCS 680-210251/9**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 111 | | ug/L | | 111 | 26 - 180 |
| Benzene | 50.0 | 48.8 | | ug/L | | 98 | 70 - 130 |
| Bromodichloromethane | 50.0 | 42.0 | | ug/L | | 84 | 70 - 130 |
| Bromoform | 50.0 | 34.5 | * | ug/L | | 69 | 70 - 130 |
| Bromomethane | 50.0 | 32.3 | | ug/L | | 65 | 23 - 165 |
| 2-Butanone | 100 | 110 | | ug/L | | 110 | 49 - 172 |
| Carbon disulfide | 50.0 | 51.6 | | ug/L | | 103 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 37.4 | | ug/L | | 75 | 70 - 130 |
| Chlorobenzene | 50.0 | 53.1 | | ug/L | | 106 | 70 - 130 |
| Chloroethane | 50.0 | 49.7 | | ug/L | | 99 | 56 - 152 |
| Chloroform | 50.0 | 46.4 | | ug/L | | 93 | 70 - 130 |
| Chloromethane | 50.0 | 59.5 | | ug/L | | 119 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 47.0 | | ug/L | | 94 | 70 - 130 |
| Dibromochloromethane | 50.0 | 38.1 | | ug/L | | 76 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 47.3 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 53.4 | | ug/L | | 107 | 70 - 130 |
| Dibromomethane | 50.0 | 50.6 | | ug/L | | 101 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 55.0 | | ug/L | | 110 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 55.1 | | ug/L | | 110 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 55.4 | | ug/L | | 111 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 51.1 | | ug/L | | 102 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 47.8 | | ug/L | | 96 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 46.4 | | ug/L | | 93 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 49.7 | | ug/L | | 99 | 70 - 130 |
| 1,4-Dioxane | 500 | 603 | | ug/L | | 121 | 50 - 150 |
| Ethylbenzene | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| 2-Hexanone | 100 | 104 | | ug/L | | 104 | 42 - 185 |
| Methylene Chloride | 50.0 | 51.3 | | ug/L | | 103 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 104 | | ug/L | | 104 | 70 - 130 |
| Styrene | 50.0 | 53.7 | | ug/L | | 107 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 45.3 | | ug/L | | 91 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 53.0 | | ug/L | | 106 | 70 - 130 |
| Tetrachloroethene | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Toluene | 50.0 | 49.5 | | ug/L | | 99 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 55.9 | | ug/L | | 112 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 46.6 | | ug/L | | 93 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 50.8 | | ug/L | | 102 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210251/9**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Trichloroethene | 50.0 | 51.3 | | ug/L | | 103 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 51.0 | | ug/L | | 102 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 52.2 | | ug/L | | 104 | 70 - 130 |
| Vinyl acetate | 100 | 76.8 | | ug/L | | 77 | 60 - 176 |
| Vinyl chloride | 50.0 | 51.2 | | ug/L | | 102 | 67 - 134 |
| Xylenes, Total | 150 | 153 | | ug/L | | 102 | 70 - 130 |
| m-Xylene & p-Xylene | 100 | 102 | | ug/L | | 102 | 70 - 130 |
| o-Xylene | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* |
| *Dibromofluoromethane* | *102* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* |

**Lab Sample ID: LCSD 680-210251/10**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 109 | | ug/L | | 109 | 26 - 180 | 2 | 50 |
| Benzene | 50.0 | 47.2 | | ug/L | | 94 | 70 - 130 | 3 | 30 |
| Bromodichloromethane | 50.0 | 41.9 | | ug/L | | 84 | 70 - 130 | 0 | 30 |
| Bromoform | 50.0 | 35.1 | | ug/L | | 70 | 70 - 130 | 2 | 30 |
| Bromomethane | 50.0 | 33.5 | | ug/L | | 67 | 23 - 165 | 4 | 50 |
| 2-Butanone | 100 | 105 | | ug/L | | 105 | 49 - 172 | 4 | 30 |
| Carbon disulfide | 50.0 | 53.2 | | ug/L | | 106 | 54 - 132 | 3 | 30 |
| Carbon tetrachloride | 50.0 | 38.6 | | ug/L | | 77 | 70 - 130 | 3 | 30 |
| Chlorobenzene | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 | 2 | 30 |
| Chloroethane | 50.0 | 49.8 | | ug/L | | 100 | 56 - 152 | 0 | 40 |
| Chloroform | 50.0 | 46.7 | | ug/L | | 93 | 70 - 130 | 1 | 30 |
| Chloromethane | 50.0 | 61.4 | | ug/L | | 123 | 70 - 130 | 3 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 45.1 | | ug/L | | 90 | 70 - 130 | 4 | 30 |
| Dibromochloromethane | 50.0 | 38.5 | | ug/L | | 77 | 70 - 130 | 1 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 47.0 | | ug/L | | 94 | 70 - 130 | 1 | 50 |
| 1,2-Dibromoethane | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| Dibromomethane | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 | 3 | 30 |
| 1,2-Dichlorobenzene | 50.0 | 53.7 | | ug/L | | 107 | 70 - 130 | 2 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 54.0 | | ug/L | | 108 | 70 - 130 | 2 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 53.4 | | ug/L | | 107 | 70 - 130 | 4 | 30 |
| Dichlorodifluoromethane | 50.0 | 51.9 | | ug/L | | 104 | 44 - 146 | 2 | 50 |
| 1,1-Dichloroethane | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 | 0 | 30 |
| 1,2-Dichloroethane | 50.0 | 46.2 | | ug/L | | 92 | 70 - 130 | 4 | 30 |
| 1,1-Dichloroethene | 50.0 | 48.2 | | ug/L | | 96 | 66 - 131 | 4 | 30 |
| 1,2-Dichloropropane | 50.0 | 47.6 | | ug/L | | 95 | 70 - 130 | 4 | 30 |
| 1,4-Dioxane | 500 | 591 | | ug/L | | 118 | 50 - 150 | 2 | 50 |
| Ethylbenzene | 50.0 | 48.9 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| 2-Hexanone | 100 | 97.2 | | ug/L | | 97 | 42 - 185 | 6 | 30 |
| Methylene Chloride | 50.0 | 51.6 | | ug/L | | 103 | 67 - 130 | 1 | 30 |
| 4-Methyl-2-pentanone | 100 | 96.6 | | ug/L | | 97 | 70 - 130 | 7 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210251/10**
**Matrix: Water**
**Analysis Batch: 210251**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Styrene | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 44.7 | | ug/L | | 89 | 70 - 130 | 1 | 30 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 50.1 | | ug/L | | 100 | 70 - 130 | 6 | 30 |
| Tetrachloroethene | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 | 2 | 30 |
| Toluene | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 | 2 | 30 |
| trans-1,2-Dichloroethene | 50.0 | 44.6 | | ug/L | | 89 | 70 - 130 | 1 | 30 |
| trans-1,3-Dichloropropene | 50.0 | 45.5 | | ug/L | | 91 | 70 - 130 | 5 | 50 |
| 1,2,4-Trichlorobenzene | 50.0 | 55.4 | | ug/L | | 111 | 65 - 130 | 1 | 30 |
| 1,1,1-Trichloroethane | 50.0 | 46.8 | | ug/L | | 94 | 70 - 130 | 1 | 30 |
| 1,1,2-Trichloroethane | 50.0 | 48.9 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| Trichloroethene | 50.0 | 49.5 | | ug/L | | 99 | 70 - 130 | 4 | 30 |
| Trichlorofluoromethane | 50.0 | 53.7 | | ug/L | | 107 | 55 - 156 | 5 | 30 |
| 1,2,3-Trichloropropane | 50.0 | 49.7 | | ug/L | | 99 | 70 - 130 | 5 | 30 |
| Vinyl acetate | 100 | 74.4 | | ug/L | | 74 | 60 - 176 | 3 | 30 |
| Vinyl chloride | 50.0 | 52.9 | | ug/L | | 106 | 67 - 134 | 3 | 30 |
| Xylenes, Total | 150 | 148 | | ug/L | | 99 | 70 - 130 | 3 | 30 |
| m-Xylene & p-Xylene | 100 | 98.5 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| o-Xylene | 50.0 | 49.7 | | ug/L | | 99 | 70 - 130 | 3 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *70 - 130* |
| *Dibromofluoromethane* | *103* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: LCS 680-210497/4**
**Matrix: Water**
**Analysis Batch: 210497**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 115 | | ug/L | | 115 | 26 - 180 |
| Benzene | 50.0 | 46.7 | | ug/L | | 93 | 70 - 130 |
| Bromodichloromethane | 50.0 | 40.1 | | ug/L | | 80 | 70 - 130 |
| Bromoform | 50.0 | 30.9 | * | ug/L | | 62 | 70 - 130 |
| Bromomethane | 50.0 | 39.0 | | ug/L | | 78 | 23 - 165 |
| 2-Butanone | 100 | 104 | | ug/L | | 104 | 49 - 172 |
| Carbon disulfide | 50.0 | 49.9 | | ug/L | | 100 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 33.9 | * | ug/L | | 68 | 70 - 130 |
| Chlorobenzene | 50.0 | 50.3 | | ug/L | | 101 | 70 - 130 |
| Chloroethane | 50.0 | 51.6 | | ug/L | | 103 | 56 - 152 |
| Chloroform | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 |
| Chloromethane | 50.0 | 60.7 | | ug/L | | 121 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 43.6 | | ug/L | | 87 | 70 - 130 |
| Dibromochloromethane | 50.0 | 35.7 | | ug/L | | 71 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 42.6 | | ug/L | | 85 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 48.8 | | ug/L | | 98 | 70 - 130 |
| Dibromomethane | 50.0 | 46.6 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210497/4**
**Matrix: Water**
**Analysis Batch: 210497**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 50.0 | 51.4 | | ug/L | | 103 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 46.8 | | ug/L | | 94 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 49.1 | | ug/L | | 98 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 46.2 | | ug/L | | 92 | 70 - 130 |
| 1,4-Dioxane | 500 | 556 | | ug/L | | 111 | 50 - 150 |
| Ethylbenzene | 50.0 | 48.0 | | ug/L | | 96 | 70 - 130 |
| 2-Hexanone | 100 | 97.2 | | ug/L | | 97 | 42 - 185 |
| Methylene Chloride | 50.0 | 52.4 | | ug/L | | 105 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 90.7 | | ug/L | | 91 | 70 - 130 |
| Styrene | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 40.6 | | ug/L | | 81 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 49.0 | | ug/L | | 98 | 70 - 130 |
| Tetrachloroethene | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 |
| Toluene | 50.0 | 47.5 | | ug/L | | 95 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 54.3 | | ug/L | | 109 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 43.0 | | ug/L | | 86 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 |
| Trichloroethene | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 51.2 | | ug/L | | 102 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| Vinyl acetate | 100 | 86.8 | | ug/L | | 87 | 60 - 176 |
| Vinyl chloride | 50.0 | 52.3 | | ug/L | | 105 | 67 - 134 |
| Xylenes, Total | 150 | 147 | | ug/L | | 98 | 70 - 130 |
| m-Xylene & p-Xylene | 100 | 97.4 | | ug/L | | 97 | 70 - 130 |
| o-Xylene | 50.0 | 50.0 | | ug/L | | 100 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *70 - 130* |
| *Dibromofluoromethane* | *100* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

**Lab Sample ID: LCSD 680-210497/5**
**Matrix: Water**
**Analysis Batch: 210497**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 114 | | ug/L | | 114 | 26 - 180 | 0 | 50 |
| Benzene | 50.0 | 45.9 | | ug/L | | 92 | 70 - 130 | 2 | 30 |
| Bromodichloromethane | 50.0 | 41.3 | | ug/L | | 83 | 70 - 130 | 3 | 30 |
| Bromoform | 50.0 | 31.7 | * | ug/L | | 63 | 70 - 130 | 3 | 30 |
| Bromomethane | 50.0 | 44.6 | | ug/L | | 89 | 23 - 165 | 14 | 50 |
| 2-Butanone | 100 | 103 | | ug/L | | 103 | 49 - 172 | 1 | 30 |
| Carbon disulfide | 50.0 | 50.4 | | ug/L | | 101 | 54 - 132 | 1 | 30 |
| Carbon tetrachloride | 50.0 | 36.1 | | ug/L | | 72 | 70 - 130 | 6 | 30 |
| Chlorobenzene | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 | 1 | 30 |
| Chloroethane | 50.0 | 54.0 | | ug/L | | 108 | 56 - 152 | 4 | 40 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210497/5**
**Matrix: Water**
**Analysis Batch: 210497**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloroform | | | 50.0 | 48.4 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| Chloromethane | | | 50.0 | 60.5 | | ug/L | | 121 | 70 - 130 | 0 | 30 |
| cis-1,3-Dichloropropene | | | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 2 | 30 |
| Dibromochloromethane | | | 50.0 | 37.7 | | ug/L | | 75 | 70 - 130 | 5 | 50 |
| 1,2-Dibromo-3-Chloropropane | | | 50.0 | 41.7 | | ug/L | | 83 | 70 - 130 | 2 | 50 |
| 1,2-Dibromoethane | | | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 | 4 | 30 |
| Dibromomethane | | | 50.0 | 45.8 | | ug/L | | 92 | 70 - 130 | 2 | 30 |
| 1,2-Dichlorobenzene | | | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 | 0 | 30 |
| 1,3-Dichlorobenzene | | | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| 1,4-Dichlorobenzene | | | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| Dichlorodifluoromethane | | | 50.0 | 52.3 | | ug/L | | 105 | 44 - 146 | 2 | 50 |
| 1,1-Dichloroethane | | | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 | 2 | 30 |
| 1,2-Dichloroethane | | | 50.0 | 44.4 | | ug/L | | 89 | 70 - 130 | 2 | 30 |
| 1,1-Dichloroethene | | | 50.0 | 50.7 | | ug/L | | 101 | 66 - 131 | 3 | 30 |
| 1,2-Dichloropropane | | | 50.0 | 45.9 | | ug/L | | 92 | 70 - 130 | 1 | 30 |
| 1,4-Dioxane | | | 500 | 520 | | ug/L | | 104 | 50 - 150 | 7 | 50 |
| Ethylbenzene | | | 50.0 | 48.3 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| 2-Hexanone | | | 100 | 92.3 | | ug/L | | 92 | 42 - 185 | 5 | 30 |
| Methylene Chloride | | | 50.0 | 50.8 | | ug/L | | 102 | 67 - 130 | 3 | 30 |
| 4-Methyl-2-pentanone | | | 100 | 88.8 | | ug/L | | 89 | 70 - 130 | 2 | 30 |
| Styrene | | | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 | 0 | 30 |
| 1,1,1,2-Tetrachloroethane | | | 50.0 | 42.1 | | ug/L | | 84 | 70 - 130 | 4 | 30 |
| 1,1,2,2-Tetrachloroethane | | | 50.0 | 48.6 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| Tetrachloroethene | | | 50.0 | 51.1 | | ug/L | | 102 | 70 - 130 | 2 | 30 |
| Toluene | | | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 | 1 | 30 |
| trans-1,2-Dichloroethene | | | 50.0 | 47.8 | | ug/L | | 96 | 70 - 130 | 1 | 30 |
| trans-1,3-Dichloropropene | | | 50.0 | 42.2 | | ug/L | | 84 | 70 - 130 | 2 | 50 |
| 1,2,4-Trichlorobenzene | | | 50.0 | 54.6 | | ug/L | | 109 | 65 - 130 | 1 | 30 |
| 1,1,1-Trichloroethane | | | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 | 3 | 30 |
| 1,1,2-Trichloroethane | | | 50.0 | 45.7 | | ug/L | | 91 | 70 - 130 | 4 | 30 |
| Trichloroethene | | | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 | 0 | 30 |
| Trichlorofluoromethane | | | 50.0 | 52.9 | | ug/L | | 106 | 55 - 156 | 3 | 30 |
| 1,2,3-Trichloropropane | | | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| Vinyl acetate | | | 100 | 87.4 | | ug/L | | 87 | 60 - 176 | 1 | 30 |
| Vinyl chloride | | | 50.0 | 53.0 | | ug/L | | 106 | 67 - 134 | 1 | 30 |
| Xylenes, Total | | | 150 | 148 | | ug/L | | 99 | 70 - 130 | 0 | 30 |
| m-Xylene & p-Xylene | | | 100 | 97.6 | | ug/L | | 98 | 70 - 130 | 0 | 30 |
| o-Xylene | | | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 | 0 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *70 - 130* |
| *Dibromofluoromethane* | *101* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Lab Sample ID: MB 680-209662/21-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Bis(2-ethylhexyl) phthalate | 13.2 | | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: MB 680-209662/21-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Famphur | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Hexachlorophene | 500 | U | 500 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: MB 680-209662/21-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/22/11 15:26 | 08/03/11 14:48 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *55* | | *27 - 130* | *07/22/11 15:26* | *08/03/11 14:48* | *1* |
| *Nitrobenzene-d5 (Surr)* | *57* | | *32 - 130* | *07/22/11 15:26* | *08/03/11 14:48* | *1* |
| *Terphenyl-d14 (Surr)* | *68* | | *36 - 130* | *07/22/11 15:26* | *08/03/11 14:48* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *62* | | *30 - 130* | *07/22/11 15:26* | *08/03/11 14:48* | *1* |
| *2-Fluorophenol (Surr)* | *54* | | *25 - 130* | *07/22/11 15:26* | *08/03/11 14:48* | *1* |
| *2-Fluorobiphenyl* | *56* | | *34 - 130* | *07/22/11 15:26* | *08/03/11 14:48* | *1* |

**Lab Sample ID: LCS 680-209662/22-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 2.00 | 1.15 | | ug/L | | 57 | 42 - 130 |
| Acenaphthylene | 2.00 | 1.21 | | ug/L | | 61 | 45 - 130 |
| Acetophenone | 10.0 | 5.34 | | ug/L | | 53 | 45 - 130 |
| Aniline | 10.0 | 7.26 | | ug/L | | 73 | 10 - 130 |
| Anthracene | 2.00 | 1.14 | * | ug/L | | 57 | 58 - 130 |
| Benzo[a]anthracene | 2.00 | 1.19 | | ug/L | | 60 | 42 - 143 |
| Benzo[a]pyrene | 2.00 | 1.17 | | ug/L | | 59 | 45 - 151 |
| Benzo[b]fluoranthene | 2.00 | 1.14 | | ug/L | | 57 | 41 - 140 |
| Benzo[g,h,i]perylene | 2.00 | 0.864 | | ug/L | | 43 | 27 - 134 |
| Benzo[k]fluoranthene | 2.00 | 1.15 | | ug/L | | 58 | 45 - 140 |
| Benzyl alcohol | 10.0 | 5.49 | | ug/L | | 55 | 34 - 130 |
| Bis(2-chloroethoxy)methane | 10.0 | 5.62 | | ug/L | | 56 | 47 - 130 |
| Bis(2-chloroethyl)ether | 10.0 | 5.29 | | ug/L | | 53 | 36 - 130 |
| bis (2-chloroisopropyl) ether | 10.0 | 5.22 | | ug/L | | 52 | 39 - 130 |
| Bis(2-ethylhexyl) phthalate | 10.0 | 18.2 | * | ug/L | | 182 | 10 - 158 |
| 4-Bromophenyl phenyl ether | 10.0 | 5.51 | | ug/L | | 55 | 44 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-209662/22-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 10.0 | 6.29 | | ug/L | | 63 | 60 - 130 |
| 4-Chloroaniline | 10.0 | 5.33 | | ug/L | | 53 | 17 - 130 |
| 4-Chloro-3-methylphenol | 10.0 | 5.05 | * | ug/L | | 50 | 54 - 130 |
| 2-Chloronaphthalene | 10.0 | 4.95 | | ug/L | | 50 | 48 - 130 |
| 2-Chlorophenol | 10.0 | 4.64 | | ug/L | | 46 | 45 - 130 |
| 4-Chlorophenyl phenyl ether | 10.0 | 5.53 | | ug/L | | 55 | 52 - 130 |
| Chrysene | 2.00 | 1.11 | | ug/L | | 56 | 40 - 142 |
| Dibenz(a,h)anthracene | 2.00 | 0.894 | | ug/L | | 45 | 38 - 130 |
| Dibenzofuran | 10.0 | 5.51 | * | ug/L | | 55 | 56 - 130 |
| 1,4-Dichlorobenzene | 10.0 | 4.77 | | ug/L | | 48 | 34 - 130 |
| 1,3-Dichlorobenzene | 10.0 | 4.14 | | ug/L | | 41 | 31 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 4.48 | | ug/L | | 45 | 36 - 130 |
| 3,3'-Dichlorobenzidine | 10.0 | 20 | U | ug/L | | 66 | 10 - 158 |
| 2,4-Dichlorophenol | 10.0 | 4.94 | * | ug/L | | 49 | 58 - 130 |
| Diethyl phthalate | 10.0 | 6.26 | | ug/L | | 63 | 60 - 130 |
| 2,4-Dimethylphenol | 10.0 | 4.26 | | ug/L | | 43 | 41 - 130 |
| Dimethyl phthalate | 10.0 | 5.86 | | ug/L | | 59 | 58 - 130 |
| Di-n-butyl phthalate | 10.0 | 5.98 | | ug/L | | 60 | 59 - 130 |
| 4,6-Dinitro-2-methylphenol | 10.0 | 5.0 | U | ug/L | | 37 | 10 - 182 |
| 2,4-Dinitrophenol | 10.0 | 10 | U | ug/L | | 44 | 10 - 200 |
| 2,4-Dinitrotoluene | 10.0 | 4.98 | * | ug/L | | 50 | 57 - 130 |
| 2,6-Dinitrotoluene | 10.0 | 5.57 | | ug/L | | 56 | 53 - 130 |
| Di-n-octyl phthalate | 10.0 | 5.29 | | ug/L | | 53 | 19 - 130 |
| 1,4-Dioxane | 10.0 | 3.90 | | ug/L | | 39 | 10 - 130 |
| Fluoranthene | 2.00 | 1.16 | | ug/L | | 58 | 46 - 136 |
| Fluorene | 2.00 | 1.15 | | ug/L | | 58 | 48 - 130 |
| Hexachlorobenzene | 10.0 | 5.14 | | ug/L | | 51 | 49 - 130 |
| Hexachlorobutadiene | 10.0 | 4.55 | | ug/L | | 46 | 36 - 130 |
| Hexachlorocyclopentadiene | 10.0 | 4.64 | | ug/L | | 46 | 16 - 130 |
| Hexachloroethane | 10.0 | 4.47 | | ug/L | | 45 | 32 - 130 |
| Indeno[1,2,3-cd]pyrene | 2.00 | 0.806 | | ug/L | | 40 | 12 - 130 |
| Isophorone | 10.0 | 5.05 | | ug/L | | 51 | 45 - 130 |
| 2-Methylnaphthalene | 2.00 | 1.11 | | ug/L | | 56 | 51 - 130 |
| 2-Methylphenol | 10.0 | 4.82 | * | ug/L | | 48 | 49 - 130 |
| 3 & 4 Methylphenol | 10.0 | 4.81 | * | ug/L | | 48 | 55 - 130 |
| Naphthalene | 2.00 | 1.09 | | ug/L | | 54 | 35 - 130 |
| 4-Nitroaniline | 10.0 | 7.31 | | ug/L | | 73 | 31 - 147 |
| 2-Nitroaniline | 10.0 | 5.52 | | ug/L | | 55 | 48 - 130 |
| 3-Nitroaniline | 10.0 | 6.25 | | ug/L | | 62 | 18 - 147 |
| Nitrobenzene | 10.0 | 4.88 | | ug/L | | 49 | 45 - 130 |
| 4-Nitrophenol | 10.0 | 5.0 | U | ug/L | | 40 | 36 - 132 |
| 2-Nitrophenol | 10.0 | 4.88 | | ug/L | | 49 | 49 - 130 |
| N-Nitrosodimethylamine | 10.0 | 5.10 | | ug/L | | 51 | 29 - 130 |
| N-Nitrosodi-n-propylamine | 10.0 | 5.96 | | ug/L | | 60 | 42 - 130 |
| N-Nitrosodiphenylamine | 10.0 | 5.68 | | ug/L | | 57 | 38 - 130 |
| Pentachlorophenol | 10.0 | 5.92 | | ug/L | | 59 | 12 - 156 |
| Phenanthrene | 2.00 | 1.17 | | ug/L | | 58 | 45 - 134 |
| Phenol | 10.0 | 4.71 | | ug/L | | 47 | 44 - 130 |
| Pyrene | 2.00 | 1.29 | | ug/L | | 64 | 47 - 143 |
| Pyridine | 10.0 | 5.0 | U | ug/L | | 41 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-209662/22-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | 10.0 | 5.42 | | ug/L | | 54 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 10.0 | 5.63 | | ug/L | | 56 | 10 - 130 |
| 1,2,4-Trichlorobenzene | 10.0 | 4.48 | | ug/L | | 45 | 39 - 130 |
| 2,4,6-Trichlorophenol | 10.0 | 4.73 | * | ug/L | | 47 | 61 - 130 |
| 2,4,5-Trichlorophenol | 10.0 | 4.88 | * | ug/L | | 49 | 61 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *55* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *57* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *67* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *66* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *55* | | *25 - 130* |
| *2-Fluorobiphenyl* | *56* | | *34 - 130* |

**Lab Sample ID: LCS 680-209662/25-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 10.0 | 7.79 | | ug/L | | 78 | 10 - 130 |
| alpha,alpha-Dimethyl phenethylamine | 10.0 | 10 | U | ug/L | | 44 | 10 - 130 |
| 4-Aminobiphenyl | 10.0 | 5.0 | U | ug/L | | 28 | 10 - 130 |
| Aramite, Total | 10.0 | 7.28 | | ug/L | | 73 | 10 - 130 |
| Diallate | 10.0 | 5.12 | | ug/L | | 51 | 10 - 130 |
| 2,6-Dichlorophenol | 10.0 | 5.78 | | ug/L | | 58 | 10 - 130 |
| Dimethoate | 10.0 | 4.24 | | ug/L | | 42 | 10 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 10.0 | 5.80 | | ug/L | | 58 | 10 - 130 |
| 3,3'-Dimethylbenzidine | 25.0 | 20 | U | ug/L | | 76 | 10 - 130 |
| 1,3-Dinitrobenzene | 10.0 | 5.49 | | ug/L | | 55 | 10 - 130 |
| Dinoseb | 10.0 | 5.33 | | ug/L | | 53 | 10 - 130 |
| Disulfoton | 10.0 | 4.53 | | ug/L | | 45 | 10 - 130 |
| Ethyl methanesulfonate | 10.0 | 4.98 | | ug/L | | 50 | 10 - 130 |
| Ethyl Parathion | 10.0 | 5.48 | | ug/L | | 55 | 10 - 130 |
| Famphur | 10.0 | 1.0 | U * | ug/L | | 6 | 10 - 130 |
| Hexachlorophene | 50.0 | 500 | U * | ug/L | | 0.4 | 10 - 130 |
| Hexachloropropene | 10.0 | 2.92 | | ug/L | | 29 | 10 - 130 |
| Isosafrole | 10.0 | 5.68 | | ug/L | | 57 | 10 - 130 |
| Methapyrilene | 50.0 | 200 | U | ug/L | | 49 | 10 - 130 |
| 3-Methylcholanthrene | 10.0 | 1.76 | | ug/L | | 18 | 10 - 130 |
| Methyl methanesulfonate | 10.0 | 3.14 | | ug/L | | 31 | 10 - 130 |
| Methyl parathion | 10.0 | 4.37 | | ug/L | | 44 | 10 - 130 |
| 1,4-Naphthoquinone | 10.0 | 2.33 | | ug/L | | 23 | 10 - 130 |
| 1-Naphthylamine | 10.0 | 5.0 | U | ug/L | | 29 | 10 - 130 |
| 2-Naphthylamine | 10.0 | 5.0 | U | ug/L | | 21 | 10 - 130 |
| 4-Nitroquinoline-1-oxide | 10.0 | 4.18 | | ug/L | | 42 | 10 - 130 |
| N-Nitro-o-toluidine | 10.0 | 4.59 | | ug/L | | 46 | 10 - 130 |
| N-Nitrosodiethylamine | 10.0 | 5.36 | | ug/L | | 54 | 10 - 130 |
| N-Nitrosodi-n-butylamine | 10.0 | 5.81 | | ug/L | | 58 | 10 - 130 |
| N-Nitrosomethylethylamine | 10.0 | 5.48 | | ug/L | | 55 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-209662/25-A**
**Matrix: Water**
**Analysis Batch: 210844**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| N-Nitrosomorpholine | 10.0 | 5.51 | | ug/L | | 55 | 10 - 130 |
| N-Nitrosopiperidine | 10.0 | 5.76 | | ug/L | | 58 | 10 - 130 |
| N-Nitrosopyrrolidine | 10.0 | 5.88 | | ug/L | | 59 | 10 - 130 |
| o,o',o''-Triethylphosphorothioate | 10.0 | 5.43 | | ug/L | | 54 | 10 - 130 |
| p-Dimethylamino azobenzene | 10.0 | 7.30 | | ug/L | | 73 | 10 - 130 |
| Pentachlorobenzene | 10.0 | 5.13 | | ug/L | | 51 | 10 - 130 |
| Pentachloronitrobenzene | 10.0 | 5.92 | | ug/L | | 59 | 10 - 130 |
| Phenacetin | 10.0 | 7.22 | | ug/L | | 72 | 10 - 130 |
| Phorate | 10.0 | 5.09 | | ug/L | | 51 | 10 - 130 |
| 2-Picoline | 10.0 | 4.85 | | ug/L | | 49 | 10 - 130 |
| p-Phenylene diamine | 50.0 | 200 | U | ug/L | | 13 | 10 - 130 |
| Pronamide | 10.0 | 6.02 | | ug/L | | 60 | 10 - 130 |
| Safrole, Total | 10.0 | 5.35 | | ug/L | | 53 | 10 - 130 |
| Sulfotepp | 10.0 | 5.32 | | ug/L | | 53 | 10 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 10.0 | 4.22 | | ug/L | | 42 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 10.0 | 6.33 | | ug/L | | 63 | 10 - 130 |
| Thionazin | 10.0 | 5.67 | | ug/L | | 57 | 10 - 130 |
| 2-Toluidine | 10.0 | 4.36 | | ug/L | | 44 | 10 - 130 |
| 1,3,5-Trinitrobenzene | 10.0 | 1.50 | | ug/L | | 15 | 10 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *49* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *52* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *64* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *62* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *47* | | *25 - 130* |
| *2-Fluorobiphenyl* | *49* | | *34 - 130* |

