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Hercules Incorporated

Voluntary Investigation and Remediation Plan – Semiannual Progress Report #4

Hercules Incorporated
3000 Louisville Road
Savannah, Georgia

March 30, 2015

ARCADIS

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Voluntary Investigation and Remediation Plan – Semiannual Progress Report #4

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Savannah, Georgia

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Executive Summary

This Voluntary Investigation and Remediation Plan (VIRP) Semiannual Progress Report (Progress Report) has been prepared to document the recent site activities conducted at the former Hercules Incorporated (Hercules) facility located at 3000 Louisville Road in Savannah, Georgia.

An extensive soil investigation was conducted in August 2014 to delineate known impacts of hazardous constituents above Risk Reduction Standards (RRSs) and to investigate potential source areas as outlined in the Voluntary Investigation and Remediation Plan (VIRP). The results of this investigation concluded that the distribution of regulated constituents above the Type 1 and 2 RRSs is limited and that soil delineation is nearly complete. An additional limited soil investigation is required to complete delineation of 1,1-biphenyl and PCBs in soil and that will be conducted in 2015 prior to submittal of Progress Report #5.

Semiannual groundwater monitoring was conducted in November 2014 and the results indicate that only one well, MW-F21, exceeds the Type 1 through 4 RRS for naphthalene. This compound is horizontally and vertically delineated by nearby wells in the Voluntary Remediation Program (VRP) monitoring network.

Sediment and surface water samples were collected from Dundee Canal upgradient, within the site boundaries, and downgradient for laboratory analysis. Results conclude that that there are no exceedances of delineation standards for surface water and that sediment exceeded the Total Dioxin and Furan 2,3,7,8-tetrachlorodibenzofuran (TCDD) TEQ in only one sediment sample. The Total Dioxin and Furan TCDD TEQ values were below the residential RRS in the two samples collected both upgradient and downgradient in the Dundee Canal outside the VRP area.

A human health and ecological risk assessment was completed and constituents of potential concern (COPCs) were not identified for further evaluation in groundwater, sediment, or surface water for the exposure scenarios considered. Risk to both an industrial worker and a construction worker were within or below the USEPA target risk range of 1×10^{-4} to 1×10^{-6} as well as the Georgia EPD decision point of $1\text{x}10^{-5}$, and the non-cancer hazard, was well below the target HI of 1.

Adverse impacts are considered unlikely for any aquatic wildlife and sediment dwelling organisms that might inhabit the site based on the overall analysis of surface water and sediment exposures. Risks were characterized for aquatic wildlife receptors at the site

and none of the constituents detected in sediment or surface water were identified as refined constituents of potential environmental concern (COPECs) and no further evaluation of sediment or surface water is warranted.

1. Introduction

This Voluntary Investigation and Remediation Plan (VIRP) Semiannual Progress Report (Progress Report) has been prepared to meet requirements outlined in the Georgia Voluntary Remediation Program Act (VRPA).

Hercules Incorporated (Hercules), a wholly owned subsidiary of Ashland Inc., sold its distribution business and its associated assets to Solenis International, L.P. (Solenis) on July 31, 2014. Accordingly, Solenis is now the owner and operator of the facility located at 3000 Louisville Road, Savannah, Georgia. Hercules, however, retains responsibility for the remediation activities at the site relating to matters that occurred prior to the sale date. The facility 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 No. 2-0734-01-001 and Parcel ID No. 2-0734-03-001), comprising 29.09 acres, are the two approved properties in the Voluntary Remediation Program (VRP) and are currently included on the Hazardous Site Inventory (HSI) as ID No. 10696. Hercules has evaluated the ownership of land within the boundaries of the facility where right-of-ways, easements, and/or reconfiguration of properties have occurred since the original deed was filed. Data obtained during this review confirm that Hercules retains ownership of the remediation efforts for the two parcels as shown on **Figure 1**, which depicts the location of the Hercules land tracts superimposed on a topographic map of the area. The term “site” is used throughout this report to refer to the two tracts that comprise HSI ID No. 10696 that are owned by Solenis but whose environmental impacts are managed by Hercules. **Figure 2** provides an aerial view of the VRP properties, and **Figure 3** illustrates the layout of the VRP properties and monitoring well locations. A tax parcel map illustrating specific information on land tracks and ownership is provided in **Appendix A**.

2. Site History

The site 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. The following list outlines release, response, and remedial action history.

- Georgia Environmental Protection Division (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.

- Multiple Compliance Status Report (CSR) documents and correspondence with the EPD were exchanged between 2002 and 2006.

- The September 29, 2006 CSR Addendum detailed soil sampling around potential source areas and site excavation activities for areas that previously had detections of acrolein in the Hard Resins Area; cyanide, benzene, toluene ethylbenzene, and total xylenes (collectively BTEX), and asbestos in the 50s/60s Tank Area. In addition, groundwater monitoring and well installations were performed.

- Direct-Push Technology (DPT) shallow soil screening and sampling, well installation, groundwater sampling, deep geologic borings, and slug testing were conducted by WPC in 2008 And reported in an appendix to 2009 CSR Addendum #2. A Corrective Action Plan (CAP) was submitted in 2008.

- The October 25, 2010 CSR Addendum #2 EPD comment letter removed cyanide and metals from site constituents of concern (COCs) because the EPD concurred that releases of these substances have not occurred at the site.

- A response to EPD's comments on the March 2009 CSR was submitted in February 2011.

- A VIRP was submitted in lieu of a Revised CAP on April 9, 2012.

- The VIRP application was approved by EPD on March 15, 2013.

- The first Progress Report was submitted via email on December 10, 2013.

- The second Progress Report was submitted on March 15, 2014.
- The third Progress Report was submitted on September 15, 2014.
- The EPD issued comments regarding the VIRP on January 10, 2014 and those comments are addressed in this progress report.
- The EPD issued comments regarding the first through third VIRP progress reports on December 29, 2014 and those comments are addressed in this progress report.
- Soil delineation activities were conducted on site during August 2014 and those results are presented in this report.

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 located downstream from the site. A list of regulated substances detected at the site along with the applicable delineation standards was provided in the VIRP. The EPD provided revised Risk Reduction Standards (RRSs) to Hercules following the submittal of the VIRP in a letter dated January 10, 2014. Hercules intends to use these RRSs for the VRP properties for delineation and cleanup standards. The approved RRSs are provided as **Tables 1a** through **1c**.

3. Summary of Work Completed this Period

The work performed at the site during this period involved the following actions:

1. Collected water-level measurements from 34 wells.
2. Collected groundwater samples from six wells for laboratory analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260B and semivolatile organic compounds (SVOCs) by USEPA Method 8270D.
3. Collected groundwater samples from one well for polychlorinated biphenyls (PCBs) by USEPA Method 8082A (including 1262 and 1268) and USEPA Method 1668B.
4. Collected groundwater sample from one well for asbestos-containing material (ACM) by USEPA Method 100.2.

5. Collected discrete soil samples at historical locations where composite samples were obtained.

6. Collected additional soil samples to delineate regulated substances (acrolein, aniline, and 1,1-biphenyl) and to investigate the potential for impacts at potential historical source areas as outlined in the VIRP.

7. Collected sediment and surface water samples.

8. Performed slug tests on nine wells to evaluate water-bearing zone hydraulic parameters.

9. Performed a Migration Pathway Assessment and evaluated potential receptors.

10. Performed a Human Health Risk Assessment and an Ecological Risk Assessment.

11. Provided oversight during an expansion project, performed by Solenis, of their Kymene® Reactor.

Details of data collected and interpretations of the groundwater sampling and water-level data (tasks 1 through 4) and data from the soil investigation activities (tasks 5 through 11) are provided in the following sections of this Progress Report. Groundwater and soil sample locations are presented on **Figure 4**.

3.1 Hydraulic Gradient

The static depth to water was measured in all accessible site wells on November 4, 2014. 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 0.007 foot per foot (ft/ft), which is typical of shallow aquifers in the Coastal Plain depositional environment. The hydraulic gradient was calculated to be 0.014 ft/ft on the western side of Dundee Canal based on water-level measurements from monitoring wells MW-F13 and MW-F17. On the eastern side of Dundee Canal, the hydraulic gradient is also 0.00007 ft/ft as calculated from monitoring wells MW-F9 and MW-F5. A summary of well construction details is included as **Table 2**. Groundwater level

elevation data are included as **Table 3**, and a potentiometric surface contour map is provided as **Figure 5**.

3.1.1 Tidal Influence

A tidal evaluation was conducted at the site within Dundee Canal on August 28 and 29, 2014 to determine if tidal changes influence the water levels as requested by EPD in their January 10, 2014 letter. A wooden stake was installed in the deepest portion of Dundee Canal at the SW/SED-3 location on the downgradient (northeastern) side of the site **(Figure 4)**. Local tide charts were reviewed and the times of low and high tides were determined. The distance from the top of the stake to the water surface of Dundee Canal was measured during low tide. The process was duplicated during the next high tide. These two measurements were compared and it was determined that Dundee Canal, within the SW/SED-3 area, fluctuates by 1 inch between low and high tides.

The purpose of the tidal evaluation was to determine if tidal-induced fluctuations in Dundee Canal could result in possible upgradient migration of hazardous constituents from the site during periods of high tide. However, during the habitat assessment conducted in August 2014, it was discovered that as Dundee Canal is conveyed through the site via concrete piping, it exits the piping above the natural level of the canal; therefore, the canal at and upgradient of the site is not tidally influenced.

3.2 Groundwater Sample Data Summary

Semiannual groundwater sampling was conducted in November 2014; semiannual groundwater sampling will continue until compliance with final cleanup standards is demonstrated for a one year period. Semiannual monitoring consists of collecting water-level measurements from 37 on-and-off-site wells and collecting groundwater samples from the following monitoring wells: MW-F3R, MW-F5, MW-F7, MW-F8, MW-F21, MW-27, MW-29, and MWD-30 **(Figure 4)**. Well head integrity inspection records indicated that monitoring wells MW-F6, MW-26, and MW-28 were documented as being destroyed or inaccessible during the May 2014 sampling and gauging event. These wells are not part of the semiannual sampling program. The concrete well pad at monitoring well MW-26 was replaced on November 6, 2014. Monitoring well MW-28 was confirmed to be destroyed. Monitoring well MW-F6 was accessed during the November 2014 event. There are no plans to replace monitoring well MW-28 at this time.

3.2.1 Groundwater Sample Methodology

Well purging and sampling methods utilized a peristaltic pump and low-flow, low-purge volume sampling methodologies following the USEPA Region 4 Science and Ecosystem Support Division (SESD) operating procedures, dated March 6, 2013, for groundwater sampling to ensure a representative sample is collected and to minimize the quantity of well purge water generated during sampling. Prior to initiating pumping, a properly decontaminated water level was lowered into the well to monitor static water level prior to and during the purging process. During purging and sampling, the Teflon® tubing intake was placed at the mid-portion of the screened interval of the well. Flow rates did not exceed the recharge rate of the aquifers monitored by measuring the top of the water column with a water-level indicator while purging. With respect to the groundwater chemistry, an adequate purge was achieved when the pH, specific conductance, and temperature of the groundwater had stabilized and the turbidity had either stabilized or was below 10 Nephelometric Turbidity Units (NTUs) (twice the Primary Drinking Water Standard of 5 NTUs). Stabilization occurred when pH measurements remained constant within 0.1 Standard Unit (S.U.), specific conductance varies no more than 5 percent, and the temperature was constant to within 1 degree Celsius (°C) for at least three consecutive readings. Every effort was made to achieve turbidity levels of less than 10 NTUs; however, the last reading achieved at well MW-29 was 15.4 NTU. Secondary criteria for stabilization include dissolved oxygen measurements within 0.2 milligram per liter (mg/L). The well purging field forms indicate stabilization occurs within 0.3 mg/L; however, these will be updated during the May 2015 monitoring event to correctly state 0.2 mg/L. Groundwater samples were collected following the USEPA-accepted “soda straw” sampling method when water quality parameters had been reached. Field readings of pH were taken from each monitoring well prior to sampling and the readings range from 4.46 to 7.64 S.U.

Well purging and sampling logs from the November 2014 monitoring event are provided as **Appendix B**.

The groundwater samples collected in November 2014 were analyzed for VOCs by USEPA Method 8260B and SVOCs by USEPA Method 8270D in monitoring wells MW-F5, MW-F7, MW-F21, MW-27, MW-29, and MWD-30. Monitoring well MW-F3R was sampled for PCBs analysis by USEPA Methods 8082A (including Aroclor 1262 and 1268) and biphenyl congeners analysis using USEPA Method 1668B. Monitoring well MW-F8 was sampled for ACM by USEPA Method 100.2 during the November 2014 monitoring event; however, monitoring well MW-F15 will be sampled in lieu of

well MW-F8 in subsequent monitoring events to better reflect groundwater conditions downgradient of the ACM area. A planned sampling table is provided as **Table 4** and includes additional information on samples collected for laboratory analyses.

3.2.2 Groundwater Sampling Results

Analytical results from the November 2014 groundwater sampling event indicate a very limited distribution of COCs at the site. A summary of groundwater results from the November 2014 semiannual monitoring event for the shallow and deep aquifers is illustrated on **Figures 6a** and **6b**, respectively. The results of the PCB and asbestos analysis are illustrated on **Figure 6c**. Analytical summary tables are provided as **Tables 5a** through **5c**, and laboratory analytical reports are included as **Appendix C**.

Only one monitoring well, MW-F21, with one constituent, naphthalene, was detected at a concentration above the Type 1/4 RRS. This constituent was detected at 150 micrograms per liter (µg/L) compared to the Type 1-4 RRS of 20 µg/L. Benzene, although previously detected, was not detected in this well above the laboratory reporting limit of 1.0 µg/L during the November 2014 event. Benzene was detected in this well at a concentration of 7.4 µg/L during the May 2014 event. Additionally, bis(2-chloroethyl)ether was not detected in this well during the November 2014 event with a laboratory reporting limit of 10 µg/L. The Type 1 RRS for bis(2-chloroethyl)ether is 0.03 µg/L, but the laboratory is unable to accurately report results below 1 µg/L. During the November 2014 event, a 10X laboratory dilution was required resulting in an elevated reporting limit. This constituent has only been detected once in well MW-F21 at a concentration of 1.2 µg/L during the May 2014 monitoring event. All laboratory analytical results indicate that constituent concentrations for samples collected from the remaining wells were either below laboratory detection limits or have detections below the Type 1 RRSs. Deep aquifer monitoring well MWD-30 is below detection limits for all analyzed constituents.

Monitoring well MW-F8 was added to the semiannual monitoring network at the request of EPD to monitor groundwater downgradient from the proposed engineering control for the soil impacts in the vicinity of the Former Fatty Acid 50s Tank Area. Groundwater samples from this well were analyzed for ACM only during the November 2014 monitoring event. Analytical results indicate that ACM is not present above the laboratory detection limit of 1.6 million fibers per liter. EPD comments received on December 29, 2014 indicated that the use of well MW-F8 as a point of demonstration (POD) well was not acceptable as it was determined to not be located hydraulically downgradient from the former 50s and 60s Tank/Landfill Area. Therefore, future

sampling events will utilize monitoring well MW-F15 as it is more closely aligned in a hydraulically down-gradient direction (see **Figure 5**). Sampling will continue to include ACM with the addition of benzene due to historical elevated benzene concentrations.

A groundwater sample was also collected from monitoring well MW-F3R at EPD's request to analyze for the presence of PCBs and PCB congeners. This well is located in the Former CTO Tank Area, previously used for storage of potentially PCB-containing oils. Results of the analysis indicate that there are no PCBs above the laboratory detection limits in groundwater.

3.3 Soil Investigation Summary

Additional soil sampling was conducted in August 2014 at locations previously identified by EPD as potential source areas and at locations outlined in the VIRP. The purpose of this mobilization was to investigate potential source areas and to delineate existing soil impacts. The following sections outline the methodology used and the results of the investigation.

3.3.1 Soil Sample Methodology

Soil samples were collected via a decontaminated steel hand auger and in accordance with the USEPA SESDPROC-300-R1 for Soil Sampling SOP. At each location, one soil sample was collected from the zero to 1-foot interval and subsequent samples were collected at 2-foot increments to the bottom of the boring. Samples were collected from the vadose zone only if they were logged as dry. Field geologists were vigilant of avoiding soil that was located within the capillary fringe. The thickness of the capillary fringe varies considerably and is dependent primarily on the type of soils. Soil moisture and lithology were logged in the field from the ground surface to the top of the apparent water table. The approximate depth of the static water table was determined by visual inspection of the soil cuttings removed from the hand auger. As additional confirmation to visual inspection, field geologists also recorded depth-to-water measurements from nearby monitoring wells to determine localized water table elevations. Water-level measurements throughout the site ranged from less than 1 foot below ground surface (ft bgs) to greater than 7 ft bgs. These measurements, after subtracting the aboveground portion of the casing, were used to determine the static water level.

The soil boring locations were photo-documented from at least two vantage points once the soils samples were collected. Additionally, the sample locations were located by measuring the distance to two known locations identifiable on a site map, and/or by

a handheld global positioning system (GPS) unit. Once complete, the boring was abandoned by backfilling with the soil cuttings removed during the hand-augering.

Each soil sample was placed in a laboratory-supplied container and stored in sealed, ice-filled coolers. All samples were hand delivered to a Georgia-certified laboratory (TestAmerica) under appropriate preservation and chain-of-custody procedures. Details regarding proposed sample location rationale are provided in the following sections. Soil boring logs are provided as **Appendix D**.

The following is a summary of the soil sample locations as presented in the VIRP. The rationale for collecting the samples at these locations is also provided.

3.3.1.1 Confirmation Sampling at Composite Sample Locations

The Georgia EPD indicated that several historical soil samples collected within the Hard Resins, CTO Plant, CTO Release, Fatty Acid Aboveground Storage Tank (AST; 30s tanks), and 50s and 60s Tank (landfill) areas were collected using a composite sampling methodology in their October 25, 2010 response letter to the 2009 CSR Addendum No. 2. 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. Additional grab soil samples were collected at the former sample locations listed below and were analyzed as indicated to confirm current soil conditions because composite soil samples are not acceptable for demonstrating the extent of regulated substances in soil. Soil grab samples were collected in August 2014 from 0 to 1 ft bgs and at 2-foot intervals 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

3.3.1.2 Additional Delineation of Detected Regulated Substances

Additional delineation of the following regulated substances in soil was conducted in August 2014 to identify the extent of concentrations exceeding the Type 1 RRSs:

- Acrolein

- Aniline
- 1,1-Biphenyl

3.3.1.3 Investigation of Additional Potential Source Areas

The following is a list of additional potential source areas that were previously identified by EPD. Representative soil samples were collected, where available, from these areas during the August 2014 investigation.

- 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 were collected in these areas and analyzed for VOCs and SVOCs.

- Current and Former Quality Control Laboratories: Soil samples were collected and analyzed for SVOCs, VOCs, and formaldehyde at current and former quality control laboratories and their storage areas. This includes: 1) a laboratory (Building 8102), 2) an air compressor and laboratory storage area in Building 8502 immediately west of the former Dry Size Building, and 3) an ink laboratory west/southwest of the former Tall Oil ASTs/Release Area. A sample was attempted at the laboratory annex northwest of the former Dry Size building; however, a subsurface obstruction was encountered during two separate attempts.

- Additional Potential Dowtherm® Oil Storage/Handling Areas: Dowtherm® oil may have potentially been stored and/or used in the following areas: 1) under the former 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 were collected in the referenced area and analyzed for VOCs, SVOCs, and PCBs. A soil sample could not be collected under the former Pilot Plant building despite several attempts due to a below-ground obstruction.

- Historical Benzene Storage Areas: The Phase II Environmental Site Assessment 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. A soil sample was collected from the “K 22” area. A boring was attempted near the H-

107 and H-103 area; however, there was no access in this area due to a concrete secondary containment berm.

- 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. Soil samples were collected in this area and analyzed for SVOCs.

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

- Electrical Substations (Current and Former) and Former Locations of PCB-Containing Capacitors. A soil sample was collected from this area and analyzed for PCBs.

- 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. A soil sample was collected from each of these two areas and analyzed for PCBs.

- Defoamer Dowtherm® Vaporizer Unit 2024: Soil surrounding the unit was 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): Soil samples were collected beneath the former location of DHTU 2051 and in the vicinity of soil sample location SS-62 and analyzed for VOCs, SVOCs, and PCBs.

- 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 polycyclic aromatic 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 were 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. Soil samples were collected at boring/sample location DS-9 and boring/sample locations DS-13 and DS-17 for PCB analysis.

3.3.2 Soil Sampling Results

The analytical results of the 2014 soil investigation were evaluated along with historical analytical data to determine if additional potential source areas are present at the site and to determine if delineation was complete. Overall, the results showed that there are limited impacts to soil at the site and only a few isolated areas exceed Type 1 RRSs.

The target delineation standards were provided to the laboratory prior to the onset of the investigation and the laboratory confirmed that the method detection limits (MDLs)/reporting limits were equal to or less than the Type 1 RRSs for all constituents. However, the laboratory had to dilute many of the samples due to matrix interference. The laboratory was contacted once the elevated reporting limits were detected and a request was made to report to the MDLs. In some instances, estimated (J-flagged) data were provided in a revised report; however, many of those values were still above the delineation standards due to laboratory dilution. The laboratory provided a Level IV data package, which is included in **Appendix C.** A review of the Level IV report indicated that the large peaks on the chromatograms at around 7.5 minutes in the VOC analysis and at around 9 minutes in the SVOC analysis were likely related to matrix interference/non-target compound that, if analyzed undiluted, could cause potential carryover and/or damage to the laboratory instrument. Therefore, the laboratory methods utilized provided the lowest possible reporting limits for each of the constituents, and the results provided in this report are the lowest available based on available laboratory methods and site conditions. Several of the soil sample laboratory analytical detection/reporting limits in the 2014 soil investigation exceed the Type 1 RRSs despite the best efforts of the laboratory to meet delineation standards.

Soil analytical data are presented in **Tables 6a** through **6d** and on **Figures 8a** through **8d.** No VOCs or SVOCs other than 1,1-biphenyl, aniline, and acrolein were positively detected. Positive detections of PCB's were also detected and these constituents are discussed in the following sections.

3.3.2.1 1,1-Biphenyl

Soil samples were collected for 1,1-biphenyl analysis at several locations throughout the site as shown on **Figure 8a** in accordance with the VIRP. Analytical results of these samples identified only one area at the site with positive detections of 1,1-biphenyl: the former Dowtherm® Unit located on the western portion of the property. Samples in this area were collected from SB-126 and SB-128. 1,1-biphenyl was also detected in soil samples collected later in the year during support activities for the Kymene Reactor area construction project and details of those results are presented in Section 3.7.

The laboratory results from the remaining borings were below reporting limits; however, the reporting limits exceed the Type 1/2 RRS for 1,1-biphenyl. The laboratory MDL for 1,1-biphenyl using 8270D low-level is 7.2 micrograms per kilogram (µg/kg), well below the Type 1/2 RRS of 1.0 mg/kg. However, the actual reporting limits were elevated, as indicated above, as a result of required dilution due to elevated noise and/or matrix interferences during analysis. These sample results, although reported at levels greater than the delineation standard, still illustrate that there are no positive detections.