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 94 | 42 - 130 |
| Acenaphthylene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 91 | 45 - 130 |
| Acetophenone | 10 | U | 9.98 | 10 | U | ug/L | | 91 | 45 - 130 |
| Aniline | 20 | U | 9.98 | 20 | U F | ug/L | | 0 | 10 - 130 |
| Anthracene | 2.0 | U * | 2.00 | 2.0 | U | ug/L | | 84 | 58 - 130 |
| Benzo[a]anthracene | 2.0 | U | 2.00 | 2.07 | | ug/L | | 104 | 42 - 143 |
| Benzo[a]pyrene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 98 | 45 - 151 |
| Benzo[b]fluoranthene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 95 | 41 - 140 |
| Benzo[g,h,i]perylene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 64 | 27 - 134 |
| Benzo[k]fluoranthene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 96 | 45 - 140 |
| Benzyl alcohol | 10 | U | 9.98 | 10 | U | ug/L | | 82 | 34 - 130 |
| Bis(2-chloroethoxy)methane | 10 | U | 9.98 | 10 | U | ug/L | | 100 | 47 - 130 |
| Bis(2-chloroethyl)ether | 10 | U | 9.98 | 10 | U | ug/L | | 90 | 36 - 130 |
| bis (2-chloroisopropyl) ether | 10 | U | 9.98 | 10 | U | ug/L | | 94 | 39 - 130 |
| Bis(2-ethylhexyl) phthalate | 41 | * B | 9.98 | 25.2 | 4 | ug/L | | -162 | 10 - 158 |
| 4-Bromophenyl phenyl ether | 10 | U | 9.98 | 10 | U | ug/L | | 96 | 44 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 10 | U | 9.98 | 10.6 | | ug/L | | 106 | 60 - 130 |
| 4-Chloroaniline | 20 | U | 9.98 | 20 | U F | ug/L | | 0 | 17 - 130 |
| 4-Chloro-3-methylphenol | 10 | U * | 9.98 | 10 | U | ug/L | | 75 | 54 - 130 |
| 2-Chloronaphthalene | 10 | U | 9.98 | 10 | U | ug/L | | 80 | 48 - 130 |
| 2-Chlorophenol | 10 | U | 9.98 | 10 | U | ug/L | | 77 | 45 - 130 |
| 4-Chlorophenyl phenyl ether | 10 | U | 9.98 | 10 | U | ug/L | | 92 | 52 - 130 |
| Chrysene | 2.0 | U | 2.00 | 2.05 | | ug/L | | 103 | 40 - 142 |
| Dibenz(a,h)anthracene | 2.0 | U | 2.00 | 2.0 | U F | ug/L | | 0 | 38 - 130 |
| Dibenzofuran | 10 | U * | 9.98 | 10 | U | ug/L | | 90 | 56 - 130 |
| 1,4-Dichlorobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 67 | 34 - 130 |
| 1,3-Dichlorobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 61 | 31 - 130 |
| 1,2-Dichlorobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 64 | 36 - 130 |
| 3,3'-Dichlorobenzidine | 200 | U | 9.98 | 200 | U | ug/L | | NC | 10 - 158 |
| 2,4-Dichlorophenol | 10 | U * | 9.98 | 10 | U | ug/L | | 78 | 58 - 130 |
| Diethyl phthalate | 10 | U | 9.98 | 10 | U | ug/L | | 96 | 60 - 130 |
| 2,4-Dimethylphenol | 20 | U | 9.98 | 20 | U | ug/L | | 79 | 41 - 130 |
| Dimethyl phthalate | 10 | U | 9.98 | 10 | U | ug/L | | 97 | 58 - 130 |
| Di-n-butyl phthalate | 10 | U | 9.98 | 10 | U | ug/L | | 89 | 59 - 130 |
| 4,6-Dinitro-2-methylphenol | 50 | U | 9.98 | 50 | U | ug/L | | 75 | 10 - 182 |
| 2,4-Dinitrophenol | 100 | U | 9.98 | 100 | U | ug/L | | NC | 10 - 200 |
| 2,4-Dinitrotoluene | 10 | U * | 9.98 | 10 | U | ug/L | | 78 | 57 - 130 |
| 2,6-Dinitrotoluene | 10 | U | 9.98 | 10 | U | ug/L | | 93 | 53 - 130 |
| Di-n-octyl phthalate | 10 | U | 9.98 | 10 | U | ug/L | | 19 | 19 - 130 |
| 1,4-Dioxane | 20 | U | 9.98 | 20 | U | ug/L | | 84 | 10 - 130 |
| Fluoranthene | 2.0 | U | 2.00 | 2.13 | | ug/L | | 107 | 46 - 136 |
| Fluorene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 98 | 48 - 130 |
| Hexachlorobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 79 | 49 - 130 |
| Hexachlorobutadiene | 10 | U | 9.98 | 10 | U | ug/L | | 68 | 36 - 130 |
| Hexachlorocyclopentadiene | 20 | U | 9.98 | 20 | U | ug/L | | 68 | 16 - 130 |
| Hexachloroethane | 10 | U | 9.98 | 10 | U | ug/L | | 63 | 32 - 130 |
| Indeno[1,2,3-cd]pyrene | 2.0 | U | 2.00 | 2.0 | U F | ug/L | | 0 | 12 - 130 |
| Isophorone | 10 | U | 9.98 | 10 | U | ug/L | | 80 | 45 - 130 |
| 2-Methylnaphthalene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 84 | 51 - 130 |
| 2-Methylphenol | 20 | U * | 9.98 | 20 | U | ug/L | | 75 | 49 - 130 |
| 3 & 4 Methylphenol | 20 | U * | 9.98 | 20 | U | ug/L | | 74 | 55 - 130 |
| Naphthalene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 85 | 35 - 130 |
| 4-Nitroaniline | 50 | U | 9.98 | 50 | U F | ug/L | | 0 | 31 - 147 |
| 2-Nitroaniline | 10 | U | 9.98 | 10 | U | ug/L | | 76 | 48 - 130 |
| 3-Nitroaniline | 50 | U | 9.98 | 50 | U F | ug/L | | 0 | 18 - 147 |
| Nitrobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 83 | 45 - 130 |
| 4-Nitrophenol | 50 | U | 9.98 | 50 | U | ug/L | | 76 | 36 - 132 |
| 2-Nitrophenol | 10 | U | 9.98 | 10 | U | ug/L | | 78 | 49 - 130 |
| N-Nitrosodimethylamine | 10 | U | 9.98 | 10 | U | ug/L | | 83 | 29 - 130 |
| N-Nitrosodi-n-propylamine | 10 | U | 9.98 | 10 | U | ug/L | | 95 | 42 - 130 |
| N-Nitrosodiphenylamine | 10 | U | 9.98 | 10 | U | ug/L | | 50 | 38 - 130 |
| Pentachlorophenol | 50 | U | 9.98 | 50 | U | ug/L | | 91 | 12 - 156 |
| Phenanthrene | 2.0 | U | 2.00 | 2.0 | U | ug/L | | 93 | 45 - 134 |
| Phenol | 10 | U | 9.98 | 10 | U | ug/L | | 67 | 44 - 130 |
| Pyrene | 2.0 | U | 2.00 | 2.27 | | ug/L | | 113 | 47 - 143 |
| Pyridine | 50 | U | 9.98 | 50 | U F | ug/L | | 0 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 80 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 9.98 | 10.1 | | ug/L | | 102 | 10 - 130 |
| 1,2,4-Trichlorobenzene | 10 | U | 9.98 | 10 | U | ug/L | | 68 | 39 - 130 |
| 2,4,6-Trichlorophenol | 10 | U * | 9.98 | 10 | U | ug/L | | 81 | 61 - 130 |
| 2,4,5-Trichlorophenol | 10 | U * | 9.98 | 10 | U | ug/L | | 86 | 61 - 130 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *0* | *D* | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *0* | *D* | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *0* | *D* | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *0* | *D* | *30 - 130* |
| *2-Fluorophenol (Surr)* | *0* | *D* | *25 - 130* |
| *2-Fluorobiphenyl* | *0* | *D* | *34 - 130* |

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 10 | U | 9.92 | 9.9 | U | ug/L | | 58 | 10 - 130 |
| alpha,alpha-Dimethyl phenethylamine | 100 | U | 9.92 | 99 | U | ug/L | | NC | 10 - 130 |
| 4-Aminobiphenyl | 50 | U | 9.92 | 50 | U F | ug/L | | 0 | 10 - 130 |
| Aramite, Total | 15 | U | 9.92 | 15 | U F | ug/L | | 0 | 10 - 130 |
| Diallate | 10 | U | 9.92 | 9.9 | U | ug/L | | 90 | 10 - 130 |
| 2,6-Dichlorophenol | 10 | U | 9.92 | 9.9 | U | ug/L | | 83 | 10 - 130 |
| Dimethoate | 20 | U | 9.92 | 20 | U | ug/L | | 72 | 10 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 10 | U | 9.92 | 9.9 | U | ug/L | | 52 | 10 - 130 |
| 3,3'-Dimethylbenzidine | 200 | U | 24.8 | 200 | U | ug/L | | NC | 10 - 130 |
| 1,3-Dinitrobenzene | 10 | U | 9.92 | 9.9 | U | ug/L | | 78 | 10 - 130 |
| Dinoseb | 20 | U | 9.92 | 20 | U | ug/L | | 83 | 10 - 130 |
| Disulfoton | 10 | U | 9.92 | 9.9 | U | ug/L | | 46 | 10 - 130 |
| Ethyl methanesulfonate | 20 | U | 9.92 | 20 | U | ug/L | | 56 | 10 - 130 |
| Ethyl Parathion | 20 | U | 9.92 | 20 | U | ug/L | | 116 | 10 - 130 |
| Famphur | 10 | U | 9.92 | 9.9 | U | ug/L | | 63 | 10 - 130 |
| Hexachlorophene | 5000 | U | 49.6 | 5000 | U | ug/L | | NC | 10 - 130 |
| Hexachloropropene | 10 | U | 9.92 | 9.9 | U | ug/L | | 21 | 10 - 130 |
| Isosafrole | 10 | U | 9.92 | 9.9 | U | ug/L | | 66 | 10 - 130 |
| Methapyrilene | 2000 | U | 49.6 | 2000 | U F | ug/L | | 0 | 10 - 130 |
| 3-Methylcholanthrene | 10 | U | 9.92 | 9.9 | U F | ug/L | | 0 | 10 - 130 |
| Methyl methanesulfonate | 20 | U | 9.92 | 20 | U | ug/L | | 35 | 10 - 130 |
| Methyl parathion | 10 | U | 9.92 | 10.7 | | ug/L | | 107 | 10 - 130 |
| 1,4-Naphthoquinone | 10 | U | 9.92 | 9.9 | U F | ug/L | | 0 | 10 - 130 |
| 1-Naphthylamine | 50 | U | 9.92 | 50 | U | ug/L | | NC | 10 - 130 |
| 2-Naphthylamine | 50 | U | 9.92 | 50 | U | ug/L | | NC | 10 - 130 |
| 4-Nitroquinoline-1-oxide | 20 | U | 9.92 | 20 | U | ug/L | | NC | 10 - 130 |
| N-Nitro-o-toluidine | 10 | U | 9.92 | 9.9 | U F | ug/L | | 0 | 10 - 130 |
| N-Nitrosodiethylamine | 10 | U | 9.92 | 9.9 | U | ug/L | | 78 | 10 - 130 |
| N-Nitrosodi-n-butylamine | 10 | U | 9.92 | 9.9 | U | ug/L | | 86 | 10 - 130 |
| N-Nitrosomethylethylamine | 20 | U | 9.92 | 20 | U | ug/L | | 71 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70633-1 MS**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| N-Nitrosomorpholine | 10 | U | 9.92 | 9.9 | U | ug/L | | 63 | 10 - 130 |
| N-Nitrosopiperidine | 10 | U | 9.92 | 9.9 | U | ug/L | | 46 | 10 - 130 |
| N-Nitrosopyrrolidine | 10 | U | 9.92 | 9.9 | U | ug/L | | 42 | 10 - 130 |
| o,o',o''-Triethylphosphorothioate | 10 | U | 9.92 | 9.9 | U | ug/L | | 87 | 10 - 130 |
| p-Dimethylamino azobenzene | 50 | U | 9.92 | 50 | U | ug/L | | 39 | 10 - 130 |
| Pentachlorobenzene | 10 | U | 9.92 | 9.9 | U | ug/L | | 67 | 10 - 130 |
| Pentachloronitrobenzene | 10 | U | 9.92 | 9.9 | U | ug/L | | 83 | 10 - 130 |
| Phenacetin | 10 | U | 9.92 | 9.9 | U | ug/L | | 72 | 10 - 130 |
| Phorate | 10 | U | 9.92 | 9.9 | U | ug/L | | 59 | 10 - 130 |
| 2-Picoline | 20 | U | 9.92 | 20 | U | ug/L | | 52 | 10 - 130 |
| p-Phenylene diamine | 2000 | U | 49.6 | 2000 | U | ug/L | | NC | 10 - 130 |
| Pronamide | 10 | U | 9.92 | 9.9 | U | ug/L | | 37 | 10 - 130 |
| Safrole, Total | 10 | U | 9.92 | 9.9 | U | ug/L | | 74 | 10 - 130 |
| Sulfotepp | 10 | U | 9.92 | 9.9 | U | ug/L | | 91 | 10 - 130 |
| Thionazin | 10 | U | 9.92 | 9.9 | U | ug/L | | 74 | 10 - 130 |
| 2-Toluidine | 10 | U | 9.92 | 9.9 | U F | ug/L | | 0 | 10 - 130 |
| 1,3,5-Trinitrobenzene | 10 | U | 9.92 | 9.9 | U F | ug/L | | 0 | 10 - 130 |

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 84 | 42 - 130 | 11 | 50 |
| Acenaphthylene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 93 | 45 - 130 | 3 | 50 |
| Acetophenone | 10 | U | 10.1 | 10 | U | ug/L | | 91 | 45 - 130 | 1 | 50 |
| Aniline | 20 | U | 10.1 | 20 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| Anthracene | 2.0 | U * | 2.03 | 2.0 | U | ug/L | | 88 | 58 - 130 | 6 | 50 |
| Benzo[a]anthracene | 2.0 | U | 2.03 | 2.19 | | ug/L | | 108 | 42 - 143 | 6 | 50 |
| Benzo[a]pyrene | 2.0 | U | 2.03 | 2.11 | | ug/L | | 104 | 45 - 151 | 7 | 50 |
| Benzo[b]fluoranthene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 96 | 41 - 140 | 3 | 50 |
| Benzo[g,h,i]perylene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 89 | 27 - 134 | 34 | 50 |
| Benzo[k]fluoranthene | 2.0 | U | 2.03 | 2.04 | | ug/L | | 100 | 45 - 140 | 6 | 50 |
| Benzyl alcohol | 10 | U | 10.1 | 10 | U | ug/L | | 66 | 34 - 130 | 20 | 50 |
| Bis(2-chloroethoxy)methane | 10 | U | 10.1 | 10 | U | ug/L | | 98 | 47 - 130 | 1 | 50 |
| Bis(2-chloroethyl)ether | 10 | U | 10.1 | 10 | U | ug/L | | 88 | 36 - 130 | 1 | 50 |
| bis (2-chloroisopropyl) ether | 10 | U | 10.1 | 10 | U | ug/L | | 91 | 39 - 130 | 2 | 50 |
| Bis(2-ethylhexyl) phthalate | 41 | * B | 10.1 | 27.4 | 4 | ug/L | | -137 | 10 - 158 | 8 | 50 |
| 4-Bromophenyl phenyl ether | 10 | U | 10.1 | 10 | U | ug/L | | 95 | 44 - 130 | 1 | 50 |
| Butyl benzyl phthalate | 10 | U | 10.1 | 11.4 | | ug/L | | 112 | 60 - 130 | 7 | 50 |
| 4-Chloroaniline | 20 | U | 10.1 | 20 | U F | ug/L | | 0 | 17 - 130 | NC | 50 |
| 4-Chloro-3-methylphenol | 10 | U * | 10.1 | 10 | U | ug/L | | 75 | 54 - 130 | 1 | 50 |
| 2-Chloronaphthalene | 10 | U | 10.1 | 10 | U | ug/L | | 81 | 48 - 130 | 3 | 50 |
| 2-Chlorophenol | 10 | U | 10.1 | 10 | U | ug/L | | 72 | 45 - 130 | 5 | 50 |
| 4-Chlorophenyl phenyl ether | 10 | U | 10.1 | 10 | U | ug/L | | 90 | 52 - 130 | 1 | 50 |
| Chrysene | 2.0 | U | 2.03 | 2.39 | | ug/L | | 118 | 40 - 142 | 15 | 50 |
| Dibenz(a,h)anthracene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 62 | 38 - 130 | NC | 50 |
| Dibenzofuran | 10 | U * | 10.1 | 10 | U | ug/L | | 92 | 56 - 130 | 5 | 50 |
| 1,4-Dichlorobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 61 | 34 - 130 | 7 | 50 |
| 1,3-Dichlorobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 55 | 31 - 130 | 8 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 59 | 36 - 130 | 7 | 50 |
| 3,3'-Dichlorobenzidine | 200 | U | 10.1 | 200 | U | ug/L | | NC | 10 - 158 | NC | 50 |
| 2,4-Dichlorophenol | 10 | U * | 10.1 | 10 | U | ug/L | | 76 | 58 - 130 | 2 | 50 |
| Diethyl phthalate | 10 | U | 10.1 | 10 | U | ug/L | | 99 | 60 - 130 | 4 | 50 |
| 2,4-Dimethylphenol | 20 | U | 10.1 | 20 | U | ug/L | | 80 | 41 - 130 | 2 | 50 |
| Dimethyl phthalate | 10 | U | 10.1 | 10 | U | ug/L | | 97 | 58 - 130 | 1 | 50 |
| Di-n-butyl phthalate | 10 | U | 10.1 | 10 | U | ug/L | | 87 | 59 - 130 | 0 | 50 |
| 4,6-Dinitro-2-methylphenol | 50 | U | 10.1 | 51 | U | ug/L | | 81 | 10 - 182 | 10 | 50 |
| 2,4-Dinitrophenol | 100 | U | 10.1 | 100 | U | ug/L | | NC | 10 - 200 | 3 | 50 |
| 2,4-Dinitrotoluene | 10 | U * | 10.1 | 10 | U | ug/L | | 81 | 57 - 130 | 5 | 50 |
| 2,6-Dinitrotoluene | 10 | U | 10.1 | 10 | U | ug/L | | 89 | 53 - 130 | 3 | 50 |
| Di-n-octyl phthalate | 10 | U | 10.1 | 10 | U | ug/L | | 22 | 19 - 130 | 18 | 50 |
| 1,4-Dioxane | 20 | U | 10.1 | 20 | U | ug/L | | 72 | 10 - 130 | 13 | 50 |
| Fluoranthene | 2.0 | U | 2.03 | 2.04 | | ug/L | | 101 | 46 - 136 | 4 | 50 |
| Fluorene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 93 | 48 - 130 | 4 | 50 |
| Hexachlorobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 82 | 49 - 130 | 4 | 50 |
| Hexachlorobutadiene | 10 | U | 10.1 | 10 | U | ug/L | | 65 | 36 - 130 | 2 | 50 |
| Hexachlorocyclopentadiene | 20 | U | 10.1 | 20 | U | ug/L | | 72 | 16 - 130 | 8 | 50 |
| Hexachloroethane | 10 | U | 10.1 | 10 | U | ug/L | | 55 | 32 - 130 | 13 | 50 |
| Indeno[1,2,3-cd]pyrene | 2.0 | U | 2.03 | 2.0 | U F | ug/L | | 0 | 12 - 130 | NC | 50 |
| Isophorone | 10 | U | 10.1 | 10 | U | ug/L | | 80 | 45 - 130 | 2 | 50 |
| 2-Methylnaphthalene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 80 | 51 - 130 | 2 | 50 |
| 2-Methylphenol | 20 | U * | 10.1 | 20 | U F | ug/L | | 0 | 49 - 130 | NC | 50 |
| 3 & 4 Methylphenol | 20 | U * | 10.1 | 20 | U | ug/L | | 71 | 55 - 130 | 3 | 50 |
| Naphthalene | 2.0 | U | 2.03 | 2.0 | U | ug/L | | 81 | 35 - 130 | 3 | 50 |
| 4-Nitroaniline | 50 | U | 10.1 | 51 | U F | ug/L | | 0 | 31 - 147 | NC | 50 |
| 2-Nitroaniline | 10 | U | 10.1 | 10 | U | ug/L | | 53 | 48 - 130 | 34 | 50 |
| 3-Nitroaniline | 50 | U | 10.1 | 51 | U F | ug/L | | 0 | 18 - 147 | NC | 50 |
| Nitrobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 86 | 45 - 130 | 6 | 50 |
| 4-Nitrophenol | 50 | U | 10.1 | 51 | U | ug/L | | 71 | 36 - 132 | 5 | 50 |
| 2-Nitrophenol | 10 | U | 10.1 | 10 | U | ug/L | | 79 | 49 - 130 | 3 | 50 |
| N-Nitrosodimethylamine | 10 | U | 10.1 | 10 | U | ug/L | | 81 | 29 - 130 | 2 | 50 |
| N-Nitrosodi-n-propylamine | 10 | U | 10.1 | 10 | U | ug/L | | 84 | 42 - 130 | 11 | 50 |
| N-Nitrosodiphenylamine | 10 | U | 10.1 | 10 | U F | ug/L | | 0 | 38 - 130 | NC | 50 |
| Pentachlorophenol | 50 | U | 10.1 | 51 | U | ug/L | | 88 | 12 - 156 | 1 | 50 |
| Phenanthrene | 2.0 | U | 2.03 | 2.06 | | ug/L | | 102 | 45 - 134 | 10 | 50 |
| Phenol | 10 | U | 10.1 | 10 | U | ug/L | | 67 | 44 - 130 | 2 | 50 |
| Pyrene | 2.0 | U | 2.03 | 2.50 | | ug/L | | 123 | 47 - 143 | 10 | 50 |
| Pyridine | 50 | U | 10.1 | 51 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| 1,2,4,5-Tetrachlorobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 84 | 10 - 130 | 6 | 50 |
| 2,3,4,6-Tetrachlorophenol | 10 | U | 10.1 | 11.0 | | ug/L | | 109 | 10 - 130 | 9 | 50 |
| 1,2,4-Trichlorobenzene | 10 | U | 10.1 | 10 | U | ug/L | | 60 | 39 - 130 | 10 | 50 |
| 2,4,6-Trichlorophenol | 10 | U * | 10.1 | 10 | U | ug/L | | 87 | 61 - 130 | 9 | 50 |
| 2,4,5-Trichlorophenol | 10 | U * | 10.1 | 10 | U | ug/L | | 89 | 61 - 130 | 5 | 50 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *0* | *D* | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *0* | *D* | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *0* | *D* | *36 - 130* |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Surrogate | MSD % Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *2,4,6-Tribromophenol (Surr)* | *0* | *D* | *30 - 130* |
| *2-Fluorophenol (Surr)* | *0* | *D* | *25 - 130* |
| *2-Fluorobiphenyl* | *0* | *D* | *34 - 130* |

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 10 | U | 9.75 | 9.8 | U | ug/L | | 81 | 10 - 130 | 32 | 50 |
| alpha,alpha-Dimethyl phenethylamine | 100 | U | 9.75 | 98 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| 4-Aminobiphenyl | 50 | U | 9.75 | 49 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| Aramite, Total | 15 | U | 9.75 | 15 | U F | ug/L | | 148 | 10 - 130 | NC | 50 |
| Diallate | 10 | U | 9.75 | 11.6 | | ug/L | | 119 | 10 - 130 | 27 | 50 |
| 2,6-Dichlorophenol | 10 | U | 9.75 | 10.5 | | ug/L | | 108 | 10 - 130 | 24 | 50 |
| Dimethoate | 20 | U | 9.75 | 20 | U | ug/L | | 89 | 10 - 130 | 19 | 50 |
| 7,12-Dimethylbenz(a)anthracene | 10 | U | 9.75 | 9.8 | U | ug/L | | 76 | 10 - 130 | 36 | 50 |
| 3,3'-Dimethylbenzidine | 200 | U | 24.4 | 200 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| 1,3-Dinitrobenzene | 10 | U | 9.75 | 9.8 | U | ug/L | | 99 | 10 - 130 | 21 | 50 |
| Dinoseb | 20 | U | 9.75 | 20 | U | ug/L | | 126 | 10 - 130 | 39 | 50 |
| Disulfoton | 10 | U | 9.75 | 9.8 | U | ug/L | | 66 | 10 - 130 | 33 | 50 |
| Ethyl methanesulfonate | 20 | U | 9.75 | 20 | U | ug/L | | 77 | 10 - 130 | 30 | 50 |
| Ethyl Parathion | 20 | U | 9.75 | 20 | U F | ug/L | | 159 | 10 - 130 | 30 | 50 |
| Famphur | 10 | U | 9.75 | 9.8 | U | ug/L | | 71 | 10 - 130 | 11 | 50 |
| Hexachlorophene | 5000 | U | 48.8 | 4900 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| Hexachloropropene | 10 | U | 9.75 | 9.8 | U | ug/L | | 29 | 10 - 130 | 29 | 50 |
| Isosafrole | 10 | U | 9.75 | 9.8 | U | ug/L | | 98 | 10 - 130 | 38 | 50 |
| Methapyrilene | 2000 | U | 48.8 | 2000 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| 3-Methylcholanthrene | 10 | U | 9.75 | 9.8 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| Methyl methanesulfonate | 20 | U | 9.75 | 20 | U | ug/L | | 50 | 10 - 130 | 33 | 50 |
| Methyl parathion | 10 | U | 9.75 | 16.2 | F | ug/L | | 166 | 10 - 130 | 41 | 50 |
| 1,4-Naphthoquinone | 10 | U | 9.75 | 13.3 | F | ug/L | | 137 | 10 - 130 | NC | 50 |
| 1-Naphthylamine | 50 | U | 9.75 | 49 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| 2-Naphthylamine | 50 | U | 9.75 | 49 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| 4-Nitroquinoline-1-oxide | 20 | U | 9.75 | 20 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| N-Nitro-o-toluidine | 10 | U | 9.75 | 9.8 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| N-Nitrosodiethylamine | 10 | U | 9.75 | 9.89 | | ug/L | | 101 | 10 - 130 | 24 | 50 |
| N-Nitrosodi-n-butylamine | 10 | U | 9.75 | 10.5 | | ug/L | | 107 | 10 - 130 | 20 | 50 |
| N-Nitrosomethylethylamine | 20 | U | 9.75 | 20 | U | ug/L | | 104 | 10 - 130 | 36 | 50 |
| N-Nitrosomorpholine | 10 | U | 9.75 | 10.6 | F | ug/L | | 108 | 10 - 130 | 51 | 50 |
| N-Nitrosopiperidine | 10 | U | 9.75 | 9.8 | U F | ug/L | | 87 | 10 - 130 | 60 | 50 |
| N-Nitrosopyrrolidine | 10 | U | 9.75 | 9.8 | U F | ug/L | | 80 | 10 - 130 | 61 | 50 |
| o,o',o''-Triethylphosphorothioate | 10 | U | 9.75 | 11.0 | | ug/L | | 113 | 10 - 130 | 24 | 50 |
| p-Dimethylamino azobenzene | 50 | U | 9.75 | 49 | U F | ug/L | | 106 | 10 - 130 | 92 | 50 |
| Pentachlorobenzene | 10 | U | 9.75 | 9.8 | U | ug/L | | 97 | 10 - 130 | 35 | 50 |
| Pentachloronitrobenzene | 10 | U | 9.75 | 11.0 | | ug/L | | 112 | 10 - 130 | 28 | 50 |
| Phenacetin | 10 | U | 9.75 | 9.8 | U | ug/L | | 96 | 10 - 130 | 27 | 50 |
| Phorate | 10 | U | 9.75 | 9.8 | U | ug/L | | 88 | 10 - 130 | 37 | 50 |
| 2-Picoline | 20 | U | 9.75 | 20 | U | ug/L | | 68 | 10 - 130 | 24 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70633-1 MSD**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: MW-F12 (071911)**
**Prep Type: Total/NA**
**Prep Batch: 209662**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p-Phenylene diamine | 2000 | U | 48.8 | 2000 | U | ug/L | | NC | 10 - 130 | NC | 50 |
| Pronamide | 10 | U | 9.75 | 9.8 | U F | ug/L | | 87 | 10 - 130 | 79 | 50 |
| Safrole, Total | 10 | U | 9.75 | 9.8 | U | ug/L | | 100 | 10 - 130 | 28 | 50 |
| Sulfotepp | 10 | U | 9.75 | 12.5 | | ug/L | | 128 | 10 - 130 | 32 | 50 |
| Thionazin | 10 | U | 9.75 | 9.8 | U | ug/L | | 100 | 10 - 130 | 28 | 50 |
| 2-Toluidine | 10 | U | 9.75 | 9.8 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| 1,3,5-Trinitrobenzene | 10 | U | 9.75 | 9.8 | U | ug/L | | 59 | 10 - 130 | NC | 50 |

**Lab Sample ID: MB 680-209813/6-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Bis(2-ethylhexyl) phthalate | 5.63 | | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: MB 680-209813/6-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Famphur | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Hexachlorophene | 500 | U | 500 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: MB 680-209813/6-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/23/11 13:18 | 08/09/11 17:33 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *61* | | *27 - 130* | *07/23/11 13:18* | *08/09/11 17:33* | *1* |
| *Nitrobenzene-d5 (Surr)* | *78* | | *32 - 130* | *07/23/11 13:18* | *08/09/11 17:33* | *1* |
| *Terphenyl-d14 (Surr)* | *111* | | *36 - 130* | *07/23/11 13:18* | *08/09/11 17:33* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *62* | | *30 - 130* | *07/23/11 13:18* | *08/09/11 17:33* | *1* |
| *2-Fluorophenol (Surr)* | *65* | | *25 - 130* | *07/23/11 13:18* | *08/09/11 17:33* | *1* |
| *2-Fluorobiphenyl* | *86* | | *34 - 130* | *07/23/11 13:18* | *08/09/11 17:33* | *1* |

**Lab Sample ID: LCS 680-209813/7-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 2.00 | 1.51 | | ug/L | | 75 | 42 - 130 |
| Acenaphthylene | 2.00 | 1.66 | | ug/L | | 83 | 45 - 130 |
| Acetophenone | 10.0 | 7.70 | | ug/L | | 77 | 45 - 130 |
| Aniline | 10.0 | 9.17 | | ug/L | | 92 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-209813/7-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Anthracene | 2.00 | 1.70 | | ug/L | | 85 | 58 - 130 |
| Benzo[a]anthracene | 2.00 | 1.79 | | ug/L | | 89 | 42 - 143 |
| Benzo[a]pyrene | 2.00 | 1.89 | | ug/L | | 94 | 45 - 151 |
| Benzo[b]fluoranthene | 2.00 | 1.74 | | ug/L | | 87 | 41 - 140 |
| Benzo[g,h,i]perylene | 2.00 | 1.65 | | ug/L | | 83 | 27 - 134 |
| Benzo[k]fluoranthene | 2.00 | 1.72 | | ug/L | | 86 | 45 - 140 |
| Benzyl alcohol | 10.0 | 6.10 | | ug/L | | 61 | 34 - 130 |
| Bis(2-chloroethoxy)methane | 10.0 | 8.24 | | ug/L | | 82 | 47 - 130 |
| Bis(2-chloroethyl)ether | 10.0 | 7.76 | | ug/L | | 78 | 36 - 130 |
| bis (2-chloroisopropyl) ether | 10.0 | 7.62 | | ug/L | | 76 | 39 - 130 |
| Bis(2-ethylhexyl) phthalate | 10.0 | 33.5 | * | ug/L | | 335 | 10 - 158 |
| 4-Bromophenyl phenyl ether | 10.0 | 8.91 | | ug/L | | 89 | 44 - 130 |
| Butyl benzyl phthalate | 10.0 | 9.43 | | ug/L | | 94 | 60 - 130 |
| 4-Chloroaniline | 10.0 | 5.02 | | ug/L | | 50 | 17 - 130 |
| 4-Chloro-3-methylphenol | 10.0 | 6.06 | | ug/L | | 61 | 54 - 130 |
| 2-Chloronaphthalene | 10.0 | 7.66 | | ug/L | | 77 | 48 - 130 |
| 2-Chlorophenol | 10.0 | 6.38 | | ug/L | | 64 | 45 - 130 |
| 4-Chlorophenyl phenyl ether | 10.0 | 7.74 | | ug/L | | 77 | 52 - 130 |
| Chrysene | 2.00 | 1.88 | | ug/L | | 94 | 40 - 142 |
| Dibenz(a,h)anthracene | 2.00 | 1.65 | | ug/L | | 82 | 38 - 130 |
| Dibenzofuran | 10.0 | 8.03 | | ug/L | | 80 | 56 - 130 |
| 1,4-Dichlorobenzene | 10.0 | 6.40 | | ug/L | | 64 | 34 - 130 |
| 1,3-Dichlorobenzene | 10.0 | 5.83 | | ug/L | | 58 | 31 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 6.02 | | ug/L | | 60 | 36 - 130 |
| 3,3'-Dichlorobenzidine | 10.0 | 20 | U | ug/L | | 66 | 10 - 158 |
| 2,4-Dichlorophenol | 10.0 | 6.58 | | ug/L | | 66 | 58 - 130 |
| Diethyl phthalate | 10.0 | 7.91 | | ug/L | | 79 | 60 - 130 |
| 2,4-Dimethylphenol | 10.0 | 4.99 | | ug/L | | 50 | 41 - 130 |
| Dimethyl phthalate | 10.0 | 7.96 | | ug/L | | 80 | 58 - 130 |
| Di-n-butyl phthalate | 10.0 | 8.48 | | ug/L | | 85 | 59 - 130 |
| 4,6-Dinitro-2-methylphenol | 10.0 | 8.26 | | ug/L | | 83 | 10 - 182 |
| 2,4-Dinitrophenol | 10.0 | 10 | U | ug/L | | 94 | 10 - 200 |
| 2,4-Dinitrotoluene | 10.0 | 6.72 | | ug/L | | 67 | 57 - 130 |
| 2,6-Dinitrotoluene | 10.0 | 7.75 | | ug/L | | 78 | 53 - 130 |
| Di-n-octyl phthalate | 10.0 | 9.59 | | ug/L | | 96 | 19 - 130 |
| 1,4-Dioxane | 10.0 | 6.20 | | ug/L | | 62 | 10 - 130 |
| Fluoranthene | 2.00 | 1.63 | | ug/L | | 81 | 46 - 136 |
| Fluorene | 2.00 | 1.62 | | ug/L | | 81 | 48 - 130 |
| Hexachlorobenzene | 10.0 | 7.88 | | ug/L | | 79 | 49 - 130 |
| Hexachlorobutadiene | 10.0 | 6.39 | | ug/L | | 64 | 36 - 130 |
| Hexachlorocyclopentadiene | 10.0 | 7.38 | | ug/L | | 74 | 16 - 130 |
| Hexachloroethane | 10.0 | 5.70 | | ug/L | | 57 | 32 - 130 |
| Indeno[1,2,3-cd]pyrene | 2.00 | 1.48 | | ug/L | | 74 | 12 - 130 |
| Isophorone | 10.0 | 6.45 | | ug/L | | 64 | 45 - 130 |
| 2-Methylnaphthalene | 2.00 | 1.45 | | ug/L | | 72 | 51 - 130 |
| 2-Methylphenol | 10.0 | 6.00 | | ug/L | | 60 | 49 - 130 |
| 3 & 4 Methylphenol | 10.0 | 6.04 | | ug/L | | 60 | 55 - 130 |
| Naphthalene | 2.00 | 1.57 | | ug/L | | 79 | 35 - 130 |
| 4-Nitroaniline | 10.0 | 7.55 | | ug/L | | 76 | 31 - 147 |
| 2-Nitroaniline | 10.0 | 8.65 | | ug/L | | 86 | 48 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-209813/7-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 3-Nitroaniline | 10.0 | 6.37 | | ug/L | | 64 | 18 - 147 |
| Nitrobenzene | 10.0 | 7.24 | | ug/L | | 72 | 45 - 130 |
| 4-Nitrophenol | 10.0 | 6.60 | | ug/L | | 66 | 36 - 132 |
| 2-Nitrophenol | 10.0 | 7.66 | | ug/L | | 77 | 49 - 130 |
| N-Nitrosodimethylamine | 10.0 | 7.41 | | ug/L | | 74 | 29 - 130 |
| N-Nitrosodi-n-propylamine | 10.0 | 7.03 | | ug/L | | 70 | 42 - 130 |
| N-Nitrosodiphenylamine | 10.0 | 8.96 | | ug/L | | 90 | 38 - 130 |
| Pentachlorophenol | 10.0 | 6.86 | | ug/L | | 69 | 12 - 156 |
| Phenanthrene | 2.00 | 1.77 | | ug/L | | 88 | 45 - 134 |
| Phenol | 10.0 | 6.78 | | ug/L | | 68 | 44 - 130 |
| Pyrene | 2.00 | 2.06 | | ug/L | | 103 | 47 - 143 |
| Pyridine | 10.0 | 6.33 | | ug/L | | 63 | 10 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 10.0 | 8.20 | | ug/L | | 82 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 10.0 | 7.81 | | ug/L | | 78 | 10 - 130 |
| 1,2,4-Trichlorobenzene | 10.0 | 6.35 | | ug/L | | 63 | 39 - 130 |
| 2,4,6-Trichlorophenol | 10.0 | 7.35 | | ug/L | | 74 | 61 - 130 |
| 2,4,5-Trichlorophenol | 10.0 | 7.22 | | ug/L | | 72 | 61 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *76* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *83* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *113* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *82* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *77* | | *25 - 130* |
| *2-Fluorobiphenyl* | *91* | | *34 - 130* |

**Lab Sample ID: LCS 680-209813/9-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 10.0 | 10.3 | | ug/L | | 103 | 10 - 130 |
| alpha,alpha-Dimethyl phenethylamine | 10.0 | 10 | U | ug/L | | 77 | 10 - 130 |
| 4-Aminobiphenyl | 10.0 | 5.0 | U | ug/L | | 47 | 10 - 130 |
| Aramite, Total | 10.0 | 15.1 | * | ug/L | | 151 | 10 - 130 |
| Diallate | 10.0 | 10.7 | | ug/L | | 107 | 10 - 130 |
| 2,6-Dichlorophenol | 10.0 | 8.85 | | ug/L | | 89 | 10 - 130 |
| Dimethoate | 10.0 | 7.91 | | ug/L | | 79 | 10 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 10.0 | 11.1 | | ug/L | | 111 | 10 - 130 |
| 3,3'-Dimethylbenzidine | 25.0 | 20 | U | ug/L | | 69 | 10 - 130 |
| 1,3-Dinitrobenzene | 10.0 | 9.76 | | ug/L | | 98 | 10 - 130 |
| Dinoseb | 10.0 | 13.6 | * | ug/L | | 136 | 10 - 130 |
| Disulfoton | 10.0 | 7.93 | | ug/L | | 79 | 10 - 130 |
| Ethyl methanesulfonate | 10.0 | 7.65 | | ug/L | | 76 | 10 - 130 |
| Ethyl Parathion | 10.0 | 9.83 | | ug/L | | 98 | 10 - 130 |
| Famphur | 10.0 | 1.25 | | ug/L | | 12 | 10 - 130 |
| Hexachlorophene | 50.0 | 500 | U * | ug/L | | 0 | 10 - 130 |
| Hexachloropropene | 10.0 | 3.75 | | ug/L | | 38 | 10 - 130 |
| Isosafrole | 10.0 | 8.36 | | ug/L | | 84 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-209813/9-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Methapyrilene | 50.0 | 200 | U | ug/L | | 65 | 10 - 130 |
| 3-Methylcholanthrene | 10.0 | 3.24 | | ug/L | | 32 | 10 - 130 |
| Methyl methanesulfonate | 10.0 | 4.02 | | ug/L | | 40 | 10 - 130 |
| Methyl parathion | 10.0 | 9.11 | | ug/L | | 91 | 10 - 130 |
| 1,4-Naphthoquinone | 10.0 | 3.03 | | ug/L | | 30 | 10 - 130 |
| 1-Naphthylamine | 10.0 | 5.34 | | ug/L | | 53 | 10 - 130 |
| 2-Naphthylamine | 10.0 | 5.0 | U | ug/L | | 44 | 10 - 130 |
| 4-Nitroquinoline-1-oxide | 10.0 | 6.42 | | ug/L | | 64 | 10 - 130 |
| N-Nitro-o-toluidine | 10.0 | 8.24 | | ug/L | | 82 | 10 - 130 |
| N-Nitrosodiethylamine | 10.0 | 8.32 | | ug/L | | 83 | 10 - 130 |
| N-Nitrosodi-n-butylamine | 10.0 | 8.65 | | ug/L | | 87 | 10 - 130 |
| N-Nitrosomethylethylamine | 10.0 | 8.57 | | ug/L | | 86 | 10 - 130 |
| N-Nitrosomorpholine | 10.0 | 8.44 | | ug/L | | 84 | 10 - 130 |
| N-Nitrosopiperidine | 10.0 | 8.93 | | ug/L | | 89 | 10 - 130 |
| N-Nitrosopyrrolidine | 10.0 | 9.14 | | ug/L | | 91 | 10 - 130 |
| o,o',o''-Triethylphosphorothioate | 10.0 | 8.58 | | ug/L | | 86 | 10 - 130 |
| p-Dimethylamino azobenzene | 10.0 | 14.3 | * | ug/L | | 143 | 10 - 130 |
| Pentachlorobenzene | 10.0 | 8.10 | | ug/L | | 81 | 10 - 130 |
| Pentachloronitrobenzene | 10.0 | 11.3 | | ug/L | | 113 | 10 - 130 |
| Phenacetin | 10.0 | 9.82 | | ug/L | | 98 | 10 - 130 |
| Phorate | 10.0 | 9.90 | | ug/L | | 99 | 10 - 130 |
| 2-Picoline | 10.0 | 7.41 | | ug/L | | 74 | 10 - 130 |
| p-Phenylene diamine | 50.0 | 200 | U * | ug/L | | 9 | 10 - 130 |
| Pronamide | 10.0 | 10.6 | | ug/L | | 106 | 10 - 130 |
| Safrole, Total | 10.0 | 7.85 | | ug/L | | 78 | 10 - 130 |
| Sulfotepp | 10.0 | 10.2 | | ug/L | | 102 | 10 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 10.0 | 6.82 | | ug/L | | 68 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 10.0 | 10.4 | | ug/L | | 104 | 10 - 130 |
| Thionazin | 10.0 | 10.2 | | ug/L | | 102 | 10 - 130 |
| 2-Toluidine | 10.0 | 7.15 | | ug/L | | 71 | 10 - 130 |
| 1,3,5-Trinitrobenzene | 10.0 | 3.26 | | ug/L | | 33 | 10 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *63* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *68* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *115* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *82* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *64* | | *25 - 130* |
| *2-Fluorobiphenyl* | *76* | | *34 - 130* |

**Lab Sample ID: LCSD 680-209813/10-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 10.0 | 8.88 | | ug/L | | 89 | 10 - 130 | 15 | 50 |
| alpha,alpha-Dimethyl phenethylamine | 10.0 | 10 | U * | ug/L | | 0 | 10 - 130 | 200 | 50 |
| 4-Aminobiphenyl | 10.0 | 5.0 | U * | ug/L | | 17 | 10 - 130 | 95 | 50 |
| Aramite, Total | 10.0 | 12.5 | | ug/L | | 125 | 10 - 130 | 19 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCSD 680-209813/10-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Diallate | | | 10.0 | 10.5 | | ug/L | | 105 | 10 - 130 | 2 | 50 |
| 2,6-Dichlorophenol | | | 10.0 | 9.77 | | ug/L | | 98 | 10 - 130 | 10 | 50 |
| Dimethoate | | | 10.0 | 8.64 | | ug/L | | 86 | 10 - 130 | 9 | 50 |
| 7,12-Dimethylbenz(a)anthracene | | | 10.0 | 7.69 | | ug/L | | 77 | 10 - 130 | 37 | 50 |
| 3,3'-Dimethylbenzidine | | | 25.0 | 20 | U * | ug/L | | 0 | 10 - 130 | 200 | 50 |
| 1,3-Dinitrobenzene | | | 10.0 | 9.83 | | ug/L | | 98 | 10 - 130 | 1 | 50 |
| Dinoseb | | | 10.0 | 12.7 | | ug/L | | 127 | 10 - 130 | 6 | 50 |
| Disulfoton | | | 10.0 | 3.87 | * | ug/L | | 39 | 10 - 130 | 69 | 50 |
| Ethyl methanesulfonate | | | 10.0 | 7.45 | | ug/L | | 75 | 10 - 130 | 3 | 50 |
| Ethyl Parathion | | | 10.0 | 9.58 | | ug/L | | 96 | 10 - 130 | 3 | 50 |
| Famphur | | | 10.0 | 5.35 | * | ug/L | | 53 | 10 - 130 | 124 | 50 |
| Hexachlorophene | | | 50.0 | 500 | U * | ug/L | | 2 | 10 - 130 | 200 | 50 |
| Hexachloropropene | | | 10.0 | 4.85 | | ug/L | | 48 | 10 - 130 | 25 | 50 |
| Isosafrole | | | 10.0 | 7.46 | | ug/L | | 75 | 10 - 130 | 11 | 50 |
| Methapyrilene | | | 50.0 | 200 | U * | ug/L | | 0 | 10 - 130 | 200 | 50 |
| 3-Methylcholanthrene | | | 10.0 | 1.81 | * | ug/L | | 18 | 10 - 130 | 57 | 50 |
| Methyl methanesulfonate | | | 10.0 | 4.55 | | ug/L | | 46 | 10 - 130 | 12 | 50 |
| Methyl parathion | | | 10.0 | 9.83 | | ug/L | | 98 | 10 - 130 | 8 | 50 |
| 1,4-Naphthoquinone | | | 10.0 | 3.45 | | ug/L | | 35 | 10 - 130 | 13 | 50 |
| 1-Naphthylamine | | | 10.0 | 5.0 | U * | ug/L | | 16 | 10 - 130 | 108 | 50 |
| 2-Naphthylamine | | | 10.0 | 5.0 | U * | ug/L | | 10 | 10 - 130 | 126 | 50 |
| 4-Nitroquinoline-1-oxide | | | 10.0 | 5.28 | | ug/L | | 53 | 10 - 130 | 19 | 50 |
| N-Nitro-o-toluidine | | | 10.0 | 2.26 | * | ug/L | | 23 | 10 - 130 | 114 | 50 |
| N-Nitrosodiethylamine | | | 10.0 | 9.62 | | ug/L | | 96 | 10 - 130 | 14 | 50 |
| N-Nitrosodi-n-butylamine | | | 10.0 | 9.19 | | ug/L | | 92 | 10 - 130 | 6 | 50 |
| N-Nitrosomethylethylamine | | | 10.0 | 9.49 | | ug/L | | 95 | 10 - 130 | 10 | 50 |
| N-Nitrosomorpholine | | | 10.0 | 8.78 | | ug/L | | 88 | 10 - 130 | 4 | 50 |
| N-Nitrosopiperidine | | | 10.0 | 9.70 | | ug/L | | 97 | 10 - 130 | 8 | 50 |
| N-Nitrosopyrrolidine | | | 10.0 | 9.64 | | ug/L | | 96 | 10 - 130 | 5 | 50 |
| o,o',o''-Triethylphosphorothioate | | | 10.0 | 9.36 | | ug/L | | 94 | 10 - 130 | 9 | 50 |
| p-Dimethylamino azobenzene | | | 10.0 | 12.3 | | ug/L | | 123 | 10 - 130 | 15 | 50 |
| Pentachlorobenzene | | | 10.0 | 8.51 | | ug/L | | 85 | 10 - 130 | 5 | 50 |
| Pentachloronitrobenzene | | | 10.0 | 11.0 | | ug/L | | 110 | 10 - 130 | 2 | 50 |
| Phenacetin | | | 10.0 | 9.11 | | ug/L | | 91 | 10 - 130 | 8 | 50 |
| Phorate | | | 10.0 | 8.39 | | ug/L | | 84 | 10 - 130 | 16 | 50 |
| 2-Picoline | | | 10.0 | 2.54 | * | ug/L | | 25 | 10 - 130 | 98 | 50 |
| p-Phenylene diamine | | | 50.0 | 200 | U * | ug/L | | 0.005 | 10 - 130 | 200 | 50 |
| Pronamide | | | 10.0 | 9.60 | | ug/L | | 96 | 10 - 130 | 10 | 50 |
| Safrole, Total | | | 10.0 | 8.86 | | ug/L | | 89 | 10 - 130 | 12 | 50 |
| Sulfotepp | | | 10.0 | 9.93 | | ug/L | | 99 | 10 - 130 | 3 | 50 |
| 1,2,4,5-Tetrachlorobenzene | | | 10.0 | 7.87 | | ug/L | | 79 | 10 - 130 | 14 | 50 |
| 2,3,4,6-Tetrachlorophenol | | | 10.0 | 10.5 | | ug/L | | 105 | 10 - 130 | 1 | 50 |
| Thionazin | | | 10.0 | 9.30 | | ug/L | | 93 | 10 - 130 | 9 | 50 |
| 2-Toluidine | | | 10.0 | 1.86 | * | ug/L | | 19 | 10 - 130 | 118 | 50 |
| 1,3,5-Trinitrobenzene | | | 10.0 | 4.24 | | ug/L | | 42 | 10 - 130 | 26 | 50 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *71* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *80* | | *32 - 130* |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCSD 680-209813/10-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Surrogate | LCSD % Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| *Terphenyl-d14 (Surr)* | *127* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *80* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *74* | | *25 - 130* |
| *2-Fluorobiphenyl* | *84* | | *34 - 130* |

**Lab Sample ID: LCSD 680-209813/8-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | | | 2.00 | 1.46 | | ug/L | | 73 | 42 - 130 | 3 | 50 |
| Acenaphthylene | | | 2.00 | 1.58 | | ug/L | | 79 | 45 - 130 | 5 | 50 |
| Acetophenone | | | 10.0 | 7.28 | | ug/L | | 73 | 45 - 130 | 6 | 50 |
| Aniline | | | 10.0 | 8.11 | | ug/L | | 81 | 10 - 130 | 12 | 50 |
| Anthracene | | | 2.00 | 1.74 | | ug/L | | 87 | 58 - 130 | 2 | 50 |
| Benzo[a]anthracene | | | 2.00 | 1.78 | | ug/L | | 89 | 42 - 143 | 0 | 50 |
| Benzo[a]pyrene | | | 2.00 | 1.71 | | ug/L | | 85 | 45 - 151 | 10 | 50 |
| Benzo[b]fluoranthene | | | 2.00 | 1.86 | | ug/L | | 93 | 41 - 140 | 7 | 50 |
| Benzo[g,h,i]perylene | | | 2.00 | 1.47 | | ug/L | | 73 | 27 - 134 | 12 | 50 |
| Benzo[k]fluoranthene | | | 2.00 | 1.98 | | ug/L | | 99 | 45 - 140 | 14 | 50 |
| Benzyl alcohol | | | 10.0 | 5.71 | | ug/L | | 57 | 34 - 130 | 7 | 50 |
| Bis(2-chloroethoxy)methane | | | 10.0 | 7.98 | | ug/L | | 80 | 47 - 130 | 3 | 50 |
| Bis(2-chloroethyl)ether | | | 10.0 | 7.32 | | ug/L | | 73 | 36 - 130 | 6 | 50 |
| bis (2-chloroisopropyl) ether | | | 10.0 | 7.11 | | ug/L | | 71 | 39 - 130 | 7 | 50 |
| Bis(2-ethylhexyl) phthalate | | | 10.0 | 31.5 | * | ug/L | | 315 | 10 - 158 | 6 | 50 |
| 4-Bromophenyl phenyl ether | | | 10.0 | 8.75 | | ug/L | | 87 | 44 - 130 | 2 | 50 |
| Butyl benzyl phthalate | | | 10.0 | 9.90 | | ug/L | | 99 | 60 - 130 | 5 | 50 |
| 4-Chloroaniline | | | 10.0 | 5.01 | | ug/L | | 50 | 17 - 130 | 0 | 50 |
| 4-Chloro-3-methylphenol | | | 10.0 | 6.23 | | ug/L | | 62 | 54 - 130 | 3 | 50 |
| 2-Chloronaphthalene | | | 10.0 | 7.25 | | ug/L | | 72 | 48 - 130 | 6 | 50 |
| 2-Chlorophenol | | | 10.0 | 5.83 | | ug/L | | 58 | 45 - 130 | 9 | 50 |
| 4-Chlorophenyl phenyl ether | | | 10.0 | 7.38 | | ug/L | | 74 | 52 - 130 | 5 | 50 |
| Chrysene | | | 2.00 | 1.77 | | ug/L | | 89 | 40 - 142 | 6 | 50 |
| Dibenz(a,h)anthracene | | | 2.00 | 1.44 | | ug/L | | 72 | 38 - 130 | 13 | 50 |
| Dibenzofuran | | | 10.0 | 7.68 | | ug/L | | 77 | 56 - 130 | 5 | 50 |
| 1,4-Dichlorobenzene | | | 10.0 | 5.90 | | ug/L | | 59 | 34 - 130 | 8 | 50 |
| 1,3-Dichlorobenzene | | | 10.0 | 5.34 | | ug/L | | 53 | 31 - 130 | 9 | 50 |
| 1,2-Dichlorobenzene | | | 10.0 | 5.61 | | ug/L | | 56 | 36 - 130 | 7 | 50 |
| 3,3'-Dichlorobenzidine | | | 10.0 | 20 | U | ug/L | | 64 | 10 - 158 | 3 | 50 |
| 2,4-Dichlorophenol | | | 10.0 | 6.61 | | ug/L | | 66 | 58 - 130 | 0 | 50 |
| Diethyl phthalate | | | 10.0 | 7.51 | | ug/L | | 75 | 60 - 130 | 5 | 50 |
| 2,4-Dimethylphenol | | | 10.0 | 4.59 | | ug/L | | 46 | 41 - 130 | 8 | 50 |
| Dimethyl phthalate | | | 10.0 | 7.74 | | ug/L | | 77 | 58 - 130 | 3 | 50 |
| Di-n-butyl phthalate | | | 10.0 | 8.32 | | ug/L | | 83 | 59 - 130 | 2 | 50 |
| 4,6-Dinitro-2-methylphenol | | | 10.0 | 7.18 | | ug/L | | 72 | 10 - 182 | 14 | 50 |
| 2,4-Dinitrophenol | | | 10.0 | 10 | U | ug/L | | 76 | 10 - 200 | 22 | 50 |
| 2,4-Dinitrotoluene | | | 10.0 | 6.22 | | ug/L | | 62 | 57 - 130 | 8 | 50 |
| 2,6-Dinitrotoluene | | | 10.0 | 7.48 | | ug/L | | 75 | 53 - 130 | 4 | 50 |
| Di-n-octyl phthalate | | | 10.0 | 9.63 | | ug/L | | 96 | 19 - 130 | 0 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCSD 680-209813/8-A**
**Matrix: Water**
**Analysis Batch: 211444**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 209813**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | | | 10.0 | 5.57 | | ug/L | | 56 | 10 - 130 | 11 | 50 |
| Fluoranthene | | | 2.00 | 1.57 | | ug/L | | 78 | 46 - 136 | 4 | 50 |
| Fluorene | | | 2.00 | 1.53 | | ug/L | | 76 | 48 - 130 | 6 | 50 |
| Hexachlorobenzene | | | 10.0 | 7.73 | | ug/L | | 77 | 49 - 130 | 2 | 50 |
| Hexachlorobutadiene | | | 10.0 | 5.92 | | ug/L | | 59 | 36 - 130 | 8 | 50 |
| Hexachlorocyclopentadiene | | | 10.0 | 6.71 | | ug/L | | 67 | 16 - 130 | 10 | 50 |
| Hexachloroethane | | | 10.0 | 5.25 | | ug/L | | 53 | 32 - 130 | 8 | 50 |
| Indeno[1,2,3-cd]pyrene | | | 2.00 | 1.21 | | ug/L | | 61 | 12 - 130 | 20 | 50 |
| Isophorone | | | 10.0 | 6.32 | | ug/L | | 63 | 45 - 130 | 2 | 50 |
| 2-Methylnaphthalene | | | 2.00 | 1.45 | | ug/L | | 72 | 51 - 130 | 0 | 50 |
| 2-Methylphenol | | | 10.0 | 5.57 | | ug/L | | 56 | 49 - 130 | 7 | 50 |
| 3 & 4 Methylphenol | | | 10.0 | 5.69 | | ug/L | | 57 | 55 - 130 | 6 | 50 |
| Naphthalene | | | 2.00 | 1.47 | | ug/L | | 74 | 35 - 130 | 6 | 50 |
| 4-Nitroaniline | | | 10.0 | 7.36 | | ug/L | | 74 | 31 - 147 | 3 | 50 |
| 2-Nitroaniline | | | 10.0 | 8.49 | | ug/L | | 85 | 48 - 130 | 2 | 50 |
| 3-Nitroaniline | | | 10.0 | 6.13 | | ug/L | | 61 | 18 - 147 | 4 | 50 |
| Nitrobenzene | | | 10.0 | 6.65 | | ug/L | | 67 | 45 - 130 | 8 | 50 |
| 4-Nitrophenol | | | 10.0 | 5.39 | | ug/L | | 54 | 36 - 132 | 20 | 50 |
| 2-Nitrophenol | | | 10.0 | 7.44 | | ug/L | | 74 | 49 - 130 | 3 | 50 |
| N-Nitrosodimethylamine | | | 10.0 | 6.92 | | ug/L | | 69 | 29 - 130 | 7 | 50 |
| N-Nitrosodi-n-propylamine | | | 10.0 | 6.64 | | ug/L | | 66 | 42 - 130 | 6 | 50 |
| N-Nitrosodiphenylamine | | | 10.0 | 8.96 | | ug/L | | 90 | 38 - 130 | 0 | 50 |
| Pentachlorophenol | | | 10.0 | 6.30 | | ug/L | | 63 | 12 - 156 | 9 | 50 |
| Phenanthrene | | | 2.00 | 1.69 | | ug/L | | 85 | 45 - 134 | 4 | 50 |
| Phenol | | | 10.0 | 6.09 | | ug/L | | 61 | 44 - 130 | 11 | 50 |
| Pyrene | | | 2.00 | 2.14 | | ug/L | | 107 | 47 - 143 | 4 | 50 |
| Pyridine | | | 10.0 | 5.62 | | ug/L | | 56 | 10 - 130 | 12 | 50 |
| 1,2,4,5-Tetrachlorobenzene | | | 10.0 | 7.75 | | ug/L | | 77 | 10 - 130 | 6 | 50 |
| 2,3,4,6-Tetrachlorophenol | | | 10.0 | 7.46 | | ug/L | | 75 | 10 - 130 | 5 | 50 |
| 1,2,4-Trichlorobenzene | | | 10.0 | 5.96 | | ug/L | | 60 | 39 - 130 | 6 | 50 |
| 2,4,6-Trichlorophenol | | | 10.0 | 7.06 | | ug/L | | 71 | 61 - 130 | 4 | 50 |
| 2,4,5-Trichlorophenol | | | 10.0 | 7.02 | | ug/L | | 70 | 61 - 130 | 3 | 50 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *68* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *79* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *115* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *77* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *69* | | *25 - 130* |
| *2-Fluorobiphenyl* | *87* | | *34 - 130* |

## Method: 8315A - Carbonyl Compounds (HPLC)

**Lab Sample ID: MB 640-83042/1-A**
**Matrix: Water**
**Analysis Batch: 83096**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 83042**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | 50 | U | 50 | | ug/L | | 07/22/11 10:05 | 07/22/11 12:38 | 1 |

## Method: 8315A - Carbonyl Compounds (HPLC) (Continued)

**Lab Sample ID: LCS 640-83042/2-A**
**Matrix: Water**
**Analysis Batch: 83096**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 83042**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | | | 150 | 148 | | ug/L | | 99 | 70 - 125 | | |

**Lab Sample ID: LCSD 640-83042/3-A**
**Matrix: Water**
**Analysis Batch: 83096**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 83042**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Formaldehyde | | | 150 | 141 | | ug/L | | 94 | 70 - 125 | 5 | 20 |

## GC/MS VOA

### Analysis Batch: 209886

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-209886/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-209886/6 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-209886/8 | Method Blank | Total/NA | Water | 8260B | |
| 680-70633-1 | MW-F12 (071911) | Total/NA | Water | 8260B | |
| 680-70633-2 | MW-F11 (071911) | Total/NA | Water | 8260B | |
| 680-70633-9 | MW-F2 (071911) | Total/NA | Water | 8260B | |
| 680-70633-10 | MW-F19 (071911) | Total/NA | Water | 8260B | |
| 680-70633-11 | MW-F1 (071911) | Total/NA | Water | 8260B | |
| 680-70633-4 | MW-F5 (072011) | Total/NA | Water | 8260B | |
| 680-70633-6 | MW-F16 (072011) | Total/NA | Water | 8260B | |
| 680-70633-12 | TB01 (072011) | Total/NA | Water | 8260B | |
| 680-70633-16 | MW-F13 (072111) | Total/NA | Water | 8260B | |
| 680-70633-17 | MW-F14 (072111) | Total/NA | Water | 8260B | |
| 680-70633-18 | MW-F21 (072111) | Total/NA | Water | 8260B | |
| 680-70633-3 | MW-F6 (072011) | Total/NA | Water | 8260B | |
| 680-70633-5 | MW-F3R (072011) | Total/NA | Water | 8260B | |
| 680-70633-7 | MW-25 (072011) | Total/NA | Water | 8260B | |
| 680-70633-8 | MWD-25 (072011) | Total/NA | Water | 8260B | |

### Analysis Batch: 209908

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-22 | MW-F9 (072111) | Total/NA | Water | 8260B | |
| 680-70633-1 MS | MW-F12 (071911) | Total/NA | Water | 8260B | |
| 680-70633-1 MSD | MW-F12 (071911) | Total/NA | Water | 8260B | |
| LCS 680-209908/13 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-209908/14 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-209908/16 | Method Blank | Total/NA | Water | 8260B | |

### Analysis Batch: 210132

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-13 | MW-24 (072011) | Total/NA | Water | 8260B | |
| 680-70633-20 | MWD-23 (072011) | Total/NA | Water | 8260B | |
| 680-70633-15 | MW-23 (072011) | Total/NA | Water | 8260B | |
| LCS 680-210132/16 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210132/17 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-210132/19 | Method Blank | Total/NA | Water | 8260B | |

### Analysis Batch: 210192

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-210192/5 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210192/6 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-210192/8 | Method Blank | Total/NA | Water | 8260B | |
| 680-70633-21 | MW-F8 (072111) | Total/NA | Water | 8260B | |

### Analysis Batch: 210251

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-210251/9 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210251/10 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-210251/12 | Method Blank | Total/NA | Water | 8260B | |
| 680-70633-14 | MWD-24 (072011) | Total/NA | Water | 8260B | |

## GC/MS VOA (Continued)

### Analysis Batch: 210497

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-210497/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210497/5 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| 680-70633-19 | DUP-02 (072111) | Total/NA | Water | 8260B | |
| 680-70633-23 | MW-22 (072111) | Total/NA | Water | 8260B | |
| 680-70633-24 | MWD-22 (072111) | Total/NA | Water | 8260B | |
| 680-70633-25 | MW-29 (072111) | Total/NA | Water | 8260B | |
| 680-70633-26 | MWD-29 (072111) | Total/NA | Water | 8260B | |

## GC/MS Semi VOA

### Prep Batch: 209662

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-1 | MW-F12 (071911) | Total/NA | Water | 3520C | |
| 680-70633-2 | MW-F11 (071911) | Total/NA | Water | 3520C | |
| 680-70633-3 | MW-F6 (072011) | Total/NA | Water | 3520C | |
| 680-70633-4 | MW-F5 (072011) | Total/NA | Water | 3520C | |
| 680-70633-5 | MW-F3R (072011) | Total/NA | Water | 3520C | |
| 680-70633-6 | MW-F16 (072011) | Total/NA | Water | 3520C | |
| 680-70633-7 | MW-25 (072011) | Total/NA | Water | 3520C | |
| 680-70633-8 | MWD-25 (072011) | Total/NA | Water | 3520C | |
| 680-70633-9 | MW-F2 (071911) | Total/NA | Water | 3520C | |
| 680-70633-10 | MW-F19 (071911) | Total/NA | Water | 3520C | |
| 680-70633-11 | MW-F1 (071911) | Total/NA | Water | 3520C | |
| 680-70633-13 | MW-24 (072011) | Total/NA | Water | 3520C | |
| 680-70633-14 | MWD-24 (072011) | Total/NA | Water | 3520C | |
| 680-70633-15 | MW-23 (072011) | Total/NA | Water | 3520C | |
| 680-70633-16 | MW-F13 (072111) | Total/NA | Water | 3520C | |
| 680-70633-17 | MW-F14 (072111) | Total/NA | Water | 3520C | |
| 680-70633-18 | MW-F21 (072111) | Total/NA | Water | 3520C | |
| 680-70633-19 | DUP-02 (072111) | Total/NA | Water | 3520C | |
| 680-70633-20 | MWD-23 (072011) | Total/NA | Water | 3520C | |
| 680-70633-21 | MW-F8 (072111) | Total/NA | Water | 3520C | |
| MB 680-209662/21-A | Method Blank | Total/NA | Water | 3520C | |
| LCS 680-209662/22-A | Lab Control Sample | Total/NA | Water | 3520C | |
| 680-70633-1 MS | MW-F12 (071911) | Total/NA | Water | 3520C | |
| 680-70633-1 MSD | MW-F12 (071911) | Total/NA | Water | 3520C | |
| LCS 680-209662/25-A | Lab Control Sample | Total/NA | Water | 3520C | |
| 680-70633-1 MS | MW-F12 (071911) | Total/NA | Water | 3520C | |
| 680-70633-1 MSD | MW-F12 (071911) | Total/NA | Water | 3520C | |

### Prep Batch: 209813

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-22 | MW-F9 (072111) | Total/NA | Water | 3520C | |
| 680-70633-23 | MW-22 (072111) | Total/NA | Water | 3520C | |
| 680-70633-24 | MWD-22 (072111) | Total/NA | Water | 3520C | |
| 680-70633-25 | MW-29 (072111) | Total/NA | Water | 3520C | |
| 680-70633-26 | MWD-29 (072111) | Total/NA | Water | 3520C | |
| MB 680-209813/6-A | Method Blank | Total/NA | Water | 3520C | |
| LCS 680-209813/7-A | Lab Control Sample | Total/NA | Water | 3520C | |
| LCSD 680-209813/8-A | Lab Control Sample Dup | Total/NA | Water | 3520C | |
| LCS 680-209813/9-A | Lab Control Sample | Total/NA | Water | 3520C | |
| LCSD 680-209813/10-A | Lab Control Sample Dup | Total/NA | Water | 3520C | |

## GC/MS Semi VOA (Continued)

### Analysis Batch: 210844

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 680-209662/21-A | Method Blank | Total/NA | Water | 8270C LL | 209662 |
| LCS 680-209662/22-A | Lab Control Sample | Total/NA | Water | 8270C LL | 209662 |
| LCS 680-209662/25-A | Lab Control Sample | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-3 | MW-F6 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-4 | MW-F5 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-5 | MW-F3R (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-6 | MW-F16 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-7 | MW-25 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-8 | MWD-25 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-9 | MW-F2 (071911) | Total/NA | Water | 8270C LL | 209662 |

### Analysis Batch: 211441

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-11 | MW-F1 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-13 | MW-24 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-14 | MWD-24 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-15 | MW-23 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-16 | MW-F13 (072111) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-19 | DUP-02 (072111) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-20 | MWD-23 (072011) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-21 | MW-F8 (072111) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-1 | MW-F12 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-17 | MW-F14 (072111) | Total/NA | Water | 8270C LL | 209662 |

### Analysis Batch: 211444

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-24 | MWD-22 (072111) | Total/NA | Water | 8270C LL | 209813 |
| 680-70633-1 MS | MW-F12 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-1 MSD | MW-F12 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-1 MS | MW-F12 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-1 MSD | MW-F12 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-10 | MW-F19 (071911) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-2 | MW-F11 (071911) | Total/NA | Water | 8270C LL | 209662 |
| MB 680-209813/6-A | Method Blank | Total/NA | Water | 8270C LL | 209813 |
| LCS 680-209813/7-A | Lab Control Sample | Total/NA | Water | 8270C LL | 209813 |
| LCSD 680-209813/8-A | Lab Control Sample Dup | Total/NA | Water | 8270C LL | 209813 |
| LCS 680-209813/9-A | Lab Control Sample | Total/NA | Water | 8270C LL | 209813 |
| LCSD 680-209813/10-A | Lab Control Sample Dup | Total/NA | Water | 8270C LL | 209813 |
| 680-70633-22 | MW-F9 (072111) | Total/NA | Water | 8270C LL | 209813 |
| 680-70633-25 | MW-29 (072111) | Total/NA | Water | 8270C LL | 209813 |

### Analysis Batch: 211582

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-18 | MW-F21 (072111) | Total/NA | Water | 8270C LL | 209662 |
| 680-70633-23 | MW-22 (072111) | Total/NA | Water | 8270C LL | 209813 |
| 680-70633-26 | MWD-29 (072111) | Total/NA | Water | 8270C LL | 209813 |

## HPLC/IC

### Prep Batch: 83042

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 640-83042/1-A | Method Blank | Total/NA | Water | 8315_W_Prep | |

## HPLC/IC (Continued)

### Prep Batch: 83042 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 640-83042/2-A | Lab Control Sample | Total/NA | Water | 8315_W_Prep | |
| LCSD 640-83042/3-A | Lab Control Sample Dup | Total/NA | Water | 8315_W_Prep | |
| 680-70633-16 | MW-F13 (072111) | Total/NA | Water | 8315_W_Prep | |
| 680-70633-18 | MW-F21 (072111) | Total/NA | Water | 8315_W_Prep | |
| 680-70633-21 | MW-F8 (072111) | Total/NA | Water | 8315_W_Prep | |
| 680-70633-22 | MW-F9 (072111) | Total/NA | Water | 8315_W_Prep | |

### Analysis Batch: 83096

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70633-16 | MW-F13 (072111) | Total/NA | Water | 8315A | 83042 |
| 680-70633-18 | MW-F21 (072111) | Total/NA | Water | 8315A | 83042 |
| 680-70633-21 | MW-F8 (072111) | Total/NA | Water | 8315A | 83042 |
| 680-70633-22 | MW-F9 (072111) | Total/NA | Water | 8315A | 83042 |
| MB 640-83042/1-A | Method Blank | Total/NA | Water | 8315A | 83042 |
| LCS 640-83042/2-A | Lab Control Sample | Total/NA | Water | 8315A | 83042 |
| LCSD 640-83042/3-A | Lab Control Sample Dup | Total/NA | Water | 8315A | 83042 |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Client Sample ID: MW-F12 (071911)