3.3.2.2 PCBs

An extensive PCB evaluation was performed during the 2014 investigation. Soil samples were collected and analyzed by Method 8081B/8082A for PCB Aroclor mixtures and by Method 1668C for dioxin-like and non-dioxin-like PCB congeners. Soil boring locations and analytical results list individual Aroclor mixtures, a sum of all non-dioxin-like PCB congeners, and the Toxic Equivalency (TEQ) value is provided on **Figure 8b.** PCB Aroclor mixtures, dioxin and non-dioxin-like PCB congeners, total PCBs, and the TEQ values are provided in Table 6c.

The results of the investigation indicate that only two borings, SB-122 and SB-137, have results greater than the Type 1/2 RRSs for Aroclor 1254, and only two borings, SB-126 and SB-136, exceed the TEQ delineation standard. The boring with the most elevated PCB detection, SB-122, is located in the vicinity of an electrical substation. The source of the PCB in soil is likely associated with a former PCB-containing transformer within the substation.

3.3.2.3 Acrolein

Soil samples were collected for acrolein analysis at select locations throughout the site during the 2014 investigation. The analytical results from this investigation indicated

that there are no positive detections in any of the samples. There were, however, two locations, SB-126 and SB-141, that had reporting limits greater than the delineation standard from laboratory dilution due to matrix inferences. The lack of any positive detection of acrolein in these areas likely indicates the absence of this compound in soil at appreciable concentrations. The location of the soil borings and the analytical results of the acrolein samples are provided on **Figure 8c.**

3.3.2.4 Aniline

Soil samples were collected for aniline analysis at select locations throughout the site during the 2014 investigation. The analytical results from this investigation indicated that there are no positive detections in any of the samples. Several of the samples have elevated reporting limits that were greater than the delineation standard. However, as was the case for acrolein, the lack of any positive detection of aniline in these areas likely indicates the absence of this compound in soil. The location of the soil borings and the analytical results of the aniline samples are provided on **Figure 8d.**

3.4 Sediment and Surface Water Investigation Summary

Surface water and sediment samples were collected during the August 2014 site investigation. Samples were collected at three locations (SW/SED-1 through SW/SED-3) along the Dundee Canal, which runs through the site from the southwest to the northeast, at locations upgradient from the site, within the site, and downgradient from the site.

3.4.1 Surface Water and Sediment Sample Methodology

Surface water samples were collected following the USEPA SESDPROC-201-R3 Surface Water Sampling Standard Operating Procedure (SOP) dated February 19, 2013. Samples were collected directly into the sample container from a location approximately halfway between the center of the canal and the water line on the bank. The samples were collected while facing in the upstream direction to avoid disturbing the water and were collected in a way that prevented the preservation from the sample vials from being displaced while the bottles were being filled. Field parameters, including pH, specific conductance, temperature, dissolved oxygen, and oxidation-reduction potential, were collected at each location. Field records for sample collection are provided in **Appendix B**.

After the surface water samples were collected, sediment samples were collected at a location directly below each of the surface water sample locations. The sediment samples were collected using a decontaminated stainless steel scoop or spoon. The scoop or spoon was run along the surface of the streambed in a downstream to upstream direction. Excess water was removed from the sediment; however, some water was retained to ensure that silt and clay-sized particles were included in the sample. The sediment from the scoop was placed into a stainless steel bowl and the process was repeated until enough sediment had been collected to fill the sample jars. Each surface water and sediment sample location was recorded on a map based on measurements to two known points after the sampling was completed.

Surface water and sediment samples were placed in a laboratory-supplied container and stored in sealed, ice-filled coolers. All samples were hand delivered to a Georgia-certified laboratory (TestAmerica) under appropriate preservation and chain-of-custody procedures. Surface water samples were analyzed for fluoride and ammonia (USEPA 300.0), SVOCs (USEPA SW-846 8270D), and VOCs (USEPA SW-846 8260B). Sediment samples were analyzed for dioxins (USEPA 8290A), SVOCs (USEPA SW-846 8270D), VOCs (USEPA SW-846 8260B), total organic carbon (TOC using the Lloyd Kahn Method), and grain size (ASTM D422).

3.4.2 Surface Water and Sediment Sample Results

Analytical results for surface water from the August 2014 site investigation event indicate that fluoride was detected in surface water samples at concentrations ranging from 160 µg/L in SW-01 to 530 µg/L in SW-03. Ammonia nitrogen was detected in surface water samples at concentrations ranging from 130 µg/L in SW-03 to 320 µg/L in SW-01. Additionally, n-Nitrosodi-n-butylamine was detected in SW-02 at a concentration of 7.8 µg/L. These results were compared to Type 1 RRS groundwater concentrations due to the absence of Georgia In-Stream values, as discussed in Section 5.2.2. None of the constituents detected during the 2014 site investigation exceed the Type 1 RRSs. Field readings of pH ranged from 7.09 in SW-01 to 8.5 in SW-02. No other constituents were detected in surface water samples. The surface water results are presented in **Table 7a**.

Analytical results from the corresponding sediment samples indicate that the only detection in sediment that was above the Type 1 RRS was for the Total Dioxin and Furan 2,3,7,8-tetrachlorodibenzofuran (TCDD) TEQ. The Total Dioxin and Furan TCDD TEQ slightly exceeded the non-residential RRS in only one of the three sediment samples (SED-2). The Total Dioxin and Furan TCDD TEQ values were

below the residential RRS in the two samples collected both upgradient and downgradient in the Dundee Canal outside the VRP area (SED-1 and SED-3). As previously stated (ARCADIS 2014; Section 5.2.1.4), the potential for exposure to constituents in sediment in that area is negligible for the industrial worker receptor under current conditions due to the remote location of the area and lack of need to access the area (e.g., for landscaping activities).

Sediment samples were also collected from Dundee Canal to determine TOC concentrations and those ranged from 9,800 milligrams per kilogram (mg/kg) in SED-3 to 20,000 mg/kg in SED-2. The sediment sample results are presented in **Table 7b** and on **Figure 7**.

3.5 Delineation Status

3.5.1 Groundwater

Groundwater data from the November 2014 monitoring event were compared to the Type 1 RRS, and only one well, MW-F21, has concentrations greater than the Type 1 RRS (see **Figure 6a**). This well is located in the proximity of the ASTs 30s area and is delineated by downgradient monitoring well MW-F5, upgradient wells MW-F7, MW-27, and MW-29, and by historical groundwater analytical results from upgradient wells MW-8 and MW-9. Groundwater is vertically delineated by MWD-30. Additionally, PCBs and ACM were below laboratory detection limits in MW-F3R and MW-F8, respectively. Therefore, groundwater delineation is complete for all site COCs.

3.5.2 Sediment and Surface water

The only detected constituents in surface water were ammonia, fluoride, and n-Nitrosodi-n-butylamine. Georgia In-stream criteria were not available for those constituents; therefore, they were compared to groundwater Type 1 RRSs. None of the detected constituents were present at maximum concentrations that were above the Type 1 RRS. Therefore the delineation of regulated compounds in surface water is complete.

The only detected constituents in sediment were acetone and dioxins and furans. Acetone was present at concentrations below the RRS while the Total Dioxin and Furan TCDD TEQ was above the soil type 1/2 RRS at one locations, SED-2. This sample is delineated both up and downstream so the delineation of regulated compounds in sediment is complete.

3.5.3 Soil

Soil samples were collected at locations outlined in the VIRP to provide laboratory confirmation of soil quality at locations that were: 1) evaluated previously using composite soil samples, 2) at locations that were previously identified as potential contaminant source areas, and 3) to delineate known soil impacts above the Type 1/2 RRSs. The results of this investigation identified that, overall, soil delineation is complete at the site with the exception of a few discrete areas. Concentrations of aniline, 1,1-biphenyl, and select PCBs are present at the site in soil above the Type 1/2 RRSs. Additional soil samples will be collected as shown on **Figures 8a, 8b, and 8d** and results provided in the September 2015 VRP Progress Report #5.

A summary of the areas on site that exceed delineation standards for regulated constituents at the site and details of proposed additional sample collection is provided in the sections below.

3.5.3.1 1,1-Biphenyl

Soil delineation of 1,1-biphenyl is not complete in two of the former Dowtherm® Units located in the vicinity of SB-126 and SB-128 on the western portion of the site and soil borings EX-21 and EX-26 on the northeastern portion of the site. Additional soil samples will be collected to complete delineation in these areas. The historical and August 2014 1,1-biphenyl analytical results and proposed soil boring locations are illustrated on **Figure 8a.**

3.5.3.2 PCBs

Aroclor 1254 was detected in soil at concentrations exceeding the Type 1/2 RRSs at two borings: SB-122 (electrical substations) and SB-137 (former Dry Size Area). Additionally, RRS exceedances of the TEQ were detected in SB-126 and SB-137. Additional soil samples will be collected to complete delineation in these areas. The historical and August 2014 PCB analytical results and proposed soil boring locations are illustrated on **Figure 8b.**

3.5.3.3 Aniline

Aniline has only been detected above Type 1/2 RRS in one soil boring: SB-F3 located within the Hard Resins Area of the site. Subsequent soil sampling has indicated that there are no additional positive detections above the delineation standards at the site.

Therefore delineation is complete for this compound. The historical and August 2014 aniline analytical results are summarized on **Figure 8c**.

3.6 Hydraulic Slug Testing

Hydraulic testing was conducted on September 28 and 29, 2014 at nine wells on the VRP properties to evaluate the hydraulic parameters of the shallow and deep aquifers. These tests were conducted by performing a minimum of two slug-out tests to measure the rate of recharge. The tests were performed by first determining the static water level followed by deploying a Level-Troll 700 transducer and a 3-foot slug. The water level was continually monitored and, once it reached static levels, the slug was quickly removed. The water level was again monitored and, once the level reached at least 90 percent of the static level, the test was considered complete and the logging was suspended. Results of the hydraulic slug testing are presented below and summarized in **Appendix E**.

Calculations using the Bouwer-Rice method and Dagan method for an unconfined aquifer were used to calculate the hydraulic conductivity for each well from data collected in the field during the slug test. Monitoring wells MW-22, MW-24, MW-F1, MW-F9, MW-F13, and MW-F15 were used to determine the hydraulic conductivity for shallow wells at the site. Hydraulic conductivity in the shallow wells ranged from 0.033 foot per day (ft/day) in MW-F13 to 1.5 ft/day in MW-22 with an average hydraulic conductivity of 0.47 ft/day. Monitoring wells MWD-22, MWD-24, and MWD-29 were used to determine the intermediate wells hydraulic conductivity at the site. Hydraulic conductivity for intermediate wells ranged from 0.06 ft/day in MWD-29 to 0.39 ft/day in MWD-22 with an average hydraulic conductivity of 0.13 ft/day. Monitoring well MWD-F3 was used to calculate the hydraulic conductivity of the deep wells at the site. The hydraulic conductivity for MWD-F3 was calculated to be 0.0081 ft/day.

3.7 Kymene Reactor Expansion Support

ARCADIS U.S., Inc. (ARCADIS) provided support, on behalf of Hercules, for a planned expansion of the Kymene® Reactor completed by Solenis. ARCADIS mobilized to the site on October 6, 2014 during initial intrusive work within the Kymene® Reactor area located within the Former Dry Size Area. Excavation was required for the construction of the footers and, once subsurface work commenced, soil was screened with an organic vapor analyzer (OVA) to facilitate separation of the excavated soil into

stockpiles based on OVA values and other visual/odor observations. The OVA was also used to evaluate the general conditions in the worker's breathing zone. The OVA screening identified potential soil impacts in excavation area #3 (**Appendix F**) near what appeared to be a break in a clay pipe that reportedly ran between a laboratory building and the on-site water treatment plant. A soil sample was collected from this area and sent to a state-certified laboratory for analysis of volatiles by USEPA Method 8260B, semivolatiles by USEPA Method 8270D, and PCBs by USEPA Method 8082A. Two semivolatile constituents, 1,1-biphenyl and diphenyl ether (the components of Dowtherm®), were identified in the sample at elevated concentrations. Dowtherm® was used historically in this area by Hercules in connection with the water technologies business, and the presence of this constituent in soil is likely a result of past incidental releases from the piping system. The soil surrounding the pipe was excavated as part of the planned construction, and the pipe was plugged with concrete mix and a plumbers cap.

Approximately 229 cubic yards of soil were excavated from the Kymene® Reactor construction area and stockpiled at the site. The stockpiled soil was placed atop of polyethylene sheeting and on an impervious concrete pad. The soil piles were also covered with polyethylene sheeting while staged at the site. The stockpiles were sampled for volatiles and semivolatiles by the toxicity characteristic leaching procedure (TCLP) and for PCBs by USEPA Method 8082A. Laboratory analytical results indicate that all of the stockpiled soil was below detection limits for the TCLP analyses and only two of the nine stockpiles had positive detections of PCBs: stockpile samples #2 and #5. The stockpiled soil from this location was below detection limits for all analyzed compounds. The stockpiled soil was characterized as non-hazardous waste based on the sample results and was disposed of at the Republic Services Broadhurst facility in Screven, Georgia. A photo log of the excavated area and stockpiled soil is included as **Appendix F**. The analytical results from the discrete soil sample collected from location #3 and from the TCLP samples collected from the stockpiled soil are provided in **Appendix C**.

4. Updated Conceptual Site Model

Site investigations of soil and groundwater have been conducted at the site since 2000 to identify potential source areas of hazardous constituents, and to provide horizontal and vertical delineation of impacts. As indicated in Section 3.2, groundwater impacts are delineated horizontally and vertically and impacts are confined to the site.

Delineation of impacts in soil is not yet complete, but available data indicate that impacts are confined to isolated areas of the site. The general lack of source-areas combined with the low hydraulic conductivity typical of the shallow saturated zone have resulted in minimal vertical and lateral areas of hazardous constituent impact. Geologic cross sections have been prepared to illustrate the current subsurface conditions at the site, and transect locations are provided on **Figure 9a**. The cross-sectional geologic interpretations of subsurface conditions provided on **Figure 9b** (along the groundwater flow direction), **Figure 9c** (perpendicular to site-wide groundwater flow), and **Figure 9d** (along the groundwater flow direction on the eastern side of the site) include the November 2014 groundwater analytical results, August 2014 soil analytical results, and historical soil analytical results.

The A-A' transect is oriented parallel to Dundee Canal and passes through the ASTs 30's area and the Former CTO tank area. This cross-section illustrates a lack Type 1/2 RRSs exceedances in soil and Type 1 RRSs in groundwater. Cross-section B-B' is oriented northwest to southeast and represents site conditions at several potential source areas. The only groundwater Type 1/4 RRS exceedance (MW-F21) is shown and its limited extent and proximity to other site features is illustrated. The limited extent off 1,1-biphenyl detections in soil above the Type 1/2 RRS is illustrated on the northwest portion of the figure. Cross-section C-C' was prepared to illustrate additional potential source areas as requested by EPD in their letter dated January 10, 2014. The locations of the Former CTO ASTs 60's area, the Former Tall Oil Plant, the Former Dowtherm Unit, and the Primary Oil/Water Separator are represented in this cross-section. This figures illustrates how limited positive detections of regulated constituents are along this transect and that none of the results are above delineation standards.

4.1 Contaminants of Potential Concern

The following is a list of confirmed COPCs detected at the site.

Soil: 1,1-biphenyl, Aroclor 1254, and Aniline

Groundwater: Naphthalene

Sediment/Surface Water: Total Dioxin and Furan TCDD (sediment)

5. Risk Assessment

Both a human health risk assessment (HHRA) and a screening level ecological risk assessment (SLERA) were conducted for the site following EPD VRP requirements consistent with USEPA guidance for risk assessments (USEPA 2014a,b,c,d,e; 2009; 2004; 2002; 1998; 1997; 1989) in consideration of EPD recommendations and comments in their December 29, 2014 letter. The purpose of the risk assessments was to evaluate the effect of potential exposures to site-related constituents to human and ecological receptors identified at the site. Because the data at the site are shared by both the HHRA and the SLERA, the data are presented first and followed by separate sections for the HHRA and the SLERA. The RRSs used in the assessments are those approved by EPD in their January 10, 2014 comment letter (**Table 1**). Tables supporting the risk assessment are presented in **Appendix G**.

5.1 Data Evaluation

Data were evaluated for usability and risk assessment datasets were developed. Only data that are representative of current conditions were used in the risk assessments. In this section, the methods that are used to evaluate the data acquired during investigational activities and to identify risk assessment datasets are summarized.

5.1.1 Data Quality

Quality assurance and quality control procedures were routinely used during investigation activities to evaluate analytical data quality. Analytical data from the laboratory were validated to evaluate the sample preservation and shipping methods, holding times, laboratory blanks, laboratory control samples, and matrix spikes.

5.1.2 Data Usability

The available data from all investigations were evaluated for use in the risk assessments. The following were considered in the data evaluation: sample date, sample type (e.g., primary or duplicate), data qualifications, and the vertical and spatial distribution of the data.

5.1.3 Sample Date

Using old data potentially leads to uncertainty in the risk assessment as concentrations from old data may not be reflective of current conditions due to chemical transformation

and transport processes such as degradation and volatilization. However, it is often unavoidable with soil data at a site when investigation activities have spanned several years. At this site, soil data have been gathered starting in 1998 and the most recent data were collected in 2014. All soil data, regardless of age, were used in the risk assessments. For groundwater, data from the last two years (2013 and 2014) were used in the risk assessments to reflect current conditions. This is because several of the constituents are known to degrade over time and thus historical groundwater data could over estimate potential exposure and subsequent risk.

5.1.4 Sample Type

Where there are duplicate results due to field duplicate samples or duplicate analyses (e.g., naphthalene), the maximum detected concentration or the minimum detection limit for non-detected constituents was used as the concentration. Further, data from composite soil samples were not used in the risk assessments.

The results of two historic samples taken at a location referred to as “Confirmation Sample” were excluded from the risk assessment datasets. An unsubstantiated concentration of acrolein equal to the reporting limit was reported in 2000 at that location (as documented in the February 2011 response to EPD comments on the 2009 CSR Addendum No. 2), therefore, the area was resampled in August 2014 (consistent with VIRP Work Plan) and a sample at SB-131 was acquired. The results from sample SB-131 will be used in lieu of historic results at same location.

5.1.5 Data Qualifications

All qualified data with the exception of rejected data were assessed for inclusion in the risk assessment dataset. Laboratory-qualified data with the following data qualifiers were retained within the dataset:

- U = Not detected above reporting limit.
- B = For organic constituents, analyte was also detected in the blank, and for metals, analyte concentration is estimated.
- D = Compounds identified in an analysis at a secondary dilution filter.
- E = Result exceeded calibration range.

- G = The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference.

- J = Value is estimated.

5.1.6 Vertical and Spatial Data Distribution

Groundwater data collected from the surficial saturated zone were combined into the groundwater risk assessment dataset, consistent with USEPA recommendations (USEPA 2014c).

Soil data were also excluded from the risk assessments if the data were collected from outside the VRP site boundaries, were considered saturated soil, or came from composite samples. The site is defined as the two tracts that comprise HSI Site ID No. 10696 that are owned by Solenis but whose environmental impacts are being managed by Hercules (**Figure 1**). Data from those two parcels were used in the risk assessments. Data from areas outside those two parcels were excluded. Saturated soil samples were excluded from the risk assessment dataset because those data are reflective of groundwater conditions and not soil conditions. Further, exposure to soil at that depth is not likely to occur because it is highly unlikely that any excavation at the site will be deeper than 6 feet (for example, as may be required for basements) because of the shallow depth to groundwater at the site. The only excavation expected would be related to trenches for utility installation, which are typically between 3 to 6 feet in depth. Sample locations and sample names and depths excluded from the risk assessments and the reasoning are presented in **Appendix G, Table G-1.**

5.1.7 Evaluation of Constituent Classes

Some constituents, especially those in the same class of compounds, behave similarly, and therefore were grouped together for evaluation in the HHRA, as discussed below.

The toxicity of dioxins, furans, and dioxin-like PCBs (non-orthosubstituted PCB congeners: PCB-77, -81, -126, -169 and the mono-ortho substituted PCB congeners: PCB-105, -114, -118, -123, -156, -157, -167, and -189) has been studied in relation to the toxicity of TCDD. The data for PCB-180 were reported by the laboratory as PCB-180/193; thus, assuming the reported concentrations of these two PCBs are equivalent to PCB-180 may be a conservative assumption. To evaluate exposure to these compounds, their TCDD TEQs were calculated using the USEPA recommended toxicity equivalency factors (TEFs; USEPA 2010b).

The following groups of constituents were prepared for evaluation in the HHRA:

- Total Dioxin and Furan TCDD TEQ: The sum of TEQs of the dioxins and furans.
- Total Dioxin-like PCBs TCDD TEQ: The sum of the TEQs of the dioxin-like PCB congeners
- Total Dioxin, Furan, and Dioxin-like PCBs TCDD TEQ: The sum of Total Dioxin and Furan TCDD TEQ and Total Dioxin-like PCBs TCDD TEQ
- Total non-dioxin-like PCBs: The sum of all PCB congeners not considered to be dioxin-like.

The total concentrations in each sample for each constituent class are calculated and presented in **Appendix G, Table G-2** for soil and **Appendix G, Table G-3** for sediment. Individual compounds (e.g., individual PCB congeners) listed for groups of compounds (i.e., total dioxin-like PCBs) were not included in the estimation of total concentration if they are non-detect (qualified with "U" or "UJ"); and non-detect values were set equal to zero. Further, when calculating TEQ for dioxins, results for some samples (two samples from 2000) were reported for specific dioxin congeners (e.g., 2,3,4,7,8-Pentachlorodibenzofuran) as well as for totals (e.g., total Pentachlorodibenzofurans) while results for other samples (seven samples from 2014) were reported as totals only. For consistency, the values for totals were used in calculating the TEQ using congener-specific TEFs, which is conservative because they include more than the specific congener for which a TEF is available (**Appendix G, Table G-2**). Chlorine in the 2,3,7,8-positions on the dibenzodioxin and dibenzofuran molecules is what increases the toxicity of the congener. If chlorine is not present in all four of these locations, then the congener is not generally considered in the TEF calculation because of little to no toxicity.

5.1.8 Risk Assessment Datasets

The risk assessment datasets that were compiled for use at the site were summarized in tables to present: the frequency of detection, the range of detection limits, the range of detected values, and the location and depth (for soil) or date (for groundwater) of the sample where the maximum detect was identified. The soil Type 1/2 RRSs and the groundwater Type 1 RRS are also shown in those tables. The risk assessment datasets are discussed below:

5.1.8.1 Soil

Soil sample locations are presented in **Figure 4**. The soil risk assessment dataset is summarized in **Appendix G, Table G-4**. The only constituents present at maximum concentrations that are above both residential and non-residential RRSs are: aniline, 1,1-biphenyl, and Aroclor 1254. As mentioned in Section 3.3.2.1, 1,1-biphenyl has been detected at concentrations exceeding RRSs at the former Dowtherm® Units - located on the western and eastern portions of the site. The maximum detected concentration of 1,1-biphenyl was 4,400 mg/kg detected in the 0 to 1 foot sample at SB-128 and the next highest concentration was 700 mg/kg at EX-19. Also, as discussed in Section 3.6.3.2, Aroclor 1254 was detected in only two out of 26 samples at borings SB-122 and SB-137, at concentrations greater than the Type 1/2 RRSs.