**Lab Sample ID: 680-70633-1**

**Date Collected: 07/19/11 14:38**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 00:56 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 500.2 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 10 | | | 211441 | 08/08/11 20:06 | ND | TAL SAV |

## Client Sample ID: MW-F11 (071911)

**Lab Sample ID: 680-70633-2**

**Date Collected: 07/19/11 17:20**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 01:17 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.9 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 10 | | | 211444 | 08/09/11 17:07 | ND | TAL SAV |

## Client Sample ID: MW-F6 (072011)

**Lab Sample ID: 680-70633-3**

**Date Collected: 07/20/11 07:53**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 04:45 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 502.2 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 17:24 | ND | TAL SAV |

## Client Sample ID: MW-F5 (072011)

**Lab Sample ID: 680-70633-4**

**Date Collected: 07/20/11 09:13**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 02:40 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 515.6 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 17:50 | ND | TAL SAV |

## Client Sample ID: MW-F3R (072011)

**Lab Sample ID: 680-70633-5**

**Date Collected: 07/20/11 10:27**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 05:06 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 1056.9 mL | 1 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 18:16 | ND | TAL SAV |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Client Sample ID: MW-F16 (072011)

**Lab Sample ID: 680-70633-6**

**Date Collected: 07/20/11 13:12**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 03:01 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.6 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 18:42 | ND | TAL SAV |

## Client Sample ID: MW-25 (072011)

**Lab Sample ID: 680-70633-7**

**Date Collected: 07/20/11 14:38**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 05:27 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 502.1 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 19:07 | ND | TAL SAV |

## Client Sample ID: MWD-25 (072011)

**Lab Sample ID: 680-70633-8**

**Date Collected: 07/20/11 15:47**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 05:48 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 504.4 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 19:33 | ND | TAL SAV |

## Client Sample ID: MW-F2 (071911)

**Lab Sample ID: 680-70633-9**

**Date Collected: 07/19/11 16:45**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 01:38 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 506.7 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 210844 | 08/03/11 19:59 | ND | TAL SAV |

## Client Sample ID: MW-F19 (071911)

**Lab Sample ID: 680-70633-10**

**Date Collected: 07/19/11 13:05**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 01:59 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 509.7 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211444 | 08/09/11 16:38 | ND | TAL SAV |

## Client Sample ID: MW-F1 (071911)

**Lab Sample ID: 680-70633-11**

**Date Collected: 07/19/11 15:25**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 02:20 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.3 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 15:43 | ND | TAL SAV |

## Client Sample ID: TB01 (072011)

**Lab Sample ID: 680-70633-12**

**Date Collected: 07/20/11 12:00**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 03:22 | RB | TAL SAV |

## Client Sample ID: MW-24 (072011)

**Lab Sample ID: 680-70633-13**

**Date Collected: 07/20/11 08:25**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210132 | 07/26/11 14:03 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.9 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 16:10 | ND | TAL SAV |

## Client Sample ID: MWD-24 (072011)

**Lab Sample ID: 680-70633-14**

**Date Collected: 07/20/11 09:40**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210251 | 07/27/11 17:17 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 500.7 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 16:36 | ND | TAL SAV |

## Client Sample ID: MW-23 (072011)

**Lab Sample ID: 680-70633-15**

**Date Collected: 07/20/11 17:00**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210132 | 07/26/11 14:49 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 505.1 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 17:02 | ND | TAL SAV |

## Client Sample ID: MW-F13 (072111)

**Lab Sample ID: 680-70633-16**

**Date Collected: 07/21/11 07:48**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 03:43 | RB | TAL SAV |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

## Client Sample ID: MW-F13 (072111)

**Lab Sample ID: 680-70633-16**

**Date Collected: 07/21/11 07:48**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3520C | | | 503.5 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 17:29 | ND | TAL SAV |
| Total/NA | Prep | 8315_W_Prep | | | 100 mL | 4 mL | 83042 | 07/22/11 10:05 | DNS | TAL TAL |
| Total/NA | Analysis | 8315A | | 1 | | | 83096 | 07/22/11 14:00 | DNS | TAL TAL |

## Client Sample ID: MW-F14 (072111)

**Lab Sample ID: 680-70633-17**

**Date Collected: 07/21/11 09:17**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 04:04 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 515.0 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 17:55 | ND | TAL SAV |

## Client Sample ID: MW-F21 (072111)

**Lab Sample ID: 680-70633-18**

**Date Collected: 07/21/11 10:47**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209886 | 07/24/11 04:24 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 1047.1 mL | 1 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 50 | | | 211582 | 08/10/11 15:13 | ND | TAL SAV |
| Total/NA | Prep | 8315_W_Prep | | | 100 mL | 4 mL | 83042 | 07/22/11 10:05 | DNS | TAL TAL |
| Total/NA | Analysis | 8315A | | 1 | | | 83096 | 07/22/11 14:12 | DNS | TAL TAL |

## Client Sample ID: DUP-02 (072111)

**Lab Sample ID: 680-70633-19**

**Date Collected: 07/21/11 12:00**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 13:40 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 1048.0 mL | 1 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 10 | | | 211441 | 08/08/11 18:47 | ND | TAL SAV |

## Client Sample ID: MWD-23 (072011)

**Lab Sample ID: 680-70633-20**

**Date Collected: 07/20/11 17:35**
**Matrix: Water**
**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210132 | 07/26/11 14:26 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 513.5 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 19:13 | ND | TAL SAV |

## Client Sample ID: MW-F8 (072111)

**Lab Sample ID: 680-70633-21**

**Date Collected: 07/21/11 08:20**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210192 | 07/27/11 05:29 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 508.7 mL | 0.5 mL | 209662 | 07/22/11 15:26 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211441 | 08/08/11 19:40 | ND | TAL SAV |
| Total/NA | Prep | 8315_W_Prep | | | 100 mL | 4 mL | 83042 | 07/22/11 10:05 | DNS | TAL TAL |
| Total/NA | Analysis | 8315A | | 1 | | | 83096 | 07/22/11 14:24 | DNS | TAL TAL |

## Client Sample ID: MW-F9 (072111)

**Lab Sample ID: 680-70633-22**

**Date Collected: 07/21/11 10:15**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 209908 | 07/25/11 04:01 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 501.8 mL | 0.5 mL | 209813 | 07/23/11 13:18 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211444 | 08/09/11 19:43 | ND | TAL SAV |
| Total/NA | Prep | 8315_W_Prep | | | 100 mL | 4 mL | 83042 | 07/22/11 10:05 | DNS | TAL TAL |
| Total/NA | Analysis | 8315A | | 1 | | | 83096 | 07/22/11 14:36 | DNS | TAL TAL |

## Client Sample ID: MW-22 (072111)

**Lab Sample ID: 680-70633-23**

**Date Collected: 07/21/11 12:00**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 14:10 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 500.0 mL | 0.5 mL | 209813 | 07/23/11 13:18 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 16:05 | ND | TAL SAV |

## Client Sample ID: MWD-22 (072111)

**Lab Sample ID: 680-70633-24**

**Date Collected: 07/21/11 13:25**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 14:39 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 501.0 mL | 0.5 mL | 209813 | 07/23/11 13:18 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211444 | 08/09/11 20:35 | ND | TAL SAV |

## Client Sample ID: MW-29 (072111)

**Lab Sample ID: 680-70633-25**

**Date Collected: 07/21/11 12:57**

**Matrix: Water**

**Date Received: 07/21/11 15:25**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 15:09 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 502.7 mL | 0.5 mL | 209813 | 07/23/11 13:18 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211444 | 08/09/11 21:01 | ND | TAL SAV |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

**Client Sample ID: MWD-29 (072111)**
**Date Collected: 07/21/11 14:05**
**Date Received: 07/21/11 15:25**

**Lab Sample ID: 680-70633-26**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 15:38 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 501.3 mL | 0.5 mL | 209813 | 07/23/11 13:18 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 16:31 | ND | TAL SAV |

**Laboratory References:**

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAL = TestAmerica Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301, TEL (850)878-3994

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone: (800) 220-3675 Fax: (856) 786-5974 Web: http://www.emsl.com Email:cinnasblab@EMSL.com

Attn: **Lidya Gulizia**
**TestAmerica Laboratories, Inc.**
**5102 LaRoche Avenue**
**Savannah, GA 31404**

Fax: (912) 352-0165 Phone: (912) 354-7858

Project: HERCULES SAVANNAH/REMEDIATION 68001205

EMSL Order: 041119844
Customer ID: STLS77
Customer PO:
EMSL Project ID:
Received: 7/22/2011
Analyzed: 7/27/2011

## Test Report: Determination of Asbestos Structures > 10µm in Water Performed by the 100.2 Method (EPA 600/R-94/134)

| Sample ID Client / EMSL | Sample Filtration Date/Time | Original Sample Vol. Filtered (ml) | Effective Filter Area ($mm^2$) | Area Analyzed ($mm^2$) | ASBESTOS Asbestos Types | Fibers Detected | Analytical Sensitivity | Concentration | Confidence Limits |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | MFL (million fibers per liter) | | |
| MW-F8 (07211) (680-706 041119844-0001 | 7/22/2011 10:30 AM | 25 | 1288 | 0.2640 | None Detected | ND | 0.20 | <0.20 | 0.00 - 0.72 |
| MW-F9 (07211) (680-706 041119844-0002 | 7/22/2011 10:30 AM | 25 | 1288 | 0.5280 | None Detected | ND | 0.10 | <0.10 | 0.00 - 0.36 |

Initial report from: 07/27/2011 17:57:46

Analyst(s)
Wayne Froehlich (2)

Stephen Siegel, CIH, Laboratory Manager
or other Approved Signatory

Any questions please contact Steve Siegel.

Sample collection and containers provided by the client, acceptable bottle blank level is defined as ≤0.01MFL>10um. ND=None Detected. This report may not be reproduced, except in full, without written permission by EMSL Analytical, Inc. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report relates only to the samples reported above. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAC NJ DEP 03036

Serial Number 043876

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING


TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165


Alternate Laboratory Name/Location
Phone:
Fax:

| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) |
|---|---|---|
| Ashland - Savannah | 10300 OH004000.GA60. | GA |
| TAL (LAB) PROJECT MANAGER | P.O. NUMBER | CONTRACT NO. |
| | NA | NA |
| CLIENT (SITE) PM | CLIENT PHONE | CLIENT FAX |
| David Wilderman | 404-704-289009 | 770-484-4004 |
| CLIENT NAME | CLIENT E-MAIL | |
| ARCADIS | david.wilderman@arcadis-us.com | |
| CLIENT ADDRESS | | |
| 1000 Cobb Place Blvd. Bldg 500A, Kennesaw, GA | | |
| COMPANY CONTRACTING THIS WORK (if applicable) | | |

PAGE 1 OF 3

STANDARD REPORT DELIVERY
DATE DUE Std

EXPEDITED REPORT DELIVERY (SURCHARGE)
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE | AQUEOUS (WATER) | SOLID OR SEMISOLID | AIR | NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | REQUIRED ANALYSIS: 8260B VOC | 8270LL SVOC | NUMBER OF CONTAINERS SUBMITTED: 8260B VOC | 8270LL SVOC | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | PRESERVATIVE: HCl | None | | | |
| 071911 | 1438 | MW-F12 (071911) | G | X | | | | | | 9 | 4 | MS/MSD |
| 071911 | 1720 | MW-F11 (071911) | G | X | | | | | | 3 | 1 | |
| 072011 | 0753 | MW-F6 (072011) | G | X | | | | | | 3 | 1 | |
| 072011 | 0913 | MW-F5 (072011) | G | X | | | | | | 3 | 1 | |
| 072011 | 1027 | MW-F3R (072011) | G | X | | | | | | 3 | 2 | |
| 072011 | 1312 | MW-F16 (072011) | G | X | | | | | | 3 | 1 | |
| 072011 | 1438 | MW-DUP25 (072011) | G | X | | | | | | 3 | 1 | |
| 072111 | 1547 | MWD-25 (072011) | G | X | | | | | | 3 | 1 | |
| 071911 | 1645 | MW-F2 (071911) | G | X | | | | | | 3 | 1 | |
| 071911 | 1305 | MW-F19 (071911) | G | X | | | | | | 3 | 1 | |
| 071911 | 1525 | MW-F1 (071911) | G | X | | | | | | 3 | 1 | |
| 072011 | 1200 | TB01 (072011) | - | X | | | | | | 2 | | |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| D. Ironi | 072111 | 1500 | | 7/21/11 | 15:05 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| | 7/21/11 | 15:25 | YES ○ NO ○ | | 680-70633 | Temps 0.2°C, 0.8°C, 4.4°C, 2.6°C |

TAL 8240-680 (1008)

Serial Number 041674

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING


TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165


Alternate Laboratory Name/Location
Phone:
Fax:

| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Ashland - Savannah | PROJECT NO.: OH004000.6480.16300 | PROJECT LOCATION (STATE): GA | PAGE 2 OF 3 |
| TAL (LAB) PROJECT MANAGER | P.O. NUMBER: NA | CONTRACT NO.: NA | STANDARD REPORT DELIVERY ● |
| CLIENT (SITE) PM: David Wilderman | CLIENT PHONE: 7704289009 | CLIENT FAX: 7704284004 | DATE DUE: STD |
| CLIENT NAME: ARCADIS | CLIENT E-MAIL: david.wilderman@arcadis-us.com | | EXPEDITED REPORT DELIVERY (SURCHARGE) ○ |
| CLIENT ADDRESS: 1000 Cobb Place Blvd. Bldg 500A, Kennesaw, GA | | | DATE DUE: |
| COMPANY CONTRACTING THIS WORK (if applicable) | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | COMPOSITE (C) OR GRAB (G) INDICATE | MATRIX TYPE: AQUEOUS (WATER) | MATRIX TYPE: SOLID OR SEMISOLID | MATRIX TYPE: AIR | MATRIX TYPE: NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | REQUIRED ANALYSIS: 8260B VOC | REQUIRED ANALYSIS: 8270LL SVOC | REQUIRED ANALYSIS: 8315 formaldehyde | REQUIRED ANALYSIS: 100.2 Asbestos | NUMBER OF CONTAINERS SUBMITTED: NONE | NUMBER OF CONTAINERS SUBMITTED: HCL PRESERVATIVE | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | NUMBER OF CONTAINERS SUBMITTED | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/20/11 | 0825 | MW-24 (072011) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |
| 7/20/11 | 0940 | MWD-24 (072011) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |
| 7/20/11 | 1700 | MW-23 (072011) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |
| 072111 | 0748 | MW-F13 (072111) | G | X | | | | 3 | 1 | | | 2 | | | | | | | | | | |
| 072111 | 0917 | MW-F14 (072111) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |
| 072111 | 1047 | MW-F21 (072111) | G | X | | | | 3 | 2 | | | 2 | | | | | | | | | | |
| 072111 | 1200 | ~~MW~~ DUP-02 (072111) | G | X | | | | 3 | 2 | | | | | | | | | | | | | |
| 072011 | 1735 | MWD-23 (072011) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |
| 072111 | 0820 | MW-F8 (072111) | G | X | | | | 3 | 1 | | | 2 | 1 | | | | | | | | | |
| 072111 | 1015 | MW-F9 (072111) | G | X | | | | 3 | 1 | | | 2 | 1 | | | | | | | | | |
| 7/21/11 | 1200 | MW-22 (072111) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |
| 7/21/11 | 1325 | MWD-22 (072111) | G | X | | | | 3 | 1 | | | | | | | | | | | | | |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | 072111 | 1500 | | 7/21/11 | 15:05 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| | 7/21/11 | 15:25 | YES ○ NO ○ | | 680-70633 | Temps 0.2°C, 0.8°C, 4.4°C, 2.6°C |

TAL 8240-680 (1008)

Serial Number 043875

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING


**TestAmerica Savannah**
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:


| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Ashland - Savannah | PROJECT NO.: 10500 OH004000.1BA60. | PROJECT LOCATION (STATE): GA | |
| TAL (LAB) PROJECT MANAGER | P.O. NUMBER: NA | CONTRACT NO.: NA | |
| CLIENT (SITE) PM: David Wilderman | CLIENT PHONE: 770.428.9009 | CLIENT FAX: 770.428.4004 | |
| CLIENT NAME: ARCADIS | CLIENT E-MAIL: david.wilderman@arcadis-us.com | | |
| CLIENT ADDRESS: 1000 Cobb Place Blvd. Bldg 500A · Kennesaw, GA | | | |
| COMPANY CONTRACTING THIS WORK (if applicable) | | | |

PAGE 3 OF 3

STANDARD REPORT DELIVERY ●
DATE DUE 5+d

EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE | MATRIX: AQUEOUS (WATER) | MATRIX: SOLID OR SEMISOLID | MATRIX: AIR | MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | REQUIRED ANALYSIS: 8260B VOC | REQUIRED ANALYSIS: 8270C LL SVOC | REQUIRED ANALYSIS: PRESERVATIVE | NUMBER OF CONTAINERS SUBMITTED | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 072111 | 1257 | MW-29 (072111) | G | X | | | | 3 | 1 | None None | | | |
| 072111 | 1405 | MWD-29 (072111) | G | X | | | | 3 | 1 | | | | |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | 072111 | 1500 | | 7/21/11 | 15:05 | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

## LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| | 7/21/11 | 15:25 | YES ○ NO ○ | | 680-70633 | Temps 0.2°C, 0.8°C, 4.4°C, 2.6°C |

TAL 8240-680 (1008)

**TestAmerica Savannah**
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

# Chain of Custody Record

04111984 4

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Gulizia, Lidya | Carrier Tracking No(s): | COC No: 680-217868.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: lidya.gulizia@testamericainc.com | | Page: Page 1 of 1 |
| Company: EMSL Analytical, Inc. | | | | Job #: 680-70633-1 |
| Address: 200 Rt 130 North, , | Due Date Requested: 8/2/2011 = Tue | Analysis Requested | | Preservation Codes: |
| City: Cinnaminson | TAT Requested (days): | | | A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify) |
| State, Zip: NJ, 08077 | | | | |
| Phone: | PO #: | | | Other: |
| Email: | WO #: | | | |
| Project Name: Hercules Savannah / Remediation | Project #: 68001205 | | | |
| Site: | SSOW#: | | | |

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUBCONTRACT/ Asbestos | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| MW-F8 (072111) (680-70633-21) | 7/21/11 | 08:20 Eastern | | Water | | | X | 1 | |
| MW-F9 (072111) (680-70633-22) | 7/21/11 | 10:15 Eastern | | Water | | | X | 1 | |

CHAIN OF CUSTODY SEALED
14 JUL 12 AM 9:41
SAMPLE RECEIPT
TESTAMERICA LABORATORIES, INC.

**Possible Hazard Identification**
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Ruth A Daughtry | 07.21.11 1709 | TASAV | | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: TNB-FX-92SA | Date/Time: 7-22-11 | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

# Login Sample Receipt Checklist

Client: Ashland Inc.

Job Number: 680-70633-1

**Login Number: 70633**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Daughtry, Beth**

| Question | Answer | 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 | 4 coolers rec'd via lab courier. |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 0.2, 0.8, 4.4, 2.6 C |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| 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 | |
| Sample Preservation Verified. | N/A | |
| 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 | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Login Sample Receipt Checklist

Client: Ashland Inc.

Job Number: 680-70633-1

**Login Number: 70633**
**List Number: 1**
**Creator: Jones, Matt**

**List Source: TestAmerica Tallahassee**
**List Creation: 07/22/11 10:06 AM**

| Question | Answer | 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 | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| 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 | |
| Sample Preservation Verified. | 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. | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | N/A | |
| Residual Chlorine Checked. | N/A | |

# Certification Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Savannah | A2LA | DoD ELAP | | 0399-01 |
| TestAmerica Savannah | A2LA | ISO/IEC 17025 | | 399.01 |
| TestAmerica Savannah | Alabama | State Program | 4 | 41450 |
| TestAmerica Savannah | Arkansas | Arkansas DOH | 6 | N/A |
| TestAmerica Savannah | Arkansas | State Program | 6 | 88-0692 |
| TestAmerica Savannah | California | NELAC | 9 | 3217CA |
| TestAmerica Savannah | Colorado | State Program | 8 | N/A |
| TestAmerica Savannah | Connecticut | State Program | 1 | PH-0161 |
| TestAmerica Savannah | Delaware | State Program | 3 | N/A |
| TestAmerica Savannah | Florida | NELAC | 4 | E87052 |
| TestAmerica Savannah | Georgia | Georgia EPD | 4 | N/A |
| TestAmerica Savannah | Georgia | State Program | 4 | 803 |
| TestAmerica Savannah | Guam | State Program | 9 | 09-005r |
| TestAmerica Savannah | Hawaii | State Program | 9 | N/A |
| TestAmerica Savannah | Illinois | NELAC | 5 | 200022 |
| TestAmerica Savannah | Indiana | State Program | 5 | N/A |
| TestAmerica Savannah | Iowa | State Program | 7 | 353 |
| TestAmerica Savannah | Kansas | NELAC | 7 | E-10322 |
| TestAmerica Savannah | Kentucky | Kentucky UST | 4 | 18 |
| TestAmerica Savannah | Kentucky | State Program | 4 | 90084 |
| TestAmerica Savannah | Louisiana | NELAC | 6 | LA100015 |
| TestAmerica Savannah | Louisiana | NELAC | 6 | 30690 |
| TestAmerica Savannah | Maine | State Program | 1 | GA00006 |
| TestAmerica Savannah | Maryland | State Program | 3 | 250 |
| TestAmerica Savannah | Massachusetts | State Program | 1 | M-GA006 |
| TestAmerica Savannah | Michigan | State Program | 5 | 9925 |
| TestAmerica Savannah | Mississippi | State Program | 4 | N/A |
| TestAmerica Savannah | Montana | State Program | 8 | CERT0081 |
| TestAmerica Savannah | Nebraska | State Program | 7 | TestAmerica-Savannah |
| TestAmerica Savannah | Nevada | State Program | 9 | GA6 |
| TestAmerica Savannah | New Jersey | NELAC | 2 | GA769 |
| TestAmerica Savannah | New Mexico | State Program | 6 | N/A |
| TestAmerica Savannah | New York | NELAC | 2 | 10842 |
| TestAmerica Savannah | North Carolina | North Carolina DENR | 4 | 269 |
| TestAmerica Savannah | North Carolina | North Carolina PHL | 4 | 13701 |
| TestAmerica Savannah | Oklahoma | State Program | 6 | 9984 |
| TestAmerica Savannah | Pennsylvania | NELAC | 3 | 68-00474 |
| TestAmerica Savannah | Puerto Rico | State Program | 2 | GA00006 |
| TestAmerica Savannah | Rhode Island | State Program | 1 | LAO00244 |
| TestAmerica Savannah | South Carolina | State Program | 4 | 98001 |
| TestAmerica Savannah | Tennessee | State Program | 4 | TN02961 |
| TestAmerica Savannah | Texas | NELAC | 6 | T104704185-08-TX |
| TestAmerica Savannah | USDA | USDA | | SAV 3-04 |
| TestAmerica Savannah | Vermont | State Program | 1 | 87052 |
| TestAmerica Savannah | Virginia | NELAC Secondary AB | 3 | 460161 |
| TestAmerica Savannah | Virginia | State Program | 3 | 302 |
| TestAmerica Savannah | Washington | State Program | 10 | C1794 |
| TestAmerica Savannah | West Virginia | West Virginia DEP | 3 | 94 |
| TestAmerica Savannah | West Virginia | West Virginia DHHR (DW) | 3 | 9950C |
| TestAmerica Savannah | Wisconsin | State Program | 5 | 999819810 |
| TestAmerica Savannah | Wyoming | State Program | 8 | 8TMS-Q |
| TestAmerica Tallahassee | Florida | NELAC | 4 | E81005 |
| TestAmerica Tallahassee | Louisiana | NELAC | 6 | 30663 |
| TestAmerica Tallahassee | New Jersey | NELAC | 2 | FL012 |

# Certification Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70633-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Tallahassee | Oklahoma | State Program | 6 | 9986 |
| TestAmerica Tallahassee | Texas | NELAC | 6 | T104704459-11-2 |
| TestAmerica Tallahassee | USDA | USDA | | P330-08-00158 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

TestAmerica Job ID: 680-70683-1
Client Project/Site: Hercules Savannah - GW July 2011
Revision: 1

For:
Ashland Inc.
Ashland Hercules Research Center
500 Hercules Rd Bldg 8139
Wilmington, Delaware 19808

Attn: Timothy Hassett

*Authorized for release by:*
*08/22/2011 05:10:43 PM*

Lidya Gulizia
Project Manager II
lidya.gulizia@testamericainc.com

cc: Holly English

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

*Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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## Job ID: 680-70683-1

### Laboratory: TestAmerica Savannah

**Narrative**

**Job Narrative**
**680-70683-1**

**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 batch 210445 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS and LCSD associated with batch 210445 had 2 and 1 analytes outside control limits, respectively; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS and LCSD associated with batch 210497 had 2 and 1 analytes outside control limits, respectively; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

**GC/MS Semi VOA**
Method(s) 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 210074 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8270C LL: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for batch 210074 exceeded control limits for the following analyte(s): hexachlorophene. It has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for this analyte. The results have been reported and qualified.

Method(s) 8270C LL: The method blank for batch 210074 contained bis(2-ethylhexyl)phthalate, a common lab contaminate, above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

**Comments**
No additional comments.

# Sample Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 680-70683-1 | MW-26 (072111) | Water | 07/21/11 17:08 | 07/23/11 08:21 |
| 680-70683-2 | MWD-28 (072211) | Water | 07/22/11 08:03 | 07/23/11 08:21 |
| 680-70683-3 | MW-27 (072211) | Water | 07/22/11 09:57 | 07/23/11 08:21 |
| 680-70683-4 | MWD-27 (072211) | Water | 07/22/11 11:28 | 07/23/11 08:21 |
| 680-70683-5 | MW-F7 (072211) | Water | 07/22/11 12:43 | 07/23/11 08:21 |
| 680-70683-6 | DUP-01 (072211) | Water | 07/22/11 12:00 | 07/23/11 08:21 |
| 680-70683-7 | MWD-30 (072211) | Water | 07/22/11 14:28 | 07/23/11 08:21 |
| 680-70683-8 | MW-F15 (072211) | Water | 07/22/11 16:10 | 07/23/11 08:21 |
| 680-70683-9 | MWD-F1 (072211) | Water | 07/22/11 13:50 | 07/23/11 08:21 |
| 680-70683-10 | MWD-F2 (072211) | Water | 07/22/11 10:25 | 07/23/11 08:21 |
| 680-70683-11 | MWD-F3 (072211) | Water | 07/22/11 17:25 | 07/23/11 08:21 |
| 680-70683-12 | MW-32 (072111) | Water | 07/21/11 15:30 | 07/23/11 08:21 |
| 680-70683-13 | MW-28 (072111) | Water | 07/21/11 17:05 | 07/23/11 08:21 |
| 680-70683-14 | TB01 (072211) | Water | 07/22/11 17:00 | 07/23/11 08:21 |
| 680-70683-15 | MW-F17 (072211) | Water | 07/22/11 17:50 | 07/23/11 08:21 |

# Method Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL SAV |
| 8270C LL | Semivolatile Organic Compounds by GCMS - Low Levels | SW846 | TAL SAV |

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |
| * | LCS or LCSD exceeds the control limits |
| F | MS or MSD exceeds the control limits |

### GC/MS Semi VOA

| Qualifier | Qualifier Description |
|---|---|
| U | Indicates the analyte was analyzed for but not detected. |
| * | LCS or LCSD exceeds the control limits |
| F | MS or MSD exceeds the control limits |
| F | RPD of the MS and MSD exceeds the control limits |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ☼ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| EDL | Estimated Detection Limit (Dioxin) |
| EPA | United States Environmental Protection Agency |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| ND | Not detected at the reporting limit (or method detection limit if shown) |
| PQL | Practical Quantitation Limit |
| RL | Reporting Limit |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

# Detection Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

## Client Sample ID: MW-26 (072111) — Lab Sample ID: 680-70683-1

No Detections

## Client Sample ID: MWD-28 (072211) — Lab Sample ID: 680-70683-2

No Detections

## Client Sample ID: MW-27 (072211) — Lab Sample ID: 680-70683-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 2.9 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |

## Client Sample ID: MWD-27 (072211) — Lab Sample ID: 680-70683-4

No Detections

## Client Sample ID: MW-F7 (072211) — Lab Sample ID: 680-70683-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 2.9 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |

## Client Sample ID: DUP-01 (072211) — Lab Sample ID: 680-70683-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 2.7 | | 1.0 | | ug/L | 1 | | 8260B | Total/NA |

## Client Sample ID: MWD-30 (072211) — Lab Sample ID: 680-70683-7

No Detections

## Client Sample ID: MW-F15 (072211) — Lab Sample ID: 680-70683-8

No Detections

## Client Sample ID: MWD-F1 (072211) — Lab Sample ID: 680-70683-9

No Detections

## Client Sample ID: MWD-F2 (072211) — Lab Sample ID: 680-70683-10

No Detections

## Client Sample ID: MWD-F3 (072211) — Lab Sample ID: 680-70683-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | 2.5 | | 2.0 | | ug/L | 1 | | 8270C LL | Total/NA |

## Client Sample ID: MW-32 (072111) — Lab Sample ID: 680-70683-12

No Detections

## Client Sample ID: MW-28 (072111) — Lab Sample ID: 680-70683-13

No Detections

# Detection Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: TB01 (072211)** — **Lab Sample ID: 680-70683-14**

No Detections

**Client Sample ID: MW-F17 (072211)** — **Lab Sample ID: 680-70683-15**

No Detections

**Client Sample ID: MW-26 (072111)**
**Date Collected: 07/21/11 17:08**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-1**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 17:55 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 17:55 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 17:55 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 17:55 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 17:55 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 17:55 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 17:55 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 17:55 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 17:55 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 17:55 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 17:55 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |

**Client Sample ID: MW-26 (072111)**
**Date Collected: 07/21/11 17:08**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-1**
**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 17:55 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 17:55 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* | | *07/26/11 17:55* | *1* |
| *Dibromofluoromethane* | *103* | | *70 - 130* | | *07/26/11 17:55* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/26/11 17:55* | *1* |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |

**Client Sample ID: MW-26 (072111)**
**Date Collected: 07/21/11 17:08**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-1**
**Matrix: Water**

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Famphur | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |

**Client Sample ID: MW-26 (072111)**
**Date Collected: 07/21/11 17:08**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-1**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:14 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *48* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 18:14* | *1* |
| *Nitrobenzene-d5 (Surr)* | *46* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 18:14* | *1* |
| *Terphenyl-d14 (Surr)* | *76* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 18:14* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *77* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 18:14* | *1* |
| *2-Fluorophenol (Surr)* | *44* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 18:14* | *1* |
| *2-Fluorobiphenyl* | *52* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 18:14* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-28 (072211)**
**Date Collected: 07/22/11 08:03**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-2**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 18:24 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 18:24 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 18:24 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 18:24 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 18:24 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 18:24 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 18:24 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 18:24 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 18:24 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 18:24 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 18:24 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |

**Client Sample ID: MWD-28 (072211)**
**Date Collected: 07/22/11 08:03**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-2**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:24 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:24 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/26/11 18:24* | *1* |
| *Dibromofluoromethane* | *104* | | *70 - 130* | | *07/26/11 18:24* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/26/11 18:24* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |

**Client Sample ID: MWD-28 (072211)**
**Date Collected: 07/22/11 08:03**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-2**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |

**Client Sample ID: MWD-28 (072211)**
**Date Collected: 07/22/11 08:03**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-2**
**Matrix: Water**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 18:40 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *49* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 18:40* | *1* |
| *Nitrobenzene-d5 (Surr)* | *51* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 18:40* | *1* |
| *Terphenyl-d14 (Surr)* | *76* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 18:40* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *61* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 18:40* | *1* |
| *2-Fluorophenol (Surr)* | *49* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 18:40* | *1* |
| *2-Fluorobiphenyl* | *51* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 18:40* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MW-27 (072211)**
**Date Collected: 07/22/11 09:57**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-3**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 18:54 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 18:54 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 18:54 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 18:54 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 18:54 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 18:54 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 18:54 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 18:54 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 18:54 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 18:54 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 18:54 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| **Tetrachloroethene** | **2.9** | | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |

**Client Sample ID: MW-27 (072211)**
**Date Collected: 07/22/11 09:57**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-3**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 18:54 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 18:54 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* | | *07/26/11 18:54* | *1* |
| *Dibromofluoromethane* | *103* | | *70 - 130* | | *07/26/11 18:54* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/26/11 18:54* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |

**Client Sample ID: MW-27 (072211)**
**Date Collected: 07/22/11 09:57**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-3**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |

**Client Sample ID: MW-27 (072211)**
**Date Collected: 07/22/11 09:57**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-3**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:06 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *41* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 19:06* | *1* |
| *Nitrobenzene-d5 (Surr)* | *46* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 19:06* | *1* |
| *Terphenyl-d14 (Surr)* | *74* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 19:06* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *56* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 19:06* | *1* |
| *2-Fluorophenol (Surr)* | *43* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 19:06* | *1* |
| *2-Fluorobiphenyl* | *48* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 19:06* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-27 (072211)**
**Date Collected: 07/22/11 11:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-4**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 19:23 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 19:23 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 19:23 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 19:23 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 19:23 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 19:23 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 19:23 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 19:23 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 19:23 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 19:23 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 19:23 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |

**Client Sample ID: MWD-27 (072211)**
**Date Collected: 07/22/11 11:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-4**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:23 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:23 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *105* | | *70 - 130* | | *07/26/11 19:23* | *1* |
| *Dibromofluoromethane* | *102* | | *70 - 130* | | *07/26/11 19:23* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* | | *07/26/11 19:23* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-27 (072211)**
**Date Collected: 07/22/11 11:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-4**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-27 (072211)**
**Date Collected: 07/22/11 11:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-4**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:32 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *49* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 19:32* | *1* |
| *Nitrobenzene-d5 (Surr)* | *54* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 19:32* | *1* |
| *Terphenyl-d14 (Surr)* | *82* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 19:32* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *65* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 19:32* | *1* |
| *2-Fluorophenol (Surr)* | *49* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 19:32* | *1* |
| *2-Fluorobiphenyl* | *56* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 19:32* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MW-F7 (072211)**
**Date Collected: 07/22/11 12:43**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-5**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 19:53 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 19:53 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 19:53 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 19:53 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 19:53 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 19:53 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 19:53 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 19:53 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 19:53 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 19:53 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 19:53 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| **Tetrachloroethene** | **2.9** | | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |

**Client Sample ID: MW-F7 (072211)**
**Date Collected: 07/22/11 12:43**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-5**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 19:53 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 19:53 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *105* | | *70 - 130* | | *07/26/11 19:53* | *1* |
| *Dibromofluoromethane* | *105* | | *70 - 130* | | *07/26/11 19:53* | *1* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* | | *07/26/11 19:53* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Acetophenone | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Acetylaminofluorene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.5 | U | 9.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Aminobiphenyl | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Aramite, Total | 1.4 | U | 1.4 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Benzyl alcohol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Bis(2-chloroethoxy)methane | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Bis(2-chloroethyl)ether | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| bis (2-chloroisopropyl) ether | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Bis(2-ethylhexyl) phthalate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Bromophenyl phenyl ether | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Butyl benzyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Chloro-3-methylphenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Chloronaphthalene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Chlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Chlorophenyl phenyl ether | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Diallate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Dibenzofuran | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,4-Dichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,3-Dichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,2-Dichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |

**Client Sample ID: MW-F7 (072211)**
**Date Collected: 07/22/11 12:43**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-5**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,4-Dichlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,6-Dichlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Diethyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Dimethyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Di-n-butyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,3-Dinitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,4-Dinitrophenol | 9.5 | U | 9.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,4-Dinitrotoluene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,6-Dinitrotoluene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Di-n-octyl phthalate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,4-Dioxane | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Disulfoton | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Famphur | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Hexachlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Hexachlorobutadiene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Hexachloroethane | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Hexachlorophene | 480 | U * | 480 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Hexachloropropene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Isophorone | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Isosafrole | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 3-Methylcholanthrene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Methyl parathion | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Methylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 3 & 4 Methylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,4-Naphthoquinone | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Nitroaniline | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 3-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Nitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 4-Nitrophenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Nitrophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |

**Client Sample ID: MW-F7 (072211)**
**Date Collected: 07/22/11 12:43**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-5**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitro-o-toluidine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosodiethylamine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosodimethylamine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosodi-n-butylamine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosodi-n-propylamine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosodiphenylamine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosomorpholine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosopiperidine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| N-Nitrosopyrrolidine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| p-Dimethylamino azobenzene | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Pentachlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Pentachloronitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Pentachlorophenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Phenacetin | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Phenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Phorate | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Pronamide | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Pyridine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Safrole, Total | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Sulfotepp | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| Thionazin | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2-Toluidine | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,2,4-Trichlorobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,4,6-Trichlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 2,4,5-Trichlorophenol | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |
| 1,3,5-Trinitrobenzene | 0.95 | U | 0.95 | | ug/L | | 07/26/11 14:51 | 08/10/11 19:58 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *58* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 19:58* | *1* |
| *Nitrobenzene-d5 (Surr)* | *62* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 19:58* | *1* |
| *Terphenyl-d14 (Surr)* | *92* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 19:58* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *78* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 19:58* | *1* |
| *2-Fluorophenol (Surr)* | *59* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 19:58* | *1* |
| *2-Fluorobiphenyl* | *68* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 19:58* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: DUP-01 (072211)**
**Date Collected: 07/22/11 12:00**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-6**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 03:41 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 03:41 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 03:41 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 03:41 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 03:41 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 03:41 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 03:41 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 03:41 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 03:41 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 03:41 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 03:41 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| **Tetrachloroethene** | **2.7** | | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |

**Client Sample ID: DUP-01 (072211)**
**Date Collected: 07/22/11 12:00**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-6**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 03:41 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 03:41 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* | | *07/29/11 03:41* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/29/11 03:41* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/29/11 03:41* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Acetophenone | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Acetylaminofluorene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.6 | U | 9.6 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Aminobiphenyl | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Aramite, Total | 1.4 | U | 1.4 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Benzyl alcohol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Bis(2-chloroethoxy)methane | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Bis(2-chloroethyl)ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| bis (2-chloroisopropyl) ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Bis(2-ethylhexyl) phthalate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Bromophenyl phenyl ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Butyl benzyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Chloro-3-methylphenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Chloronaphthalene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Chlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Chlorophenyl phenyl ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Diallate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Dibenzofuran | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,4-Dichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,3-Dichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,2-Dichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |

**Client Sample ID: DUP-01 (072211)**
**Date Collected: 07/22/11 12:00**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-6**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,4-Dichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,6-Dichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Diethyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Dimethyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Di-n-butyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,3-Dinitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,4-Dinitrophenol | 9.6 | U | 9.6 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,4-Dinitrotoluene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,6-Dinitrotoluene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Di-n-octyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,4-Dioxane | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Disulfoton | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Famphur | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Hexachlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Hexachlorobutadiene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Hexachloroethane | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Hexachlorophene | 480 | U * | 480 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Hexachloropropene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Isophorone | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Isosafrole | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 3-Methylcholanthrene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Methyl parathion | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Methylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 3 & 4 Methylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,4-Naphthoquinone | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Nitroaniline | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 3-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Nitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 4-Nitrophenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Nitrophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |

**Client Sample ID: DUP-01 (072211)**
**Date Collected: 07/22/11 12:00**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-6**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitro-o-toluidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosodiethylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosodimethylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosodi-n-butylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosodi-n-propylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosodiphenylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosomorpholine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosopiperidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| N-Nitrosopyrrolidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| p-Dimethylamino azobenzene | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Pentachlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Pentachloronitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Pentachlorophenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Phenacetin | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Phenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Phorate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Pronamide | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Pyridine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Safrole, Total | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Sulfotepp | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| Thionazin | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2-Toluidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,2,4-Trichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,4,6-Trichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 2,4,5-Trichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |
| 1,3,5-Trinitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:24 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *58* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 20:24* | *1* |
| *Nitrobenzene-d5 (Surr)* | *60* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 20:24* | *1* |
| *Terphenyl-d14 (Surr)* | *89* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 20:24* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *77* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 20:24* | *1* |
| *2-Fluorophenol (Surr)* | *60* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 20:24* | *1* |
| *2-Fluorobiphenyl* | *68* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 20:24* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-30 (072211)**
**Date Collected: 07/22/11 14:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-7**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 04:03 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 04:03 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 04:03 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:03 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:03 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 04:03 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:03 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 04:03 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:03 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:03 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:03 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |

**Client Sample ID: MWD-30 (072211)**
**Date Collected: 07/22/11 14:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-7**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:03 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:03 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* | | *07/29/11 04:03* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/29/11 04:03* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/29/11 04:03* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Acenaphthylene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Acetophenone | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Acetylaminofluorene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.6 | U | 9.6 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Aminobiphenyl | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Aniline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Aramite, Total | 1.4 | U | 1.4 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Benzo[a]anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Benzo[a]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Benzo[b]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Benzo[g,h,i]perylene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Benzo[k]fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Benzyl alcohol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Bis(2-chloroethoxy)methane | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Bis(2-chloroethyl)ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| bis (2-chloroisopropyl) ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Bis(2-ethylhexyl) phthalate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Bromophenyl phenyl ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Butyl benzyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Chloroaniline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Chloro-3-methylphenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Chloronaphthalene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Chlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Chlorophenyl phenyl ether | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Chrysene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Diallate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Dibenz(a,h)anthracene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Dibenzofuran | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,4-Dichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,3-Dichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,2-Dichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-30 (072211)**
**Date Collected: 07/22/11 14:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-7**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 19 | U | 19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,4-Dichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,6-Dichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Diethyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Dimethoate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 3,3'-Dimethylbenzidine | 19 | U | 19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,4-Dimethylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Dimethyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Di-n-butyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,3-Dinitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,4-Dinitrophenol | 9.6 | U | 9.6 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,4-Dinitrotoluene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,6-Dinitrotoluene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Di-n-octyl phthalate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Dinoseb | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,4-Dioxane | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Disulfoton | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Ethyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Ethyl Parathion | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Famphur | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Fluoranthene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Fluorene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Hexachlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Hexachlorobutadiene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Hexachlorocyclopentadiene | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Hexachloroethane | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Hexachlorophene | 480 | U * | 480 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Hexachloropropene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Isophorone | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Isosafrole | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Methapyrilene | 190 | U | 190 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 3-Methylcholanthrene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Methyl methanesulfonate | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Methylnaphthalene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Methyl parathion | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Methylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 3 & 4 Methylphenol | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Naphthalene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,4-Naphthoquinone | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Naphthylamine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Nitroaniline | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 3-Nitroaniline | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Nitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 4-Nitrophenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Nitrophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-30 (072211)**
**Date Collected: 07/22/11 14:28**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-7**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitro-o-toluidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosodiethylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosodimethylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosodi-n-butylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosodi-n-propylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosodiphenylamine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosomethylethylamine | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosomorpholine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosopiperidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| N-Nitrosopyrrolidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| p-Dimethylamino azobenzene | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Pentachlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Pentachloronitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Pentachlorophenol | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Phenacetin | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Phenanthrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Phenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Phorate | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Picoline | 1.9 | U | 1.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| p-Phenylene diamine | 190 | U | 190 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Pronamide | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Pyrene | 0.19 | U | 0.19 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Pyridine | 4.8 | U | 4.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Safrole, Total | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Sulfotepp | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| Thionazin | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2-Toluidine | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,2,4-Trichlorobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,4,6-Trichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 2,4,5-Trichlorophenol | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |
| 1,3,5-Trinitrobenzene | 0.96 | U | 0.96 | | ug/L | | 07/26/11 14:51 | 08/10/11 20:50 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *64* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 20:50* | *1* |
| *Nitrobenzene-d5 (Surr)* | *73* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 20:50* | *1* |
| *Terphenyl-d14 (Surr)* | *93* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 20:50* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *78* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 20:50* | *1* |
| *2-Fluorophenol (Surr)* | *66* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 20:50* | *1* |
| *2-Fluorobiphenyl* | *82* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 20:50* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MW-F15 (072211)**
**Date Collected: 07/22/11 16:10**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-8**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 04:25 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 04:25 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 04:25 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:25 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:25 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 04:25 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:25 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 04:25 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:25 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:25 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:25 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |

**Client Sample ID: MW-F15 (072211)**
**Date Collected: 07/22/11 16:10**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-8**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:25 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:25 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *105* | | *70 - 130* | | *07/29/11 04:25* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/29/11 04:25* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/29/11 04:25* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |

**Client Sample ID: MW-F15 (072211)**
**Date Collected: 07/22/11 16:10**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-8**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |

**Client Sample ID: MW-F15 (072211)**
**Date Collected: 07/22/11 16:10**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-8**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:16 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *51* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 21:16* | *1* |
| *Nitrobenzene-d5 (Surr)* | *55* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 21:16* | *1* |
| *Terphenyl-d14 (Surr)* | *80* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 21:16* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *73* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 21:16* | *1* |
| *2-Fluorophenol (Surr)* | *51* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 21:16* | *1* |
| *2-Fluorobiphenyl* | *62* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 21:16* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F1 (072211)**
**Date Collected: 07/22/11 13:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-9**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 04:47 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 04:47 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 04:47 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:47 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:47 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 04:47 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:47 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 04:47 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:47 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 04:47 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 04:47 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |

**Client Sample ID: MWD-F1 (072211)**
**Date Collected: 07/22/11 13:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-9**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 04:47 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 04:47 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* | | *07/29/11 04:47* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/29/11 04:47* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/29/11 04:47* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Acetophenone | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Acetylaminofluorene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.8 | U | 9.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Benzyl alcohol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Bis(2-chloroethoxy)methane | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Bis(2-chloroethyl)ether | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| bis (2-chloroisopropyl) ether | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Bromophenyl phenyl ether | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Butyl benzyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Chloro-3-methylphenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Chloronaphthalene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Chlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Chlorophenyl phenyl ether | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Diallate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Dibenzofuran | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,4-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,3-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,2-Dichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F1 (072211)**
**Date Collected: 07/22/11 13:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-9**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,4-Dichlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,6-Dichlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Diethyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Dimethyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Di-n-butyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,3-Dinitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,4-Dinitrophenol | 9.8 | U | 9.8 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,4-Dinitrotoluene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,6-Dinitrotoluene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Di-n-octyl phthalate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Disulfoton | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Famphur | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Hexachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Hexachlorobutadiene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Hexachloroethane | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Hexachloropropene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Isophorone | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Isosafrole | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 3-Methylcholanthrene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Methyl parathion | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,4-Naphthoquinone | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Nitroaniline | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Nitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Nitrophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F1 (072211)**
**Date Collected: 07/22/11 13:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-9**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitro-o-toluidine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosodiethylamine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosodimethylamine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosodi-n-butylamine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosodi-n-propylamine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosodiphenylamine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosomorpholine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosopiperidine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| N-Nitrosopyrrolidine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Pentachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Pentachloronitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Phenacetin | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Phenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Phorate | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Pronamide | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Safrole, Total | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Sulfotepp | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| Thionazin | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2-Toluidine | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,2,4-Trichlorobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,4,6-Trichlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 2,4,5-Trichlorophenol | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |
| 1,3,5-Trinitrobenzene | 0.98 | U | 0.98 | | ug/L | | 07/26/11 14:51 | 08/10/11 21:42 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *57* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 21:42* | *1* |
| *Nitrobenzene-d5 (Surr)* | *64* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 21:42* | *1* |
| *Terphenyl-d14 (Surr)* | *78* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 21:42* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *82* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 21:42* | *1* |
| *2-Fluorophenol (Surr)* | *59* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 21:42* | *1* |
| *2-Fluorobiphenyl* | *67* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 21:42* | *1* |

**Client Sample ID: MWD-F2 (072211)**
**Date Collected: 07/22/11 10:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-10**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 05:09 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 05:09 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 05:09 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:09 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:09 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 05:09 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:09 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 05:09 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:09 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:09 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:09 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |

**Client Sample ID: MWD-F2 (072211)**
**Date Collected: 07/22/11 10:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-10**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:09 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:09 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* | | *07/29/11 05:09* | *1* |
| *Dibromofluoromethane* | *99* | | *70 - 130* | | *07/29/11 05:09* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *70 - 130* | | *07/29/11 05:09* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F2 (072211)**
**Date Collected: 07/22/11 10:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-10**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Hexachlorophene | 490 | U * | 490 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F2 (072211)**
**Date Collected: 07/22/11 10:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-10**
**Matrix: Water**

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:08 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *57* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 22:08* | *1* |
| *Nitrobenzene-d5 (Surr)* | *64* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 22:08* | *1* |
| *Terphenyl-d14 (Surr)* | *70* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 22:08* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *71* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 22:08* | *1* |
| *2-Fluorophenol (Surr)* | *59* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 22:08* | *1* |
| *2-Fluorobiphenyl* | *70* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 22:08* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F3 (072211)**
**Date Collected: 07/22/11 17:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-11**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 05:32 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 05:32 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 05:32 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:32 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:32 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 05:32 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:32 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 05:32 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:32 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:32 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:32 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |

**Client Sample ID: MWD-F3 (072211)**
**Date Collected: 07/22/11 17:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-11**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:32 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:32 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* | | *07/29/11 05:32* | *1* |
| *Dibromofluoromethane* | *98* | | *70 - 130* | | *07/29/11 05:32* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/29/11 05:32* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MWD-F3 (072211)**
**Date Collected: 07/22/11 17:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-11**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| **1,4-Dioxane** | **2.5** | | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Famphur | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |

**Client Sample ID: MWD-F3 (072211)**
**Date Collected: 07/22/11 17:25**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-11**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 22:34 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *64* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 22:34* | *1* |
| *Nitrobenzene-d5 (Surr)* | *68* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 22:34* | *1* |
| *Terphenyl-d14 (Surr)* | *75* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 22:34* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *77* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 22:34* | *1* |
| *2-Fluorophenol (Surr)* | *66* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 22:34* | *1* |
| *2-Fluorobiphenyl* | *71* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 22:34* | *1* |

**Client Sample ID: MW-32 (072111)**
**Date Collected: 07/21/11 15:30**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-12**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 12:42 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 12:42 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 12:42 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 12:42 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 12:42 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 12:42 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 12:42 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 12:42 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 12:42 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 12:42 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 12:42 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |

**Client Sample ID: MW-32 (072111)**
**Date Collected: 07/21/11 15:30**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-12**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 12:42 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 12:42 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/28/11 12:42* | *1* |
| *Dibromofluoromethane* | *102* | | *70 - 130* | | *07/28/11 12:42* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/28/11 12:42* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |

**Client Sample ID: MW-32 (072111)**
**Date Collected: 07/21/11 15:30**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-12**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |

**Client Sample ID: MW-32 (072111)**
**Date Collected: 07/21/11 15:30**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-12**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:00 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *59* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 23:00* | *1* |
| *Nitrobenzene-d5 (Surr)* | *67* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 23:00* | *1* |
| *Terphenyl-d14 (Surr)* | *86* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 23:00* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *72* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 23:00* | *1* |
| *2-Fluorophenol (Surr)* | *63* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 23:00* | *1* |
| *2-Fluorobiphenyl* | *71* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 23:00* | *1* |

**Client Sample ID: MW-28 (072111)**
**Date Collected: 07/21/11 17:05**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-13**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 13:11 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 13:11 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 13:11 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 13:11 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 13:11 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 13:11 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 13:11 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 13:11 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 13:11 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 13:11 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 13:11 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |

**Client Sample ID: MW-28 (072111)**
**Date Collected: 07/21/11 17:05**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-13**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 13:11 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 13:11 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *70 - 130* | | *07/28/11 13:11* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/28/11 13:11* | *1* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* | | *07/28/11 13:11* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |

**Client Sample ID: MW-28 (072111)**
**Date Collected: 07/21/11 17:05**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-13**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Hexachlorophene | 500 | U * | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |

**Client Sample ID: MW-28 (072111)**
**Date Collected: 07/21/11 17:05**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-13**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/10/11 23:25 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *49* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 23:25* | *1* |
| *Nitrobenzene-d5 (Surr)* | *54* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 23:25* | *1* |
| *Terphenyl-d14 (Surr)* | *76* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 23:25* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *65* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 23:25* | *1* |
| *2-Fluorophenol (Surr)* | *49* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 23:25* | *1* |
| *2-Fluorobiphenyl* | *60* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 23:25* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: TB01 (072211)**
**Date Collected: 07/22/11 17:00**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-14**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 10:45 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 10:45 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 10:45 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 10:45 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 10:45 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 10:45 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 10:45 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 10:45 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 10:45 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 10:45 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 10:45 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: TB01 (072211)**
**Date Collected: 07/22/11 17:00**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-14**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 10:45 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 10:45 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *101* | | *70 - 130* | | *07/28/11 10:45* | *1* |
| *Dibromofluoromethane* | *102* | | *70 - 130* | | *07/28/11 10:45* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/28/11 10:45* | *1* |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MW-F17 (072211)**
**Date Collected: 07/22/11 17:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-15**
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/29/11 05:54 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/29/11 05:54 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/29/11 05:54 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:54 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Bromoform | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:54 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Carbon tetrachloride | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Chloromethane | 1.0 | U * | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/29/11 05:54 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:54 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/29/11 05:54 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:54 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/29/11 05:54 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/29/11 05:54 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |

**Client Sample ID: MW-F17 (072211)**
**Date Collected: 07/22/11 17:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-15**
**Matrix: Water**

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/29/11 05:54 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/29/11 05:54 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* | | *07/29/11 05:54* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/29/11 05:54* | *1* |
| *Toluene-d8 (Surr)* | *102* | | *70 - 130* | | *07/29/11 05:54* | *1* |

### Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Acetophenone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Acetylaminofluorene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Aminobiphenyl | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Benzyl alcohol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Bis(2-chloroethyl)ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Butyl benzyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Chloro-3-methylphenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Chloronaphthalene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Chlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Diallate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Dibenzofuran | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,4-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,3-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,2-Dichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

**Client Sample ID: MW-F17 (072211)**
**Date Collected: 07/22/11 17:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-15**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,4-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,6-Dichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Diethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Dimethyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Di-n-butyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,3-Dinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,4-Dinitrophenol | 9.9 | U | 9.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,4-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,6-Dinitrotoluene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Di-n-octyl phthalate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Disulfoton | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Famphur | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Hexachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Hexachlorobutadiene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Hexachloroethane | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Hexachlorophene | 490 | U | 490 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Hexachloropropene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Isophorone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Isosafrole | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 3-Methylcholanthrene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Methyl parathion | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,4-Naphthoquinone | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Naphthylamine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Nitroaniline | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 3-Nitroaniline | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Nitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 4-Nitrophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Nitrophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |

**Client Sample ID: MW-F17 (072211)**
**Date Collected: 07/22/11 17:50**
**Date Received: 07/23/11 08:21**

**Lab Sample ID: 680-70683-15**
**Matrix: Water**

**Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)**

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitro-o-toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosodiethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosodimethylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosodiphenylamine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosomorpholine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosopiperidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| N-Nitrosopyrrolidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| p-Dimethylamino azobenzene | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Pentachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Pentachloronitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Pentachlorophenol | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Phenacetin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Phenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Phorate | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Pronamide | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Pyridine | 4.9 | U | 4.9 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Safrole, Total | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Sulfotepp | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| Thionazin | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2-Toluidine | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,4,6-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 2,4,5-Trichlorophenol | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 0.99 | | ug/L | | 07/26/11 14:51 | 08/11/11 17:01 | 1 |

| *Surrogate* | *% Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *54* | | *27 - 130* | *07/26/11 14:51* | *08/11/11 17:01* | *1* |
| *Nitrobenzene-d5 (Surr)* | *68* | | *32 - 130* | *07/26/11 14:51* | *08/11/11 17:01* | *1* |
| *Terphenyl-d14 (Surr)* | *94* | | *36 - 130* | *07/26/11 14:51* | *08/11/11 17:01* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *86* | | *30 - 130* | *07/26/11 14:51* | *08/11/11 17:01* | *1* |
| *2-Fluorophenol (Surr)* | *59* | | *25 - 130* | *07/26/11 14:51* | *08/11/11 17:01* | *1* |
| *2-Fluorobiphenyl* | *66* | | *34 - 130* | *07/26/11 14:51* | *08/11/11 17:01* | *1* |

# Surrogate Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (70-130) | (70-130) | (70-130) |
| 680-70683-1 | MW-26 (072111) | 104 | 103 | 102 |
| 680-70683-2 | MWD-28 (072211) | 103 | 104 | 101 |
| 680-70683-3 | MW-27 (072211) | 106 | 103 | 102 |
| 680-70683-4 | MWD-27 (072211) | 105 | 102 | 104 |
| 680-70683-5 | MW-F7 (072211) | 105 | 105 | 104 |
| 680-70683-6 | DUP-01 (072211) | 106 | 100 | 101 |
| 680-70683-7 | MWD-30 (072211) | 106 | 98 | 101 |
| 680-70683-8 | MW-F15 (072211) | 105 | 98 | 102 |
| 680-70683-8 MS | MW-F15 (072211) | 100 | 108 | 104 |
| 680-70683-8 MSD | MW-F15 (072211) | 106 | 117 | 109 |
| 680-70683-9 | MWD-F1 (072211) | 104 | 100 | 101 |
| 680-70683-10 | MWD-F2 (072211) | 106 | 99 | 100 |
| 680-70683-11 | MWD-F3 (072211) | 106 | 98 | 101 |
| 680-70683-12 | MW-32 (072111) | 103 | 102 | 102 |
| 680-70683-13 | MW-28 (072111) | 102 | 100 | 101 |
| 680-70683-14 | TB01 (072211) | 101 | 102 | 102 |
| 680-70683-15 | MW-F17 (072211) | 104 | 100 | 102 |
| LCS 680-210094/4 | Lab Control Sample | 104 | 101 | 105 |
| LCS 680-210445/7 | Lab Control Sample | 93 | 96 | 94 |
| LCS 680-210497/4 | Lab Control Sample | 100 | 100 | 98 |
| LCSD 680-210094/5 | Lab Control Sample Dup | 104 | 104 | 101 |
| LCSD 680-210445/8 | Lab Control Sample Dup | 112 | 116 | 111 |
| LCSD 680-210497/5 | Lab Control Sample Dup | 98 | 101 | 98 |
| MB 680-210094/7 | Method Blank | 102 | 100 | 103 |
| MB 680-210445/10 | Method Blank | 103 | 103 | 100 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | |
|---|---|---|---|---|---|---|---|
| | | PHL | NBZ | TPH | TBP | 2FP | FBP |
| Lab Sample ID | Client Sample ID | (27-130) | (32-130) | (36-130) | (30-130) | (25-130) | (34-130) |
| 680-70683-1 | MW-26 (072111) | 48 | 46 | 76 | 77 | 44 | 52 |
| 680-70683-2 | MWD-28 (072211) | 49 | 51 | 76 | 61 | 49 | 51 |
| 680-70683-3 | MW-27 (072211) | 41 | 46 | 74 | 56 | 43 | 48 |
| 680-70683-4 | MWD-27 (072211) | 49 | 54 | 82 | 65 | 49 | 56 |
| 680-70683-5 | MW-F7 (072211) | 58 | 62 | 92 | 78 | 59 | 68 |
| 680-70683-6 | DUP-01 (072211) | 58 | 60 | 89 | 77 | 60 | 68 |
| 680-70683-7 | MWD-30 (072211) | 64 | 73 | 93 | 78 | 66 | 82 |
| 680-70683-8 | MW-F15 (072211) | 51 | 55 | 80 | 73 | 51 | 62 |
| 680-70683-8 MS | MW-F15 (072211) | 50 | 60 | 82 | 79 | 51 | 64 |
| 680-70683-8 MS | MW-F15 (072211) | 53 | 60 | 76 | 77 | 53 | 61 |
| 680-70683-8 MSD | MW-F15 (072211) | 50 | 56 | 78 | 75 | 51 | 61 |
| 680-70683-8 MSD | MW-F15 (072211) | 50 | 50 | 70 | 72 | 46 | 55 |
| 680-70683-9 | MWD-F1 (072211) | 57 | 64 | 78 | 82 | 59 | 67 |
| 680-70683-10 | MWD-F2 (072211) | 57 | 64 | 70 | 71 | 59 | 70 |

# Surrogate Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | PHL | NBZ | TPH | TBP | 2FP | FBP | | |
| Lab Sample ID | Client Sample ID | (27-130) | (32-130) | (36-130) | (30-130) | (25-130) | (34-130) | | |
| 680-70683-11 | MWD-F3 (072211) | 64 | 68 | 75 | 77 | 66 | 71 | | |
| 680-70683-12 | MW-32 (072111) | 59 | 67 | 86 | 72 | 63 | 71 | | |
| 680-70683-13 | MW-28 (072111) | 49 | 54 | 76 | 65 | 49 | 60 | | |
| 680-70683-15 | MW-F17 (072211) | 54 | 68 | 94 | 86 | 59 | 66 | | |
| LCS 680-210074/16-A | Lab Control Sample | 66 | 68 | 81 | 84 | 65 | 76 | | |
| LCS 680-210074/19-A | Lab Control Sample | 65 | 69 | 83 | 86 | 66 | 77 | | |
| MB 680-210074/15-A | Method Blank | 65 | 68 | 91 | 71 | 64 | 74 | | |

**Surrogate Legend**

PHL = Phenol-d5 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 680-210094/7**
**Matrix: Water**
**Analysis Batch: 210094**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/26/11 13:00 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/26/11 13:00 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/26/11 13:00 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 13:00 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/26/11 13:00 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/26/11 13:00 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/26/11 13:00 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/26/11 13:00 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/26/11 13:00 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/26/11 13:00 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/26/11 13:00 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210094/7**
**Matrix: Water**
**Analysis Batch: 210094**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/26/11 13:00 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/26/11 13:00 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *102* | | *70 - 130* | | *07/26/11 13:00* | *1* |
| *Dibromofluoromethane* | *100* | | *70 - 130* | | *07/26/11 13:00* | *1* |
| *Toluene-d8 (Surr)* | *103* | | *70 - 130* | | *07/26/11 13:00* | *1* |

**Lab Sample ID: LCS 680-210094/4**
**Matrix: Water**
**Analysis Batch: 210094**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 118 | | ug/L | | 118 | 26 - 180 |
| Benzene | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 |
| Bromodichloromethane | 50.0 | 43.9 | | ug/L | | 88 | 70 - 130 |
| Bromoform | 50.0 | 39.5 | | ug/L | | 79 | 70 - 130 |
| Bromomethane | 50.0 | 30.7 | | ug/L | | 61 | 23 - 165 |
| 2-Butanone | 100 | 107 | | ug/L | | 107 | 49 - 172 |
| Carbon disulfide | 50.0 | 51.9 | | ug/L | | 104 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 40.6 | | ug/L | | 81 | 70 - 130 |
| Chlorobenzene | 50.0 | 53.4 | | ug/L | | 107 | 70 - 130 |
| Chloroethane | 50.0 | 49.4 | | ug/L | | 99 | 56 - 152 |
| Chloroform | 50.0 | 46.4 | | ug/L | | 93 | 70 - 130 |
| Chloromethane | 50.0 | 59.5 | | ug/L | | 119 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 48.6 | | ug/L | | 97 | 70 - 130 |
| Dibromochloromethane | 50.0 | 42.8 | | ug/L | | 86 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 54.8 | | ug/L | | 110 | 70 - 130 |
| Dibromomethane | 50.0 | 51.5 | | ug/L | | 103 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 55.1 | | ug/L | | 110 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 54.4 | | ug/L | | 109 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 54.6 | | ug/L | | 109 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 51.5 | | ug/L | | 103 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 46.6 | | ug/L | | 93 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 50.8 | | ug/L | | 102 | 70 - 130 |
| Ethylbenzene | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| 2-Hexanone | 100 | 105 | | ug/L | | 105 | 42 - 185 |
| Methylene Chloride | 50.0 | 50.6 | | ug/L | | 101 | 67 - 130 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210094/4**
**Matrix: Water**
**Analysis Batch: 210094**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 4-Methyl-2-pentanone | 100 | 106 | | ug/L | | 106 | 70 - 130 |
| Styrene | 50.0 | 54.0 | | ug/L | | 108 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 53.6 | | ug/L | | 107 | 70 - 130 |
| Tetrachloroethene | 50.0 | 52.9 | | ug/L | | 106 | 70 - 130 |
| Toluene | 50.0 | 50.1 | | ug/L | | 100 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 45.2 | | ug/L | | 90 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 49.7 | | ug/L | | 99 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 53.9 | | ug/L | | 108 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 51.3 | | ug/L | | 103 | 70 - 130 |
| Trichloroethene | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 51.0 | | ug/L | | 102 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 53.6 | | ug/L | | 107 | 70 - 130 |
| Vinyl chloride | 50.0 | 51.1 | | ug/L | | 102 | 67 - 134 |
| Xylenes, Total | 150 | 153 | | ug/L | | 102 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* |
| *Dibromofluoromethane* | *101* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *105* | | *70 - 130* |