5.1.8.2 Groundwater

Groundwater sample locations are presented in **Figure 6**.The groundwater risk assessment dataset is summarized in **Appendix G, Table G-5**. The only constituents present at maximum concentrations above the Type 1 RRS are benzene and naphthalene. These constituents were detected at concentrations above the Type 1 RRS in only one well, MW-F21, within the last two years. These impact appears to be localized since the constituents were not detected in downgradient well MF-5 (see Section 3.2.2).

5.1.8.3 Sediment

Sediment sample locations are presented in **Figure 7**. The only detected constituents in sediment were acetone and dioxins and furans as summarized in **Appendix G, Table G-6**. Acetone was present at concentrations below the RRS while the Total Dioxin and Furan TCDD TEQ was above the soil type 1/2 RRS.

5.1.8.4 Surface Water

Surface water sample locations are presented in **Figure 7**. The only detected constituents in surface water were ammonia, fluoride, and n-Nitrosodi-n-butylamine. Georgia In-stream criteria were not available for those constituents (Georgia EPD 2011); therefore they were compared to groundwater Type 1 RRSs. The only constituent detected constituents at maximum concentrations that were above the Type 1 RRS was n-Nitrosodi-n-butylamine as summarized in **Appendix G, Table G-7**.

5.2 Human Health Risk Assessment

Consistent with the USEPA HHRA framework (USEPA 2014b), the first step of the HHRA is the human health problem formulation – or the human health exposure conceptual site model (CSM). Following the development of the CSM, the other elements of the HHRA are presented in the following order: selection of constituents of potential concern (COPCs) and media of concern, toxicity assessment, exposure assessment, and risk characterization. Each of these elements of the HHRA is described in more detail below.

5.2.1 Human Health Exposure Conceptual Site Model

The human health exposure CSM identifies the sources of potential impact and constituent fate and transport mechanisms, primary receptors, exposure points, and exposure routes. Combined, these four elements (source, transport mechanism, receptors, 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.

5.2.1.1 Sources

The site has been in operation since 1922. The plant was a rosin and paper chemical manufacturing facility. Historical site operations included distillation of crude tall oil and production of sizing release agents, emulsifiers, coating agents, defoamers, fatty acid esters, disproportionated rosin and polyamides. Several releases have occurred and thus a variety of potential source areas exist as the facility. Historic operations could have impacted soil, groundwater, sediment, and surface water at the site.

5.2.1.2 Transport Mechanisms

The mechanisms affecting the distribution and migration of constituents from the release source and their ultimate fate in the environment were identified in the VIRP work plan (ARCADIS 2014). 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

5.2.1.3 Potential Human Receptors

The site is currently occupied by an active 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. 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. Zoning at the site is industrial and is expected to continue to remain as such. Therefore, the only on-site 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.

5.2.1.4 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 discussed below.

<u>Groundwater Exposure Pathways</u>

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 1-mile radius of the site. Four production wells were identified within the 1-mile search radius in addition to the wells owned and operated by Solenis at the site. Data provided in the Environmental Data Resources, Inc., 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 Floridian 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 1-mile radius of the site. No off-site 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.

Potential Soil Exposure Pathways

The parcels are is almost completely covered with buildings or other structure; 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 on-site construction/excavation worker. Further, in the case of potential 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 On-site Industrial Worker – inhalation of vapors from the subsurface.

- Future On-site Industrial Worker – incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.

- Current/Future On-site Construction/Excavation Worker – incidental ingestion of and dermal contact with soil, and inhalation of soil-derived particulates or vapors.

Sediment and Surface Water Exposure Pathways

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 man-made structure that extends through the City of Savannah. No industrial discharge from the former Hercules facility other than storm drainage and non-contact waters enters Dundee Canal, and industrial wastewater is discharged to the City of Savannah sanitary sewer system under Industrial Discharge Permit No. 25348-15. On-site surface water consists of overland flow during precipitation events and surface water that flows through the underground conduit portion of Dundee Canal.

The potential for exposure to constituents in sediment and surface water in the open sections of the ditch and canal is low due to the infrequent use of the ditch in this area by potential receptors. The potential for exposure to constituents in sediment and surface water at onsite locations is negligible for the industrial worker receptor under current conditions due to the remote location of those 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).

The recreational value of the canal offsite immediately upgradient and downgradient from the site is low as it is a man-made drainage feature with limited potential to support recreational activities (boating, fishing, swimming, etc.). Potentially complete exposure pathways in offsite portions of the Dundee Canal include the following:

- Current/Future Youth Trespasser: incidental ingestion of and dermal contact with sediment and surface water and inhalation of vapor from sediment and surface water and sediment-derived particulates.

5.2.2 Selection of Constituents of Potential Concern

The COPCs are constituents that are expected to contribute the majority of potential exposure and risk, consistent with USEPA (1989) guidance. COPC identification constitutes a conservative, health-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 constituent can be considered a common laboratory contaminant. The VRPA states that, “compliance with site specific cleanup standards shall be determined on the basis of representative concentrations of constituents of concern in soils across each applicable soil exposure domain and the representative concentrations for groundwater at a point of exposure”. Therefore, COPCs were selected based on a comparison of representative concentrations to both residential and non-residential RRSs as well as USEPA risk-based vapor intrusion screening levels (VISLs; USEPA 2014e).

The representative concentrations (also referred to as the exposure point concentrations [EPCs]) were estimated consistent with USEPA methodology (USEPA 2014c, 2002, 1989). The EPC was set at the lower of the maximum concentration and the upper confidence limit on the mean (UCL) as recommend by USEPA. The UCL is a statistical number calculated to represent the mean concentration with a high percentage of confidence that the true arithmetic mean concentration will be less than the UCL. The high level of confidence (e.g., 95 percent or higher) is used to compensate for the uncertainty involved in representing site conditions with a finite number of samples. The USEPA’s ProUCL software - version 4.1 (USEPA 2010a) was used to calculate UCLs when sufficient data were available (a minimum of five detections and eight samples).

5.2.2.1 Soil

Three constituents (1,1-biphenyl, aniline, and Aroclor 1254) were detected at maximum concentrations exceeding RRSs in localized areas at the site (**Appendix G, Table G-4**). These three constituents were selected as initial COPCs. The EPCs (where calculable) for those three constituents also exceeded both residential (Type 1/2) and non-residential (Type 3/4) RRSs; therefore, they were selected as COPCs (**Appendix G, Table G-8**).

5.2.2.2 Groundwater

To select groundwater COPCs for direct contact pathways, the EPCs for constituents detected at maximum concentrations exceeding Type 1 RRSs for the last two years (i.e., benzene and naphthalene as seen in **Table G-5**) were compared to the groundwater residential and non-residential RRS (**Appendix G, Table G-9**). The EPC for benzene exceeded the residential RRS but not the non-residential RRS. The EPC for naphthalene exceeded both the residential and non-residential RRSs. Therefore, naphthalene was selected as a groundwater COPC for the non-residential scenario (**Appendix G, Table G-9**). However, direct exposure to groundwater is not evaluated further for several reasons. The presence of naphthalene in groundwater appears to be localized to the vicinity of MW-F21 since it was not detected in downgradient well MF-5 (**Figure 6a;** Section 3.2.2). Further, as described in detail in **Section 5.2.1.4,** the drinking water exposure pathway was not considered complete for the site. Therefore, naphthalene in groundwater was not assessed for direct exposure pathways.

To select groundwater COPCs for the vapor intrusion pathway, concentrations for all detected volatile constituents in the groundwater risk assessment dataset (i.e., acetone, benzene, naphthalene, tetrachloroethene) were compared to VISLs current at the time of the HHRA (USEPA 2014e) for both a residential and commercial scenario. VISLs were identified for an acceptable target cancer risk of $1x10^{-5}$ and target hazard of 1 (consistent with RRS calculation methods). All detected volatile constituents in groundwater were present at maximum concentrations well below the VISLs, indicating that risk from the vapor intrusion pathway is below acceptable levels (**Appendix G, Table G-9).**

5.2.2.3 Sediment

The only constituents detected in sediment were acetone and dioxins and furans. Maximum levels of both acetone and 2,3,7,8-TCDD TEQ were below both the residential RRSs and the non-residential RRSs (**Appendix G, Table G-6**). Therefore, sediment COPCs were not identified.

5.2.2.4 Surface Water

The only constituent detected in surface water at levels above groundwater Type 1 RRS used in the absence of Georgia In-Stream values is n-nitrosodi-n-butylamine (**Appendix G, Table G-7**). However, n- nitrosodi-n-butylamine was not detected at offsite locations and was only detected at onsite location SW-2 and as previously

discussed (Section 5.2.1.1). Exposure to sediment and surface water onsite is not a complete exposure pathway. Since no constituents were present at maximum concentrations exceed type 1 RRS at offsite locations (i.e., SW-1 and SW-2), COPCs in surface water were not identified.

5.2.3 Toxicity Assessment

The toxicity assessment describes the relationship between the administered and/or the absorbed dose of a constituent and the magnitude or likelihood of adverse health effects (USEPA 1989). Toxicity values for potential non-carcinogenic and carcinogenic effects were obtained consistent with the recommended USEPA hierarchy (USEPA 2003, 2015a) and the latest USEPA guidance (USEPA 2004, 2009) for the soil COPCs. The following sources were used to obtain toxicity values, in the order in which they are presented below.

- USEPA's Integrated Risk Information System (IRIS; USEPA 2015b)
- USEPA's Provisional Peer Reviewed Toxicity Values (PPRTVs; USEPA 2015c)
- The USEPA Superfund program's Health Effects Assessment Summary Tables (USEPA 2015d).

Toxicity values are summarized in **Appendix G, Table G-10**.

5.2.4 Exposure Assessment

Exposure assessment is the process of measuring or estimating the intensity, frequency, and duration of human exposure to substances present in the environment, which is dependent on the EPCs and the receptor exposure assumptions. The exposure assessment focused on the receptors identified in the human health exposure CSM for COPCs identified at the site. The following receptors and exposure pathways were quantitatively assessed in the risk assessment for site COPCs in soil; aniline, 1,1-biphenyl, and Aroclor 1254.

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

To estimate the dose for the receptors, soil EPCs were combined with standard exposure assumptions. Dermal absorption factors (ABSd) for assessing the soil dermal pathway, particulate emission factors (PEF) for assessing COPCs adhered to dust, and volatilization factors (VFs) for assessing volatile COPCs were identified from USEPA Regional Screening Level Tables (USEPA 2015a). Receptor exposure assumptions were also obtained from USEPA sources (USEPA 2014d, 2004).Receptor exposure assumptions are receptor- and scenario-specific values that are used in the risk calculations (e.g., body weight and ingestion rates). Receptor exposure assumptions were selected so that the risk calculated is for the reasonable maximum exposure (RME) scenario. These input values are summarized in **Appendix G, Table G-11** and **Table G-12** for an industrial worker receptor and a construction worker receptor, respectively.

5.2.5 Risk Characterization

Risk characterization is the final step in the risk assessment process. In this step, the results of the hazard identification, exposure assessment, and toxicity assessment are integrated to yield a quantitative measure of carcinogenic risk and non-carcinogenic hazards. Potential carcinogenic risks and non-carcinogenic hazards are evaluated for COPCs for the receptors and exposure pathways identified in Section 5.2.1.

Constituent-specific excess lifetime cancer risk (ELCR) estimates and non-cancer hazard quotients (HQs) were calculated for each of the COPCs. Constituent-specific ELCRs and HQs were then summed to get an additive cancer risk (total ELCR) and an additive non-cancer hazard index (HI). The target non-cancer HIs were compared to the target level of 1 while the total ELCRs were compared to USEPA's target risk range of 1×10^{-4} to 1×10^{-6} consistent with the National Contingency Plan (NCP) as presented in the Code of Federal Regulations (40 CFR 300.430). The equations used to estimate risk as well as the input parameters are summarized in **Appendix G, Table G-11** and **Table G-12** for an industrial worker receptor and a construction worker receptor, respectively.

5.2.5.1 Future On-site Industrial Worker

The calculation of HQs, HIs, and ELCRs for exposure to COPCs in soil for an industrial worker receptor is presented in **Appendix G, Table G-11** together with all the equations and input variables used. The HI for both direct contact with soil (incidental ingestion, dermal contact, inhalation of vapors, and COCPs adhered to dust) is 0.7, which is below the target HI of 1. The total ELCR across the same pathways is 3×10^{-6}

and the calculated cancer risk driver in soil is Aroclor 1254. Aroclor is classified by USEPA as a class B2 carcinogen: sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans (USEPA 2015b). As such, under RRS methodology, the target cancer risk for it is $1x10^{-5}$. The total ELCR calculated is within the USEPA target risk range of 1×10^{-4} to 1×10^{-6} and below the Georgia EPD decision point of $1x10^{-5}$ (used in RRS calculation methods). This indicates that risk to a future industrial worker receptor is less than target acceptable levels.

5.2.5.2 Current/Future Construction Worker

The calculation of HQs, HIs, and ELCRs for exposure to COPCs in soil for an industrial worker receptor is presented in **Appendix G, Table G-12** together with all the equations and input variables used. The HI for both direct contact with soil (incidental ingestion, dermal contact, inhalation of vapors, and COPCs adhered to dust) is 0.4, which is below the target HI of 1. The total ELCR across the same pathways is 2×10^{-7}, which is well below the USEPA target risk range of 1×10^{-4} to 1×10^{-6} as well as the Georgia EPD decision point of $1x10^{-5}$. This indicates that risk to a future industrial worker receptor is below acceptable levels.

5.2.6 Results

COPCs were not identified for further evaluation in groundwater, sediment, or surface water for the exposure scenarios considered. The only COPCs identified for human health were aniline, 1,1-biphenyl, and Aroclor 1245 in soil. Cancer risk and non-cancer hazard were estimated for those COPCs for the receptors identified at the site using USPEA recommended methods. Risk to both an industrial worker and a construction worker were within or below the USEPA target risk range of 1×10^{-4} to 1×10^{-6} as well as the Georgia EPD decision point of $1x10^{-5}$, and the non-cancer hazard was well below the target HI of 1. In conclusion, risk to an industrial worker and a construction worker was below acceptable levels.

5.3 Screening Level Ecological Risk Assessment

A SLERA was conducted to assess the impact of constituents present at the site on ecological receptors. The SLERA was conducted in a manner consistent with USEPA (1997) guidance. The SLERA for the site is comprised of the first step in the USEPA ecological risk assessment process: Screening-Level Problem Formation and Screening Level Ecological Effects Evaluation.

5.4 Screening-Level Problem Formation

The screening-level problem formulation presents a habitat assessment for the site, receptors and ecosystem characteristics, as well as information on the sources of stressors potentially affecting ecological receptors at the site (USEPA 1998, 1997). This section also describes the potential presence of threatened and endangered species at the site, and finally it identifies the ecological function and wildlife use at the site.

5.4.1 Habitat Assessment

An ARCADIS ecologist performed a reconnaissance-level ecological field survey of the site on August 26, 2014. The site assessment comprised lands occurring within the boundaries of HSI ID No. 10696 and was conducted to categorize and assess ecological habitats within the site, to identify and document wildlife using the site, and to determine whether the site contains habitat that may support federal and/or state-protected wildlife resources. A photo log of select photos taken during the habitat assessment is included in **Appendix H**. Further, habitat information gathered in the habitat assessment is summarized in figures included in **Appendix H**.

The habitat types present at the site are represented in **Appendix H, Figure H-1**. Observed habitat composition of the 32.5-acre facility is estimated as follows:

1) 1.24 acres of mixed hardwoods along southern property limit:

   - Species: water oak (*Quercus nigra*), sweet gum (*Liquidambar styraciflua*), sugarberry (*Celtis laevigata),* and various pines *(Pinus spp.;)*

2) 2.11 acres of decommissioned operational area with early successional shrub/scrub cover;

3) 2.38 acres of decommissioned operational area with recruited grass cover;

4) 2.70 acres of decommissioned operational area with exposed soil and gravel cover;

5) 1.43 acres of operational area with lawn grass cover (bahia grass [*Paspalum notatum*]);

6) 0.25-acre fire water storage pond;

7) 1.63 acres of open, maintained railroad right-of-way; and

8) 20.76 acres of operational area comprised of buildings, structures, and various other semi- and non-permeable ground covers.

One potential emergent/shrubby wetland (**Appendix H, Figure H-2**) occurs within site boundaries linear surface water feature (**Appendix H, Figure H-3**) and one. Both features have potential for identification as aquatic habitats subject to regulation under Section 404 of the Clean Water Act. The linear surface water feature is an artificial (excavated – highly channelized) Savannah River tributary known as the Dundee Canal. Canal waters flow northeastward through the eastern portion of the site via the following channel types and structures:

Reach 1 is 95 linear feet of open channel comprised of natural substrate/bed material and rooted bank vegetation dominated by alligator weed (*Alternanthera philoxeroides*), arrow arum (*Peltandra virginica*), lizard tail (*Saururus cernuus*), maiden cane (*Panicum hemitomon),* and *Scirpus* spp.

- Observed water quality consisted of slightly turbid, low-velocity flowing water with moderate filamentous algae presence.

- Observed aquatic fauna consists of sunfish/bream (Lepomis spp.), juvenile bass (Micropterus sp.; likely largemouth bass, M. salmoides), and top minnows (Fundulus spp.).

Reach 2 is 710 linear feet of subsurface concrete pipe with three junction drop-boxes/manways where storm water from portions of the eastern site sector discharges to the Dundee Canal waters. The drop-boxes have slightly elevated, grated manways.

- Observed water quality within the drop-boxes appeared less turbid than Reach 1.

- The southern junction drop-box receives storm water from the truck loading dock. This drop-box has a manual gate that is maintained in the closed position to prevent storm water from discharging to Dundee Canal waters until after a visual inspection of the storm water is performed.

- The central and northern drop-boxes receive overflow discharge from the fire water pond.
  - o Water within the pond is comprised of pumped groundwater.
  - o Vegetation/algae control consist of water darkening agent application and stocking grass carp.

Reach 3 is 50 linear feet of open channel that is confined by walls of an open-top, vault-type, concrete structure where Dundee Canal waters are mixed with discharged non-contact process water before entering a culvert inlet that leads to the facility outfall.

- Non-contact process waters originate from pumped groundwater used for cooling purposes. Temperatures of discharged process waters are typically elevated above background canal water temperatures.
- The vault structure is equipped with gates to prevent discharge in the event of a spill, and may also be used to prevent intrusion by storm surge waters.
- Substrate within the vault structure appeared to mimic natural stream/canal bed conditions, and two active bream beds were observed inside the primary cell of the vault.
- Rooted aquatic/semi-aquatic vegetation has established within the vault structure, and is dominated by duck potato (*Sagittaria lancifolia*).
- Observed aquatic fauna consists of sunfish/bream, juvenile bass, and top minnows.
- A large amount of shells of American ribbed fluke snail (*Lymnaea columella;* an amphibious snail) were observed along elevated pipe/pole structures.

5.4.2 Threatened and Endangered Species

Federally listed species and designated critical habitat data for Chatham County and the general property area were obtained from the Information, Planning and Conservation System (IPAC) and the Environmental Conservation Online System (ECOS) databases managed by the U.S. Fish and Wildlife Service (USFWS). No designated critical habitat occurs within, or adjacent to, the property.

The site was surveyed for the presence of preferred habitats specific to each of the 17 federally protected species identified by USFWS database queries. One area of potentially suitable habitat for the endangered pondberry shrub (*Lindera melissifolia*) was identified during the field survey. This area of potential habitat is located within the excavated depression of the potential wetland area associated with Reach 1 of the Dundee Canal channel. Although suitable habitat may be present, there are no known occurrences of the pondberry shrub or any other threatened or endangered species at the site. No additional suitable/preferred habitats for protected species were observed. The federally protected species listed as potentially occurring in Chatham County and comments regarding their habitat as related to the site are presented in **Appendix G, Table G-13**.

5.4.3 Ecological Function / Wildlife Use

This is an active industrial site located within a heavily developed urban area comprised of mixed commercial, industrial, residential, and transportation land uses. Available terrestrial wildlife habitats within the general area are substantially fragmented by transportation corridors, and mixed residential, commercial, and industrial developments. The site is isolated from large tracts of forested habitat located north and west of the property by the U.S. Highway 80 corridor to the north and the Chatham Parkway and Interstate 16 corridors to the west and south. Activity related to facility operations, maintenance, and landscaping of facility grounds and the well-maintained perimeter security fence of the largest property parcel (Parcel 2-0734-01-001) exclude large mammal access and restrict use by small mammals and other terrestrial fauna. The 1.24 acres of mixed hardwoods in southern portion of the property (**Appendix H, Figure H-1**) was never associated with past operations and is therefore un-impacted. Overall, terrestrial wildlife within the site evaluation boundary is considered minimal and therefore a SLERA of the terrestrial habitat was not warranted.

Dundee Canal provides cover and forage habitat for aquatic, semi-aquatic, and amphibian fauna. Use of the Dundee Canal reach within the property boundary for amphibian breeding habitat is substantially repressed by the presence of predatory fish. Dundee Canal and wetlands in the off-site area may provide suitable ecological habitat for aquatic wildlife and could be a point of exposure to site-related constituents if they should be present in surface water or sediment. Therefore, the SLERA focused on the aquatic ecological habitat represented in the Dundee Canal.

5.5 Screening Level Ecological Effects Evaluation

In this step, maximum constituent concentrations in sediment and surface water collected from the Dundee Canal were compared to the applicable ecological screening values (ESVs). ESVs are constituent concentrations in environmental media below which there is negligible or insignificant risk to receptors exposed to those media. ESVs were identified from the following sources:

- Georgia In-stream standards (Georgia EPD 2011)
- USEPA Region 4 Ecological Screening Values (USEPA 2001)
- USEPA Region 5 Ecological Screening Values (USEPA 2003a)
- USEPA Region 3 Ecological Screening Values (USEPA 2006).

Where concentrations in sediment and/or surface water exceeded the conservative ESVs, constituents were selected as contaminants of potential ecological concern (COPECs). Considering, the conservatives of the ESVs, alternative screening values (ASVs) were identified to refine the probable effect of these constituents on ecological receptors in the Dundee Canal and to select refined COPECs if warranted, consistent with USEPA risk assessment methods (USEPA 1998, 1997). The selection of potential COPECs and the refinement of those COPECs is presented together in **Appendix G**, **Table G-14** for sediment and **Appendix G**, **Table G-15** for surface water to avoid redundancy and is described in the sections below.

5.5.1 Sediment

The comparison of sediment data to ESVs is presented in **Appendix G, Table G-14**. The only detected constituents in sediment were acetone and dioxins and furans as summarized in **Appendix G, Table G-14**.

Acetone was present in one out of three samples at a maximum concentration of 0.1 mg/kg, which exceeds the Region 5 ESV of 0.0099 mg/kg. Further, total Dioxin and Furan TCDD TEQ in sediment was reported above the Region 4 ESV of 0.0000025 mg/kg in all three sediment samples. Therefore acetone and Dioxin and Furan were considered screening level COPECs and carried further for further refinement as described below.