**Lab Sample ID: LCSD 680-210094/5**
**Matrix: Water**
**Analysis Batch: 210094**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 114 | | ug/L | | 114 | 26 - 180 | 3 | 50 |
| Benzene | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 | 4 | 30 |
| Bromodichloromethane | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 2 | 30 |
| Bromoform | 50.0 | 40.4 | | ug/L | | 81 | 70 - 130 | 2 | 30 |
| Bromomethane | 50.0 | 30.6 | | ug/L | | 61 | 23 - 165 | 0 | 50 |
| 2-Butanone | 100 | 110 | | ug/L | | 110 | 49 - 172 | 3 | 30 |
| Carbon disulfide | 50.0 | 53.5 | | ug/L | | 107 | 54 - 132 | 3 | 30 |
| Carbon tetrachloride | 50.0 | 40.5 | | ug/L | | 81 | 70 - 130 | 0 | 30 |
| Chlorobenzene | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 | 2 | 30 |
| Chloroethane | 50.0 | 49.0 | | ug/L | | 98 | 56 - 152 | 1 | 40 |
| Chloroform | 50.0 | 46.9 | | ug/L | | 94 | 70 - 130 | 1 | 30 |
| Chloromethane | 50.0 | 61.1 | | ug/L | | 122 | 70 - 130 | 3 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 6 | 30 |
| Dibromochloromethane | 50.0 | 42.8 | | ug/L | | 86 | 70 - 130 | 0 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 52.9 | | ug/L | | 106 | 70 - 130 | 4 | 50 |
| 1,2-Dibromoethane | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 | 5 | 30 |
| Dibromomethane | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 | 5 | 30 |
| 1,2-Dichlorobenzene | 50.0 | 55.1 | | ug/L | | 110 | 70 - 130 | 0 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 54.7 | | ug/L | | 109 | 70 - 130 | 0 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 54.5 | | ug/L | | 109 | 70 - 130 | 0 | 30 |
| Dichlorodifluoromethane | 50.0 | 52.6 | | ug/L | | 105 | 44 - 146 | 2 | 50 |
| 1,1-Dichloroethane | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 | 1 | 30 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210094/5**
**Matrix: Water**
**Analysis Batch: 210094**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | | | 50.0 | 45.7 | | ug/L | | 91 | 70 - 130 | 6 | 30 |
| 1,1-Dichloroethene | | | 50.0 | 47.9 | | ug/L | | 96 | 66 - 131 | 3 | 30 |
| 1,2-Dichloropropane | | | 50.0 | 48.9 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| Ethylbenzene | | | 50.0 | 50.3 | | ug/L | | 101 | 70 - 130 | 1 | 30 |
| 2-Hexanone | | | 100 | 103 | | ug/L | | 103 | 42 - 185 | 2 | 30 |
| Methylene Chloride | | | 50.0 | 51.4 | | ug/L | | 103 | 67 - 130 | 2 | 30 |
| 4-Methyl-2-pentanone | | | 100 | 99.6 | | ug/L | | 100 | 70 - 130 | 6 | 30 |
| Styrene | | | 50.0 | 52.8 | | ug/L | | 106 | 70 - 130 | 2 | 30 |
| 1,1,1,2-Tetrachloroethane | | | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 | 0 | 30 |
| 1,1,2,2-Tetrachloroethane | | | 50.0 | 52.1 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| Tetrachloroethene | | | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 | 2 | 30 |
| Toluene | | | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 | 4 | 30 |
| trans-1,2-Dichloroethene | | | 50.0 | 45.7 | | ug/L | | 91 | 70 - 130 | 1 | 30 |
| trans-1,3-Dichloropropene | | | 50.0 | 46.5 | | ug/L | | 93 | 70 - 130 | 7 | 50 |
| 1,2,4-Trichlorobenzene | | | 50.0 | 55.6 | | ug/L | | 111 | 65 - 130 | 3 | 30 |
| 1,1,1-Trichloroethane | | | 50.0 | 46.4 | | ug/L | | 93 | 70 - 130 | 3 | 30 |
| 1,1,2-Trichloroethane | | | 50.0 | 49.6 | | ug/L | | 99 | 70 - 130 | 4 | 30 |
| Trichloroethene | | | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 | 3 | 30 |
| Trichlorofluoromethane | | | 50.0 | 52.6 | | ug/L | | 105 | 55 - 156 | 3 | 30 |
| 1,2,3-Trichloropropane | | | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| Vinyl chloride | | | 50.0 | 53.3 | | ug/L | | 107 | 67 - 134 | 4 | 30 |
| Xylenes, Total | | | 150 | 152 | | ug/L | | 102 | 70 - 130 | 0 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *104* | | *70 - 130* |
| *Dibromofluoromethane* | *104* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *101* | | *70 - 130* |

**Lab Sample ID: MB 680-210445/10**
**Matrix: Water**
**Analysis Batch: 210445**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 25 | | ug/L | | | 07/28/11 23:58 | 1 |
| Acetonitrile | 40 | U | 40 | | ug/L | | | 07/28/11 23:58 | 1 |
| Acrolein | 20 | U | 20 | | ug/L | | | 07/28/11 23:58 | 1 |
| Acrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 23:58 | 1 |
| Allyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Benzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Bromodichloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Bromoform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Bromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 2-Butanone | 10 | U | 10 | | ug/L | | | 07/28/11 23:58 | 1 |
| Carbon disulfide | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Carbon tetrachloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Chlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Chloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Chloroform | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Chloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210445/10**
**Matrix: Water**
**Analysis Batch: 210445**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloroprene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| cis-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Dibromochloromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2-Dibromoethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Dibromomethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Dichlorodifluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2-Dichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2-Dichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,4-Dioxane | 50 | U | 50 | | ug/L | | | 07/28/11 23:58 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Ethyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 2-Hexanone | 10 | U | 10 | | ug/L | | | 07/28/11 23:58 | 1 |
| Iodomethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Isobutanol | 40 | U | 40 | | ug/L | | | 07/28/11 23:58 | 1 |
| Methacrylonitrile | 20 | U | 20 | | ug/L | | | 07/28/11 23:58 | 1 |
| Methylene Chloride | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Methyl methacrylate | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 4-Methyl-2-pentanone | 10 | U | 10 | | ug/L | | | 07/28/11 23:58 | 1 |
| Pentachloroethane | 5.0 | U | 5.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Propionitrile | 20 | U | 20 | | ug/L | | | 07/28/11 23:58 | 1 |
| Styrene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Toluene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| trans-1,4-Dichloro-2-butene | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| trans-1,3-Dichloropropene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,1,2-Trichloroethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Trichlorofluoromethane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| 1,2,3-Trichloropropane | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Vinyl acetate | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | | ug/L | | | 07/28/11 23:58 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | | ug/L | | | 07/28/11 23:58 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene* | *103* | | *70 - 130* | | *07/28/11 23:58* | *1* |
| *Dibromofluoromethane* | *103* | | *70 - 130* | | *07/28/11 23:58* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *70 - 130* | | *07/28/11 23:58* | *1* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210445/7**
**Matrix: Water**
**Analysis Batch: 210445**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 107 | | ug/L | | 107 | 26 - 180 |
| Benzene | 50.0 | 45.1 | | ug/L | | 90 | 70 - 130 |
| Bromodichloromethane | 50.0 | 39.9 | | ug/L | | 80 | 70 - 130 |
| Bromoform | 50.0 | 31.1 | * | ug/L | | 62 | 70 - 130 |
| Bromomethane | 50.0 | 38.5 | | ug/L | | 77 | 23 - 165 |
| 2-Butanone | 100 | 101 | | ug/L | | 101 | 49 - 172 |
| Carbon disulfide | 50.0 | 45.6 | | ug/L | | 91 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 33.9 | * | ug/L | | 68 | 70 - 130 |
| Chlorobenzene | 50.0 | 47.2 | | ug/L | | 94 | 70 - 130 |
| Chloroethane | 50.0 | 47.3 | | ug/L | | 95 | 56 - 152 |
| Chloroform | 50.0 | 46.9 | | ug/L | | 94 | 70 - 130 |
| Chloromethane | 50.0 | 55.1 | | ug/L | | 110 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 40.9 | | ug/L | | 82 | 70 - 130 |
| Dibromochloromethane | 50.0 | 35.3 | | ug/L | | 71 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 40.0 | | ug/L | | 80 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 46.7 | | ug/L | | 93 | 70 - 130 |
| Dibromomethane | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 49.4 | | ug/L | | 99 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 48.5 | | ug/L | | 97 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 44.6 | | ug/L | | 89 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 45.0 | | ug/L | | 90 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 46.4 | | ug/L | | 93 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 |
| Ethylbenzene | 50.0 | 44.5 | | ug/L | | 89 | 70 - 130 |
| 2-Hexanone | 100 | 89.8 | | ug/L | | 90 | 42 - 185 |
| Methylene Chloride | 50.0 | 46.9 | | ug/L | | 94 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 87.2 | | ug/L | | 87 | 70 - 130 |
| Styrene | 50.0 | 46.7 | | ug/L | | 93 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 39.0 | | ug/L | | 78 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 44.9 | | ug/L | | 90 | 70 - 130 |
| Tetrachloroethene | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 |
| Toluene | 50.0 | 44.6 | | ug/L | | 89 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 40.5 | | ug/L | | 81 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 51.9 | | ug/L | | 104 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 42.1 | | ug/L | | 84 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 45.2 | | ug/L | | 90 | 70 - 130 |
| Trichloroethene | 50.0 | 47.3 | | ug/L | | 95 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 47.3 | | ug/L | | 95 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 46.7 | | ug/L | | 93 | 70 - 130 |
| Vinyl chloride | 50.0 | 48.2 | | ug/L | | 96 | 67 - 134 |
| Xylenes, Total | 150 | 134 | | ug/L | | 90 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *93* | | *70 - 130* |
| *Dibromofluoromethane* | *96* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *94* | | *70 - 130* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210445/8**
**Matrix: Water**
**Analysis Batch: 210445**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 132 | | ug/L | | 132 | 26 - 180 | 21 | 50 |
| Benzene | 50.0 | 53.4 | | ug/L | | 107 | 70 - 130 | 17 | 30 |
| Bromodichloromethane | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 | 20 | 30 |
| Bromoform | 50.0 | 39.2 | | ug/L | | 78 | 70 - 130 | 23 | 30 |
| Bromomethane | 50.0 | 39.5 | | ug/L | | 79 | 23 - 165 | 3 | 50 |
| 2-Butanone | 100 | 121 | | ug/L | | 121 | 49 - 172 | 19 | 30 |
| Carbon disulfide | 50.0 | 55.8 | | ug/L | | 112 | 54 - 132 | 20 | 30 |
| Carbon tetrachloride | 50.0 | 41.9 | | ug/L | | 84 | 70 - 130 | 21 | 30 |
| Chlorobenzene | 50.0 | 57.3 | | ug/L | | 115 | 70 - 130 | 19 | 30 |
| Chloroethane | 50.0 | 54.8 | | ug/L | | 110 | 56 - 152 | 15 | 40 |
| Chloroform | 50.0 | 56.2 | | ug/L | | 112 | 70 - 130 | 18 | 30 |
| Chloromethane | 50.0 | 68.7 | * | ug/L | | 137 | 70 - 130 | 22 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 49.3 | | ug/L | | 99 | 70 - 130 | 18 | 30 |
| Dibromochloromethane | 50.0 | 44.8 | | ug/L | | 90 | 70 - 130 | 24 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 50.4 | | ug/L | | 101 | 70 - 130 | 23 | 50 |
| 1,2-Dibromoethane | 50.0 | 56.6 | | ug/L | | 113 | 70 - 130 | 19 | 30 |
| Dibromomethane | 50.0 | 54.7 | | ug/L | | 109 | 70 - 130 | 17 | 30 |
| 1,2-Dichlorobenzene | 50.0 | 59.5 | | ug/L | | 119 | 70 - 130 | 19 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 58.3 | | ug/L | | 117 | 70 - 130 | 18 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 59.6 | | ug/L | | 119 | 70 - 130 | 21 | 30 |
| Dichlorodifluoromethane | 50.0 | 55.6 | | ug/L | | 111 | 44 - 146 | 22 | 50 |
| 1,1-Dichloroethane | 50.0 | 55.3 | | ug/L | | 111 | 70 - 130 | 21 | 30 |
| 1,2-Dichloroethane | 50.0 | 52.5 | | ug/L | | 105 | 70 - 130 | 17 | 30 |
| 1,1-Dichloroethene | 50.0 | 58.6 | | ug/L | | 117 | 66 - 131 | 23 | 30 |
| 1,2-Dichloropropane | 50.0 | 52.5 | | ug/L | | 105 | 70 - 130 | 17 | 30 |
| Ethylbenzene | 50.0 | 55.2 | | ug/L | | 110 | 70 - 130 | 21 | 30 |
| 2-Hexanone | 100 | 109 | | ug/L | | 109 | 42 - 185 | 19 | 30 |
| Methylene Chloride | 50.0 | 57.2 | | ug/L | | 114 | 67 - 130 | 20 | 30 |
| 4-Methyl-2-pentanone | 100 | 103 | | ug/L | | 103 | 70 - 130 | 17 | 30 |
| Styrene | 50.0 | 57.1 | | ug/L | | 114 | 70 - 130 | 20 | 30 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 | 22 | 30 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 55.3 | | ug/L | | 111 | 70 - 130 | 21 | 30 |
| Tetrachloroethene | 50.0 | 58.4 | | ug/L | | 117 | 70 - 130 | 20 | 30 |
| Toluene | 50.0 | 54.0 | | ug/L | | 108 | 70 - 130 | 19 | 30 |
| trans-1,2-Dichloroethene | 50.0 | 55.1 | | ug/L | | 110 | 70 - 130 | 17 | 30 |
| trans-1,3-Dichloropropene | 50.0 | 49.0 | | ug/L | | 98 | 70 - 130 | 19 | 50 |
| 1,2,4-Trichlorobenzene | 50.0 | 63.2 | | ug/L | | 126 | 65 - 130 | 20 | 30 |
| 1,1,1-Trichloroethane | 50.0 | 50.4 | | ug/L | | 101 | 70 - 130 | 18 | 30 |
| 1,1,2-Trichloroethane | 50.0 | 54.2 | | ug/L | | 108 | 70 - 130 | 18 | 30 |
| Trichloroethene | 50.0 | 56.6 | | ug/L | | 113 | 70 - 130 | 18 | 30 |
| Trichlorofluoromethane | 50.0 | 58.9 | | ug/L | | 118 | 55 - 156 | 22 | 30 |
| 1,2,3-Trichloropropane | 50.0 | 58.0 | | ug/L | | 116 | 70 - 130 | 22 | 30 |
| Vinyl chloride | 50.0 | 59.4 | | ug/L | | 119 | 67 - 134 | 21 | 30 |
| Xylenes, Total | 150 | 166 | | ug/L | | 110 | 70 - 130 | 21 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *112* | | *70 - 130* |
| *Dibromofluoromethane* | *116* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *111* | | *70 - 130* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 680-70683-8 MS**
**Matrix: Water**
**Analysis Batch: 210445**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 100 | 88.5 | | ug/L | | 89 | 26 - 180 |
| Benzene | 1.0 | U | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 |
| Bromodichloromethane | 1.0 | U | 50.0 | 39.9 | | ug/L | | 80 | 70 - 130 |
| Bromoform | 1.0 | U * | 50.0 | 27.2 | F | ug/L | | 54 | 70 - 130 |
| Bromomethane | 1.0 | U | 50.0 | 56.5 | | ug/L | | 113 | 23 - 165 |
| 2-Butanone | 10 | U | 100 | 91.2 | | ug/L | | 91 | 49 - 172 |
| Carbon disulfide | 2.0 | U | 50.0 | 55.3 | | ug/L | | 111 | 54 - 132 |
| Carbon tetrachloride | 1.0 | U * | 50.0 | 31.2 | F | ug/L | | 62 | 70 - 130 |
| Chlorobenzene | 1.0 | U | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 |
| Chloroethane | 1.0 | U | 50.0 | 64.2 | | ug/L | | 128 | 56 - 152 |
| Chloroform | 1.0 | U | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 |
| Chloromethane | 1.0 | U * | 50.0 | 63.2 | | ug/L | | 126 | 70 - 130 |
| cis-1,3-Dichloropropene | 1.0 | U | 50.0 | 39.8 | | ug/L | | 80 | 70 - 130 |
| Dibromochloromethane | 1.0 | U | 50.0 | 32.9 | F | ug/L | | 66 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 50.0 | 33.8 | F | ug/L | | 68 | 70 - 130 |
| 1,2-Dibromoethane | 1.0 | U | 50.0 | 47.7 | | ug/L | | 95 | 70 - 130 |
| Dibromomethane | 1.0 | U | 50.0 | 47.5 | | ug/L | | 95 | 70 - 130 |
| 1,2-Dichlorobenzene | 1.0 | U | 50.0 | 52.8 | | ug/L | | 106 | 70 - 130 |
| 1,3-Dichlorobenzene | 1.0 | U | 50.0 | 53.3 | | ug/L | | 107 | 70 - 130 |
| 1,4-Dichlorobenzene | 1.0 | U | 50.0 | 52.5 | | ug/L | | 105 | 70 - 130 |
| Dichlorodifluoromethane | 1.0 | U | 50.0 | 56.4 | | ug/L | | 113 | 44 - 146 |
| 1,1-Dichloroethane | 1.0 | U | 50.0 | 51.9 | | ug/L | | 104 | 70 - 130 |
| 1,2-Dichloroethane | 1.0 | U | 50.0 | 46.1 | | ug/L | | 92 | 70 - 130 |
| 1,1-Dichloroethene | 1.0 | U | 50.0 | 57.3 | | ug/L | | 115 | 66 - 131 |
| 1,2-Dichloropropane | 1.0 | U | 50.0 | 46.3 | | ug/L | | 93 | 70 - 130 |
| Ethylbenzene | 1.0 | U | 50.0 | 48.7 | | ug/L | | 97 | 70 - 130 |
| 2-Hexanone | 10 | U | 100 | 80.9 | | ug/L | | 81 | 42 - 185 |
| Methylene Chloride | 5.0 | U | 50.0 | 54.8 | | ug/L | | 110 | 67 - 130 |
| 4-Methyl-2-pentanone | 10 | U | 100 | 86.0 | | ug/L | | 86 | 70 - 130 |
| Styrene | 1.0 | U | 50.0 | 49.8 | | ug/L | | 100 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 50.0 | 36.8 | | ug/L | | 74 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 50.0 | 46.5 | | ug/L | | 93 | 70 - 130 |
| Tetrachloroethene | 1.0 | U | 50.0 | 52.7 | | ug/L | | 105 | 70 - 130 |
| Toluene | 1.0 | U | 50.0 | 49.5 | | ug/L | | 99 | 70 - 130 |
| trans-1,2-Dichloroethene | 1.0 | U | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 |
| trans-1,3-Dichloropropene | 1.0 | U | 50.0 | 37.4 | | ug/L | | 75 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 50.0 | 52.2 | | ug/L | | 104 | 65 - 130 |
| 1,1,1-Trichloroethane | 1.0 | U | 50.0 | 42.8 | | ug/L | | 86 | 70 - 130 |
| 1,1,2-Trichloroethane | 1.0 | U | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 |
| Trichloroethene | 1.0 | U | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 |
| Trichlorofluoromethane | 1.0 | U | 50.0 | 60.7 | | ug/L | | 121 | 55 - 156 |
| 1,2,3-Trichloropropane | 1.0 | U | 50.0 | 48.6 | | ug/L | | 97 | 70 - 130 |
| Vinyl chloride | 1.0 | U | 50.0 | 57.3 | | ug/L | | 115 | 67 - 134 |
| Xylenes, Total | 2.0 | U | 150 | 146 | | ug/L | | 97 | 70 - 130 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *70 - 130* |
| *Dibromofluoromethane* | *108* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *104* | | *70 - 130* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 680-70683-8 MSD**
**Matrix: Water**
**Analysis Batch: 210445**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 25 | U | 100 | 103 | | ug/L | | 103 | 26 - 180 | 15 | 50 |
| Benzene | 1.0 | U | 50.0 | 50.3 | | ug/L | | 101 | 70 - 130 | 2 | 30 |
| Bromodichloromethane | 1.0 | U | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 7 | 30 |
| Bromoform | 1.0 | U * | 50.0 | 31.8 | F | ug/L | | 64 | 70 - 130 | 16 | 30 |
| Bromomethane | 1.0 | U | 50.0 | 60.1 | | ug/L | | 120 | 23 - 165 | 6 | 50 |
| 2-Butanone | 10 | U | 100 | 101 | | ug/L | | 101 | 49 - 172 | 10 | 30 |
| Carbon disulfide | 2.0 | U | 50.0 | 61.1 | | ug/L | | 122 | 54 - 132 | 10 | 30 |
| Carbon tetrachloride | 1.0 | U * | 50.0 | 36.2 | | ug/L | | 72 | 70 - 130 | 15 | 30 |
| Chlorobenzene | 1.0 | U | 50.0 | 54.2 | | ug/L | | 108 | 70 - 130 | 6 | 30 |
| Chloroethane | 1.0 | U | 50.0 | 69.2 | | ug/L | | 138 | 56 - 152 | 7 | 40 |
| Chloroform | 1.0 | U | 50.0 | 56.9 | | ug/L | | 114 | 70 - 130 | 8 | 30 |
| Chloromethane | 1.0 | U * | 50.0 | 70.0 | F | ug/L | | 140 | 70 - 130 | 10 | 30 |
| cis-1,3-Dichloropropene | 1.0 | U | 50.0 | 43.1 | | ug/L | | 86 | 70 - 130 | 8 | 30 |
| Dibromochloromethane | 1.0 | U | 50.0 | 37.4 | | ug/L | | 75 | 70 - 130 | 13 | 50 |
| 1,2-Dibromo-3-Chloropropane | 1.0 | U | 50.0 | 39.9 | | ug/L | | 80 | 70 - 130 | 17 | 50 |
| 1,2-Dibromoethane | 1.0 | U | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 | 7 | 30 |
| Dibromomethane | 1.0 | U | 50.0 | 49.6 | | ug/L | | 99 | 70 - 130 | 4 | 30 |
| 1,2-Dichlorobenzene | 1.0 | U | 50.0 | 55.6 | | ug/L | | 111 | 70 - 130 | 5 | 30 |
| 1,3-Dichlorobenzene | 1.0 | U | 50.0 | 55.9 | | ug/L | | 112 | 70 - 130 | 5 | 30 |
| 1,4-Dichlorobenzene | 1.0 | U | 50.0 | 56.9 | | ug/L | | 114 | 70 - 130 | 8 | 30 |
| Dichlorodifluoromethane | 1.0 | U | 50.0 | 61.4 | | ug/L | | 123 | 44 - 146 | 8 | 50 |
| 1,1-Dichloroethane | 1.0 | U | 50.0 | 56.7 | | ug/L | | 113 | 70 - 130 | 9 | 30 |
| 1,2-Dichloroethane | 1.0 | U | 50.0 | 48.0 | | ug/L | | 96 | 70 - 130 | 4 | 30 |
| 1,1-Dichloroethene | 1.0 | U | 50.0 | 61.1 | | ug/L | | 122 | 66 - 131 | 7 | 30 |
| 1,2-Dichloropropane | 1.0 | U | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 | 4 | 30 |
| Ethylbenzene | 1.0 | U | 50.0 | 52.4 | | ug/L | | 105 | 70 - 130 | 7 | 30 |
| 2-Hexanone | 10 | U | 100 | 87.3 | | ug/L | | 87 | 42 - 185 | 8 | 30 |
| Methylene Chloride | 5.0 | U | 50.0 | 59.6 | | ug/L | | 119 | 67 - 130 | 8 | 30 |
| 4-Methyl-2-pentanone | 10 | U | 100 | 89.5 | | ug/L | | 89 | 70 - 130 | 4 | 30 |
| Styrene | 1.0 | U | 50.0 | 54.3 | | ug/L | | 109 | 70 - 130 | 8 | 30 |
| 1,1,1,2-Tetrachloroethane | 1.0 | U | 50.0 | 41.7 | | ug/L | | 83 | 70 - 130 | 13 | 30 |
| 1,1,2,2-Tetrachloroethane | 1.0 | U | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 | 8 | 30 |
| Tetrachloroethene | 1.0 | U | 50.0 | 55.6 | | ug/L | | 111 | 70 - 130 | 5 | 30 |
| Toluene | 1.0 | U | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 | 4 | 30 |
| trans-1,2-Dichloroethene | 1.0 | U | 50.0 | 57.7 | | ug/L | | 115 | 70 - 130 | 10 | 30 |
| trans-1,3-Dichloropropene | 1.0 | U | 50.0 | 41.3 | | ug/L | | 83 | 70 - 130 | 10 | 50 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 50.0 | 59.0 | | ug/L | | 118 | 65 - 130 | 12 | 30 |
| 1,1,1-Trichloroethane | 1.0 | U | 50.0 | 46.0 | | ug/L | | 92 | 70 - 130 | 7 | 30 |
| 1,1,2-Trichloroethane | 1.0 | U | 50.0 | 49.5 | | ug/L | | 99 | 70 - 130 | 5 | 30 |
| Trichloroethene | 1.0 | U | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 | 3 | 30 |
| Trichlorofluoromethane | 1.0 | U | 50.0 | 67.7 | | ug/L | | 135 | 55 - 156 | 11 | 30 |
| 1,2,3-Trichloropropane | 1.0 | U | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 | 5 | 30 |
| Vinyl chloride | 1.0 | U | 50.0 | 62.6 | | ug/L | | 125 | 67 - 134 | 9 | 30 |
| Xylenes, Total | 2.0 | U | 150 | 160 | | ug/L | | 107 | 70 - 130 | 9 | 30 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *106* | | *70 - 130* |
| *Dibromofluoromethane* | *117* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *109* | | *70 - 130* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210497/4**
**Matrix: Water**
**Analysis Batch: 210497**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acetone | 100 | 115 | | ug/L | | 115 | 26 - 180 |
| Benzene | 50.0 | 46.7 | | ug/L | | 93 | 70 - 130 |
| Bromodichloromethane | 50.0 | 40.1 | | ug/L | | 80 | 70 - 130 |
| Bromoform | 50.0 | 30.9 | * | ug/L | | 62 | 70 - 130 |
| Bromomethane | 50.0 | 39.0 | | ug/L | | 78 | 23 - 165 |
| 2-Butanone | 100 | 104 | | ug/L | | 104 | 49 - 172 |
| Carbon disulfide | 50.0 | 49.9 | | ug/L | | 100 | 54 - 132 |
| Carbon tetrachloride | 50.0 | 33.9 | * | ug/L | | 68 | 70 - 130 |
| Chlorobenzene | 50.0 | 50.3 | | ug/L | | 101 | 70 - 130 |
| Chloroethane | 50.0 | 51.6 | | ug/L | | 103 | 56 - 152 |
| Chloroform | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 |
| Chloromethane | 50.0 | 60.7 | | ug/L | | 121 | 70 - 130 |
| cis-1,3-Dichloropropene | 50.0 | 43.6 | | ug/L | | 87 | 70 - 130 |
| Dibromochloromethane | 50.0 | 35.7 | | ug/L | | 71 | 70 - 130 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 42.6 | | ug/L | | 85 | 70 - 130 |
| 1,2-Dibromoethane | 50.0 | 48.8 | | ug/L | | 98 | 70 - 130 |
| Dibromomethane | 50.0 | 46.6 | | ug/L | | 93 | 70 - 130 |
| 1,2-Dichlorobenzene | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 |
| 1,3-Dichlorobenzene | 50.0 | 52.0 | | ug/L | | 104 | 70 - 130 |
| 1,4-Dichlorobenzene | 50.0 | 51.8 | | ug/L | | 104 | 70 - 130 |
| Dichlorodifluoromethane | 50.0 | 51.4 | | ug/L | | 103 | 44 - 146 |
| 1,1-Dichloroethane | 50.0 | 46.8 | | ug/L | | 94 | 70 - 130 |
| 1,2-Dichloroethane | 50.0 | 45.4 | | ug/L | | 91 | 70 - 130 |
| 1,1-Dichloroethene | 50.0 | 49.1 | | ug/L | | 98 | 66 - 131 |
| 1,2-Dichloropropane | 50.0 | 46.2 | | ug/L | | 92 | 70 - 130 |
| Ethylbenzene | 50.0 | 48.0 | | ug/L | | 96 | 70 - 130 |
| 2-Hexanone | 100 | 97.2 | | ug/L | | 97 | 42 - 185 |
| Methylene Chloride | 50.0 | 52.4 | | ug/L | | 105 | 67 - 130 |
| 4-Methyl-2-pentanone | 100 | 90.7 | | ug/L | | 91 | 70 - 130 |
| Styrene | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 40.6 | | ug/L | | 81 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 49.0 | | ug/L | | 98 | 70 - 130 |
| Tetrachloroethene | 50.0 | 50.2 | | ug/L | | 100 | 70 - 130 |
| Toluene | 50.0 | 47.5 | | ug/L | | 95 | 70 - 130 |
| trans-1,2-Dichloroethene | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 |
| 1,2,4-Trichlorobenzene | 50.0 | 54.3 | | ug/L | | 109 | 65 - 130 |
| 1,1,1-Trichloroethane | 50.0 | 43.0 | | ug/L | | 86 | 70 - 130 |
| 1,1,2-Trichloroethane | 50.0 | 47.4 | | ug/L | | 95 | 70 - 130 |
| Trichloroethene | 50.0 | 48.2 | | ug/L | | 96 | 70 - 130 |
| Trichlorofluoromethane | 50.0 | 51.2 | | ug/L | | 102 | 55 - 156 |
| 1,2,3-Trichloropropane | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| Vinyl chloride | 50.0 | 52.3 | | ug/L | | 105 | 67 - 134 |
| Xylenes, Total | 150 | 147 | | ug/L | | 98 | 70 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *100* | | *70 - 130* |
| *Dibromofluoromethane* | *100* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 680-210497/5**
**Matrix: Water**
**Analysis Batch: 210497**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 100 | 114 | | ug/L | | 114 | 26 - 180 | 0 | 50 |
| Benzene | 50.0 | 45.9 | | ug/L | | 92 | 70 - 130 | 2 | 30 |
| Bromodichloromethane | 50.0 | 41.3 | | ug/L | | 83 | 70 - 130 | 3 | 30 |
| Bromoform | 50.0 | 31.7 | * | ug/L | | 63 | 70 - 130 | 3 | 30 |
| Bromomethane | 50.0 | 44.6 | | ug/L | | 89 | 23 - 165 | 14 | 50 |
| 2-Butanone | 100 | 103 | | ug/L | | 103 | 49 - 172 | 1 | 30 |
| Carbon disulfide | 50.0 | 50.4 | | ug/L | | 101 | 54 - 132 | 1 | 30 |
| Carbon tetrachloride | 50.0 | 36.1 | | ug/L | | 72 | 70 - 130 | 6 | 30 |
| Chlorobenzene | 50.0 | 50.7 | | ug/L | | 101 | 70 - 130 | 1 | 30 |
| Chloroethane | 50.0 | 54.0 | | ug/L | | 108 | 56 - 152 | 4 | 40 |
| Chloroform | 50.0 | 48.4 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| Chloromethane | 50.0 | 60.5 | | ug/L | | 121 | 70 - 130 | 0 | 30 |
| cis-1,3-Dichloropropene | 50.0 | 42.9 | | ug/L | | 86 | 70 - 130 | 2 | 30 |
| Dibromochloromethane | 50.0 | 37.7 | | ug/L | | 75 | 70 - 130 | 5 | 50 |
| 1,2-Dibromo-3-Chloropropane | 50.0 | 41.7 | | ug/L | | 83 | 70 - 130 | 2 | 50 |
| 1,2-Dibromoethane | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 | 4 | 30 |
| Dibromomethane | 50.0 | 45.8 | | ug/L | | 92 | 70 - 130 | 2 | 30 |
| 1,2-Dichlorobenzene | 50.0 | 51.7 | | ug/L | | 103 | 70 - 130 | 0 | 30 |
| 1,3-Dichlorobenzene | 50.0 | 52.6 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| 1,4-Dichlorobenzene | 50.0 | 52.3 | | ug/L | | 105 | 70 - 130 | 1 | 30 |
| Dichlorodifluoromethane | 50.0 | 52.3 | | ug/L | | 105 | 44 - 146 | 2 | 50 |
| 1,1-Dichloroethane | 50.0 | 47.9 | | ug/L | | 96 | 70 - 130 | 2 | 30 |
| 1,2-Dichloroethane | 50.0 | 44.4 | | ug/L | | 89 | 70 - 130 | 2 | 30 |
| 1,1-Dichloroethene | 50.0 | 50.7 | | ug/L | | 101 | 66 - 131 | 3 | 30 |
| 1,2-Dichloropropane | 50.0 | 45.9 | | ug/L | | 92 | 70 - 130 | 1 | 30 |
| Ethylbenzene | 50.0 | 48.3 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| 2-Hexanone | 100 | 92.3 | | ug/L | | 92 | 42 - 185 | 5 | 30 |
| Methylene Chloride | 50.0 | 50.8 | | ug/L | | 102 | 67 - 130 | 3 | 30 |
| 4-Methyl-2-pentanone | 100 | 88.8 | | ug/L | | 89 | 70 - 130 | 2 | 30 |
| Styrene | 50.0 | 50.9 | | ug/L | | 102 | 70 - 130 | 0 | 30 |
| 1,1,1,2-Tetrachloroethane | 50.0 | 42.1 | | ug/L | | 84 | 70 - 130 | 4 | 30 |
| 1,1,2,2-Tetrachloroethane | 50.0 | 48.6 | | ug/L | | 97 | 70 - 130 | 1 | 30 |
| Tetrachloroethene | 50.0 | 51.1 | | ug/L | | 102 | 70 - 130 | 2 | 30 |
| Toluene | 50.0 | 47.1 | | ug/L | | 94 | 70 - 130 | 1 | 30 |
| trans-1,2-Dichloroethene | 50.0 | 47.8 | | ug/L | | 96 | 70 - 130 | 1 | 30 |
| trans-1,3-Dichloropropene | 50.0 | 42.2 | | ug/L | | 84 | 70 - 130 | 2 | 50 |
| 1,2,4-Trichlorobenzene | 50.0 | 54.6 | | ug/L | | 109 | 65 - 130 | 1 | 30 |
| 1,1,1-Trichloroethane | 50.0 | 44.2 | | ug/L | | 88 | 70 - 130 | 3 | 30 |
| 1,1,2-Trichloroethane | 50.0 | 45.7 | | ug/L | | 91 | 70 - 130 | 4 | 30 |
| Trichloroethene | 50.0 | 48.1 | | ug/L | | 96 | 70 - 130 | 0 | 30 |
| Trichlorofluoromethane | 50.0 | 52.9 | | ug/L | | 106 | 55 - 156 | 3 | 30 |
| 1,2,3-Trichloropropane | 50.0 | 49.2 | | ug/L | | 98 | 70 - 130 | 4 | 30 |
| Vinyl chloride | 50.0 | 53.0 | | ug/L | | 106 | 67 - 134 | 1 | 30 |
| Xylenes, Total | 150 | 148 | | ug/L | | 99 | 70 - 130 | 0 | 30 |

| *Surrogate* | *LCSD % Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene* | *98* | | *70 - 130* |
| *Dibromofluoromethane* | *101* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *98* | | *70 - 130* |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