5.5.1.1 Acetone

Acetone was detected in 1 of 3 samples at on-site location SED-2 but not at the two other locations (i.e., SED-1 and SED-3), at a maximum concentration of 0.1 mg/kg. It should be noted that the quality of aquatic habitat at the SED-2 location is much poorer than the other two locations where acetone was not detected (**Appendix H, Figure H-3**). Acetone is a naturally occurring constituent and is a common laboratory contaminant and its detection in the sediment sample may not be related to activities at the site. The ESV for acetone from USEPA Region 5 for sediment (USEPA 2003a) was calculated by the USEPA using the equilibrium partitioning approach. The equilibrium partitioning approach was developed by USEPA (2003b) to allow the development of sediment quality benchmarks (SQBs) for hydrophobic organic constituents (e.g., polycyclic aromatic hydrocarbons [PAHs]). This standard approach uses the mass fraction of organic carbon (foc) in sediment and the constituent-specific partition coefficient between water and organic carbon (Koc) to calculate sediment quality benchmarks, using the water quality benchmark (WQB) as follows:

$$SQB = WQB \times K_{oc} \times f_{oc}$$

This approach assumes that the bioavailable fraction of non-polar organic compounds is equivalent to the fraction of the sediment concentration that is freely dissolved in interstitial water, and that the freely dissolved fraction is determined primarily by the extent of partitioning to organic carbon. The applicability of the equilibrium partitioning approach to non-polar nonionic organic compounds has been extensively validated by USEPA (2003b). However, the original equilibrium partitioning equation (provided above) is ineffective for assessing less-hydrophobic organic compounds in sediment (like acetone), because it fails to account for the contribution of dissolved chemical to the total chemical concentration in sediment (USEPA 2008). For constituents having low Koc values, this results in SQBs that are more conservative than benchmarks calculated by assuming 100 percent bioavailability. For those constituents, the modified equilibrium partitioning equation that corrects for the dissolved fraction of total chemical concentrations in sediment (USEPA 2008) can be used to calculate the modified sediment quality benchmarks (MSQB).

$$MSQB = WQB \times \left[\left(f_{OC} \times K_{OC} \right) + \left(\frac{1 - f_{solids}}{f_{solids}} \right) \right]$$

Concentrations at the site were compared to the MSQB calculated for acetone. The MSQB for acetone was calculated to be 1.7 mg/kg using a Koc value of 1.98, default values for sediment organic carbon content of 1 percent and a solids content of 50 percent, and the WQB from USEPA Region 5 (1.7 mg/L; USEPA 2003a). Therefore acetone was not selected as a refined sediment COPEC.

5.5.1.2 Dioxin and Furnas

The Total Dioxin and Furan TCDD TEQ in sediment was reported above the Region 4 ESV of 0.0000025 mg/kg in all three sediment samples collected from Dundee Canal. However, the basis for the Region 4 ESVs is a laboratory detection limit rather than an ecological endpoint; therefore, an ASV based on an ecological response was sought. A sediment Probable Effects Level (PEL) calculated by the Water Quality Guidelines Task Group of Environment Canada (EC) for TCDD TEQ of 0.0215 mg/kg (EC 2015) was identified. Based on comparison of the maximum detected TCDD TEQ value in sediment of 0.00003 mg/kg to the ASV set to the EC PEL, dioxin was not selected as a refined sediment COPEC.

5.5.2 Surface Water

The only detected constituents in surface water were ammonia, fluoride, and n-Nitrosodi-n-butylamine (**Appendix G, Table G-15**). Georgia In-stream criteria were not available for those constituents (Georgia EPD 2011). ESVs for those constituents were also not available from USEPA Region 4 or 5 (USEPA 2001, 2003). However, ESVs for ammonia and fluoride were available from USEPA Region 3 (USEPA 2006). The maximum concentration of fluoride in surface water was below the USEPA Region 3 ESVs while the maximum concentration of ammonia was above the ESV (**Appendix G, Table G-15**). Therefore, ammonia was selected as a potential COPEC.

To further assess the probable effect of ammonia on ecological receptors in the Dundee Canal, the basis of the ESV was investigated and an ASV was identified. The USEPA Region 3 ESV for ammonia is based on value from 2003. A more recent assessment of ammonia in surface water done by USEPA resulted in the establishment of USEPA Ambient National Water Quality Criteria (NAWQC; USEPA 2013b). The maximum detected ammonia concentration of 0.32 mg/L is well below the USEPA chronic NAWQC for ammonia of 19 mg/L at a pH of 7 and a water temperature of 20°C. Therefore, ammonia was not selected as a refined surface water COPEC.

An ESV or ASV for n-nitrosodi-n-butylamine could not be identified for this evaluation. N-nitrosodi-n-butylamine is a volatile organic compound that was in general, detected infrequently and at a relatively low concentration. N-nitrosodi-n-butylamine was detected at onsite location SW-2 where Dundee Canal is considered to represent, at best, marginal aquatic habitat (**Appendix H, Figure H-3**). Furthermore, this constituent was not detected in surface water samples SW-1 and SW-3. Therefore n-nitrosodi-n-butylamine is not expected to contribute significantly to potential risk for aquatic ecological receptors in Dundee Canal.

5.6 Results

Risks were characterized for aquatic wildlife receptors at the site based on comparisons to ESVs, with emphasis on the weight-of-evidence, such as conservatism of the ESVs and the quality of the available habitat. None of the constituents detected in sediment or surface water were identified as refined COPECs, and no further evaluation of sediment or surface water is warranted. Based on the overall analysis of surface water and sediment exposures, adverse impacts are considered unlikely for any aquatic wildlife and sediment dwelling organisms that might occur in the reaches of Dundee Canal within the boundaries of the site.

6. Remediation

6.1 Soil

VRP controls, utilizing the existing concrete caps located in the Former Fatty Acid 50s Tank Area, will be implanted via a Uniform Environmental Covenant (UEC) to eliminate exposure to ACM in this area. The need and extent of additional soil remediation, and the implementation of the VRP Controls in the Former Fatty Acid 50s Tank Area, will be determined following the completion of soil delineation.

6.2 Groundwater

Groundwater has been delineated at the site, and only one monitoring well, MW-F21, has concentrations greater than the Type 4 RRS. Naphthalene is the only confirmed COC present in groundwater at the site, and it was detected at 140 µg/L during the November 2014 monitoring event. This is well below the historical maximum concentration detected at 430 µg/L during the July 2011 monitoring event.

Semiannual groundwater monitoring will be conducted for a minimum of two additional events to document that COCs are not detected in any additional wells at the site. Once soil delineation has been completed, Hercules will likely propose the use of a UEC to restrict groundwater use at the site.

7. Status of Proposed Future Work

The following is a list of the remaining planned actions outlined in the VIRP.

7.1 Groundwater Modeling

The delineation of impacts in groundwater is complete as presented in Section 3.5 and there is no present need to utilize numerical groundwater modeling to demonstrate compliance with Type 4 RRSs. A suitable groundwater model may be used, if needed, to demonstrate compliance at the downgradient point of exposure as allowed in Section 12-8-108 of the VRPA if future groundwater sampling results indicate groundwater impacts may migrate off-site.

7.2 Semiannual Groundwater Monitoring

The semiannual groundwater sampling program that began in November 2013 will continue until compliance with final cleanup standards is demonstrated for a period of one year or for a period to be determined by the director of the VRP. As indicated above, semiannual monitoring consists of collecting water-level measurements from up to 37 on-site wells and collecting groundwater samples from the following eight monitoring wells: MW-F21, MW-F3R, MW-F5, MW-F7, MW-F15, MW-27, MW-29, and MWD-30.

7.3 Additional Soil Delineation

The results of the August 2014 soil investigation indicate that additional soil borings are required to finalize delineation of hazardous constituents at the site. This investigation will be conducted in 2015 and results will be provided in Progress Report #5.

8. Schedule

An updated project schedule for work elements outlined in the VIRP is provided on **Figure 10**.

9. Reporting

Semiannual Progress Reports will be submitted to provide updates of the progress and implementation of the VIRP throughout the program. Additionally, the projected milestone schedule will be updated to show progress on VIRP objectives (**Figure 10**).

A CSR will be prepared for submittal to EPD following the conclusion of data collection and interpretation activities outlined in the Progress Reports. 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.

10. References

ARCADIS U.S., Inc. (ARCADIS). 2011. Response to Georgia EPD Comments, EPD Comment Letter Dated October 25, 2010. February.

ARCADIS U.S., Inc. (ARCADIS). 2012. Voluntary Investigation and Remediation Plan, April 9.

ARCADIS U.S., Inc. (ARCADIS). 2014.

Environment Canada (EC). 2015. Canadian Environmental Quality Guidelines. Online. http://ceqg-rcqe.ccme.ca and http://st-ts.ccme.ca.

Georgia Environmental Protection Division (Georgia EPD). 2011. Rules and Regulations for Water Quality Control Chapter 391-3-6-.03 (revised 2011).

United States Environmental Protection Agency (USEPA). 1989. Risk Assessment Guidance for Superfund, Human Health Evaluation Manual, Volume 1, Part A. Interim Final. Office of Emergency and Remedial Response, Washington, DC.EPA/540/1-89/002. December.

United States Environmental Protection Agency (USEPA). 1997. Ecological Risk Assessment Guidance for Superfund – Process for Designing and Conducting Ecological Risk Assessments. Environmental Response Team. June.

United States Environmental Protection Agency (USEPA). 1998. Guidelines for Ecological Risk Assessment. EPA/630/R095/002F. April.

United States Environmental Protection Agency (USEPA). 2001. Region 4 Ecological Risk Assessment Bulletins - Supplement to RAGS. http://www.epa.gov/region4/superfund/programs/riskassess/ecolbul.html.

United States Environmental Protection Agency (USEPA). 2002. Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites. OSWER 928X.6-10. Office of Emergency and Remedial Response. December.

United States Environmental Protection Agency (USEPA). 2003a. Region V RCRA Corrective Action – Ecological Screening Levels. Available at: http://www.epa.gov/reg5rcra/ca/edql.htm. August.

United States Environmental Protection Agency (USEPA). 2003b. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: PAH Mixtures. United States Environmental Protection Agency, Office of Research and Development. EPA-600-R-02-013. November.

United States Environmental Protection Agency (USEPA). 2004. Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment), Final. Office of Superfund Remediation and Technology Innovation, Washington, DC. OSWER 9285.7-02EP. EPA/540/R/99/005. PB99-963312. July.

United States Environmental Protection Agency (USEPA). 2006. Ecological Risk Assessment. Region 3, Ecological Risk Assessment. Freshwater Screening Benchmarks. Available at: http://www.epa.gov/reg3hwmd/risk/eco/btag/sbv/fw/screenbench.htm.

United States Environmental Protection Agency (USEPA). 2008. Procedures for the Derivation of Equilibrium-Partitioning Sediment Guidelines (ESGs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. United States Environmental Protection Agency, Office of Science and Technology, Office of Research and Development. EPA/600/R-02/016. March.

United States Environmental Protection Agency (USEPA). 2009. Supplemental Guidance for Inhalation Risk Assessment, or Part F Volume I of Risk Assessment Guidance for Superfund. Human Health Evaluation Manual. OSWER No. 9285.7-82. January.

United States Environmental Protection Agency (USEPA). 2010a. Statistical Software ProUCL 4.1.00. National Exposure Research Lab, EPA, Las Vegas, Nevada. May.

United States Environmental Protection Agency (USEPA). 2010b. Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds. Office of the Science Advisor - Risk Assessment Forum. EPA/100/R 10/005. December.

United States Environmental Protection Agency (USEPA). 2013a. Region 4 Science and Ecosystem Support Division Field Sampling Quality Control, SESDPROC-011-R4. February.

United States Environmental Protection Agency (USEPA). 2013b. Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater. Office of Water. EPA 822-R-13-001. April. http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/ammonia/upload/AQUATIC-LIFE-AMBIENT-WATER-QUALITY-CRITERIA-FOR-AMMONIA-FRESHWATER-2013.pdf.

United States Environmental Protection Agency (USEPA). 2014a. Region 4 Human Health Risk Assessment Supplemental Guidance. Technical Services Section, Superfund Division, EPA Region 4. January 2014 Draft Final. http://www.epa.gov/region4/superfund/images/allprogrammedia/pdfs/hhraguidedoc011014.pdf.

United States Environmental Protection Agency (USEPA). 2014b. Framework for Human Health Risk Assessment to Inform Decisions Making. EPA/100/R-14/001. April.

United States Environmental Protection Agency (USEPA). 2014c. Determining Groundwater Exposure Point Concentrations, Supplemental Guidance. March. http://www.epa.gov/oswer/riskassessment/pdf/superfund-hhexposure/OSWER-Directive-9283-1-42-GWEPC-2014.pdf.

United States Environmental Protection Agency (USEPA). 2014d. Human Health Evaluation Manual, Supplemental Guidance, Update of Standard Default Exposure Factors. February – issued April. http://www.epa.gov/oswer/riskassessment/pdf/superfund-hhexposure/OSWER-Directive-9200-1-120-ExposureFactors.pdf.

United States Environmental Protection Agency (USEPA). 2014e. Vapor Intrusion Screening Level (VISL) Calculator. Available Online at: http://www.epa.gov/oswer/vaporintrusion/guidance.html#Item6.

United States Environmental Protection Agency (USEPA). 2015a. Regional Screening Levels table. Available at: http://www.epa.gov/reg3hwmd/risk/human/rbconcentration_table/index.htm.

United States Environmental Protection Agency (USEPA). 2015b. Integrated Risk Information System (IRIS). Office of Research and Development, National Center of Environmental Assessment (NCEA). Last updated February 24, 2015. Available at: http://www.epa.gov/iris.

United States Environmental Protection Agency (USEPA). 2015c. Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV). Available at: http://hhpprtv.ornl.gov/.

United States Environmental Protection Agency (USEPA). 2015d. Health Effects Assessment Summary Tables for Superfund (HEAST). Office of Research and Development and Office of Emergency and Remedial Response. Online database: http://epa-heast.ornl.gov/heast.php.

U.S. Fish and Wildlife Service (USFWS). 2015. Endangered Species Program online database: http://www.fws.gov/endangered/. Last updated February 18, 2015.

Tables

Table 1a
Soil and Groundwater Delineation Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Constituent	CAS #	Units	Soil Delineation Criteria Applicable to entire vadose zone [Higher Value of Type 1 and 2 RRS]	Units	GW Delineation Criteria (Type 1 RRS)
Volatile Organic Compounds					
Acetone	67-64-1	mg/kg	400	mg/L	4
Acetonitrile	75-05-8	mg/kg	20	mg/L	0.2
Acetophenone	98-86-2	mg/kg	400	mg/L	4
Acrolein	107-02-8	mg/kg	0.1	mg/L	0.7
Benzene	71-43-2	mg/kg	0.5	mg/L	0.005
1,1'-Biphenyl	92-52-4	mg/kg	1	mg/L	0.01
Carbon Disulfide	75-15-0	mg/kg	400	mg/L	4
Chlorobenzene	108-90-7	mg/kg	10	mg/L	0.1
1,4-Dichloro-2-butene	764-41-0	mg/kg	0.11	mg/L	0.001
trans-1,4-Dichloro-2-butene	110-57-6	mg/kg	0.11	mg/L	0.002
1,2-Dichloropropane	78-87-5	mg/kg	0.5	mg/L	0.005
Ethylbenzene	100-41-4	mg/kg	70	mg/L	0.7
Ethyl Methacrylate	97-63-2	mg/kg	300	mg/L	3
Isobutyl Alcohol	78-83-1	mg/kg	1000	mg/L	10
Methyl Ethyl Ketone	78-93-3	mg/kg	200	mg/L	2
Methyl Isobutyl Ketone	108-10-1	mg/kg	200	mg/L	2
Styrene	100-42-5	mg/kg	14	mg/L	0.1
Tetrachloroethene	127-18-4	mg/kg	0.5	mg/L	0.005
Toluene	108-88-3	mg/kg	100	mg/L	1
Total Xylenes[1]	1330-20-7	mg/kg	1000	mg/L	10
m-Xylene [1]	108-38-3	mg/kg	20	mg/L	0.001 (0.002)
o-Xylene[1]	95-47-6	mg/kg	20	mg/L	0.001
p-Xylene [1]	106-42-3	mg/kg	20	mg/L	0.001 (0.002)
Semi-Volatile Organic Compounds (excluding Polynuclear Aromatic Hydrocarbons)					
Aniline	62-53-3	mg/kg	2	mg/L	0.02
Bis(2-ethylhexyl)phathalate	117-81-7	mg/kg	50	mg/L	0.01
Bis(2-chloroethyl) ether	111-44-4	mg/kg	0.60	mg/L	Detection Limit
Butyl Benzyl Phthlate	85-68-7	mg/kg	50	mg/L	0.1
Total Cresols	1319-77-3	mg/kg	3.8	mg/L	0.01
m-Cresol	108-39-4	mg/kg	3.8	mg/L	0.01
o-Cresol	95-48-7	mg/kg	3.8	mg/L	0.01
p-Creso	106-44-5	mg/kg	3.8	mg/L	0.01
Dibenzofuran	132-64-9	mg/kg	1	mg/L	0.01
2,4-Dimethylphenol	105-67-9	mg/kg	70	mg/L	0.7
m-Dinitrobenzene	99-65-0	mg/kg	1.05	mg/L	0.01
Di-n-octyl Phthalate	117-84-0	mg/kg	70	mg/L	0.7
1,4-Dioxane	123-91-1	mg/kg	7	mg/L	0.07
Formaldehyde	50-00-0	mg/kg	100	mg/L	1
Ni-Nitroso-di-N-butylamine	924-16-3	mg/kg	1	mg/L	0.01
N-Nitrosomethylethylamine	10595-95-6	mg/kg	0.68	mg/L	0.01
Semi-Volatile Organic Compounds (Polynuclear/Polycyclic Aromatic Hydrocarbons)					
Acenaphthene	83-32-9	mg/kg	300	mg/L	2
Acenaphthylene	208-96-8	mg/kg	130	mg/L	0.01
Anthracene	120-12-7	mg/kg	500	mg/L	0.01
Benz[a]anthacene	56-55-3	mg/kg	5	mg/L	0.01
Benzo[a]pyrene	50-32-8	mg/kg	1.64	mg/L	0.01
Benzo[b]fluoranthene	205-99-2	mg/kg	5	mg/L	0.01
Benzo[g,h,i]perylene	191-24-2	mg/kg	500	mg/L	0.01
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	mg/L	0.01
Chrysene	218-01-9	mg/kg	43	mg/L	0.01
Dibenz[a,h]anthracene	53-70-3	mg/kg	2	mg/L	0.01
Fluoranthene	206-44-0	mg/kg	500	mg/L	1
Fluorene	86-73-7	mg/kg	360	mg/L	1
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	mg/L	0.01
Naphthalene	91-20-3	mg/kg	100	mg/L	0.02
Phenanthrene	85-01-8	mg/kg	110	mg/L	0.01
Phenol	108-95-2	mg/kg	50	mg/L	4
Pyrene	129-00-0	mg/kg	500	mg/L	1

Table 1a
Soil and Groundwater Delineation Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Constituent	CAS #	Units	Soil Delineation Criteria Applicable to entire vadose zone [Higher Value of Type 1 and 2 RRS]	Units	GW Delineation Criteria (Type 1 RRS)
Dioxins, Chlorinated Dibenzofurans, and Dioxin-Like PCBs					
2,3,7,8-TCDD [2]		mg/kg	1.15E-04	mg/L	0.00001
Pesticides					
Endrin	72-20-8	mg/kg	10	mg/L	0.002
Endrin aldehyde	7421-93-4	mg/kg	10	mg/L	0.0001
DDT	50-29-3	mg/kg	0.84	mg/L	0.0001
Methoxychlor	72-43-5	mg/kg	10	mg/L	0.04
Parathion	56-38-2	mg/kg	20	mg/L	0.2
Polychlorinated Biphenyls (PCBs)					
Total PCBs[3,4]	1336-36-3	mg/kg	1.55	mg/L	0.0005
Aroclor 1254	11097-69-1	mg/kg	1.55	mg/L	0.0005
Aroclor 1260	11096-82-5	mg/kg	1.55	mg/L	0.0005
Inorganics and Hazardous Waste Characteristics					
Ammonia	7664-41-7	mg/kg	3000	mg/L	30
Asbestos	1332-21-4	% or ppm	1 or10,000	(MFL)	7 million
Fluoride	16984-48-8	mg/kg	NA	mg/L	4
pH	NA	s.u.	>2 and <12.5	s.u.	>2 and <12.5

NOTES:

NA - Not applicable

mg/kg - milligrams per kilogram

mg/L - millograms per liter

MFL - million fibers per liter

ppm - parts per million

RRS - Risk Reduction Standard

s.u. - Standard unit

1 The applicable groundwater delineation standard for this individual isomer is 0.001 if analytical results are reported as the individual isomers. If m- and p- isomer concentrations are only reported as combined isomer concentrations, the delineation standard defaults to the detection limit/PQL of 0.002 as proposed on revised Table 8 (second revision of the VIRP).

2 Summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample to be compared to these media standards.

3 PCBs are regulated as Aroclors (mixtures of various PCB homologues/congeners), total PCBs (summation of the concentrations the 197 individual non-dioxin-like PCB congeners), and the individual regulated 12 dioxin-like PCB congeners. Detected concentrations of the dioxin-like PCB congeners should be addressed using the TEF method along with the detected dioxins and chlorinated dibenzofurans.

4 Values shown are consistent with Georgia Hazardous Site Response Rules. However, detections of PCBs in soil or groundwater may be subject to the Federal Toxic Substance Control Act (TSCA) and cleanup standards set forth within it. Participant should contact EPA regarding the applicability of TSCA at this site.

Table 1b
Groundwater Cleanup Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]
Volatile Organic Compounds				
Acetone	67-64-1	mg/L	8	46
Acetonitrile	75-05-8	mg/L	0.2	0.2
Acetophenone	98-86-2	mg/L	4	10
Acrolein	107-02-8	mg/L	0.7	0.7
Benzene	71-43-2	mg/L	0.0054	0.0087
1,1'-Biphenyl	92-52-4	mg/L	0.01	0.01
Carbon Disulfide	75-15-0	mg/L	4	4
Chlorobenzene	108-90-7	mg/L	0.1	0.14
1,4-Dichloro-2-butene	764-41-0	mg/L	0.001	0.001
trans-1,4-Dichloro-2-butene	110-57-6	mg/L	0.002	0.002
1,2-Dichloropropane	78-87-5	mg/L	0.005	0.0074
Ethylbenzene	100-41-4	mg/L	0.7	0.7
Ethyl Methacrylate	97-63-2	mg/L	3	3
Isobutyl Alcohol	78-83-1	mg/L	10	31
Methyl Ethyl Ketone	78-93-3	mg/L	2.3	12
Methyl Isobutyl Ketone	108-10-1	mg/L	2	4.2
Styrene	100-42-5	mg/L	0.5	2.6
Tetrachloroethene	127-18-4	mg/L	0.019	0.098
Toluene	108-88-3	mg/L	1	5.2
Total Xylenes[1]	1330-20-7	mg/L	10	10
m-Xylene[1]	108-38-3	mg/L	0.058	0.29
o-Xylene[1]	95-47-6	mg/L	0.058	0.29
p-Xylene[1]	106-42-3	mg/L	0.058	0.29
Semi-Volatile Organic Compounds (excluding Polynuclear Aromatic Hydrocarbons)				
Aniline	62-53-3	mg/L	0.11	0.5
Bis(2-ethylhexyl)phathalate	117-81-7	mg/L	0.061	0.2
Butyl Benzyl Phthlate	85-68-7	mg/L	3.129	15.061
Total Cresols	1319-77-3	mg/L	1.6	10
m-Cresol	108-39-4	mg/L	0.78	5.1
o-Cresol	95-48-7	mg/L	0.78	5.1
p-Creso	106-44-5	mg/L	1.560	10
Dibenzofuran	132-64-9	mg/L	0.016	0.01
2,4-Dimethylphenol	105-67-9	mg/L	0.7	2
m-Dinitrobenzene	99-65-0	mg/L	0.01	0.01
Di-n-octyl Phthalate	117-84-0	mg/L	0.7	0.7
1,4-Dioxane	123-91-1	mg/L	0.07	0.07
Formaldehyde	50-00-0	mg/L	1	20
Ni-Nitroso-di-N-butylamine	924-16-3	mg/L	0.01	0.01
N-Nitrosomethylethylamine	10595-95-6	mg/L	0.01	0.01
Semi-Volatile Organic Compounds (Polynuclear/Polycyclic Aromatic Hydrocarbons)				
Acenaphthene	83-32-9	mg/L	2	6.1
Acenaphthylene	208-96-8	mg/L	0.01	0.01
Anthracene	120-12-7	mg/L	4.7	31
Benz[a]anthacene	56-55-3	mg/L	0.01	0.01
Benzo[a]pyrene	50-32-8	mg/L	0.01	0.01
Benzo[b]fluoranthene	205-99-2	mg/L	0.01	0.01
Benzo[g,h,i]perylene	191-24-2	mg/L	0.01	0.01
Benzo(k)fluoranthene	207-08-9	mg/L	0.012	0.039
Chrysene	218-01-9	mg/L	0.12	0.04
Dibenz[a,h]anthracene	53-70-3	mg/L	0.01	0.01
Fluoranthene	206-44-0	mg/L	1	4.1
Fluorene	86-73-7	mg/L	1	4.1
Indeno(1,2,3-cd)pyrene	193-39-5	mg/L	0.01	0.01
Naphthalene	91-20-3	mg/L	0.02	0.02
Phenanthrene	85-01-8	mg/L	0.01	0.01
Pyrene	129-00-0	mg/L	1	3.1

Table 1b
Groundwater Cleanup Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]
Dioxins, Chlorinated Dibenzofurans, and Dioxin-Like PCBs				
2,3,7,8-TCDD [2]		mg/L	0.00001	0.00001
Pesticides				
Endrin	72-20-8	mg/L	0.0047	0.031
Endrin aldehyde	7421-93-4	mg/L	0.0001	0.0001
DDT	50-29-3	mg/L	0.0025	0.0084
Methoxychlor	72-43-5	mg/L	0.078	0.51
Parathion	56-38-2	mg/L	0.2	0.61
Polychlorinated Biphenyls				
Total PCBs[3,4]	1336-36-3	mg/L	0.0005	0.0014
Aroclor 1254	11097-69-1	mg/L	0.0005	0.0014
Aroclor 1260	11096-82-5	mg/L	0.0005	0.0014
Inorganics				
Ammonia	7664-41-7	mg/L	30	30
Asbestos	1332-21-4	(MFL)	7	7
Fluoride	16984-48-8	mg/L	4	4.1
pH	NA	s.u.	>2 and <12.5	>2 and <12.5

NOTES:

NA - Not applicable

mg/kg - milligrams per kilogram

mg/L - millograms per liter

MFL - million fibers per liter

ppm - parts per million

RRS - Risk Reduction Standard

s.u. - Standard unit

1 The applicable groundwater delineation standard for this individual isomer is 0.001 if analytical results are reported as the individual isomers. If m- and p- isomer concentrations are only reported as combined isomer concentrations, the delineation standard defaults to the detection limit/PQL of 0.002 as proposed on revised Table 8 (second revision of the VIRP).

2 Summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample to be compared to these media standards.

3 PCBs are regulated as Aroclors (mixtures of various PCB homologues/congeners), total PCBs (summation of the concentrations the 197 individual non-dioxin-like PCB congeners), and the individual regulated 12 dioxin-like PCB congeners. Detected concentrations of the dioxin-like PCB congeners should be addressed using the TEF method along with the detected dioxins and chlorinated dibenzofurans.

4 Values shown are consistent with Georgia Hazardous Site Response Rules. However, detections of PCBs in soil or groundwater may be subject to the Federal Toxic Substance Control Act (TSCA) and cleanup standards set forth within it. Participant should contact EPA regarding the applicability of TSCA at this site.

Table 1c
Soil Cleanup Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]
Volatile Organic Compounds				
Acetone	67-64-1	mg/kg	400	400
Acetonitrile	75-05-8	mg/kg	20	20
Acetophenone	98-86-2	mg/kg	400	400
Acrolein	107-02-8	mg/kg	0.1	0.1
Benzene	71-43-2	mg/kg	0.5	0.5
1,1'-Biphenyl	92-52-4	mg/kg	1	1
Carbon Disulfide	75-15-0	mg/kg	400	400
Chlorobenzene	108-90-7	mg/kg	10	10
1,4-Dichloro-2-butene	764-41-0	mg/kg	0.110	0.100
trans-1,4-Dichloro-2-butene	110-57-6	mg/kg	0.113	0.140
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5
Ethylbenzene	100-41-4	mg/kg	70	70
Ethyl Methacrylate	97-63-2	mg/kg	300	300
Isobutyl Alcohol	78-83-1	mg/kg	1000	1000
Methyl Ethyl Ketone	78-93-3	mg/kg	200	200
Methyl Isobutyl Ketone	108-10-1	mg/kg	200	200
Styrene	100-42-5	mg/kg	14	14
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5
Toluene	108-88-3	mg/kg	100	100
Total Xylenes[1]	1330-20-7	mg/kg	1000	1000
m-Xylene[1]	108-38-3	mg/kg	20	20
o-Xylene[1]	95-47-6	mg/kg	20	20
p-Xylene[1]	106-42-3	mg/kg	20	20
Semi-Volatile Organic Compounds (excluding Polynuclear Aromatic Hydrocarbons)				
Aniline	62-53-3	mg/kg	2	2
Bis(2-ethylhexyl)phathalate	117-81-7	mg/kg	50	50
Butyl Benzyl Phthlate	85-68-7	mg/kg	50	218.540
Total Cresols	1319-77-3	mg/kg	3.8	8
m-Cresol	108-39-4	mg/kg	3.80	4.1
o-Cresol	95-48-7	mg/kg	3.80	4.1
p-Creso	106-44-5	mg/kg	3.800	8
Dibenzofuran	132-64-9	mg/kg	1	1.90
2,4-Dimethylphenol	105-67-9	mg/kg	70.0	70
m-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05
Di-n-octyl Phthalate	117-84-0	mg/kg	70	70
1,4-Dioxane	123-91-1	mg/kg	7	7
Formaldehyde	50-00-0	mg/kg	100	100
Ni-Nitroso-di-N-butylamine	924-16-3	mg/kg	1	1
N-Nitrosomethylethylamine	10595-95-6	mg/kg	0.68	1
Semi-Volatile Organic Compounds (Polynuclear/Polycyclic Aromatic Hydrocarbons)				
Acenaphthene	83-32-9	mg/kg	300	300
Acenaphthylene	208-96-8	mg/kg	130	130
Anthracene	120-12-7	mg/kg	500	1009
Benz[a]anthacene	56-55-3	mg/kg	5	5
Benzo[a]pyrene	50-32-8	mg/kg	1.64	1.64
Benzo[b]fluoranthene	205-99-2	mg/kg	5	5
Benzo[g,h,i]perylene	191-24-2	mg/kg	500	500
Benzo(k)fluoranthene	207-08-9	mg/kg	5	46
Chrysene	218-01-9	mg/kg	5	141
Dibenz[a,h]anthracene	53-70-3	mg/kg	2	5
Fluoranthene	206-44-0	mg/kg	500	500
Fluorene	86-73-7	mg/kg	360	360
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15
Naphthalene	91-20-3	mg/kg	100	100
Phenanthrene	85-01-8	mg/kg	110	110
Pyrene	129-00-0	mg/kg	500	500
Dioxins, Chlorinated Dibenzofurans, and Dioxin-Like PCBs				

Table 1c
Soil Cleanup Standards
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

Constituent	CAS #	Units	Residential RRS Type 1 and 2 [Higher Value of Type 1 and 2 RRS]	Non-Residential RRS Type 3 and Type 4 [Higher Value of Type 3 and 4 RRS]
2,3,7,8-TCDD [2]		mg/kg	0.00012	4.40E-04
Pesticides				
Endrin	72-20-8	mg/kg	10	10
Endrin aldehyde	7421-93-4	mg/kg	10	10
DDT	50-29-3	mg/kg	0.66	2.80
Methoxychlor	72-43-5	mg/kg	10	28
Parathion	56-38-2	mg/kg	20	20
Polychlorinated Biphenyls				
Total PCBs[3,4]	1336-36-3	mg/kg	1.55	1.55
Aroclor 1254	11097-69-1	mg/kg	1.55	1.55
Aroclor 1260	11096-82-5	mg/kg	1.55	1.55
Inorganics				
Ammonia	7664-41-7	mg/kg	3000	3000
Asbestos	1332-21-4	% or ppm	1 or 10,000 ppm	1 or 10,000 ppm
Fluoride	16984-48-8	mg/kg	NA	NA
pH	NA	s.u.	>2 and <12.5	>2 and <12.5

NOTES:

NA - Not applicable

mg/kg - milligrams per kilogram

mg/L - millograms per liter

MFL - million fibers per liter

ppm - parts per million

RRS - Risk Reduction Standard

s.u. - Standard unit

1 The applicable groundwater delineation standard for this individual isomer is 0.001 if analytical results are reported as the individual isomers. If m- and p- isomer concentrations are only reported as combined isomer concentrations, the delineation standard defaults to the detection limit/PQL of 0.002 as proposed on revised Table 8 (second revision of the VIRP).

2 Summed TEF-adjusted concentrations for detected polychlorinated dioxin, furans, and dioxin-like PCBs in a single sample to be compared to these media standards.

3 PCBs are regulated as Aroclors (mixtures of various PCB homologues/congeners), total PCBs (summation of the concentrations the 197 individual non-dioxin-like PCB congeners), and the individual regulated 12 dioxin-like PCB congeners. Detected concentrations of the dioxin-like PCB congeners should be addressed using the TEF method along with the detected dioxins and chlorinated dibenzofurans.

4 Values shown are consistent with Georgia Hazardous Site Response Rules. However, detections of PCBs in soil or groundwater may be subject to the Federal Toxic Substance Control Act (TSCA) and cleanup standards set forth within it. Participant should contact EPA regarding the applicability of TSCA at this site.

Table 2
Well Construction
VIRP Semiannual Progress Report
Hercules Inc. - 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 2
Well Construction
VIRP Semiannual Progress Report
Hercules Inc. - 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

Table 3
Groundwater Elevation Data
VIRP Semiannual Progress Report
Ashland - Hercules
Savannah, Georgia

		May 22, 2014		November 4, 2014	
Well Number	**Top of Casing Elevation (feet msl)**	**Depth to Water (feet)**	**Groundwater Elevation (feet msl)**	**Depth to Water (feet)**	**Groundwater Elevation (feet msl)**
MW-F1	9.55	4.56	4.99	4.16	5.39
MW-F2	7.51	5.59	1.92	NM	NM
MW-F3R	12.53	7.38	5.15	7.61	4.92
MW-F5	11.49	6.53	4.96	6.76	4.73
MW-F6	8.59	NM	NM	5.11	3.48
MW-F7	13.23	5.57	7.66	3.56	9.67
MW-F8	12.59	5.01	7.58	6.50	6.09
MW-F9	11.78	3.82	7.96	4.67	7.11
MW-F11	8.58	2.27	6.31	2.91	5.67
MW-F12	9.34	2.13	7.21	3.73	5.61
MW-F13	18.47	10.25	8.22	7.67	10.80
MW-F14	8.38	3.21	5.17	3.24	5.14
MW-F15	9.79	4.55	5.24	5.04	4.75
MW-F16	8.51	3.44	5.07	5.35	3.16
MW-F17	11.36	6.00	5.36	6.40	4.96
MW-F19	10.47	4.62	5.85	5.28	5.19
MW-F21	12.46	6.27	6.19	6.82	5.64
MW-22	10.06	3.60	6.46	3.97	6.09
MW-23	9.4	7.40	2.00	8.03	1.37
MW-24	10.23	4.67	5.56	5.26	4.97
MW-25	12.72	5.75	6.97	5.13	7.59
MW-26	15.69	NM	NM	NM	NM
MW-27	10.23	2.44	7.79	3.05	7.18
MW-28	10.5	Destroyed		Destroyed	
MW-29	12.8	5.25	7.55	5.73	7.07
MW-32	7.05	4.50	2.55	4.59	2.46
Deep Monitoring Wells					
MWD-22	10.05	2.91	7.14	4.22	5.83
MWD-23	9.27	6.17	3.10	8.05	1.22
MWD-24	10.34	4.96	5.38	5.4	4.94
MWD-25	12.58	6.57	6.01	6.25	6.33
MWD-27	10.09	3.4	6.69	4.6	5.49
MWD-28	10.66	11.01	-0.35	7.59	3.07
MWD-29	13.56	7.14	6.42	4.77	8.79
MWD-30	13.41	8.48	4.93	9.56	3.85
MWD-F1	9.25	31.28	-22.03	31.14	-21.89
MWD-F2	10.52	21.81	-11.29	22.06	-11.54
MWD-F3	11.23	17.52	-6.29	17.63	-6.40

Table 4
Planned Sampling Table
VIRP Semiannual Progress Report
Ashland - Hercules
Savannah, Georgia

Sample Info		Analyses			
Well ID	**Sample ID**	**VOCs**	**SVOCs**	**Aroclors and congeners**	**ACM (asbestos)**
	Sample Container	40mL VOA glass	1L Amber glass	2 - 1L Amber	2 - 1L Plastic
	Preservative	HCl	None	None	None
	Analytical Method	8260B	8270C	8082A (include 1262 and 1268), 1668B	600-R-93-116
MW-F21	MW-F21 (MMDDYY)	X	X		
MW-F3R	MW-F3R (MMDDYY)			X	
MW-F5	MW-F5 (MMDDYY)	X	X		
MW-F7	MW-F7 (MMDDYY)	X	X		
MW-F8*	MW-F8 (MMDDYY)				X
MW-27	MW-27 (MMDDYY)	X	X		
MW-29	MW-29 (MMDDYY)	X	X		
MWD-30	MWD-30 (MMDDYY)	X	X		
DUP-01	DUP-01 (MMDDYY)	X			
Trip Blank	Trip Blank (MMDDYY)	X			
		8	7	1	1

REVISED February 2015

* MW-F15 will be sampled in lieu of MW-F8 for subsequent events and have benzene added to the analysis.

Table 5a
Groundwater Analytical Data, VOCs and SVOCs, November 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	MW-27	MW-29	MWD-30	MW-F21	MW-F21	MW-F5	MW-F7
				Sample Matrix	GW	GW	GW	GW	GW	GW	GW
				Date	11/3/2014	11/3/2014	11/4/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
				Sample Depth (ft bgs)	10-20	10-20	10-20	10-20	10-20	10-20	10-20
				Sample Type	N	N	N	FD	N	N	N
Constituent	**CAS**	**Units**	**Type 1 RRS**	**Type 3/4 RRS**							
VOCs											
1,2-Dichloropropane	78-87-5	ug/l	5	7.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	78-93-3	ug/l	2000	12000	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methyl-1-propanol	78-83-1	ug/l	10000	31000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-Methyl-2-Pentanone	108-10-1	ug/l	2000	4200	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	67-64-1	ug/l	4000	46000	< 10 U	< 10 U	< 10 U	20	18	< 10 U	< 10 U
Acetonitrile	75-05-8	ug/l	200	200	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U
Acrolein	107-02-8	ug/l	700	700	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Benzene	71-43-2	ug/l	5	8.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Carbon Disulfide	75-15-0	ug/l	4000	4000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Chlorobenzene	108-90-7	ug/l	100	140	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethyl Methacrylate	97-63-2	ug/l	3000	3000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	100-41-4	ug/l	700	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Naphthalene	91-20-3	ug/l	20	20	< 5.0 U	< 5.0 U	< 5.0 U	**150**	**130**	< 5.0 U	5.3
Styrene (Monomer)	100-42-5	ug/l	100	2600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	127-18-4	ug/l	5	98	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2
Toluene	108-88-3	ug/l	1000	5200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Total Xylenes	1330-20-7	ug/l	2	10000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
trans-1,4-Dichlorobutene	110-57-6	ug/l	2	2	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
SVOCs											
1,1-Biphenyl	92-52-4	ug/l	10	10	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
1,3-Dinitrobenzene	99-65-0	ug/l	10	10	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
1,4-Dioxane	123-91-1	ug/l	70	70	< 2.1 U	< 1.9 U	< 2.0 U	--	< 21 U	< 2.0 U	< 2.5 U
2,4-Dimethylphenol	105-67-9	ug/l	700	2000	< 2.1 U	< 1.9 U	< 2.0 U	--	< 21 U	< 2.0 U	< 2.5 U
2-Methylphenol	95-48-7	ug/l	10	5100	< 2.1 U	< 1.9 U	< 2.0 U	--	< 21 U	< 2.0 U	< 2.5 U
3-Methylphenol, 4-Methylphenol	65794-96-9	ug/l	10	5100	--	--	--	--	--	--	--
4-Methylphenol	106-44-5	ug/l	10	10000	< 2.1 U	< 1.9 U	< 2.0 U	--	< 21 U	< 2.0 U	< 2.5 U
Acenaphthene	83-32-9	ug/l	2000	6100	< 0.21 U	< 0.19 U	< 0.20 U	--	3.4	12	< 0.25 U
Acenaphthylene	208-96-8	ug/l	10	10	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Acetophenone	98-86-2	ug/l	4000	10000	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
Aniline	62-53-3	ug/l	20	500	< 2.1 U*	< 1.9 U*	< 2.0 U	--	< 21 U*	< 2.0 U	< 2.5 U*
Anthracene	120-12-7	ug/l	10	31000	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Benzo(a)anthracene	56-55-3	ug/l	10	10	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Benzo(a)pyrene	50-32-8	ug/l	10	10	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Benzo(b)fluoranthene	205-99-2	ug/l	10	10	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Benzo(g,h,i)perylene	191-24-2	ug/l	10	10	< 0.21 U*	< 0.19 U*	< 0.20 U	--	< 2.1 U*	< 0.20 U	< 0.25 U*
Benzo(k)fluoranthene	207-08-9	ug/l	10	39	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
bis(2-Chloroethyl)ether	111-44-4	ug/l	detection limit	--	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
bis(2-Ethylhexyl)phthalate	117-81-7	ug/l	10	200	< 5.2 U	< 4.8 U	< 4.9 U	--	< 52 U	< 5.0 U	< 6.1 U
Butyl benzyl phthalate	85-68-7	ug/l	100	15061	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
Chrysene	218-01-9	ug/l	10	40	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Dibenzo(a,h)anthracene	53-70-3	ug/l	10	10	< 0.21 U*	< 0.19 U*	< 0.20 U	--	< 2.1 U*	< 0.20 U	< 0.25 U*
Dibenzofuran	132-64-9	ug/l	10	10	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
Di-n-octyl phthalate	117-84-0	ug/l	700	700	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
Fluoranthene	206-44-0	ug/l	1000	4100	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Fluorene	86-73-7	ug/l	1000	4100	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Formaldehyde	50-00-0	ug/l	1000	20000	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	10	10	< 0.21 U*	< 0.19 U*	< 0.20 U	--	< 2.1 U*	< 0.20 U	< 0.25 U*
Naphthalene	91-20-3	ug/l	20	20	< 0.21 U	< 0.19 U	< 0.20 U	--	**140**	< 0.20 U	< 0.25 U
n-Nitrosodi-n-butylamine	924-16-3	ug/l	10	10	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
N-Nitroso-N-methylethylamine	10595-95-6	ug/l	10	10	< 2.1 U	< 1.9 U	< 2.0 U	--	< 21 U	< 2.0 U	< 2.5 U
Parathion	56-38-2	ug/l	200	610	< 2.1 U	< 1.9 U	< 2.0 U	--	< 21 U	< 2.0 U	< 2.5 U
Phenanthrene	85-01-8	ug/l	10	10	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
Phenol	108-95-2	ug/l	4	--	< 1.0 U	< 0.96 U	< 0.99 U	--	< 10 U	< 0.99 U	< 1.2 U
Pyrene	129-00-0	ug/l	1000	3100	< 0.21 U	< 0.19 U	< 0.20 U	--	< 2.1 U	< 0.20 U	< 0.25 U
pH	--	s.u.	≥2 and ≤12.5	≥2 and ≤12.5	4.72	4.46	7.64	5.84	5.84	7.01	4.5

Notes
1. Highlighted values indicated concentrations above Type 1 RRS
2. Bolded values indicated concentrations above Type 3/4 RRS
3. pH values were recorded in the field.
4. Type 1 RRS is used for delineation and the higher of the Type 3 and Type 4 RRS is used for the cleanup standard.
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
GW = Groundwater
N = Normal Sample
RRS = Risk Reduction Standard
s.u. = Standard Unit
SVOC = Semivolatile organic compound
µg/L = micrograms per liter
VOC = Volatile organic compounds