**Lab Sample ID: MB 680-210074/15-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Acenaphthylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Acetophenone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Acetylaminofluorene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| alpha,alpha-Dimethyl phenethylamine | 10 | U | 10 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Aminobiphenyl | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Aniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Aramite, Total | 1.5 | U | 1.5 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Benzo[a]anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Benzo[a]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Benzo[b]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Benzo[g,h,i]perylene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Benzo[k]fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Benzyl alcohol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Bis(2-chloroethoxy)methane | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Bis(2-chloroethyl)ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| bis (2-chloroisopropyl) ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Bromophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Butyl benzyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Chloroaniline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Chloro-3-methylphenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Chloronaphthalene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Chlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Chlorophenyl phenyl ether | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Chrysene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Diallate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Dibenz(a,h)anthracene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Dibenzofuran | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,4-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,3-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,2-Dichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 3,3'-Dichlorobenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,4-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,6-Dichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Diethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Dimethoate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 7,12-Dimethylbenz(a)anthracene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 3,3'-Dimethylbenzidine | 20 | U | 20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,4-Dimethylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Dimethyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Di-n-butyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,3-Dinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4,6-Dinitro-2-methylphenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,4-Dinitrophenol | 10 | U | 10 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,4-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,6-Dinitrotoluene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Di-n-octyl phthalate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: MB 680-210074/15-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dinoseb | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,4-Dioxane | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Disulfoton | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Ethyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Ethyl Parathion | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Famphur | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Fluoranthene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Fluorene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Hexachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Hexachlorobutadiene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Hexachlorocyclopentadiene | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Hexachloroethane | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Hexachlorophene | 500 | U | 500 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Hexachloropropene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Isophorone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Isosafrole | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Methapyrilene | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 3-Methylcholanthrene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Methyl methanesulfonate | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Methylnaphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Methyl parathion | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 3 & 4 Methylphenol | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Naphthalene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,4-Naphthoquinone | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Naphthylamine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Nitroaniline | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 3-Nitroaniline | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Nitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Nitrophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Nitrophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitro-o-toluidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosodiethylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosodimethylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosodi-n-butylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosodi-n-propylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosodiphenylamine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosomethylethylamine | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosomorpholine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosopiperidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| N-Nitrosopyrrolidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| o,o',o''-Triethylphosphorothioate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| p-Dimethylamino azobenzene | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Pentachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Pentachloronitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Pentachlorophenol | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: MB 680-210074/15-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phenacetin | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Phenanthrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Phenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Phorate | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Picoline | 2.0 | U | 2.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| p-Phenylene diamine | 200 | U | 200 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Pronamide | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Pyrene | 0.20 | U | 0.20 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Pyridine | 5.0 | U | 5.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Safrole, Total | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Sulfotepp | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,2,4,5-Tetrachlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,3,4,6-Tetrachlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| Thionazin | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2-Toluidine | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,2,4-Trichlorobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,4,6-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 2,4,5-Trichlorophenol | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |
| 1,3,5-Trinitrobenzene | 1.0 | U | 1.0 | | ug/L | | 07/26/11 14:51 | 08/10/11 16:56 | 1 |

| *Surrogate* | *MB % Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Phenol-d5 (Surr)* | *65* | | *27 - 130* | *07/26/11 14:51* | *08/10/11 16:56* | *1* |
| *Nitrobenzene-d5 (Surr)* | *68* | | *32 - 130* | *07/26/11 14:51* | *08/10/11 16:56* | *1* |
| *Terphenyl-d14 (Surr)* | *91* | | *36 - 130* | *07/26/11 14:51* | *08/10/11 16:56* | *1* |
| *2,4,6-Tribromophenol (Surr)* | *71* | | *30 - 130* | *07/26/11 14:51* | *08/10/11 16:56* | *1* |
| *2-Fluorophenol (Surr)* | *64* | | *25 - 130* | *07/26/11 14:51* | *08/10/11 16:56* | *1* |
| *2-Fluorobiphenyl* | *74* | | *34 - 130* | *07/26/11 14:51* | *08/10/11 16:56* | *1* |

**Lab Sample ID: LCS 680-210074/16-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 10.0 | 8.26 | | ug/L | | 83 | 42 - 130 |
| Acenaphthylene | 10.0 | 9.26 | | ug/L | | 93 | 45 - 130 |
| Acetophenone | 10.0 | 7.81 | | ug/L | | 78 | 45 - 130 |
| Aniline | 10.0 | 10.7 | | ug/L | | 107 | 10 - 130 |
| Anthracene | 10.0 | 9.28 | | ug/L | | 93 | 58 - 130 |
| Benzo[a]anthracene | 10.0 | 9.83 | | ug/L | | 98 | 42 - 143 |
| Benzo[a]pyrene | 10.0 | 10.6 | | ug/L | | 106 | 45 - 151 |
| Benzo[b]fluoranthene | 10.0 | 10.4 | | ug/L | | 104 | 41 - 140 |
| Benzo[g,h,i]perylene | 10.0 | 10.0 | | ug/L | | 100 | 27 - 134 |
| Benzo[k]fluoranthene | 10.0 | 9.59 | | ug/L | | 96 | 45 - 140 |
| Benzyl alcohol | 10.0 | 8.09 | | ug/L | | 81 | 34 - 130 |
| Bis(2-chloroethoxy)methane | 10.0 | 9.26 | | ug/L | | 93 | 47 - 130 |
| Bis(2-chloroethyl)ether | 10.0 | 8.42 | | ug/L | | 84 | 36 - 130 |
| bis (2-chloroisopropyl) ether | 10.0 | 8.36 | | ug/L | | 84 | 39 - 130 |
| Bis(2-ethylhexyl) phthalate | 10.0 | 11.2 | | ug/L | | 112 | 10 - 158 |
| 4-Bromophenyl phenyl ether | 10.0 | 9.80 | | ug/L | | 98 | 44 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-210074/16-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| Butyl benzyl phthalate | 10.0 | 9.97 | | ug/L | | 100 | 60 - 130 |
| 4-Chloroaniline | 10.0 | 7.13 | | ug/L | | 71 | 17 - 130 |
| 4-Chloro-3-methylphenol | 10.0 | 8.63 | | ug/L | | 86 | 54 - 130 |
| 2-Chloronaphthalene | 10.0 | 7.64 | | ug/L | | 76 | 48 - 130 |
| 2-Chlorophenol | 10.0 | 7.82 | | ug/L | | 78 | 45 - 130 |
| 4-Chlorophenyl phenyl ether | 10.0 | 9.44 | | ug/L | | 94 | 52 - 130 |
| Chrysene | 10.0 | 9.59 | | ug/L | | 96 | 40 - 142 |
| Dibenz(a,h)anthracene | 10.0 | 10.2 | | ug/L | | 102 | 38 - 130 |
| Dibenzofuran | 10.0 | 9.12 | | ug/L | | 91 | 56 - 130 |
| 1,4-Dichlorobenzene | 10.0 | 5.95 | | ug/L | | 60 | 34 - 130 |
| 1,3-Dichlorobenzene | 10.0 | 5.72 | | ug/L | | 57 | 31 - 130 |
| 1,2-Dichlorobenzene | 10.0 | 5.87 | | ug/L | | 59 | 36 - 130 |
| 3,3'-Dichlorobenzidine | 10.0 | 20 | U | ug/L | | 82 | 10 - 158 |
| 2,4-Dichlorophenol | 10.0 | 8.69 | | ug/L | | 87 | 58 - 130 |
| Diethyl phthalate | 10.0 | 10.3 | | ug/L | | 103 | 60 - 130 |
| 2,4-Dimethylphenol | 10.0 | 6.16 | | ug/L | | 62 | 41 - 130 |
| Dimethyl phthalate | 10.0 | 10.2 | | ug/L | | 102 | 58 - 130 |
| Di-n-butyl phthalate | 10.0 | 9.83 | | ug/L | | 98 | 59 - 130 |
| 4,6-Dinitro-2-methylphenol | 10.0 | 9.25 | | ug/L | | 92 | 10 - 182 |
| 2,4-Dinitrophenol | 10.0 | 11.0 | | ug/L | | 110 | 10 - 200 |
| 2,4-Dinitrotoluene | 10.0 | 8.25 | | ug/L | | 82 | 57 - 130 |
| 2,6-Dinitrotoluene | 10.0 | 9.41 | | ug/L | | 94 | 53 - 130 |
| Di-n-octyl phthalate | 10.0 | 10.8 | | ug/L | | 108 | 19 - 130 |
| 1,4-Dioxane | 10.0 | 5.44 | | ug/L | | 54 | 10 - 130 |
| Fluoranthene | 10.0 | 9.88 | | ug/L | | 99 | 46 - 136 |
| Fluorene | 10.0 | 9.50 | | ug/L | | 95 | 48 - 130 |
| Hexachlorobenzene | 10.0 | 8.70 | | ug/L | | 87 | 49 - 130 |
| Hexachlorobutadiene | 10.0 | 6.33 | | ug/L | | 63 | 36 - 130 |
| Hexachlorocyclopentadiene | 10.0 | 4.07 | | ug/L | | 41 | 16 - 130 |
| Hexachloroethane | 10.0 | 4.98 | | ug/L | | 50 | 32 - 130 |
| Indeno[1,2,3-cd]pyrene | 10.0 | 10.5 | | ug/L | | 105 | 12 - 130 |
| Isophorone | 10.0 | 8.08 | | ug/L | | 81 | 45 - 130 |
| 2-Methylnaphthalene | 10.0 | 7.88 | | ug/L | | 79 | 51 - 130 |
| 2-Methylphenol | 10.0 | 7.84 | | ug/L | | 78 | 49 - 130 |
| 3 & 4 Methylphenol | 10.0 | 7.96 | | ug/L | | 80 | 55 - 130 |
| Naphthalene | 10.0 | 7.64 | | ug/L | | 76 | 35 - 130 |
| 4-Nitroaniline | 10.0 | 9.80 | | ug/L | | 98 | 31 - 147 |
| 2-Nitroaniline | 10.0 | 9.00 | | ug/L | | 90 | 48 - 130 |
| 3-Nitroaniline | 10.0 | 8.43 | | ug/L | | 84 | 18 - 147 |
| Nitrobenzene | 10.0 | 7.54 | | ug/L | | 75 | 45 - 130 |
| 4-Nitrophenol | 10.0 | 8.18 | | ug/L | | 82 | 36 - 132 |
| 2-Nitrophenol | 10.0 | 8.35 | | ug/L | | 83 | 49 - 130 |
| N-Nitrosodimethylamine | 10.0 | 7.50 | | ug/L | | 75 | 29 - 130 |
| N-Nitrosodi-n-propylamine | 10.0 | 8.66 | | ug/L | | 87 | 42 - 130 |
| N-Nitrosodiphenylamine | 10.0 | 9.70 | | ug/L | | 97 | 38 - 130 |
| Pentachlorophenol | 10.0 | 7.48 | | ug/L | | 75 | 12 - 156 |
| Phenanthrene | 10.0 | 9.60 | | ug/L | | 96 | 45 - 134 |
| Phenol | 10.0 | 7.92 | | ug/L | | 79 | 44 - 130 |
| Pyrene | 10.0 | 9.26 | | ug/L | | 93 | 47 - 143 |
| Pyridine | 10.0 | 5.47 | | ug/L | | 55 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-210074/16-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,2,4-Trichlorobenzene | 10.0 | 6.31 | | ug/L | | 63 | 39 - 130 |
| 2,4,6-Trichlorophenol | 10.0 | 9.13 | | ug/L | | 91 | 61 - 130 |
| 2,4,5-Trichlorophenol | 10.0 | 9.43 | | ug/L | | 94 | 61 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *66* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *68* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *81* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *84* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *65* | | *25 - 130* |
| *2-Fluorobiphenyl* | *76* | | *34 - 130* |

**Lab Sample ID: LCS 680-210074/19-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 10.0 | 9.82 | | ug/L | | 98 | 10 - 130 |
| alpha,alpha-Dimethyl phenethylamine | 10.0 | 10 | U | ug/L | | 92 | 10 - 130 |
| 4-Aminobiphenyl | 10.0 | 5.0 | U | ug/L | | 42 | 10 - 130 |
| Aramite, Total | 10.0 | 9.48 | | ug/L | | 95 | 10 - 130 |
| Diallate | 10.0 | 8.15 | | ug/L | | 82 | 10 - 130 |
| 2,6-Dichlorophenol | 10.0 | 7.75 | | ug/L | | 78 | 10 - 130 |
| Dimethoate | 10.0 | 5.45 | | ug/L | | 54 | 10 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 10.0 | 7.99 | | ug/L | | 80 | 10 - 130 |
| 3,3'-Dimethylbenzidine | 25.0 | 26.7 | | ug/L | | 107 | 10 - 130 |
| 1,3-Dinitrobenzene | 10.0 | 8.46 | | ug/L | | 85 | 10 - 130 |
| Dinoseb | 10.0 | 10.3 | | ug/L | | 103 | 10 - 130 |
| Disulfoton | 10.0 | 6.79 | | ug/L | | 68 | 10 - 130 |
| Ethyl methanesulfonate | 10.0 | 6.82 | | ug/L | | 68 | 10 - 130 |
| Ethyl Parathion | 10.0 | 8.16 | | ug/L | | 82 | 10 - 130 |
| Famphur | 10.0 | 1.35 | | ug/L | | 13 | 10 - 130 |
| Hexachlorophene | 50.0 | 500 | U * | ug/L | | 2 | 10 - 130 |
| Hexachloropropene | 10.0 | 3.86 | | ug/L | | 39 | 10 - 130 |
| Isosafrole | 10.0 | 8.07 | | ug/L | | 81 | 10 - 130 |
| Methapyrilene | 50.0 | 200 | U | ug/L | | 73 | 10 - 130 |
| 3-Methylcholanthrene | 10.0 | 2.61 | | ug/L | | 26 | 10 - 130 |
| Methyl methanesulfonate | 10.0 | 3.41 | | ug/L | | 34 | 10 - 130 |
| Methyl parathion | 10.0 | 6.77 | | ug/L | | 68 | 10 - 130 |
| 1,4-Naphthoquinone | 10.0 | 2.96 | | ug/L | | 30 | 10 - 130 |
| 1-Naphthylamine | 10.0 | 5.30 | | ug/L | | 53 | 10 - 130 |
| 2-Naphthylamine | 10.0 | 5.0 | U | ug/L | | 45 | 10 - 130 |
| 4-Nitroquinoline-1-oxide | 10.0 | 4.99 | | ug/L | | 50 | 10 - 130 |
| N-Nitro-o-toluidine | 10.0 | 7.31 | | ug/L | | 73 | 10 - 130 |
| N-Nitrosodiethylamine | 10.0 | 7.64 | | ug/L | | 76 | 10 - 130 |
| N-Nitrosodi-n-butylamine | 10.0 | 8.06 | | ug/L | | 81 | 10 - 130 |
| N-Nitrosomethylethylamine | 10.0 | 7.51 | | ug/L | | 75 | 10 - 130 |
| N-Nitrosomorpholine | 10.0 | 7.62 | | ug/L | | 76 | 10 - 130 |
| N-Nitrosopiperidine | 10.0 | 7.91 | | ug/L | | 79 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: LCS 680-210074/19-A**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|
| N-Nitrosopyrrolidine | 10.0 | 8.03 | | ug/L | | 80 | 10 - 130 |
| o,o',o''-Triethylphosphorothioate | 10.0 | 7.92 | | ug/L | | 79 | 10 - 130 |
| p-Dimethylamino azobenzene | 10.0 | 8.78 | | ug/L | | 88 | 10 - 130 |
| Pentachlorobenzene | 10.0 | 7.34 | | ug/L | | 73 | 10 - 130 |
| Pentachloronitrobenzene | 10.0 | 8.98 | | ug/L | | 90 | 10 - 130 |
| Phenacetin | 10.0 | 8.75 | | ug/L | | 87 | 10 - 130 |
| Phorate | 10.0 | 7.63 | | ug/L | | 76 | 10 - 130 |
| 2-Picoline | 10.0 | 6.31 | | ug/L | | 63 | 10 - 130 |
| p-Phenylene diamine | 50.0 | 200 | U | ug/L | | 13 | 10 - 130 |
| Pronamide | 10.0 | 8.59 | | ug/L | | 86 | 10 - 130 |
| Safrole, Total | 10.0 | 7.78 | | ug/L | | 78 | 10 - 130 |
| Sulfotepp | 10.0 | 7.64 | | ug/L | | 76 | 10 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 10.0 | 6.03 | | ug/L | | 60 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 10.0 | 8.09 | | ug/L | | 81 | 10 - 130 |
| Thionazin | 10.0 | 7.96 | | ug/L | | 80 | 10 - 130 |
| 2-Toluidine | 10.0 | 6.23 | | ug/L | | 62 | 10 - 130 |
| 1,3,5-Trinitrobenzene | 10.0 | 3.66 | | ug/L | | 37 | 10 - 130 |

| *Surrogate* | *LCS % Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *65* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *69* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *83* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *86* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *66* | | *25 - 130* |
| *2-Fluorobiphenyl* | *77* | | *34 - 130* |

**Lab Sample ID: 680-70683-8 MS**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 9.91 | 8.27 | | ug/L | | 83 | 42 - 130 |
| Acenaphthylene | 0.20 | U | 9.91 | 9.28 | | ug/L | | 94 | 45 - 130 |
| Acetophenone | 0.99 | U | 9.91 | 8.00 | | ug/L | | 78 | 45 - 130 |
| Aniline | 2.0 | U | 9.91 | 3.01 | | ug/L | | 30 | 10 - 130 |
| Anthracene | 0.20 | U | 9.91 | 9.79 | | ug/L | | 99 | 58 - 130 |
| Benzo[a]anthracene | 0.20 | U | 9.91 | 10.6 | | ug/L | | 107 | 42 - 143 |
| Benzo[a]pyrene | 0.20 | U | 9.91 | 10.1 | | ug/L | | 102 | 45 - 151 |
| Benzo[b]fluoranthene | 0.20 | U | 9.91 | 10.5 | | ug/L | | 106 | 41 - 140 |
| Benzo[g,h,i]perylene | 0.20 | U | 9.91 | 9.10 | | ug/L | | 92 | 27 - 134 |
| Benzo[k]fluoranthene | 0.20 | U | 9.91 | 9.98 | | ug/L | | 101 | 45 - 140 |
| Benzyl alcohol | 0.99 | U | 9.91 | 7.70 | | ug/L | | 78 | 34 - 130 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 9.91 | 9.13 | | ug/L | | 92 | 47 - 130 |
| Bis(2-chloroethyl)ether | 0.99 | U | 9.91 | 8.24 | | ug/L | | 83 | 36 - 130 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 9.91 | 7.92 | | ug/L | | 80 | 39 - 130 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 9.91 | 12.6 | | ug/L | | 113 | 10 - 158 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 9.91 | 10.8 | | ug/L | | 109 | 44 - 130 |
| Butyl benzyl phthalate | 0.99 | U | 9.91 | 11.6 | | ug/L | | 115 | 60 - 130 |
| 4-Chloroaniline | 2.0 | U | 9.91 | 2.0 | U | ug/L | | 17 | 17 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70683-8 MS**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 4-Chloro-3-methylphenol | 0.99 | U | 9.91 | 8.44 | | ug/L | | 85 | 54 - 130 |
| 2-Chloronaphthalene | 0.99 | U | 9.91 | 7.72 | | ug/L | | 78 | 48 - 130 |
| 2-Chlorophenol | 0.99 | U | 9.91 | 7.52 | | ug/L | | 76 | 45 - 130 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 9.91 | 9.76 | | ug/L | | 98 | 52 - 130 |
| Chrysene | 0.20 | U | 9.91 | 9.96 | | ug/L | | 100 | 40 - 142 |
| Dibenz(a,h)anthracene | 0.20 | U | 9.91 | 9.02 | | ug/L | | 91 | 38 - 130 |
| Dibenzofuran | 0.99 | U | 9.91 | 9.03 | | ug/L | | 91 | 56 - 130 |
| 1,4-Dichlorobenzene | 0.99 | U | 9.91 | 5.79 | | ug/L | | 56 | 34 - 130 |
| 1,3-Dichlorobenzene | 0.99 | U | 9.91 | 5.64 | | ug/L | | 57 | 31 - 130 |
| 1,2-Dichlorobenzene | 0.99 | U | 9.91 | 5.77 | | ug/L | | 58 | 36 - 130 |
| 3,3'-Dichlorobenzidine | 20 | U | 9.91 | 20 | U F | ug/L | | 0 | 10 - 158 |
| 2,4-Dichlorophenol | 0.99 | U | 9.91 | 8.32 | | ug/L | | 84 | 58 - 130 |
| Diethyl phthalate | 0.99 | U | 9.91 | 10.3 | | ug/L | | 104 | 60 - 130 |
| 2,4-Dimethylphenol | 2.0 | U | 9.91 | 8.24 | | ug/L | | 83 | 41 - 130 |
| Dimethyl phthalate | 0.99 | U | 9.91 | 10.6 | | ug/L | | 107 | 58 - 130 |
| Di-n-butyl phthalate | 0.99 | U | 9.91 | 9.98 | | ug/L | | 101 | 59 - 130 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 9.91 | 10.3 | | ug/L | | 104 | 10 - 182 |
| 2,4-Dinitrophenol | 9.9 | U | 9.91 | 12.5 | | ug/L | | 126 | 10 - 200 |
| 2,4-Dinitrotoluene | 0.99 | U | 9.91 | 8.51 | | ug/L | | 86 | 57 - 130 |
| 2,6-Dinitrotoluene | 0.99 | U | 9.91 | 10.0 | | ug/L | | 101 | 53 - 130 |
| Di-n-octyl phthalate | 0.99 | U | 9.91 | 11.3 | | ug/L | | 114 | 19 - 130 |
| 1,4-Dioxane | 2.0 | U | 9.91 | 6.16 | | ug/L | | 62 | 10 - 130 |
| Fluoranthene | 0.20 | U | 9.91 | 9.63 | | ug/L | | 97 | 46 - 136 |
| Fluorene | 0.20 | U | 9.91 | 9.51 | | ug/L | | 96 | 48 - 130 |
| Hexachlorobenzene | 0.99 | U | 9.91 | 9.55 | | ug/L | | 96 | 49 - 130 |
| Hexachlorobutadiene | 0.99 | U | 9.91 | 6.84 | | ug/L | | 69 | 36 - 130 |
| Hexachlorocyclopentadiene | 2.0 | U | 9.91 | 5.12 | | ug/L | | 52 | 16 - 130 |
| Hexachloroethane | 0.99 | U | 9.91 | 5.01 | | ug/L | | 50 | 32 - 130 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 9.91 | 8.22 | | ug/L | | 83 | 12 - 130 |
| Isophorone | 0.99 | U | 9.91 | 7.87 | | ug/L | | 79 | 45 - 130 |
| 2-Methylnaphthalene | 0.20 | U | 9.91 | 7.46 | | ug/L | | 75 | 51 - 130 |
| 2-Methylphenol | 2.0 | U | 9.91 | 7.28 | | ug/L | | 73 | 49 - 130 |
| 3 & 4 Methylphenol | 2.0 | U | 9.91 | 7.34 | | ug/L | | 74 | 55 - 130 |
| Naphthalene | 0.20 | U | 9.91 | 7.69 | | ug/L | | 78 | 35 - 130 |
| 4-Nitroaniline | 4.9 | U | 9.91 | 7.20 | | ug/L | | 73 | 31 - 147 |
| 2-Nitroaniline | 0.99 | U | 9.91 | 9.20 | | ug/L | | 93 | 48 - 130 |
| 3-Nitroaniline | 4.9 | U | 9.91 | 5.20 | | ug/L | | 52 | 18 - 147 |
| Nitrobenzene | 0.99 | U | 9.91 | 7.82 | | ug/L | | 79 | 45 - 130 |
| 4-Nitrophenol | 4.9 | U | 9.91 | 8.13 | | ug/L | | 82 | 36 - 132 |
| 2-Nitrophenol | 0.99 | U | 9.91 | 8.51 | | ug/L | | 86 | 49 - 130 |
| N-Nitrosodimethylamine | 0.99 | U | 9.91 | 7.63 | | ug/L | | 77 | 29 - 130 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 9.91 | 7.82 | | ug/L | | 79 | 42 - 130 |
| N-Nitrosodiphenylamine | 0.99 | U | 9.91 | 10.3 | | ug/L | | 104 | 38 - 130 |
| Pentachlorophenol | 4.9 | U | 9.91 | 8.77 | | ug/L | | 88 | 12 - 156 |
| Phenanthrene | 0.20 | U | 9.91 | 10.2 | | ug/L | | 102 | 45 - 134 |
| Phenol | 0.99 | U | 9.91 | 6.80 | | ug/L | | 69 | 44 - 130 |
| Pyrene | 0.20 | U | 9.91 | 11.3 | | ug/L | | 114 | 47 - 143 |
| Pyridine | 4.9 | U | 9.91 | 5.0 | U | ug/L | | 41 | 10 - 130 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 9.91 | 6.51 | | ug/L | | 66 | 39 - 130 |
| 2,4,6-Trichlorophenol | 0.99 | U | 9.91 | 9.44 | | ug/L | | 95 | 61 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70683-8 MS**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2,4,5-Trichlorophenol | 0.99 | U | 9.91 | 10.1 | | ug/L | | 102 | 61 - 130 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *50* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *60* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *82* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *79* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *51* | | *25 - 130* |
| *2-Fluorobiphenyl* | *64* | | *34 - 130* |

**Lab Sample ID: 680-70683-8 MS**
**Matrix: Water**
**Analysis Batch: 211714**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 0.99 | U | 9.96 | 7.86 | | ug/L | | 79 | 10 - 130 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 9.96 | 10 | U F | ug/L | | 0 | 10 - 130 |
| 4-Aminobiphenyl | 4.9 | U | 9.96 | 5.0 | U F | ug/L | | 0 | 10 - 130 |
| Aramite, Total | 1.5 | U | 9.96 | 7.46 | | ug/L | | 75 | 10 - 130 |
| Diallate | 0.99 | U | 9.96 | 7.01 | | ug/L | | 70 | 10 - 130 |
| 2,6-Dichlorophenol | 0.99 | U | 9.96 | 6.84 | | ug/L | | 69 | 10 - 130 |
| Dimethoate | 2.0 | U | 9.96 | 6.09 | | ug/L | | 61 | 10 - 130 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 9.96 | 5.25 | | ug/L | | 53 | 10 - 130 |
| 3,3'-Dimethylbenzidine | 20 | U | 24.9 | 20 | U F | ug/L | | 0 | 10 - 130 |
| 1,3-Dinitrobenzene | 0.99 | U | 9.96 | 7.70 | | ug/L | | 77 | 10 - 130 |
| Dinoseb | 2.0 | U | 9.96 | 10.4 | | ug/L | | 105 | 10 - 130 |
| Disulfoton | 0.99 | U | 9.96 | 4.76 | | ug/L | | 48 | 10 - 130 |
| Ethyl methanesulfonate | 2.0 | U | 9.96 | 4.70 | | ug/L | | 47 | 10 - 130 |
| Ethyl Parathion | 2.0 | U | 9.96 | 7.38 | | ug/L | | 74 | 10 - 130 |
| Famphur | 0.99 | U | 9.96 | 6.85 | | ug/L | | 69 | 10 - 130 |
| Hexachlorophene | 490 | U * | 49.8 | 500 | U F | ug/L | | 0 | 10 - 130 |
| Hexachloropropene | 0.99 | U | 9.96 | 2.08 | | ug/L | | 21 | 10 - 130 |
| Isosafrole | 0.99 | U | 9.96 | 5.82 | | ug/L | | 58 | 10 - 130 |
| Methapyrilene | 200 | U | 49.8 | 200 | U F | ug/L | | 0 | 10 - 130 |
| 3-Methylcholanthrene | 0.99 | U | 9.96 | 1.58 | | ug/L | | 16 | 10 - 130 |
| Methyl methanesulfonate | 2.0 | U | 9.96 | 2.92 | | ug/L | | 29 | 10 - 130 |
| Methyl parathion | 0.99 | U | 9.96 | 7.35 | | ug/L | | 74 | 10 - 130 |
| 1,4-Naphthoquinone | 0.99 | U | 9.96 | 4.77 | | ug/L | | 48 | 10 - 130 |
| 1-Naphthylamine | 4.9 | U | 9.96 | 5.0 | U F | ug/L | | 0 | 10 - 130 |
| 2-Naphthylamine | 4.9 | U | 9.96 | 5.0 | U F | ug/L | | 0 | 10 - 130 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 9.96 | 2.0 | U | ug/L | | 16 | 10 - 130 |
| N-Nitro-o-toluidine | 0.99 | U | 9.96 | 4.90 | | ug/L | | 49 | 10 - 130 |
| N-Nitrosodiethylamine | 0.99 | U | 9.96 | 6.27 | | ug/L | | 63 | 10 - 130 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 9.96 | 6.82 | | ug/L | | 68 | 10 - 130 |
| N-Nitrosomethylethylamine | 2.0 | U | 9.96 | 6.20 | | ug/L | | 62 | 10 - 130 |
| N-Nitrosomorpholine | 0.99 | U | 9.96 | 6.35 | | ug/L | | 64 | 10 - 130 |
| N-Nitrosopiperidine | 0.99 | U | 9.96 | 6.75 | | ug/L | | 68 | 10 - 130 |
| N-Nitrosopyrrolidine | 0.99 | U | 9.96 | 6.71 | | ug/L | | 67 | 10 - 130 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 9.96 | 6.16 | | ug/L | | 62 | 10 - 130 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70683-8 MS**
**Matrix: Water**
**Analysis Batch: 211714**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| p-Dimethylamino azobenzene | 4.9 | U | 9.96 | 6.04 | | ug/L | | 61 | 10 - 130 |
| Pentachlorobenzene | 0.99 | U | 9.96 | 5.36 | | ug/L | | 54 | 10 - 130 |
| Pentachloronitrobenzene | 0.99 | U | 9.96 | 8.24 | | ug/L | | 83 | 10 - 130 |
| Phenacetin | 0.99 | U | 9.96 | 7.09 | | ug/L | | 71 | 10 - 130 |
| Phorate | 0.99 | U | 9.96 | 5.75 | | ug/L | | 58 | 10 - 130 |
| 2-Picoline | 2.0 | U | 9.96 | 5.14 | | ug/L | | 52 | 10 - 130 |
| p-Phenylene diamine | 200 | U | 49.8 | 200 | U F | ug/L | | 0 | 10 - 130 |
| Pronamide | 0.99 | U | 9.96 | 7.32 | | ug/L | | 73 | 10 - 130 |
| Safrole, Total | 0.99 | U | 9.96 | 5.83 | | ug/L | | 59 | 10 - 130 |
| Sulfotepp | 0.99 | U | 9.96 | 6.83 | | ug/L | | 69 | 10 - 130 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 9.96 | 3.72 | | ug/L | | 37 | 10 - 130 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 9.96 | 8.55 | | ug/L | | 86 | 10 - 130 |
| Thionazin | 0.99 | U | 9.96 | 7.11 | | ug/L | | 71 | 10 - 130 |
| 2-Toluidine | 0.99 | U | 9.96 | 3.25 | | ug/L | | 33 | 10 - 130 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 9.96 | 3.92 | | ug/L | | 39 | 10 - 130 |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *53* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *60* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *76* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *77* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *53* | | *25 - 130* |
| *2-Fluorobiphenyl* | *61* | | *34 - 130* |