Table 5b
Groundwater Analytical Data, PCBs, November 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	MW-F3R
				Sample Matrix	GW
				Date	11/3/2014
				Sample Depth (ft bgs)	10-20
				Sample Type	N
Constituent	**CAS**	**Units**	**Type 1 RRS**	**Type 3/4 RRS**	
PCBs					
Aroclor Mixtures					
Aroclor 1016	12674-11-2	ug/l	--	--	< 0.96 U
Aroclor 1221	11104-28-2	ug/l	--	--	< 0.96 U
Aroclor 1232	11141-16-5	ug/l	--	--	< 0.96 U
Aroclor 1242	53469-21-9	ug/l	--	--	< 0.96 U
Aroclor 1248	12672-29-6	ug/l	--	--	< 0.96 U
Aroclor 1254	11097-69-1	ug/l	0.5	1.4	< 0.96 U
Aroclor 1260	11096-82-5	ug/l	0.5	1.4	< 0.96 U
Aroclor 1262	37324-23-5	ug/l	--	--	< 0.96 U
Aroclor 1268	11100-14-4	ug/l	--	--	< 0.96 U
Dioxin-like PCB Congeners					
PCB-105	32598-14-4	pg/l	--	--	< 20 U
PCB-114	74472-37-0	pg/l	--	--	< 20 U
PCB-118	31508-00-6	pg/l	--	--	< 20 U
PCB-123	65510-44-3	pg/l	--	--	< 20 U
PCB-126	57465-28-8	pg/l	--	--	< 20 U
PCB-156	38380-08-4	pg/l	--	--	< 40 U
PCB-157	69782-90-7	pg/l	--	--	< 40 U
PCB-167	52663-72-6	pg/l	--	--	< 20 U
PCB-169	32774-16-6	pg/l	--	--	< 20 U
PCB-189	39635-31-9	pg/l	--	--	< 20 U
PCB-77	32598-13-3	pg/l	--	--	< 20 U
PCB-81	70362-50-4	pg/l	--	--	< 20 U
Non-Dioxin-like PCB Congeners					
PCB-1	2051-60-7	pg/l	--	--	< 200 U
PCB-10	33146-45-1	pg/l	--	--	< 200 U
PCB-100	39485-83-1	pg/l	--	--	< 400 U
PCB-101	37680-73-2	pg/l	--	--	< 600 U
PCB-102	68194-06-9	pg/l	--	--	< 400 U
PCB-103	60145-21-3	pg/l	--	--	< 200 U
PCB-104	56558-16-8	pg/l	--	--	< 200 U
PCB-106	70424-69-0	pg/l	--	--	< 200 U
PCB-107	70424-68-9	pg/l	--	--	< 400 U
PCB-108	70362-41-3	pg/l	--	--	< 1200 U
PCB-109	74472-35-8	pg/l	--	--	< 200 U
PCB-11	2050-67-1	pg/l	--	--	< 200 U
PCB-110	38380-03-9	pg/l	--	--	< 400 U
PCB-111	39635-32-0	pg/l	--	--	< 200 U
PCB-112	74472-36-9	pg/l	--	--	< 200 U
PCB-113	68194-10-5	pg/l	--	--	< 200 U
PCB-115	74472-38-1	pg/l	--	--	< 400 U
PCB-116	18259-05-7	pg/l	--	--	< 600 U
PCB-117	68194-11-6	pg/l	--	--	< 600 U
PCB-119	56558-17-9	pg/l	--	--	< 1200 U
PCB-12	2974-92-7	pg/l	--	--	< 400 U
PCB-120	68194-12-7	pg/l	--	--	< 200 U
PCB-121	56558-18-0	pg/l	--	--	< 200 U
PCB-122	76842-07-4	pg/l	--	--	< 200 U
PCB-124	70424-70-3	pg/l	--	--	< 400 U
PCB-125	74472-39-2	pg/l	--	--	< 1200 U
PCB-127	39635-33-1	pg/l	--	--	< 200 U
PCB-128	38380-07-3	pg/l	--	--	< 400 U
PCB-129	55215-18-4	pg/l	--	--	< 600 U
PCB-13	2974-90-5	pg/l	--	--	< 400 U
PCB-130	52663-66-8	pg/l	--	--	< 200 U
PCB-131	61798-70-7	pg/l	--	--	< 200 U
PCB-132	38380-05-1	pg/l	--	--	< 200 U
PCB-133	35694-04-3	pg/l	--	--	< 200 U
PCB-134	52704-70-8	pg/l	--	--	< 400 U
PCB-135	52744-13-5	pg/l	--	--	< 400 U
PCB-136	38411-22-2	pg/l	--	--	< 200 U
PCB-137	35694-06-5	pg/l	--	--	< 200 U
PCB-138	35065-28-2	pg/l	--	--	< 600 U
PCB-139	56030-56-9	pg/l	--	--	< 400 U
PCB-14	34883-41-5	pg/l	--	--	< 200 U
PCB-140	59291-64-4	pg/l	--	--	< 400 U
PCB-141	52712-04-6	pg/l	--	--	< 200 U
PCB-142	41411-61-4	pg/l	--	--	< 200 U
PCB-143	68194-15-0	pg/l	--	--	< 400 U
PCB-144	68194-14-9	pg/l	--	--	< 200 U
PCB-145	74472-40-5	pg/l	--	--	< 200 U
PCB-146	51908-16-8	pg/l	--	--	< 200 U
PCB-147	68194-13-8	pg/l	--	--	< 400 U
PCB-148	74472-41-6	pg/l	--	--	< 200 U
PCB-149	38380-04-0	pg/l	--	--	< 400 U
PCB-15	2050-68-2	pg/l	--	--	< 200 U
PCB-150	68194-08-1	pg/l	--	--	< 200 U
PCB-151	52663-63-5	pg/l	--	--	< 400 U
PCB-152	68194-09-2	pg/l	--	--	< 200 U
PCB-153	35065-27-1	pg/l	--	--	< 400 U
PCB-154	60145-22-4	pg/l	--	--	< 200 U
PCB-155	33979-03-2	pg/l	--	--	< 200 U
PCB-158	74472-42-7	pg/l	--	--	< 200 U
PCB-159	39635-35-3	pg/l	--	--	< 200 U
PCB-16	38444-78-9	pg/l	--	--	< 200 U

Table 5b
Groundwater Analytical Data, PCBs, November 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	MW-F3R
				Sample Matrix	GW
				Date	11/3/2014
				Sample Depth (ft bgs)	10-20
				Sample Type	N
Constituent	CAS	Units	Type 1 RRS	Type 3/4 RRS	
PCB-160	41411-62-5	pg/l	--	--	< 200 U
PCB-161	74472-43-8	pg/l	--	--	< 200 U
PCB-162	39635-34-2	pg/l	--	--	< 200 U
PCB-163	74472-44-9	pg/l	--	--	< 600 U
PCB-164	74472-45-0	pg/l	--	--	< 200 U
PCB-165	74472-46-1	pg/l	--	--	< 200 U
PCB-166	41411-63-6	pg/l	--	--	< 200 U
PCB-168	59291-65-5	pg/l	--	--	< 400 U
PCB-17	37680-66-3	pg/l	--	--	< 200 U
PCB-170	35065-30-6	pg/l	--	--	< 200 U
PCB-171	52663-71-5	pg/l	--	--	< 400 U
PCB-172	52663-74-8	pg/l	--	--	< 200 U
PCB-173	68194-16-1	pg/l	--	--	< 400 U
PCB-174	38411-25-5	pg/l	--	--	< 200 U
PCB-175	40186-70-7	pg/l	--	--	< 200 U
PCB-176	52663-65-7	pg/l	--	--	< 200 U
PCB-177	52663-70-4	pg/l	--	--	< 200 U
PCB-178	52663-67-9	pg/l	--	--	< 200 U
PCB-179	52663-64-6	pg/l	--	--	< 200 U
PCB-18	37680-65-2	pg/l	--	--	< 400 U
PCB-180	35065-29-3	pg/l	--	--	< 400 U
PCB-181	74472-47-2	pg/l	--	--	< 200 U
PCB-182	60145-23-5	pg/l	--	--	< 200 U
PCB-183	52663-69-1	pg/l	--	--	< 200 U
PCB-184	74472-48-3	pg/l	--	--	< 200 U
PCB-185	52712-05-7	pg/l	--	--	< 200 U
PCB-186	74472-49-4	pg/l	--	--	< 200 U
PCB-187	52663-68-0	pg/l	--	--	< 200 U
PCB-188	74487-85-7	pg/l	--	--	< 200 U
PCB-19	38444-73-4	pg/l	--	--	< 200 U
PCB-190	41411-64-7	pg/l	--	--	< 200 U
PCB-191	74472-50-7	pg/l	--	--	< 200 U
PCB-192	74472-51-8	pg/l	--	--	< 200 U
PCB-193	69782-91-8	pg/l	--	--	< 400 U
PCB-194	35694-08-7	pg/l	--	--	< 200 U
PCB-195	52663-78-2	pg/l	--	--	< 200 U
PCB-196	42740-50-1	pg/l	--	--	< 200 U
PCB-197	33091-17-7	pg/l	--	--	< 200 U
PCB-198	68194-17-2	pg/l	--	--	< 400 U
PCB-199	52663-75-9	pg/l	--	--	< 400 U
PCB-2	2051-61-8	pg/l	--	--	< 200 U
PCB-20	38444-84-7	pg/l	--	--	< 400 U
PCB-200	52663-73-7	pg/l	--	--	< 200 U
PCB-201	40186-71-8	pg/l	--	--	< 200 U
PCB-202	2136-99-4	pg/l	--	--	< 200 U
PCB-203	52663-76-0	pg/l	--	--	< 200 U
PCB-204	74472-52-9	pg/l	--	--	< 200 U
PCB-205	74472-53-0	pg/l	--	--	< 200 U
PCB-206	40186-72-9	pg/l	--	--	< 200 U
PCB-207	52663-79-3	pg/l	--	--	< 200 U
PCB-208	52663-77-1	pg/l	--	--	< 200 U
PCB-209	2051-24-3	pg/l	--	--	< 200 U
PCB-21	55702-46-0	pg/l	--	--	< 400 U
PCB-22	38444-85-8	pg/l	--	--	< 200 U
PCB-23	55720-44-0	pg/l	--	--	< 200 U
PCB-24	55702-45-9	pg/l	--	--	< 200 U
PCB-25	55712-37-3	pg/l	--	--	< 200 U
PCB-26	38444-81-4	pg/l	--	--	< 400 U
PCB-27	38444-76-7	pg/l	--	--	< 200 U
PCB-28	7012-37-5	pg/l	--	--	< 400 U
PCB-29	15862-07-4	pg/l	--	--	< 400 U
PCB-3	2051-62-9	pg/l	--	--	< 200 U
PCB-30	35693-92-6	pg/l	--	--	< 400 U
PCB-31	16606-02-3	pg/l	--	--	< 200 U
PCB-32	38444-77-8	pg/l	--	--	< 200 U
PCB-33	38444-86-9	pg/l	--	--	< 400 U
PCB-34	37680-68-5	pg/l	--	--	< 200 U
PCB-35	37680-69-6	pg/l	--	--	< 200 U
PCB-36	38444-87-0	pg/l	--	--	< 200 U
PCB-37	38444-90-5	pg/l	--	--	< 200 U
PCB-38	53555-66-1	pg/l	--	--	< 200 U
PCB-39	38444-88-1	pg/l	--	--	< 200 U
PCB-4	13029-08-8	pg/l	--	--	< 200 U
PCB-40	38444-93-8	pg/l	--	--	< 400 U
PCB-41	52663-59-9	pg/l	--	--	< 200 U
PCB-42	36559-22-5	pg/l	--	--	< 200 U
PCB-43	70362-46-8	pg/l	--	--	< 200 U
PCB-44	41464-39-5	pg/l	--	--	< 600 U
PCB-45	70362-45-7	pg/l	--	--	< 200 U
PCB-46	41464-47-5	pg/l	--	--	< 200 U
PCB-47	2437-79-8	pg/l	--	--	< 600 U
PCB-48	70362-47-9	pg/l	--	--	< 200 U
PCB-49	41464-40-8	pg/l	--	--	< 400 U
PCB-5	16605-91-7	pg/l	--	--	< 200 U
PCB-50	62796-65-0	pg/l	--	--	< 400 U
PCB-51	68194-04-7	pg/l	--	--	< 200 U

Table 5b
Groundwater Analytical Data, PCBs, November 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	MW-F3R
				Sample Matrix	GW
				Date	11/3/2014
				Sample Depth (ft bgs)	10-20
				Sample Type	N
Constituent	**CAS**	**Units**	**Type 1 RRS**	**Type 3/4 RRS**	
PCB-52	35693-99-3	pg/l	--	--	< 200 U
PCB-53	41464-41-9	pg/l	--	--	< 400 U
PCB-54	15968-05-5	pg/l	--	--	< 200 U
PCB-55	74338-24-2	pg/l	--	--	< 200 U
PCB-56	41464-43-1	pg/l	--	--	< 200 U
PCB-57	70424-67-8	pg/l	--	--	< 200 U
PCB-58	41464-49-7	pg/l	--	--	< 200 U
PCB-59	74472-33-6	pg/l	--	--	< 600 U
PCB-6	25569-80-6	pg/l	--	--	< 200 U
PCB-60	33025-41-1	pg/l	--	--	< 200 U
PCB-61	33284-53-6	pg/l	--	--	< 810 U
PCB-62	54230-22-7	pg/l	--	--	< 600 U
PCB-63	74472-34-7	pg/l	--	--	< 200 U
PCB-64	52663-58-8	pg/l	--	--	< 200 U
PCB-65	33284-54-7	pg/l	--	--	< 600 U
PCB-66	32598-10-0	pg/l	--	--	< 200 U
PCB-67	73575-53-8	pg/l	--	--	< 200 U
PCB-68	73575-52-7	pg/l	--	--	< 200 U
PCB-69	60233-24-1	pg/l	--	--	< 400 U
PCB-7	33284-50-3	pg/l	--	--	< 200 U
PCB-70	32598-11-1	pg/l	--	--	< 810 U
PCB-71	41464-46-4	pg/l	--	--	< 400 U
PCB-72	41464-42-0	pg/l	--	--	< 200 U
PCB-73	74338-23-1	pg/l	--	--	< 200 U
PCB-74	32690-93-0	pg/l	--	--	< 810 U
PCB-75	32598-12-2	pg/l	--	--	< 600 U
PCB-76	70362-48-0	pg/l	--	--	< 810 U
PCB-78	70362-49-1	pg/l	--	--	< 200 U
PCB-79	41464-48-6	pg/l	--	--	< 200 U
PCB-8	34883-43-7	pg/l	--	--	< 200 U
PCB-80	33284-52-5	pg/l	--	--	< 200 U
PCB-82	52663-62-4	pg/l	--	--	< 200 U
PCB-83	60145-20-2	pg/l	--	--	< 200 U
PCB-84	52663-60-2	pg/l	--	--	< 200 U
PCB-85	65510-45-4	pg/l	--	--	< 600 U
PCB-86	55312-69-1	pg/l	--	--	< 1200 U
PCB-87	38380-02-8	pg/l	--	--	< 1200 U
PCB-88	55215-17-3	pg/l	--	--	< 400 U
PCB-89	73575-57-2	pg/l	--	--	< 200 U
PCB-9	34883-39-1	pg/l	--	--	< 200 U
PCB-90	68194-07-0	pg/l	--	--	< 600 U
PCB-91	68194-05-8	pg/l	--	--	< 400 U
PCB-92	52663-61-3	pg/l	--	--	< 200 U
PCB-93	73575-56-1	pg/l	--	--	< 400 U
PCB-94	73575-55-0	pg/l	--	--	< 200 U
PCB-95	38379-99-6	pg/l	--	--	< 200 U
PCB-96	73575-54-9	pg/l	--	--	< 200 U
PCB-97	41464-51-1	pg/l	--	--	< 1200 U
PCB-98	60233-25-2	pg/l	--	--	< 400 U
PCB-99	38380-01-7	pg/l	--	--	< 200 U
Total PCBs					
Polychlorinated biphenyls (PCB), Total non-dic	1336-36-3	pg/l	500000	1400000	< 2000 U
pH	--	s.u.	≥2 and ≤12.5	≥2 and ≤12.5	6.91

Notes
Type 1 RRS is used for delineation and the higher of the Type 3 and Type 4 RRS is used for the cleanup standard.
pH values were recorded in the field.
-- Not Analyzed/No standard
< = Concentration is less than the reporting limit
U = Not detected above reporting limit
ft bgs = feet below ground surface
GW = Groundwater
N = Normal Sample
pg/L = picograms per liter
RRS = Risk Reduction Standard
s.u. = Standard Unit

Table 5c
Groundwater Analytical Data, Asbestos, November 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	**MW-F8**
				Sample Matrix	**GW**
				Date	**11/4/2014**
				Sample Depth (ft bgs)	**10-20**
				Sample Type	**N**
Constituent	**CAS**	**Units**	**Type 1 RRS**	**Type 3/4 RRS**	
Asbestos	1332-21-4	MFL	7	7	< 1.6 U
pH	--	s.u.	≥2 and ≤12.5	≥2 and ≤12.5	5.87

Notes

Type 1 RRS is used for delineation and the higher of the Type 3 and Type 4 RRS is used for the cleanup standard.
pH values were recorded in the field.
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
ft bgs = feet below ground surface
GW = Groundwater
MFL = million fibers per liter
N = Normal Sample
RRS = Risk Reduction Standard
s.u. = Standard Unit

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	DS-1	DS-1	DS-10	DS-10	DS-11	DS-11	DS-12	DS-12	DS-13	DS-13	DS-14	DS-14	DS-15	DS-15	DS-16	DS-16
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008
				Sample Depth (ft bgs)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	< 0.005 U	< 0.0049 U	< 0.0041 U	< 0.005 U	< 0.0048 U	< 0.0057 U	< 0.005 U	< 0.005 U	< 0.0042 U	< 0.0051 U	< 0.0048 U	< 0.0053 U	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	< 0.025 U	0.012 J	0.0026 J	0.0094 J	0.019 J	0.016 J	0.008 J	0.0038 J	0.012 J	0.016 J	0.035	0.04	0.0084 J	< 0.028 U	0.0057 J	0.011 J
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	< 0.2 U	< 0.2 U	< 0.16 U	< 0.2 U	< 0.19 U	< 0.23 U	< 0.2 U	< 0.2 U	0.17	< 0.2 U	< 0.19 U	< 0.21 U	< 0.17 U	< 0.22 U	< 0.19 U	< 0.2 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	< 0.025 U	< 0.025 U	< 0.021 U	< 0.025 U	0.007 J	0.0043 J	< 0.025 U	< 0.025 U	< 0.021 U	< 0.025 U	0.0099 J	0.0087 J	< 0.021 U	< 0.028 U	< 0.024 U	< 0.024 U
Acetone	67-64-1	mg/kg	400	400	0.075	0.1	0.057	0.12	0.37	0.33	0.15	0.11	0.12	0.25	0.84	10 D	0.31	0.052 J	0.087	0.25
Acetonitrile	75-05-8	mg/kg	20	20	< 0.2 U	< 0.2 U	< 0.16 U	< 0.2 U	< 0.19 U	< 0.23 U	< 0.2 U	< 0.2 U	< 0.17 U	< 0.2 U	< 0.19 U	< 0.21 U	< 0.17 U	< 0.22 U	< 0.19 U	< 0.2 U
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.099 U	< 0.099 U	< 0.082 U	< 0.099 U	< 0.096 U	< 0.11 U	< 0.1 U	< 0.1 U	< 0.083 U	< 0.1 U	< 0.096 U	< 0.11 U	< 0.086 U	< 0.11 U	< 0.096 U	< 0.098 U
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.005 U	< 0.0049 U	< 0.0041 U	0.0015 J	0.00085 J	0.00094 J	< 0.005 U	< 0.005 U	< 0.0042 U	< 0.0051 U	0.0019 J	0.011	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.005 U	0.0022 J	< 0.0041 U	< 0.005 U	< 0.0048 U	< 0.0057 U	< 0.005 U	< 0.005 U	0.0011 J	< 0.0051 U	0.0028 J	< 0.0053 U	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
Chlorobenzene	108-90-7	mg/kg	10	10	< 0.0099 U	< 0.0099 U	< 0.0082 U	< 0.0099 U	< 0.0096 U	< 0.011 U	< 0.01 U	< 0.01 U	< 0.0042 U	< 0.0051 U	< 0.0048 U	< 0.0053 U	< 0.052 U	< 0.022 U	0.0011 J	< 0.0049 U
Ethyl Methacrylate	97-63-2	mg/kg	300	300	< 0.005 U	< 0.0049 U	< 0.0041 U	< 0.005 U	< 0.0048 U	< 0.0057 U	< 0.005 U	< 0.005 U	< 0.0042 U	< 0.0051 U	< 0.0048 U	< 0.0053 U	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.005 U	< 0.0049 U	< 0.0041 U	< 0.005 U	0.00088 J	< 0.0057 U	< 0.005 U	< 0.005 U	< 0.0042 U	< 0.0051 U	0.0013 J	0.0092	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	< 0.005 U	< 0.0049 U	< 0.0041 U	< 0.005 U	< 0.0048 U	< 0.0057 U	< 0.005 U	< 0.005 U	< 0.0042 U	< 0.0051 U	< 0.0048 U	< 0.0053 U	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	< 0.005 U	< 0.0049 U	< 0.0041 U	< 0.005 U	< 0.0048 U	< 0.0057 U	< 0.005 U	< 0.005 U	< 0.0042 U	< 0.0051 U	< 0.0048 U	< 0.0053 U	< 0.0043 U	< 0.0055 U	< 0.0048 U	< 0.0049 U
Toluene	108-88-3	mg/kg	100	100	< 0.005 U	< 0.0049 U	< 0.0041 U	0.0015 J	0.0024 J	0.0011 J	< 0.005 U	< 0.005 U	< 0.0042 U	0.004 J	0.0063	0.044	0.0049	< 0.0055 U	< 0.0048 U	< 0.0049 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	< 0.0099 U	< 0.0099 U	< 0.0082 U	< 0.0099 U	0.0064 J	< 0.011 U	< 0.01 U	< 0.01 U	< 0.0083 U	< 0.01 U	0.0046 J	0.004 J	0.0048 J	< 0.011 U	< 0.0096 U	< 0.0098 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	< 0.0099 U	< 0.0099 U	< 0.0082 U	< 0.0099 U	< 0.0096 U	< 0.011 U	< 0.01 U	< 0.01 U	< 0.0083 U	< 0.01 U	< 0.0096 U	< 0.011 U	0.02	< 0.011 U	< 0.0096 U	< 0.0098 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	DS-17	DS-17	DS-18	DS-18	DS-18	DS-2	DS-2	DS-3	DS-3	DS-4	DS-4	DS-5	DS-5	DS-6	DS-6	DS-7
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008
				Sample Depth (ft bgs)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	< 0.0051 U	< 0.0043 U	< 0.0041 U	< 0.0057 U	< 0.0054 U	< 0.0048 U	< 0.0059 U	< 0.0048 U
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	0.012 J	< 0.026 U	0.02 J	0.01 J	< 0.026 U	0.0088 J	< 0.029 U	< 0.85 UD	0.023 J	0.015 J	0.0099 J	0.0034 J	0.017 J	0.023 J	0.0087 J	0.046
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	< 0.18 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.23 U	< 6.8 UD	< 0.2 U	< 0.17 U	< 0.16 U	< 0.23 U	< 0.22 U	< 0.19 U	< 0.24 U	< 0.19 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	< 0.023 U	< 0.026 U	< 0.025 U	< 0.025 U	< 0.026 U	< 0.026 U	< 0.029 U	< 0.85 UD	< 0.026 U	< 0.021 U	< 0.02 U	< 0.028 U	< 0.027 U	< 0.024 U	< 0.03 U	< 0.024 U
Acetone	67-64-1	mg/kg	400	400	0.24	0.31	0.32	0.35	0.23	0.1	0.048 J	0.56 JD	0.53	0.31	0.18	0.11	0.35	0.51	0.24	0.38
Acetonitrile	75-05-8	mg/kg	20	20	< 0.18 U	< 0.21 U	0.075 J	< 0.2 U	< 0.21 U	< 0.2 U	< 0.23 U	< 6.8 UD	< 0.2 U	< 0.17 U	< 0.16 U	< 0.23 U	< 0.22 U	< 0.19 U	< 0.24 U	< 0.19 U
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.09 U	< 0.1 U	< 0.1 U	< 0.099 U	< 0.1 U	< 0.1 U	< 0.12 U	< 3.4 UD	< 0.1 U	< 0.086 U	< 0.081 U	< 0.11 U	< 0.11 U	< 0.097 U	< 0.12 U	< 0.096 U
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	0.0018 J	< 0.0043 U	< 0.0041 U	< 0.0057 U	< 0.0054 U	0.0011 J	0.0039 J	0.0018 J
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	< 0.0051 U	< 0.0043 U	0.0016 J	< 0.0057 U	< 0.0054 U	< 0.0048 U	0.0017 J	0.0025 J
Chlorobenzene	108-90-7	mg/kg	10	10	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.02 U	< 0.023 U	< 0.17 UD	< 0.051 U	< 0.0086 U	< 0.016 U	< 0.023 U	< 0.022 U	< 0.0097 U	< 0.012 U	< 0.0096 U
Ethyl Methacrylate	97-63-2	mg/kg	300	300	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	< 0.0051 U	< 0.0043 U	< 0.0041 U	< 0.0057 U	< 0.0054 U	< 0.0048 U	< 0.0059 U	< 0.0048 U
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	0.0049 J	< 0.0043 U	< 0.0041 U	< 0.0057 U	< 0.0054 U	0.0021 J	0.0028 J	< 0.0048 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	< 0.0051 U	< 0.0043 U	< 0.0041 U	< 0.0057 U	< 0.0054 U	< 0.0048 U	0.0029 J	< 0.0048 U
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	< 0.0045 U	< 0.0051 U	< 0.005 U	< 0.005 U	< 0.0052 U	< 0.0051 U	< 0.0058 U	< 0.17 UD	< 0.0051 U	< 0.0043 U	< 0.0041 U	< 0.0057 U	< 0.0054 U	< 0.0048 U	< 0.0059 U	< 0.0048 U
Toluene	108-88-3	mg/kg	100	100	< 0.0045 U	< 0.0051 U	0.0017 J	< 0.005 U	< 0.0052 U	0.00088 J	< 0.0058 U	< 0.17 UD	0.0048 J	< 0.0043 U	0.00078 J	0.0012 J	0.0011 J	0.029	0.11	< 0.0048 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	0.0029 J	0.0093 J	< 0.01 U	< 0.0099 U	< 0.01 U	< 0.01 U	< 0.012 U	< 0.34 UD	0.025	< 0.0086 U	< 0.0081 U	< 0.011 U	0.0054 J	0.0066 J	0.0031 J	< 0.0096 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	< 0.009 U	< 0.01 U	< 0.01 U	< 0.0099 U	< 0.01 U	< 0.01 U	< 0.012 U	< 0.34 UD	< 0.01 U	< 0.0086 U	< 0.0081 U	< 0.011 U	< 0.011 U	< 0.0097 U	< 0.012 U	< 0.0096 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	DS-7	DS-8	DS-9	DS-9	EX-19	EX-21	EX-22	EX-23	EX-26	EX-27	EX-27	GP-10	GP-11	GP-13	GP-14	GP-15
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/7/2008	11/7/2008	11/7/2008	11/7/2008	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007
				Sample Depth (ft bgs)	2 - 4	0 - 2	0 - 2	2 - 4	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	< 0.0044 U	< 0.0042 U	< 0.0057 U	< 0.0046 U	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	0.028	0.0057 J	0.038	0.037	< 3.4 U	< 0.032 U	< 5.6 U	< 19 U	< 1.2 U	< 1.8 U	< 3.2 U	< 1.2 U	< 1 U	< 1.3 U	< 0.83 U	< 0.86 U
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	< 0.18 U	< 0.17 U	< 0.23 U	< 0.18 U	< 27 U	< 0.26 U	< 45 U	< 150 U	< 9.5 U	< 15 U	< 26 U	< 9.7 U	< 8 U	< 10 U	< 6.7 U	< 6.9 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	< 0.022 U	< 0.021 U	< 0.028 U	< 0.023 U	< 3.4 U	< 0.032 U	< 5.6 U	< 19 U	< 1.2 U	< 1.8 U	< 3.2 U	< 1.2 U	< 1 U	< 1.3 U	< 0.83 U	< 0.86 U
Acetone	67-64-1	mg/kg	400	400	0.41	0.068	0.32	0.44	< 6.8 U	0.18	< 11 U	< 37 U	< 2.4 U	< 3.6 U	< 6.4 U	< 2.4 U	< 2 U	< 2.5 U	< 1.7 U	< 1.7 U
Acetonitrile	75-05-8	mg/kg	20	20	< 0.18 U	< 0.17 U	< 0.23 U	< 0.18 U	< 27 U	< 0.26 U	< 45 U	< 150 U	< 9.5 U	< 15 U	< 26 U	< 9.7 U	< 8 U	< 10 U	< 6.7 U	< 6.9 U
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.089 U	< 0.084 U	< 0.11 U	< 0.091 U	< 14 U	< 0.13 U	< 23 U	< 74 U	< 4.8 U	< 7.3 U	< 13 U	< 4.8 U	< 4 U	< 5.1 U	< 3.3 U	< 3.4 U
Benzene	71-43-2	mg/kg	0.5	0.5	0.0019 J	< 0.0042 U	0.037	0.0039 J	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Carbon Disulfide	75-15-0	mg/kg	400	400	0.0011 J	< 0.0042 U	< 0.0057 U	0.0083	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Chlorobenzene	108-90-7	mg/kg	10	10	< 0.0089 U	< 0.0084 U	< 0.023 U	< 0.0091 U	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Ethyl Methacrylate	97-63-2	mg/kg	300	300	< 0.0044 U	< 0.0042 U	< 0.0057 U	< 0.0046 U	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0044 U	0.002 J	0.003 J	0.0039 J	3.3	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	0.97	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	< 0.0044 U	< 0.0042 U	< 0.0057 U	< 0.0046 U	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	< 0.0044 U	< 0.0042 U	< 0.0057 U	< 0.0046 U	< 0.68 U	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	< 0.24 U	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Toluene	108-88-3	mg/kg	100	100	0.0012 J	0.0046	0.001 J	0.0065	2.8	< 0.0064 U	< 1.1 U	< 3.7 U	< 0.24 U	< 0.36 U	< 0.64 U	0.43	< 0.2 U	< 0.25 U	< 0.17 U	< 0.17 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	< 0.0089 U	0.017	0.0057 J	0.012	14	< 0.013 U	2.3	< 7.4 U	< 0.48 U	< 0.73 U	2.6	8.1	< 0.4 U	1.1	< 0.33 U	< 0.34 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	< 0.0089 U	< 0.0084 U	< 0.011 U	< 0.0091 U	< 1.4 U	< 0.013 U	< 2.3 U	< 7.4 U	< 0.48 U	< 0.73 U	< 1.3 U	< 0.48 U	< 0.4 U	< 0.51 U	< 0.33 U	< 0.34 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	GP-16	GP-18	GP-2	GP-5	GP-6	GP-7	GP-8	Hard Resins	Hard Resins	SB-100	SB-100	SB-100	SB-101	SB-101	SB-102	SB-102
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	7/27/2007	7/27/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	6/5/2000	6/5/2000	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008
				Sample Depth (ft bgs)	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	1 - 3	4 - 6	2 - 4	2 - 4	4 - 6	2 - 4	4 - 6	2 - 4	4 - 6
				Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	< 3.3 U	< 0.036 U	< 1.5 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.7 U	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	< 27 U	< 0.29 U	< 12 U	< 9.7 U	< 8.8 U	< 9.8 U	< 14 U	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	< 3.3 U	< 0.036 U	< 1.5 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.7 U	--	--	--	--	--	--	--	--	--
Acetone	67-64-1	mg/kg	400	400	< 6.7 U	0.13	< 3 U	< 2.4 U	< 2.2 U	< 2.4 U	< 3.4 U	--	--	--	--	--	--	--	--	--
Acetonitrile	75-05-8	mg/kg	20	20	< 27 U	< 0.29 U	< 12 U	< 9.7 U	< 8.8 U	< 9.8 U	< 14 U	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	mg/kg	0.1	0.1	< 13 U	< 0.14 U	< 5.9 U	< 4.9 U	< 4.4 U	< 4.9 U	< 6.8 U	< 0.11 U	< 0.13 U	--	--	--	--	--	--	--
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	0.0032 J	< 0.0042 U	< 0.0049 U	< 0.0048 U	< 0.0044 U	< 0.0042 U	< 0.0045 U
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	mg/kg	10	10	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	--	--	--	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	0.89	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	0.67	--	--	0.002 J	< 0.0042 U	< 0.0049 U	0.0023 J	0.0063	< 0.0042 U	0.00087 J
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	< 0.67 U	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	mg/kg	100	100	0.79	< 0.0072 U	< 0.3 U	< 0.24 U	< 0.22 U	< 0.24 U	< 0.34 U	--	--	0.011	0.00071 J	< 0.0049 U	0.0015 J	0.0048	0.0011 J	0.0046
Total Xylenes	1330-20-7	mg/kg	1000	1000	4	< 0.014 U	< 0.59 U	< 0.49 U	< 0.44 U	0.89	1.3	--	--	0.014	< 0.0085 U	< 0.0099 U	0.02	0.057	< 0.0083 U	0.008 J
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	< 1.3 U	< 0.014 U	< 0.59 U	< 0.49 U	< 0.44 U	< 0.49 U	< 0.68 U	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
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Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-103	SB-103	SB-103	SB-105	SB-105	SB-107	SB-107	SB-107	SB-108	SB-108	SB-109	SB-109	SB-110	SB-111	SB-113	SB-114
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	8/19/2014	8/19/2014	8/20/2014	8/20/2014	8/20/2014	8/21/2014	8/21/2014	8/20/2014
				Sample Depth (ft bgs)	0 - 2	2 - 4	4 - 6	2 - 4	4 - 6	0 - 2	2 - 4	4 - 6	0 - 1	1 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	< 0.054 U	< 0.056 U	< 0.049 U	< 0.055 U	< 0.045 U	< 0.029 U	< 0.045 U	< 0.049 U
2-Butanone (MEK)	78-93-3	mg/kg	200	200	--	--	--	--	--	--	--	--	< 0.027 U	< 0.028 U	< 0.024 U	< 0.028 U	< 0.022 U	< 0.014 U	< 0.023 U	< 0.024 U
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	--	--	--	--	--	--	--	--	< 0.22 U	< 0.22 U	< 0.2 U	< 0.22 U	< 0.18 U	< 0.12 U	< 0.18 U	< 0.19 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	--	--	--	--	--	--	--	--	< 0.027 U	< 0.028 U	< 0.024 U	< 0.028 U	< 0.022 U	< 0.014 U	< 0.023 U	< 0.024 U
Acetone	67-64-1	mg/kg	400	400	--	--	--	--	--	--	--	--	< 0.054 U	< 0.056 U	< 0.049 U	< 0.055 U	0.095	< 0.029 U	0.083	< 0.049 U
Acetonitrile	75-05-8	mg/kg	20	20	--	--	--	--	--	--	--	--	< 0.22 U	< 0.22 U	< 0.2 U	< 0.22 U	< 0.18 U	< 0.12 U	< 0.18 U	< 0.19 U
Acrolein	107-02-8	mg/kg	0.1	0.1	--	--	--	--	--	--	--	--	< 0.11 U	< 0.11 U	< 0.098 U	< 0.11 U	< 0.09 U	< 0.058 U	< 0.09 U	< 0.097 U
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.0041 U	< 1.6 UD	< 1.7 UD	< 0.004 U	< 0.0043 U	< 0.0044 U	< 0.0043 U	< 0.0048 U	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Carbon Disulfide	75-15-0	mg/kg	400	400	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0041 U	2.1 D	1.3 JD	< 0.004 U	< 0.0043 U	< 0.0044 U	< 0.0043 U	< 0.0048 U	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	0.92	0.36
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U*	< 0.0055 U	< 0.0045 U*	< 0.0029 U*	< 0.0045 U*	< 0.0049 U
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Toluene	108-88-3	mg/kg	100	100	0.00068 J	2.2 D	1.5 JD	< 0.004 U	0.00077 J	< 0.0044 U	< 0.0043 U	0.00089 J	< 0.0054 U	< 0.0056 U	< 0.0049 U	< 0.0055 U	< 0.0045 U	< 0.0029 U	< 0.0045 U	< 0.0049 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	< 0.0081 U	15 D	9.1 D	< 0.008 U	< 0.0086 U	< 0.0088 U	< 0.0086 U	< 0.0097 U	< 0.011 U	< 0.011 U	< 0.0098 U	< 0.011 U	< 0.0090 U	< 0.0058 U	< 0.0090 U	< 0.0097 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	--	--	--	--	--	--	--	--	< 0.011 U	< 0.011 U	< 0.0098 U	< 0.011 U	< 0.0090 U	< 0.0058 U	< 0.0090 U	< 0.0097 U

Notes
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SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-116	SB-117	SB-118	SB-119	SB-120	SB-120	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134	SB-138
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	8/21/2014	8/20/2014	8/20/2014	8/21/2014	8/20/2014	8/20/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/20/2014
				Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
1,4-Dioxane	123-91-1	mg/kg	7	7	< 0.041 U	< 0.049 U	--	--	--	--	< 20 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.046 U	< 0.046 U	< 0.058 U	< 0.044 U	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	< 0.021 U	< 0.025 U	--	--	--	--	< 9.8 U	< 0.026 U	< 0.025 U	< 0.025 U	< 0.026 U	< 0.023 U	< 0.023 U	< 0.029 U	< 0.022 U	--
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	< 0.16 U	< 0.2 U	--	--	--	--	< 79 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.23 U	< 0.17 U	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	< 0.021 U	< 0.025 U	--	--	--	--	< 9.8 U	< 0.026 U	< 0.025 U	< 0.025 U	< 0.026 U	< 0.023 U	< 0.023 U	< 0.029 U	< 0.022 U	--
Acetone	67-64-1	mg/kg	400	400	< 0.041 U	< 0.049 U	--	--	--	--	< 20 U	< 0.052 U	< 0.05 U	< 0.051 U	0.26	0.11	< 0.046 U	< 0.058 U	< 0.044 U	--
Acetonitrile	75-05-8	mg/kg	20	20	< 0.16 U	< 0.2 U	--	--	--	--	< 79 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.23 U	< 0.17 U	--
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.082 U	< 0.098 U	--	--	--	--	< 39 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.093 U	< 0.093 U	< 0.12 U	< 0.087 U	< 0.1 U
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.0041 U	< 0.0049 U	< 0.0041 U	< 0.0045 U	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Chlorobenzene	108-90-7	mg/kg	10	10	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	0.14	0.14	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	< 0.0041 U*	< 0.0049 U	--	--	--	--	2.6	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U*	< 0.0044 U	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Toluene	108-88-3	mg/kg	100	100	< 0.0041 U	< 0.0049 U	--	--	--	--	< 2 U	< 0.0052 U	< 0.0050 U	< 0.0051 U	< 0.0051 U	< 0.0046 U	< 0.0046 U	< 0.0058 U	< 0.0044 U	--
Total Xylenes	1330-20-7	mg/kg	1000	1000	< 0.0082 U	< 0.0098 U	--	--	--	--	< 3.9 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.0093 U	< 0.0093 U	< 0.012 U	< 0.0087 U	--
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	< 0.0082 U	< 0.0098 U	--	--	--	--	< 3.9 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.0093 U	< 0.0093 U	< 0.012 U	< 0.0087 U	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-139	SB-140	SB-140	SB-141	SB-142	SB-142	SB-98	SB-98	SB-98	SB-99	SB-99	SB-F1	SB-F12	SB-F14	SB-F14	SB-F15
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	8/21/2014	8/21/2014	8/21/2014	8/20/2014	8/21/2014	8/21/2014	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	10/19/2000	10/20/2000	8/20/2014	10/19/2000	10/18/2000
				Sample Depth (ft bgs)	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	1 - 3	2 - 4	2 - 4	4 - 6	2 - 4	4 - 6	1 - 3	1 - 3	0 - 1	1 - 3	0 - 3
				Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	--	--	--	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	--	--	--	--	--	--	--	--	--	--	--	0.035	< 0.028 U	--	< 0.031 U	< 0.029 U
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	--	--	--	--	--	--	--	--	--	--	--	< 0.23 U	< 0.23 U	--	< 0.25 U	< 0.23 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	--	--	--	--	--	--	--	--	--	--	--	< 0.029 U	< 0.028 U	--	< 0.031 U	< 0.029 U
Acetone	67-64-1	mg/kg	400	400	--	--	--	--	--	--	--	--	--	--	--	0.44	< 0.057 U	--	< 0.093 U	0.22
Acetonitrile	75-05-8	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	< 0.23 U	< 0.23 U	--	< 0.25 U	< 0.23 U
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.094 U	< 0.095 U	< 0.09 U	< 120 U	< 0.089 U	< 0.096 U	--	--	--	--	--	< 0.12 U	< 0.11 U	< 0.12 U	< 0.12 U	< 0.11 U
Benzene	71-43-2	mg/kg	0.5	0.5	--	--	--	--	--	--	< 0.0043 U	< 0.0048 U	< 0.005 U	< 0.96 UD	0.097 JD	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Carbon Disulfide	75-15-0	mg/kg	400	400	--	--	--	--	--	--	--	--	--	--	--	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--	--	--	--	--	--	--	--	--	--	--	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Ethylbenzene	100-41-4	mg/kg	70	70	--	--	--	--	--	--	< 0.0043 U	< 0.0048 U	0.0009 J	10 D	2.3 D	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	--	--	--	--	--	--	--	--	--	--	--	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	--	--	--	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Toluene	108-88-3	mg/kg	100	100	--	--	--	--	--	--	< 0.0043 U	< 0.0048 U	< 0.005 U	8.9 D	3.1 D	< 0.0058 U	< 0.0057 U	--	< 0.0062 U	< 0.0057 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	--	--	--	--	--	--	< 0.0086 U	< 0.0096 U	0.0037 J	83 D	19 D	< 0.012 U	< 0.011 U	--	< 0.012 U	< 0.011 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	--	--	--	--	--	--	--	--	--	--	--	< 0.012 U	< 0.011 U	--	< 0.012 U	< 0.011 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
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Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-F19	SB-F27	SB-F27	SB-F27	SB-F3	SB-F3A	SB-F3RE	SB-F4	SB-F6	SS-1	SS-2	SS-3	SS-30	SS-31	SS-32	SS-33
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	10/17/2000	8/19/2014	8/19/2014	10/19/2000	10/24/2000	11/8/2002	12/19/2002	10/19/2000	10/19/2000	7/2/2004	7/2/2004	7/2/2004	11/8/2002	11/8/2002	11/8/2002	11/8/2002
				Sample Depth (ft bgs)	0 - 3	0 - 1	1 - 3	1 - 3	0 - 2	0 - 1	0 - 2	0.5 - 2	1 - 3	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	--	--	< 0.0053 U	< 0.0058 U	< 0.0059 U	< 0.0057 U	< 0.0056 U	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	< 0.026 U	--	--	< 0.028 U	< 1.2 U	< 0.035 U	< 0.03 U	< 0.026 U	0.037	< 0.029 U	< 0.028 U	< 0.028 U	< 0.034 U	0.049	0.029	< 0.033 U
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	< 0.21 U	--	--	< 0.22 U	< 49 U	--	--	< 0.21 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.22 U	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	< 0.026 U	--	--	< 0.028 U	< 1.2 U	--	--	< 0.026 U	< 0.029 U	< 0.029 U	< 0.028 U	< 0.028 U	--	--	--	--
Acetone	67-64-1	mg/kg	400	400	< 0.052 U	--	--	< 0.056 U	4.1	< 0.07 U	0.068	0.28	0.24	< 0.059 U	0.065	0.16	0.19	0.14	0.28	< 0.065 U
Acetonitrile	75-05-8	mg/kg	20	20	< 0.21 U	--	--	< 0.22 U	< 9.9 U	--	--	< 0.21 U	< 0.23 U	< 0.24 U	< 0.23 U	< 0.22 U	--	--	--	--
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.1 U	< 0.087 U	< 0.095 U	< 0.11 U	< 4.9 U	--	--	< 0.1 U	< 0.12 U	< 0.12 U	< 0.11 U	< 0.11 U	--	--	--	--
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	< 0.007 U	< 0.006 U	< 0.0053 U	< 0.0058 U	< 0.0059 U	< 0.0057 U	< 0.0056 U	< 0.0068 U	< 0.0064 U	< 0.0056 U	< 0.0065 U
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	< 0.007 U	< 0.006 U	< 0.0053 U	0.0076	< 0.0059 U	< 0.0057 U	< 0.0056 U	< 0.0068 U	< 0.0064 U	< 0.0056 U	< 0.0065 U
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	--	--	--	--	--	--	--	< 0.0059 U	< 0.0057 U	< 0.0056 U	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	--	--	< 0.0053 U	< 0.0058 U	< 0.0059 U	< 0.0057 U	< 0.0056 U	--	--	--	--
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	< 0.007 U	< 0.006 U	< 0.0053 U	0.012	< 0.0059 U	< 0.0057 U	< 0.0056 U	< 0.0068 U	< 0.0064 U	< 0.0056 U	< 0.0065 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	< 0.007 U	< 0.006 U	--	--	--	--	--	< 0.0068 U	0.024	< 0.0056 U	< 0.0065 U
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	< 0.007 U	< 0.006 U	--	--	--	--	--	< 0.0068 U	< 0.0064 U	< 0.0056 U	< 0.0065 U
Styrene (Monomer)	100-42-5	mg/kg	14	14	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	--	--	< 0.0053 U	< 0.0058 U	< 0.0059 U	< 0.0057 U	< 0.0056 U	--	--	--	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	--	--	< 0.0053 U	< 0.0058 U	< 0.0059 U	< 0.0057 U	< 0.0056 U	--	--	--	--
Toluene	108-88-3	mg/kg	100	100	< 0.0052 U	--	--	< 0.0056 U	< 0.25 U	< 0.007 U	< 0.006 U	< 0.0053 U	0.012	< 0.0059 U	< 0.0057 U	< 0.0056 U	< 0.0068 U	< 0.0064 U	< 0.0056 U	< 0.0065 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	< 0.01 U	--	--	< 0.011 U	< 0.49 U	< 0.014 U	< 0.012 U	< 0.01 U	0.079	< 0.012 U	< 0.011 U	< 0.011 U	< 0.014 U	0.024	< 0.011 U	< 0.013 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	< 0.01 U	--	--	< 0.011 U	< 0.49 U	--	--	< 0.01 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
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< = Concentration is less than the reporting limit
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ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SS-34	SS-35	SS-4	SS-43	SS-44	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50	SS-51	SS-52	SS-53	SS-54	SS-55
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/8/2002	11/8/2002	7/2/2004	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/20/2002	12/19/2002	12/19/2002	12/20/2002
				Sample Depth (ft bgs)	0 - 2	0 - 2	0 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	< 0.034 U	0.034	< 0.03 U	< 0.028 U	< 0.029 U	< 0.028 U	< 0.028 U	< 0.028 U	< 0.029 U	< 0.03 U	< 0.032 U	< 0.029 U	< 0.03 U	< 0.027 U	< 0.028 U	0.051
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	--	--	< 0.24 U	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	--	--	< 0.03 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	67-64-1	mg/kg	400	400	< 0.068 U	0.35	0.072	< 0.057 U	< 0.057 U	0.12	< 0.056 U	0.12	0.055	< 0.06 U	< 0.063 U	0.061	0.14	0.08	< 0.057 U	1
Acetonitrile	75-05-8	mg/kg	20	20	--	--	< 0.24 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	mg/kg	0.1	0.1	--	--	< 0.12 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.0068 U	< 0.0067 U	< 0.006 U	< 0.0057 U	< 0.0057 U	< 0.0056 U	< 0.0056 U	< 0.0057 U	< 0.0058 U	< 0.006 U	< 0.0063 U	< 0.0057 U	< 0.006 U	< 0.0055 U	< 0.0057 U	< 0.0057 U
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.0068 U	< 0.0067 U	< 0.006 U	< 0.0057 U	< 0.0057 U	< 0.0056 U	< 0.0056 U	< 0.0057 U	< 0.0058 U	< 0.006 U	< 0.0063 U	< 0.0057 U	< 0.006 U	< 0.0055 U	< 0.0057 U	< 0.0057 U
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0068 U	< 0.0067 U	< 0.006 U	< 0.0057 U	< 0.0057 U	< 0.0056 U	< 0.0056 U	< 0.0057 U	< 0.0058 U	< 0.006 U	< 0.0063 U	< 0.0057 U	< 0.006 U	< 0.0055 U	< 0.0057 U	< 0.0057 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	0.022	0.016	--	< 0.0057 U	< 0.0057 U	0.022	< 0.0056 U	< 0.0057 U	< 0.0058 U	< 0.006 U	< 0.0063 U	< 0.0057 U	0.017	< 0.0055 U	< 0.0057 U	< 0.0057 U
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	< 0.0068 U	< 0.0067 U	--	< 0.0057 U	< 0.0057 U	0.0084	< 0.0056 U	< 0.0057 U	< 0.0058 U	< 0.006 U	< 0.0063 U	< 0.0057 U	0.0099	< 0.0055 U	< 0.0057 U	< 0.0057 U
Styrene (Monomer)	100-42-5	mg/kg	14	14	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	mg/kg	100	100	< 0.0068 U	< 0.0067 U	< 0.006 U	< 0.0057 U	< 0.0057 U	< 0.0056 U	< 0.0056 U	< 0.0057 U	< 0.0058 U	< 0.006 U	< 0.0063 U	< 0.0057 U	< 0.006 U	< 0.0055 U	< 0.0057 U	< 0.0057 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	0.022	0.016	< 0.012 U	< 0.011 U	< 0.011 U	0.03	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.013 U	< 0.011 U	0.027	< 0.011 U	< 0.011 U	< 0.011 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	--	--	< 0.012 U	--	--	--	--	--	--	--	--	--	--	--	--	--