**Lab Sample ID: 680-70683-8 MSD**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.20 | U | 9.88 | 6.97 | | ug/L | | 71 | 42 - 130 | 17 | 50 |
| Acenaphthylene | 0.20 | U | 9.88 | 7.82 | | ug/L | | 79 | 45 - 130 | 17 | 50 |
| Acetophenone | 0.99 | U | 9.88 | 6.75 | | ug/L | | 65 | 45 - 130 | 17 | 50 |
| Aniline | 2.0 | U | 9.88 | 2.13 | | ug/L | | 22 | 10 - 130 | 34 | 50 |
| Anthracene | 0.20 | U | 9.88 | 8.29 | | ug/L | | 84 | 58 - 130 | 17 | 50 |
| Benzo[a]anthracene | 0.20 | U | 9.88 | 9.10 | | ug/L | | 92 | 42 - 143 | 15 | 50 |
| Benzo[a]pyrene | 0.20 | U | 9.88 | 9.13 | | ug/L | | 92 | 45 - 151 | 10 | 50 |
| Benzo[b]fluoranthene | 0.20 | U | 9.88 | 8.93 | | ug/L | | 90 | 41 - 140 | 17 | 50 |
| Benzo[g,h,i]perylene | 0.20 | U | 9.88 | 8.55 | | ug/L | | 86 | 27 - 134 | 6 | 50 |
| Benzo[k]fluoranthene | 0.20 | U | 9.88 | 8.47 | | ug/L | | 86 | 45 - 140 | 16 | 50 |
| Benzyl alcohol | 0.99 | U | 9.88 | 6.88 | | ug/L | | 70 | 34 - 130 | 11 | 50 |
| Bis(2-chloroethoxy)methane | 0.99 | U | 9.88 | 7.66 | | ug/L | | 78 | 47 - 130 | 18 | 50 |
| Bis(2-chloroethyl)ether | 0.99 | U | 9.88 | 7.05 | | ug/L | | 71 | 36 - 130 | 16 | 50 |
| bis (2-chloroisopropyl) ether | 0.99 | U | 9.88 | 6.98 | | ug/L | | 71 | 39 - 130 | 13 | 50 |
| Bis(2-ethylhexyl) phthalate | 2.0 | U | 9.88 | 11.8 | | ug/L | | 106 | 10 - 158 | 6 | 50 |
| 4-Bromophenyl phenyl ether | 0.99 | U | 9.88 | 8.96 | | ug/L | | 91 | 44 - 130 | 19 | 50 |
| Butyl benzyl phthalate | 0.99 | U | 9.88 | 9.95 | | ug/L | | 99 | 60 - 130 | 15 | 50 |
| 4-Chloroaniline | 2.0 | U | 9.88 | 2.0 | U F | ug/L | | 9 | 17 - 130 | 61 | 50 |
| 4-Chloro-3-methylphenol | 0.99 | U | 9.88 | 7.35 | | ug/L | | 74 | 54 - 130 | 14 | 50 |
| 2-Chloronaphthalene | 0.99 | U | 9.88 | 6.40 | | ug/L | | 65 | 48 - 130 | 19 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70683-8 MSD**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Chlorophenol | 0.99 | U | 9.88 | 6.47 | | ug/L | | 66 | 45 - 130 | 15 | 50 |
| 4-Chlorophenyl phenyl ether | 0.99 | U | 9.88 | 8.15 | | ug/L | | 82 | 52 - 130 | 18 | 50 |
| Chrysene | 0.20 | U | 9.88 | 9.00 | | ug/L | | 91 | 40 - 142 | 10 | 50 |
| Dibenz(a,h)anthracene | 0.20 | U | 9.88 | 8.23 | | ug/L | | 83 | 38 - 130 | 9 | 50 |
| Dibenzofuran | 0.99 | U | 9.88 | 7.73 | | ug/L | | 78 | 56 - 130 | 16 | 50 |
| 1,4-Dichlorobenzene | 0.99 | U | 9.88 | 5.05 | | ug/L | | 49 | 34 - 130 | 14 | 50 |
| 1,3-Dichlorobenzene | 0.99 | U | 9.88 | 4.83 | | ug/L | | 49 | 31 - 130 | 15 | 50 |
| 1,2-Dichlorobenzene | 0.99 | U | 9.88 | 4.98 | | ug/L | | 50 | 36 - 130 | 15 | 50 |
| 3,3'-Dichlorobenzidine | 20 | U | 9.88 | 20 | U F | ug/L | | 0 | 10 - 158 | NC | 50 |
| 2,4-Dichlorophenol | 0.99 | U | 9.88 | 7.13 | | ug/L | | 72 | 58 - 130 | 15 | 50 |
| Diethyl phthalate | 0.99 | U | 9.88 | 9.00 | | ug/L | | 91 | 60 - 130 | 14 | 50 |
| 2,4-Dimethylphenol | 2.0 | U | 9.88 | 6.82 | | ug/L | | 69 | 41 - 130 | 19 | 50 |
| Dimethyl phthalate | 0.99 | U | 9.88 | 8.81 | | ug/L | | 89 | 58 - 130 | 18 | 50 |
| Di-n-butyl phthalate | 0.99 | U | 9.88 | 8.90 | | ug/L | | 90 | 59 - 130 | 11 | 50 |
| 4,6-Dinitro-2-methylphenol | 4.9 | U | 9.88 | 8.23 | | ug/L | | 83 | 10 - 182 | 22 | 50 |
| 2,4-Dinitrophenol | 9.9 | U | 9.88 | 9.9 | U | ug/L | | 96 | 10 - 200 | 27 | 50 |
| 2,4-Dinitrotoluene | 0.99 | U | 9.88 | 7.30 | | ug/L | | 74 | 57 - 130 | 15 | 50 |
| 2,6-Dinitrotoluene | 0.99 | U | 9.88 | 8.40 | | ug/L | | 85 | 53 - 130 | 17 | 50 |
| Di-n-octyl phthalate | 0.99 | U | 9.88 | 9.96 | | ug/L | | 101 | 19 - 130 | 13 | 50 |
| 1,4-Dioxane | 2.0 | U | 9.88 | 4.68 | | ug/L | | 47 | 10 - 130 | 27 | 50 |
| Fluoranthene | 0.20 | U | 9.88 | 8.77 | | ug/L | | 89 | 46 - 136 | 9 | 50 |
| Fluorene | 0.20 | U | 9.88 | 8.22 | | ug/L | | 83 | 48 - 130 | 15 | 50 |
| Hexachlorobenzene | 0.99 | U | 9.88 | 8.00 | | ug/L | | 81 | 49 - 130 | 18 | 50 |
| Hexachlorobutadiene | 0.99 | U | 9.88 | 5.57 | | ug/L | | 56 | 36 - 130 | 20 | 50 |
| Hexachlorocyclopentadiene | 2.0 | U | 9.88 | 4.03 | | ug/L | | 41 | 16 - 130 | 24 | 50 |
| Hexachloroethane | 0.99 | U | 9.88 | 4.18 | | ug/L | | 42 | 32 - 130 | 18 | 50 |
| Indeno[1,2,3-cd]pyrene | 0.20 | U | 9.88 | 7.96 | | ug/L | | 81 | 12 - 130 | 3 | 50 |
| Isophorone | 0.99 | U | 9.88 | 6.86 | | ug/L | | 69 | 45 - 130 | 14 | 50 |
| 2-Methylnaphthalene | 0.20 | U | 9.88 | 6.59 | | ug/L | | 67 | 51 - 130 | 12 | 50 |
| 2-Methylphenol | 2.0 | U | 9.88 | 6.48 | | ug/L | | 66 | 49 - 130 | 12 | 50 |
| 3 & 4 Methylphenol | 2.0 | U | 9.88 | 6.57 | | ug/L | | 66 | 55 - 130 | 11 | 50 |
| Naphthalene | 0.20 | U | 9.88 | 6.46 | | ug/L | | 65 | 35 - 130 | 17 | 50 |
| 4-Nitroaniline | 4.9 | U | 9.88 | 5.19 | | ug/L | | 53 | 31 - 147 | 32 | 50 |
| 2-Nitroaniline | 0.99 | U | 9.88 | 7.48 | | ug/L | | 76 | 48 - 130 | 21 | 50 |
| 3-Nitroaniline | 4.9 | U | 9.88 | 4.9 | U F | ug/L | | 28 | 18 - 147 | 63 | 50 |
| Nitrobenzene | 0.99 | U | 9.88 | 6.45 | | ug/L | | 65 | 45 - 130 | 19 | 50 |
| 4-Nitrophenol | 4.9 | U | 9.88 | 6.95 | | ug/L | | 70 | 36 - 132 | 16 | 50 |
| 2-Nitrophenol | 0.99 | U | 9.88 | 6.82 | | ug/L | | 69 | 49 - 130 | 22 | 50 |
| N-Nitrosodimethylamine | 0.99 | U | 9.88 | 6.51 | | ug/L | | 66 | 29 - 130 | 16 | 50 |
| N-Nitrosodi-n-propylamine | 0.99 | U | 9.88 | 7.21 | | ug/L | | 73 | 42 - 130 | 8 | 50 |
| N-Nitrosodiphenylamine | 0.99 | U | 9.88 | 8.17 | | ug/L | | 83 | 38 - 130 | 23 | 50 |
| Pentachlorophenol | 4.9 | U | 9.88 | 7.28 | | ug/L | | 74 | 12 - 156 | 18 | 50 |
| Phenanthrene | 0.20 | U | 9.88 | 8.79 | | ug/L | | 89 | 45 - 134 | 14 | 50 |
| Phenol | 0.99 | U | 9.88 | 5.95 | | ug/L | | 60 | 44 - 130 | 13 | 50 |
| Pyrene | 0.20 | U | 9.88 | 9.55 | | ug/L | | 97 | 47 - 143 | 17 | 50 |
| Pyridine | 4.9 | U | 9.88 | 5.45 | | ug/L | | 55 | 10 - 130 | 28 | 50 |
| 1,2,4-Trichlorobenzene | 0.99 | U | 9.88 | 5.36 | | ug/L | | 54 | 39 - 130 | 19 | 50 |
| 2,4,6-Trichlorophenol | 0.99 | U | 9.88 | 7.69 | | ug/L | | 78 | 61 - 130 | 20 | 50 |
| 2,4,5-Trichlorophenol | 0.99 | U | 9.88 | 8.20 | | ug/L | | 83 | 61 - 130 | 21 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70683-8 MSD**
**Matrix: Water**
**Analysis Batch: 211582**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Surrogate | MSD % Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *50* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *56* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *78* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *75* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *51* | | *25 - 130* |
| *2-Fluorobiphenyl* | *61* | | *34 - 130* |

**Lab Sample ID: 680-70683-8 MSD**
**Matrix: Water**
**Analysis Batch: 211714**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-Acetylaminofluorene | 0.99 | U | 10.3 | 7.85 | | ug/L | | 76 | 10 - 130 | 0 | 50 |
| alpha,alpha-Dimethyl phenethylamine | 9.9 | U | 10.3 | 10 | U | ug/L | | 59 | 10 - 130 | NC | 50 |
| 4-Aminobiphenyl | 4.9 | U | 10.3 | 5.1 | U F | ug/L | | 9 | 10 - 130 | NC | 50 |
| Aramite, Total | 1.5 | U | 10.3 | 8.13 | | ug/L | | 79 | 10 - 130 | 9 | 50 |
| Diallate | 0.99 | U | 10.3 | 7.04 | | ug/L | | 68 | 10 - 130 | 0 | 50 |
| 2,6-Dichlorophenol | 0.99 | U | 10.3 | 6.38 | | ug/L | | 62 | 10 - 130 | 7 | 50 |
| Dimethoate | 2.0 | U | 10.3 | 5.89 | | ug/L | | 57 | 10 - 130 | 3 | 50 |
| 7,12-Dimethylbenz(a)anthracene | 0.99 | U | 10.3 | 5.50 | | ug/L | | 53 | 10 - 130 | 4 | 50 |
| 3,3'-Dimethylbenzidine | 20 | U | 25.7 | 21 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| 1,3-Dinitrobenzene | 0.99 | U | 10.3 | 7.21 | | ug/L | | 70 | 10 - 130 | 7 | 50 |
| Dinoseb | 2.0 | U | 10.3 | 9.42 | | ug/L | | 92 | 10 - 130 | 10 | 50 |
| Disulfoton | 0.99 | U | 10.3 | 5.88 | | ug/L | | 57 | 10 - 130 | 21 | 50 |
| Ethyl methanesulfonate | 2.0 | U | 10.3 | 4.85 | | ug/L | | 47 | 10 - 130 | 3 | 50 |
| Ethyl Parathion | 2.0 | U | 10.3 | 7.60 | | ug/L | | 74 | 10 - 130 | 3 | 50 |
| Famphur | 0.99 | U | 10.3 | 5.94 | | ug/L | | 58 | 10 - 130 | 14 | 50 |
| Hexachlorophene | 490 | U * | 51.4 | 510 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| Hexachloropropene | 0.99 | U | 10.3 | 1.77 | | ug/L | | 17 | 10 - 130 | 16 | 50 |
| Isosafrole | 0.99 | U | 10.3 | 5.80 | | ug/L | | 56 | 10 - 130 | 0 | 50 |
| Methapyrilene | 200 | U | 51.4 | 210 | U | ug/L | | 31 | 10 - 130 | NC | 50 |
| 3-Methylcholanthrene | 0.99 | U | 10.3 | 1.68 | | ug/L | | 16 | 10 - 130 | 6 | 50 |
| Methyl methanesulfonate | 2.0 | U | 10.3 | 2.63 | | ug/L | | 26 | 10 - 130 | 11 | 50 |
| Methyl parathion | 0.99 | U | 10.3 | 7.15 | | ug/L | | 70 | 10 - 130 | 3 | 50 |
| 1,4-Naphthoquinone | 0.99 | U | 10.3 | 4.50 | | ug/L | | 44 | 10 - 130 | 6 | 50 |
| 1-Naphthylamine | 4.9 | U | 10.3 | 5.1 | U | ug/L | | 16 | 10 - 130 | NC | 50 |
| 2-Naphthylamine | 4.9 | U | 10.3 | 5.1 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| 4-Nitroquinoline-1-oxide | 2.0 | U | 10.3 | 2.30 | | ug/L | | 22 | 10 - 130 | 36 | 50 |
| N-Nitro-o-toluidine | 0.99 | U | 10.3 | 6.13 | | ug/L | | 60 | 10 - 130 | 22 | 50 |
| N-Nitrosodiethylamine | 0.99 | U | 10.3 | 5.74 | | ug/L | | 56 | 10 - 130 | 9 | 50 |
| N-Nitrosodi-n-butylamine | 0.99 | U | 10.3 | 6.45 | | ug/L | | 63 | 10 - 130 | 5 | 50 |
| N-Nitrosomethylethylamine | 2.0 | U | 10.3 | 5.43 | | ug/L | | 53 | 10 - 130 | 13 | 50 |
| N-Nitrosomorpholine | 0.99 | U | 10.3 | 6.11 | | ug/L | | 59 | 10 - 130 | 4 | 50 |
| N-Nitrosopiperidine | 0.99 | U | 10.3 | 6.45 | | ug/L | | 63 | 10 - 130 | 4 | 50 |
| N-Nitrosopyrrolidine | 0.99 | U | 10.3 | 6.11 | | ug/L | | 59 | 10 - 130 | 9 | 50 |
| o,o',o''-Triethylphosphorothioate | 0.99 | U | 10.3 | 6.27 | | ug/L | | 61 | 10 - 130 | 2 | 50 |
| p-Dimethylamino azobenzene | 4.9 | U | 10.3 | 6.78 | | ug/L | | 66 | 10 - 130 | 12 | 50 |
| Pentachlorobenzene | 0.99 | U | 10.3 | 5.03 | | ug/L | | 49 | 10 - 130 | 6 | 50 |
| Pentachloronitrobenzene | 0.99 | U | 10.3 | 7.89 | | ug/L | | 77 | 10 - 130 | 4 | 50 |

## Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

**Lab Sample ID: 680-70683-8 MSD**
**Matrix: Water**
**Analysis Batch: 211714**

**Client Sample ID: MW-F15 (072211)**
**Prep Type: Total/NA**
**Prep Batch: 210074**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Phenacetin | 0.99 | U | 10.3 | 6.76 | | ug/L | | 66 | 10 - 130 | 5 | 50 |
| Phorate | 0.99 | U | 10.3 | 6.07 | | ug/L | | 59 | 10 - 130 | 5 | 50 |
| 2-Picoline | 2.0 | U | 10.3 | 4.34 | | ug/L | | 42 | 10 - 130 | 17 | 50 |
| p-Phenylene diamine | 200 | U | 51.4 | 210 | U F | ug/L | | 0 | 10 - 130 | NC | 50 |
| Pronamide | 0.99 | U | 10.3 | 7.38 | | ug/L | | 72 | 10 - 130 | 1 | 50 |
| Safrole, Total | 0.99 | U | 10.3 | 5.48 | | ug/L | | 53 | 10 - 130 | 6 | 50 |
| Sulfotepp | 0.99 | U | 10.3 | 6.95 | | ug/L | | 68 | 10 - 130 | 2 | 50 |
| 1,2,4,5-Tetrachlorobenzene | 0.99 | U | 10.3 | 3.67 | | ug/L | | 36 | 10 - 130 | 1 | 50 |
| 2,3,4,6-Tetrachlorophenol | 0.99 | U | 10.3 | 7.70 | | ug/L | | 75 | 10 - 130 | 10 | 50 |
| Thionazin | 0.99 | U | 10.3 | 7.04 | | ug/L | | 69 | 10 - 130 | 1 | 50 |
| 2-Toluidine | 0.99 | U | 10.3 | 4.02 | | ug/L | | 39 | 10 - 130 | 21 | 50 |
| 1,3,5-Trinitrobenzene | 0.99 | U | 10.3 | 3.48 | | ug/L | | 34 | 10 - 130 | 12 | 50 |

| *Surrogate* | *MSD % Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Phenol-d5 (Surr)* | *50* | | *27 - 130* |
| *Nitrobenzene-d5 (Surr)* | *50* | | *32 - 130* |
| *Terphenyl-d14 (Surr)* | *70* | | *36 - 130* |
| *2,4,6-Tribromophenol (Surr)* | *72* | | *30 - 130* |
| *2-Fluorophenol (Surr)* | *46* | | *25 - 130* |
| *2-Fluorobiphenyl* | *55* | | *34 - 130* |

## GC/MS VOA

### Analysis Batch: 210094

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-210094/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210094/5 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-210094/7 | Method Blank | Total/NA | Water | 8260B | |
| 680-70683-1 | MW-26 (072111) | Total/NA | Water | 8260B | |
| 680-70683-2 | MWD-28 (072211) | Total/NA | Water | 8260B | |
| 680-70683-3 | MW-27 (072211) | Total/NA | Water | 8260B | |
| 680-70683-4 | MWD-27 (072211) | Total/NA | Water | 8260B | |
| 680-70683-5 | MW-F7 (072211) | Total/NA | Water | 8260B | |

### Analysis Batch: 210445

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-210445/7 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210445/8 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 680-210445/10 | Method Blank | Total/NA | Water | 8260B | |
| 680-70683-6 | DUP-01 (072211) | Total/NA | Water | 8260B | |
| 680-70683-7 | MWD-30 (072211) | Total/NA | Water | 8260B | |
| 680-70683-8 | MW-F15 (072211) | Total/NA | Water | 8260B | |
| 680-70683-9 | MWD-F1 (072211) | Total/NA | Water | 8260B | |
| 680-70683-10 | MWD-F2 (072211) | Total/NA | Water | 8260B | |
| 680-70683-11 | MWD-F3 (072211) | Total/NA | Water | 8260B | |
| 680-70683-15 | MW-F17 (072211) | Total/NA | Water | 8260B | |
| 680-70683-8 MS | MW-F15 (072211) | Total/NA | Water | 8260B | |
| 680-70683-8 MSD | MW-F15 (072211) | Total/NA | Water | 8260B | |

### Analysis Batch: 210497

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| LCS 680-210497/4 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 680-210497/5 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| 680-70683-14 | TB01 (072211) | Total/NA | Water | 8260B | |
| 680-70683-12 | MW-32 (072111) | Total/NA | Water | 8260B | |
| 680-70683-13 | MW-28 (072111) | Total/NA | Water | 8260B | |

## GC/MS Semi VOA

### Prep Batch: 210074

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70683-1 | MW-26 (072111) | Total/NA | Water | 3520C | |
| 680-70683-2 | MWD-28 (072211) | Total/NA | Water | 3520C | |
| 680-70683-3 | MW-27 (072211) | Total/NA | Water | 3520C | |
| 680-70683-4 | MWD-27 (072211) | Total/NA | Water | 3520C | |
| 680-70683-5 | MW-F7 (072211) | Total/NA | Water | 3520C | |
| 680-70683-6 | DUP-01 (072211) | Total/NA | Water | 3520C | |
| 680-70683-7 | MWD-30 (072211) | Total/NA | Water | 3520C | |
| 680-70683-8 | MW-F15 (072211) | Total/NA | Water | 3520C | |
| 680-70683-9 | MWD-F1 (072211) | Total/NA | Water | 3520C | |
| 680-70683-10 | MWD-F2 (072211) | Total/NA | Water | 3520C | |
| 680-70683-11 | MWD-F3 (072211) | Total/NA | Water | 3520C | |
| 680-70683-12 | MW-32 (072111) | Total/NA | Water | 3520C | |
| 680-70683-13 | MW-28 (072111) | Total/NA | Water | 3520C | |
| 680-70683-15 | MW-F17 (072211) | Total/NA | Water | 3520C | |
| MB 680-210074/15-A | Method Blank | Total/NA | Water | 3520C | |
| LCS 680-210074/16-A | Lab Control Sample | Total/NA | Water | 3520C | |

## GC/MS Semi VOA (Continued)

### Prep Batch: 210074 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70683-8 MS | MW-F15 (072211) | Total/NA | Water | 3520C | |
| 680-70683-8 MSD | MW-F15 (072211) | Total/NA | Water | 3520C | |
| LCS 680-210074/19-A | Lab Control Sample | Total/NA | Water | 3520C | |
| 680-70683-8 MS | MW-F15 (072211) | Total/NA | Water | 3520C | |
| 680-70683-8 MSD | MW-F15 (072211) | Total/NA | Water | 3520C | |

### Analysis Batch: 211582

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 680-210074/15-A | Method Blank | Total/NA | Water | 8270C LL | 210074 |
| LCS 680-210074/16-A | Lab Control Sample | Total/NA | Water | 8270C LL | 210074 |
| LCS 680-210074/19-A | Lab Control Sample | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-1 | MW-26 (072111) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-2 | MWD-28 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-3 | MW-27 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-4 | MWD-27 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-5 | MW-F7 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-6 | DUP-01 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-7 | MWD-30 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-8 | MW-F15 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-9 | MWD-F1 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-10 | MWD-F2 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-11 | MWD-F3 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-12 | MW-32 (072111) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-13 | MW-28 (072111) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-8 MS | MW-F15 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-8 MSD | MW-F15 (072211) | Total/NA | Water | 8270C LL | 210074 |

### Analysis Batch: 211714

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 680-70683-15 | MW-F17 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-8 MS | MW-F15 (072211) | Total/NA | Water | 8270C LL | 210074 |
| 680-70683-8 MSD | MW-F15 (072211) | Total/NA | Water | 8270C LL | 210074 |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

## Client Sample ID: MW-26 (072111)

**Lab Sample ID: 680-70683-1**

**Date Collected: 07/21/11 17:08**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210094 | 07/26/11 17:55 | AGM | TAL SAV |
| Total/NA | Prep | 3520C | | | 501.5 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 18:14 | ND | TAL SAV |

## Client Sample ID: MWD-28 (072211)

**Lab Sample ID: 680-70683-2**

**Date Collected: 07/22/11 08:03**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210094 | 07/26/11 18:24 | AGM | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.7 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 18:40 | ND | TAL SAV |

## Client Sample ID: MW-27 (072211)

**Lab Sample ID: 680-70683-3**

**Date Collected: 07/22/11 09:57**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210094 | 07/26/11 18:54 | AGM | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.1 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 19:06 | ND | TAL SAV |

## Client Sample ID: MWD-27 (072211)

**Lab Sample ID: 680-70683-4**

**Date Collected: 07/22/11 11:28**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210094 | 07/26/11 19:23 | AGM | TAL SAV |
| Total/NA | Prep | 3520C | | | 502.9 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 19:32 | ND | TAL SAV |

## Client Sample ID: MW-F7 (072211)

**Lab Sample ID: 680-70683-5**

**Date Collected: 07/22/11 12:43**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210094 | 07/26/11 19:53 | AGM | TAL SAV |
| Total/NA | Prep | 3520C | | | 1049.6 mL | 1.0 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 19:58 | ND | TAL SAV |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

## Client Sample ID: DUP-01 (072211)

**Lab Sample ID: 680-70683-6**

**Date Collected: 07/22/11 12:00**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 03:41 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 1046.1 mL | 1.0 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 20:24 | ND | TAL SAV |

## Client Sample ID: MWD-30 (072211)

**Lab Sample ID: 680-70683-7**

**Date Collected: 07/22/11 14:28**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 04:03 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 1045.2 mL | 1.0 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 20:50 | ND | TAL SAV |

## Client Sample ID: MW-F15 (072211)

**Lab Sample ID: 680-70683-8**

**Date Collected: 07/22/11 16:10**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 04:25 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 507.1 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 21:16 | ND | TAL SAV |

## Client Sample ID: MWD-F1 (072211)

**Lab Sample ID: 680-70683-9**

**Date Collected: 07/22/11 13:50**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 04:47 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 510.9 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 21:42 | ND | TAL SAV |

## Client Sample ID: MWD-F2 (072211)

**Lab Sample ID: 680-70683-10**

**Date Collected: 07/22/11 10:25**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 05:09 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 507.5 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 22:08 | ND | TAL SAV |

# Lab Chronicle

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

## Client Sample ID: MWD-F3 (072211)

**Lab Sample ID: 680-70683-11**

**Date Collected: 07/22/11 17:25**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 05:32 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 501.9 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 22:34 | ND | TAL SAV |

## Client Sample ID: MW-32 (072111)

**Lab Sample ID: 680-70683-12**

**Date Collected: 07/21/11 15:30**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 12:42 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 502.9 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 23:00 | ND | TAL SAV |

## Client Sample ID: MW-28 (072111)

**Lab Sample ID: 680-70683-13**

**Date Collected: 07/21/11 17:05**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 13:11 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 503.1 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211582 | 08/10/11 23:25 | ND | TAL SAV |

## Client Sample ID: TB01 (072211)

**Lab Sample ID: 680-70683-14**

**Date Collected: 07/22/11 17:00**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210497 | 07/28/11 10:45 | RB | TAL SAV |

## Client Sample ID: MW-F17 (072211)

**Lab Sample ID: 680-70683-15**

**Date Collected: 07/22/11 17:50**
**Matrix: Water**
**Date Received: 07/23/11 08:21**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260B | | 1 | 5 mL | 5 mL | 210445 | 07/29/11 05:54 | RB | TAL SAV |
| Total/NA | Prep | 3520C | | | 505.3 mL | 0.5 mL | 210074 | 07/26/11 14:51 | RBS | TAL SAV |
| Total/NA | Analysis | 8270C LL | | 1 | | | 211714 | 08/11/11 17:01 | ND | TAL SAV |

**Laboratory References:**
TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 070071

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:


| | | | |
|---|---|---|---|
| PROJECT REFERENCE: Ashland - Savanagh | PROJECT NO.: 0140040000, 11030 | PROJECT LOCATION (STATE): GA | PAGE: 1 OF 2 |
| TAL (LAB) PROJECT MANAGER | P.O. NUMBER: NA | CONTRACT NO.: NA | STANDARD REPORT DELIVERY: Std |
| CLIENT (SITE) PM: David Wilderman | CLIENT PHONE: 770.428.9009 | CLIENT FAX: 770.428.4044 | DATE DUE: |
| CLIENT NAME: ARCADIS | CLIENT E-MAIL: david.wilderman@arcadis-us.com | | EXPEDITED REPORT DELIVERY (SURCHARGE): |
| CLIENT ADDRESS: 1000 Cobb Place Blvd. Bldg 500A, Kennesaw, GA | | | DATE DUE: |
| COMPANY CONTRACTING THIS WORK (if applicable): NA | | | NUMBER OF COOLERS SUBMITTED PER SHIPMENT: |

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | MATRIX: COMPOSITE (C) OR GRAB (G) INDICATE | MATRIX: AQUEOUS (WATER) | MATRIX: SOLID OR SEMISOLID | MATRIX: AIR | MATRIX: NONAQUEOUS LIQUID (OIL, SOLVENT, ...) | REQUIRED ANALYSIS: 8260B VOC | REQUIRED ANALYSIS: 8270LL SVOC | PRESERVATIVE: NONE | PRESERVATIVE: NONE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 072111 | 1708 | MW-26 (072111) | G | X | | | | 3 | 1 | | | |
| 072211 | 0803 | MWD-28 (072211) | G | X | | | | 3 | 1 | | | |
| 072211 | 0957 | MW-27 (072211) | G | X | | | | 3 | 1 | | | |
| 072211 | 1128 | MWD-27 (072211) | G | X | | | | 3 | 1 | | | |
| 072211 | 1243 | MW-F7 (072211) | G | X | | | | 3 | 2 | | | |
| 072211 | 1200 | DUP-01 (072211) | G | X | | | | 3 | 2 | | | |
| 072211 | 1428 | MWD-30 (072211) | G | X | | | | 3 | 2 | | | |
| 072211 | 1610 | MW-F15 (072211) | G | X | | | | 6 | 4 | | | MS/MSD |
| 072211 | 1350 | MWD-F1 (072211) | G | X | | | | 3 | 1 | | | |
| 072211 | 1025 | MWD-F2 (072211) | G | X | | | | 3 | 1 | | | |
| 072211 | 1725 | MWD-F3 (072211) | G | X | | | | 3 | 1 | | | |
| 072111 | 1530 | MW-32 (072111) | G | X | | | | 3 | 1 | | | |

Page 97 of 100

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | 7/23/11 | 0920 | | | | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| | 7/23/11 | 0921 | YES ○ NO ○ | | 680-70683 | 1.8, 2.8, 0.8 C |

TAL 8240-680 (1008)

Serial Number 043878

# ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING


TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165


Alternate Laboratory Name/Location
Phone:
Fax:

| PROJECT REFERENCE | PROJECT NO. | PROJECT LOCATION (STATE) |
|---|---|---|
| Ashland - Savannah | 60109000.10320 | GA |
| TAL (LAB) PROJECT MANAGER | P.O. NUMBER | CONTRACT NO. |
| | NA | NA |
| CLIENT (SITE) PM | CLIENT PHONE | CLIENT FAX |
| David Wilderman | 770.428.9009 | 770.428.4004 |
| CLIENT NAME | CLIENT E-MAIL | |
| ARCADIS | david.wilderman@arcadis-us.com | |
| CLIENT ADDRESS | | |
| 1000 Cobb Place Blvd. Bldg 300A, Kennesaw, GA | | |
| COMPANY CONTRACTING THIS WORK (if applicable) | | |
| NA | | |

MATRIX TYPE (COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...))

REQUIRED ANALYSIS: 8260B VOC; 8270LL SVOC

PAGE 2 of 2

STANDARD REPORT DELIVERY ●
DATE DUE 5 WD
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

| SAMPLE DATE | SAMPLE TIME | SAMPLE IDENTIFICATION | MATRIX | 8260B VOC | 8270LL SVOC | PRESERVATIVE | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | NUMBER OF CONTAINERS SUBMITTED | | | |
| 072111 | 1705 | MW-28 (072111) | G X | 3 | 1 | | |
| 072211 | 1700 | TB01 (072211) | G X | 2 | | | |
| 072211 | 1750 | MW-F17 (072211) | G X | 3 | 1 | | |

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RELINQUISHED BY: (SIGNATURE) | DATE | TIME |
|---|---|---|---|---|---|---|---|---|
| | 7/23/11 | 0820 | | | | | | |
| RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) | DATE | TIME |
| | | | | | | | | |

LABORATORY USE ONLY

| RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE | TIME | CUSTODY INTACT | CUSTODY SEAL NO. | SAVANNAH LOG NO. | LABORATORY REMARKS |
|---|---|---|---|---|---|---|
| | 7/23/11 | 0821 | YES ○ NO ○ | | 680-70683 | 1.8°C, 2.8°C |

TAL 82-10-680 (1008)

# Login Sample Receipt Checklist

Client: Ashland Inc.

Job Number: 680-70683-1

**Login Number: 70683**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Barnett, Eddie T**

| Question | Answer | 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 | 3 coolers rec'd on ice |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.8, 2.8, 0.8 C |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| 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 | |
| Sample Preservation Verified. | N/A | |
| 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 | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

# Certification Summary

Client: Ashland Inc.
Project/Site: Hercules Savannah - GW July 2011

TestAmerica Job ID: 680-70683-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Savannah | A2LA | DoD ELAP | | 0399-01 |
| TestAmerica Savannah | A2LA | ISO/IEC 17025 | | 399.01 |
| TestAmerica Savannah | Alabama | State Program | 4 | 41450 |
| TestAmerica Savannah | Arkansas | Arkansas DOH | 6 | N/A |
| TestAmerica Savannah | Arkansas | State Program | 6 | 88-0692 |
| TestAmerica Savannah | California | NELAC | 9 | 3217CA |
| TestAmerica Savannah | Colorado | State Program | 8 | N/A |
| TestAmerica Savannah | Connecticut | State Program | 1 | PH-0161 |
| TestAmerica Savannah | Delaware | State Program | 3 | N/A |
| TestAmerica Savannah | Florida | NELAC | 4 | E87052 |
| TestAmerica Savannah | Georgia | Georgia EPD | 4 | N/A |
| TestAmerica Savannah | Georgia | State Program | 4 | 803 |
| TestAmerica Savannah | Guam | State Program | 9 | 09-005r |
| TestAmerica Savannah | Hawaii | State Program | 9 | N/A |
| TestAmerica Savannah | Illinois | NELAC | 5 | 200022 |
| TestAmerica Savannah | Indiana | State Program | 5 | N/A |
| TestAmerica Savannah | Iowa | State Program | 7 | 353 |
| TestAmerica Savannah | Kansas | NELAC | 7 | E-10322 |
| TestAmerica Savannah | Kentucky | Kentucky UST | 4 | 18 |
| TestAmerica Savannah | Kentucky | State Program | 4 | 90084 |
| TestAmerica Savannah | Louisiana | NELAC | 6 | 30690 |
| TestAmerica Savannah | Louisiana | NELAC | 6 | LA100015 |
| TestAmerica Savannah | Maine | State Program | 1 | GA00006 |
| TestAmerica Savannah | Maryland | State Program | 3 | 250 |
| TestAmerica Savannah | Massachusetts | State Program | 1 | M-GA006 |
| TestAmerica Savannah | Michigan | State Program | 5 | 9925 |
| TestAmerica Savannah | Mississippi | State Program | 4 | N/A |
| TestAmerica Savannah | Montana | State Program | 8 | CERT0081 |
| TestAmerica Savannah | Nebraska | State Program | 7 | TestAmerica-Savannah |
| TestAmerica Savannah | Nevada | State Program | 9 | GA6 |
| TestAmerica Savannah | New Jersey | NELAC | 2 | GA769 |
| TestAmerica Savannah | New Mexico | State Program | 6 | N/A |
| TestAmerica Savannah | New York | NELAC | 2 | 10842 |
| TestAmerica Savannah | North Carolina | North Carolina DENR | 4 | 269 |
| TestAmerica Savannah | North Carolina | North Carolina PHL | 4 | 13701 |
| TestAmerica Savannah | Oklahoma | State Program | 6 | 9984 |
| TestAmerica Savannah | Pennsylvania | NELAC | 3 | 68-00474 |
| TestAmerica Savannah | Puerto Rico | State Program | 2 | GA00006 |
| TestAmerica Savannah | Rhode Island | State Program | 1 | LAO00244 |
| TestAmerica Savannah | South Carolina | State Program | 4 | 98001 |
| TestAmerica Savannah | Tennessee | State Program | 4 | TN02961 |
| TestAmerica Savannah | Texas | NELAC | 6 | T104704185-08-TX |
| TestAmerica Savannah | USDA | USDA | | SAV 3-04 |
| TestAmerica Savannah | Vermont | State Program | 1 | 87052 |
| TestAmerica Savannah | Virginia | State Program | 3 | 302 |
| TestAmerica Savannah | Washington | State Program | 10 | C1794 |
| TestAmerica Savannah | West Virginia | West Virginia DEP | 3 | 94 |
| TestAmerica Savannah | West Virginia | West Virginia DHHR (DW) | 3 | 9950C |
| TestAmerica Savannah | Wisconsin | State Program | 5 | 999819810 |
| TestAmerica Savannah | Wyoming | State Program | 8 | 8TMS-Q |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

ARCADIS

## Appendix F

CD Copies (2) of VIRP Plan