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D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
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Hercules Inc. - Savannah, GA

				Well	SS-56	SS-57	SS-58	SS-59	SS-60	SS-61	SS-62	SS-63	SS-74	SS-74	SS-75	SS-75	SS-76	SS-76	SS-77	SS-77
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	12/19/2002	12/19/2002	12/19/2002	12/19/2002	12/19/2002	12/20/2002	12/19/2002	12/19/2002	8/15/2006	8/15/2006	8/15/2006	8/15/2006	8/15/2006	8/15/2006	8/15/2006	8/15/2006
				Sample Depth (ft bgs)	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	FD
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	< 0.027 U	< 0.029 U	< 0.029 U	< 0.034 U	< 0.032 U	< 0.028 U	< 0.029 U	< 0.029 U	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	67-64-1	mg/kg	400	400	< 0.055 U	< 0.059 U	0.45	0.11	0.086	0.067	< 0.059 U	0.074	--	--	--	--	--	--	--	--
Acetonitrile	75-05-8	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	mg/kg	0.1	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	mg/kg	0.5	0.5	< 0.0055 U	< 0.0059 U	< 0.0058 U	< 0.0068 U	< 0.0064 U	< 0.0057 U	< 0.0059 U	< 0.0057 U	--	--	--	--	--	--	--	--
Carbon Disulfide	75-15-0	mg/kg	400	400	< 0.0055 U	< 0.0059 U	< 0.0058 U	< 0.0068 U	< 0.0064 U	< 0.0057 U	< 0.0059 U	< 0.0057 U	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	mg/kg	70	70	< 0.0055 U	< 0.0059 U	< 0.0058 U	< 0.0068 U	< 0.0064 U	< 0.0057 U	< 0.0059 U	< 0.0057 U	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	--	--	--	--	--	0.2	< 0.11 U	0.32	0.48	0.34	0.26	0.56	0.94
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	< 0.0055 U	< 0.0059 U	< 0.0058 U	< 0.0068 U	< 0.0064 U	< 0.0057 U	< 0.0059 U	< 0.0057 U	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	< 0.0055 U	< 0.0059 U	< 0.0058 U	< 0.0068 U	< 0.0064 U	< 0.0057 U	< 0.0059 U	< 0.0057 U	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	mg/kg	100	100	< 0.0055 U	< 0.0059 U	< 0.0058 U	< 0.0068 U	< 0.0064 U	< 0.0057 U	< 0.0059 U	< 0.0057 U	--	--	--	--	--	--	--	--
Total Xylenes	1330-20-7	mg/kg	1000	1000	< 0.011 U	< 0.012 U	< 0.012 U	< 0.014 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	--	--	--	--	--	--	--	--
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SS-77	SS-77	SS-78	SS-78	SS-79	SS-79	SS-80	SS-82	SS-83	SS-84	SS-85	SS-86	SS-87	SS-88	SS-89	SS-90
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	8/15/2006	8/15/2006	8/15/2006	8/15/2006	8/15/2006	8/15/2006	11/19/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/19/2008	11/19/2008	11/6/2008	11/10/2008	11/6/2008
				Sample Depth (ft bgs)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**																
VOCs																				
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	--	--	--	--	--	--	< 0.029 U	--	--	--	--	0.0061 J	< 0.036 U	--	--	--
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	67-64-1	mg/kg	400	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetonitrile	75-05-8	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acrolein	107-02-8	mg/kg	0.1	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	mg/kg	0.5	0.5	--	--	--	--	--	--	< 0.0057 U	--	--	--	--	--	--	--	--	--
Carbon Disulfide	75-15-0	mg/kg	400	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	mg/kg	70	70	--	--	--	--	--	--	< 0.0057 U	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	mg/kg	100	100	0.34	0.44	1.6	1.2	1.9	0.69	1.2	54	0.32	0.25	0.29	1	1.3	1.1	0.15	0.1 J
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	mg/kg	100	100	--	--	--	--	--	--	< 0.0057 U	--	--	--	--	--	--	--	--	--
Total Xylenes	1330-20-7	mg/kg	1000	1000	--	--	--	--	--	--	< 0.011 U	--	--	--	--	--	--	--	--	--
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6a
Historical and Recent Soil Analytical Data, VOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SS-93	SS-94	SS-94	SS-95	SS-96	SS-97	SS-97
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO
				Date	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/6/2008	11/10/2008	11/10/2008
				Sample Depth (ft bgs)	0 - 4	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Sample Type	N	FD	N	N	N	FD	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**							
VOCs											
1,2-Dichloropropane	78-87-5	mg/kg	0.5	0.5	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--
2-Butanone (MEK)	78-93-3	mg/kg	200	200	--	--	--	< 0.022 U	< 0.023 U	--	--
2-Methyl-1-propanol	78-83-1	mg/kg	1000	1000	--	--	--	--	--	--	--
4-Methyl-2-Pentanone	108-10-1	mg/kg	200	200	--	--	--	--	--	--	--
Acetone	67-64-1	mg/kg	400	400	--	--	--	--	--	--	--
Acetonitrile	75-05-8	mg/kg	20	20	--	--	--	--	--	--	--
Acrolein	107-02-8	mg/kg	0.1	0.1	< 0.092 U	< 0.078 U	< 0.095 U	--	--	--	--
Benzene	71-43-2	mg/kg	0.5	0.5	--	--	--	< 0.0043 U	< 0.0046 U	< 0.0046 U	< 0.0047 U
Carbon Disulfide	75-15-0	mg/kg	400	400	--	--	--	--	--	--	--
Chlorobenzene	108-90-7	mg/kg	10	10	--	--	--	--	--	--	--
Ethyl Methacrylate	97-63-2	mg/kg	300	300	--	--	--	--	--	--	--
Ethylbenzene	100-41-4	mg/kg	70	70	--	--	--	< 0.0043 U	< 0.0046 U	< 0.0046 U	< 0.0047 U
Formaldehyde	50-00-0	mg/kg	100	100	--	--	--	0.18	0.13	--	--
m,p-Xylene	ARC-mpXy	mg/kg	20	20	--	--	--	--	--	--	--
m-Xylene	108-38-3	mg/kg	20	20	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--
o-Xylene	95-47-6	mg/kg	20	20	--	--	--	--	--	--	--
Styrene (Monomer)	100-42-5	mg/kg	14	14	--	--	--	--	--	--	--
Tetrachloroethene	127-18-4	mg/kg	0.5	0.5	--	--	--	--	--	--	--
Toluene	108-88-3	mg/kg	100	100	--	--	--	0.0028 J	0.00075 J	< 0.0046 U	< 0.0047 U
Total Xylenes	1330-20-7	mg/kg	1000	1000	--	--	--	0.0033 J	< 0.0091 U	< 0.0093 U	< 0.0095 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	0.11	0.14	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greate
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
mg/kg = milligrams per kilogram
VOC = Volatile organic compounds

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	DS-1	DS-1	DS-10	DS-10	DS-11	DS-11	DS-12	DS-12	DS-13	DS-13	DS-14	DS-14	DS-15	DS-15	DS-16
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008
				Sample Depth (ft bgs)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 0.35 U	< 0.35 U	0.055 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 0.35 U	< 0.35 U*	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U*	< 0.39 U*	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
1,4-Dioxane	123-91-1	mg/kg	7	7	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 U*D	< 3.8 U*D	< 3.9 U*D	< 4.1 U*D	< 3.9 U*D	< 2 U*D	< 3.7 U*D
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 0.35 U	< 0.35 U*	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U*	< 0.39 U*	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	< 0.35 U	0.073 J	0.054 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Acenaphthylene	208-96-8	mg/kg	130	130	0.18 J	0.033 J	0.059 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Acetophenone	98-86-2	mg/kg	400	400	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Aniline	62-53-3	mg/kg	2	2	< 0.69 U	< 0.7 U	< 0.7 U	< 0.76 U	< 0.78 U	< 0.78 U	< 0.81 U	< 0.77 U	< 7.4 UD	< 7.6 UD	< 7.8 UD	< 8.1 UD	< 7.8 UD	< 3.9 UD	< 7.3 UD
Anthracene	120-12-7	mg/kg	500	1009	0.11 J	0.037 J	0.11 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Benzo(a)anthracene	56-55-3	mg/kg	5	5	0.11 J	0.078 J	0.4	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	0.16 J	0.1 J	0.36	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	0.42	0.19 J	0.64	< 0.38 U	< 0.39 U	< 0.39 U	0.047 J	< 0.39 U	0.26 JD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	0.19 J	0.11 J	0.25 J	< 0.38 U	< 0.39 U	< 0.39 U	0.032 J	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 0.35 U	< 0.35 U	0.29 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 0.35 U	< 0.35 U	0.13 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 0.35 U	< 0.35 U	0.072 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Chrysene	218-01-9	mg/kg	43	141	0.2 J	0.12 J	0.63	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 0.35 U	< 0.35 U	0.024 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 0.35 U	< 0.35 U	0.062 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Fluoranthene	206-44-0	mg/kg	500	500	0.27 J	0.21 J	1.5	< 0.38 U	0.046 J	< 0.39 U	0.18 J	< 0.39 U	0.24 JD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Fluorene	86-73-7	mg/kg	360	360	< 0.35 U	0.04 J	0.043 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	0.15 J	0.085 J	0.15 J	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Naphthalene	91-20-3	mg/kg	100	100	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 0.35 U	< 0.35 U*	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U*	< 0.39 U*	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 0.35 U	< 0.35 U*	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U*	< 0.39 U*	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Parathion	56-38-2	mg/kg	20	20	< 0.35 U	< 0.35 U*	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U*	< 0.39 U*	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Phenanthrene	85-01-8	mg/kg	110	110	0.031 J	0.17 J	0.39	< 0.38 U	< 0.39 U	< 0.39 U	0.035 J	< 0.39 U	< 3.7 UD	< 3.8 UD	0.41 JD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Phenol	108-95-2	mg/kg	50	--	< 0.35 U	< 0.35 U	< 0.35 U	< 0.38 U	< 0.39 U	< 0.39 U	< 0.4 U	< 0.39 U	< 3.7 UD	< 3.8 UD	< 3.9 UD	< 4.1 UD	< 3.9 UD	< 2 UD	< 3.7 UD
Pyrene	129-00-0	mg/kg	500	500	0.2 J	0.2 J	0.8	< 0.38 U	< 0.39 U	< 0.39 U	0.025 J	< 0.39 U	< 3.7 UD	< 3.8 UD	0.39 JD	< 4.1 UD	0.21 JD	< 2 UD	< 3.7 UD

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	DS-16	DS-17	DS-17	DS-18	DS-18	DS-18	DS-2	DS-2	DS-3	DS-3	DS-4	DS-4	DS-5	DS-5	DS-6
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/10/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008
				Sample Depth (ft bgs)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Sample Type	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	0.021 J	< 1.9 UD	0.64 JD
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U*	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
1,4-Dioxane	123-91-1	mg/kg	7	7	< 4 U*D	< 2 U*D	< 3.9 U*D	< 1.9 U*D	< 2 U*D	< 2 U*D	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 U*D	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 U*D	< 3.9 UD
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U*	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.019 J	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Acenaphthylene	208-96-8	mg/kg	130	130	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.019 J	0.093 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Acetophenone	98-86-2	mg/kg	400	400	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Aniline	62-53-3	mg/kg	2	2	< 7.9 UD	< 4 UD	< 7.7 UD	< 3.9 UD	< 3.9 UD	< 3.9 UD	< 0.73 U	< 0.76 U	< 7.7 UD	< 7.7 UD	< 0.72 U	< 0.72 U	< 0.74 U	< 3.7 UD	< 7.8 UD
Anthracene	120-12-7	mg/kg	500	1009	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	0.21 JD	< 3.8 UD	0.038 J	0.11 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Benzo(a)anthracene	56-55-3	mg/kg	5	5	< 4 UD	< 2 UD	< 3.9 UD	0.34 JD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.07 J	0.28 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.063 J	0.27 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	< 4 UD	0.13 JD	< 3.9 UD	0.54 JD	< 2 UD	0.13 JD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.17 J	0.71	< 0.37 U	< 1.9 UD	< 3.9 UD
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	< 4 UD	< 2 UD	0.58 JD	0.31 JD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.058 J	0.22 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	0.12 J	< 0.38 U	< 3.9 UD	< 3.8 UD	0.2 J	0.06 J	0.12 J	< 1.9 UD	< 3.9 UD
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Chrysene	218-01-9	mg/kg	43	141	< 4 UD	0.1 JD	< 3.9 UD	0.33 JD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.11 J	0.52	< 0.37 U	< 1.9 UD	< 3.9 UD
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 4 UD	< 2 UD	0.56 JD	0.23 JD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	0.019 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Fluoranthene	206-44-0	mg/kg	500	500	< 4 UD	0.26 JD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	0.042 J	< 0.38 U	0.4 JD	0.64 JD	0.26 J	1.2	0.062 J	< 1.9 UD	0.32 JD
Fluorene	86-73-7	mg/kg	360	360	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	0.045 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	< 4 UD	< 2 UD	0.51 JD	0.24 JD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.045 J	0.18 J	< 0.37 U	< 1.9 UD	< 3.9 UD
Naphthalene	91-20-3	mg/kg	100	100	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U*	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U*	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Parathion	56-38-2	mg/kg	20	20	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U*	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Phenanthrene	85-01-8	mg/kg	110	110	< 4 UD	0.18 JD	< 3.9 UD	0.43 JD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	0.11 J	0.31 J	0.021 J	< 1.9 UD	< 3.9 UD
Phenol	108-95-2	mg/kg	50	--	< 4 UD	< 2 UD	< 3.9 UD	< 1.9 UD	< 2 UD	< 2 UD	< 0.36 U	< 0.38 U	< 3.9 UD	< 3.8 UD	< 0.36 U	< 0.36 U	< 0.37 U	< 1.9 UD	< 3.9 UD
Pyrene	129-00-0	mg/kg	500	500	< 4 UD	0.14 JD	< 3.9 UD	0.48 JD	< 2 UD	< 2 UD	0.019 J	< 0.38 U	< 3.9 UD	< 3.8 UD	0.16 J	1	0.023 J	< 1.9 UD	< 3.9 UD

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	DS-6	DS-7	DS-7	DS-8	DS-9	DS-9	EX-19	EX-21	EX-22	EX-23	EX-26	EX-27	EX-27	GP-10	GP-11
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	11/7/2008	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/26/2007	7/26/2007
				Sample Depth (ft bgs)	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	9 D	700	6.4	1.1	< 0.37 U	44	< 1.9 U	< 2 U	< 2 U	< 0.38 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
1,4-Dioxane	123-91-1	mg/kg	7	7	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 U*D	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Acenaphthylene	208-96-8	mg/kg	130	130	< 4.1 UD	0.11 J	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Acetophenone	98-86-2	mg/kg	400	400	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Aniline	62-53-3	mg/kg	2	2	< 8.1 UD	< 0.73 U	< 0.75 U	< 7.4 UD	< 0.9 U	< 1.6 UD	< 420 U	< 7.6 U	< 1.5 U	< 0.73 U	< 32 U	< 3.8 U	< 4 U	< 4 U	< 0.75 U
Anthracene	120-12-7	mg/kg	500	1009	< 4.1 UD	0.1 J	< 0.38 U	< 3.7 UD	< 0.45 U	0.079 JD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Benzo(a)anthracene	56-55-3	mg/kg	5	5	< 4.1 UD	0.37	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 4.1 UD	0.4	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	< 4.1 UD	0.77	< 0.38 U	0.39 JD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	< 4.1 UD	0.3 J	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 4.1 UD	0.45	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 4.1 UD	0.09 J	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 4.1 UD	0.047 J	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Chrysene	218-01-9	mg/kg	43	141	< 4.1 UD	0.65	< 0.38 U	0.3 JD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Fluoranthene	206-44-0	mg/kg	500	500	< 4.1 UD	1.3	0.055 J	0.6 JD	< 0.45 U	0.73 JD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Fluorene	86-73-7	mg/kg	360	360	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	< 4.1 UD	0.24 J	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Naphthalene	91-20-3	mg/kg	100	100	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Parathion	56-38-2	mg/kg	20	20	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Phenanthrene	85-01-8	mg/kg	110	110	< 4.1 UD	0.14 J	< 0.38 U	0.28 JD	< 0.45 U	0.16 JD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Phenol	108-95-2	mg/kg	50	--	< 4.1 UD	< 0.37 U	< 0.38 U	< 3.7 UD	< 0.45 U	< 0.79 UD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U
Pyrene	129-00-0	mg/kg	500	500	< 4.1 UD	0.81	0.023 J	0.49 JD	< 0.45 U	0.081 JD	< 210 U	< 3.8 U	< 0.74 U	< 0.37 U	< 16 U	< 1.9 U	< 2 U	< 2 U	< 0.38 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	GP-13	GP-14	GP-15	GP-16	GP-18	GP-2	GP-5	GP-6	GP-7	GP-8	SB-108	SB-108	SB-109	SB-109	SB-109
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	7/26/2007	7/26/2007	7/26/2007	7/27/2007	7/27/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007	8/19/2014	8/19/2014	8/20/2014	8/20/2014	8/20/2014
				Sample Depth (ft bgs)	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 1	1 - 3	0 - 1	0 - 1	1 - 3
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.86 U	< 0.87 U	< 18 U	< 0.87 U	< 8.6 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
1,4-Dioxane	123-91-1	mg/kg	7	7	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	--	--	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Acenaphthene	83-32-9	mg/kg	300	300	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Acenaphthylene	208-96-8	mg/kg	130	130	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Acetophenone	98-86-2	mg/kg	400	400	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Aniline	62-53-3	mg/kg	2	2	< 3.9 U	< 0.78 U	< 0.77 U	< 3.7 U	< 0.76 U	< 0.78 U	< 0.76 U	< 16 U	< 0.78 U	< 980 U	< 0.77 U	< 0.78 U	--	< 0.77 U	< 7.7 U
Anthracene	120-12-7	mg/kg	500	1009	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Benzo(a)anthracene	56-55-3	mg/kg	5	5	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	0.44	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	0.45	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	0.69	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Chrysene	218-01-9	mg/kg	43	141	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Fluoranthene	206-44-0	mg/kg	500	500	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	0.92	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Fluorene	86-73-7	mg/kg	360	360	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Naphthalene	91-20-3	mg/kg	100	100	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Parathion	56-38-2	mg/kg	20	20	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Phenanthrene	85-01-8	mg/kg	110	110	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	0.42	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Phenol	108-95-2	mg/kg	50	--	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	< 0.39 U	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U
Pyrene	129-00-0	mg/kg	500	500	< 2 U	< 0.39 U	< 0.39 U	< 1.9 U	< 0.38 U	0.45	< 0.38 U	< 7.8 U	< 0.39 U	< 490 U	< 0.38 U	< 0.39 U	--	< 0.39 U	< 3.9 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-110	SB-111	SB-113	SB-114	SB-116	SB-117	SB-120	SB-120	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	8/20/2014	8/21/2014	8/21/2014	8/20/2014	8/21/2014	8/20/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014
				Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 17 U	< 8 U	< 0.89 U	< 8.2 U	< 0.89 U	< 0.85 U	< 0.79 U	< 0.81 U	< 0.91 U	< 0.89 U	< 19 U	140	4400	< 8.2 U	< 8 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
1,4-Dioxane	123-91-1	mg/kg	7	7	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Acenaphthene	83-32-9	mg/kg	300	300	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Acenaphthylene	208-96-8	mg/kg	130	130	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Acetophenone	98-86-2	mg/kg	400	400	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Aniline	62-53-3	mg/kg	2	2	< 15 U	< 7.2 U	< 0.8 U	< 7.3 U	< 0.79 U	< 0.76 U	--	--	--	--	--	< 76 U	< 760 U	< 7.3 U	< 7.1 U
Anthracene	120-12-7	mg/kg	500	1009	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Benzo(a)anthracene	56-55-3	mg/kg	5	5	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Chrysene	218-01-9	mg/kg	43	141	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Fluoranthene	206-44-0	mg/kg	500	500	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Fluorene	86-73-7	mg/kg	360	360	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Naphthalene	91-20-3	mg/kg	100	100	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Parathion	56-38-2	mg/kg	20	20	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Phenanthrene	85-01-8	mg/kg	110	110	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Phenol	108-95-2	mg/kg	50	--	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U
Pyrene	129-00-0	mg/kg	500	500	< 7.4 U	< 3.6 U	< 0.4 U	< 3.7 U	< 0.4 U	< 0.38 U	--	--	--	--	--	< 38 U	< 380 U	< 3.7 U	< 3.6 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-130	SB-131	SB-132	SB-133	SB-134	SB-138	SB-138	SB-140	SB-140	SB-140	SB-141	SB-142	SB-142	SB-143	SB-144
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/20/2014	8/20/2014	8/21/2014	8/21/2014	8/21/2014	8/20/2014	8/21/2014	8/21/2014	8/21/2014	8/22/2014
				Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1
				Sample Type	N	N	N	N	N	FD	N	FD	N	N	N	N	N	N	FD
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 8.1 U	< 8.4 U	< 8.6 U	< 19 U	< 17 U	< 0.92 U	< 17 U	< 8.1 U	< 0.9 U	< 0.9 U	< 19 U	< 8.1 U	< 0.87 U	< 8 U	< 9 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	mg/kg	130	130	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	mg/kg	400	400	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Aniline	62-53-3	mg/kg	2	2	< 7.2 U	< 7.5 U	< 7.6 U	< 17 U	< 15 U	--	--	< 7.2 U	< 0.8 U	< 0.8 U	< 17 U	--	--	< 7.1 U	--
Anthracene	120-12-7	mg/kg	500	1009	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	mg/kg	5	5	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	mg/kg	43	141	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	mg/kg	500	500	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	mg/kg	360	360	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Parathion	56-38-2	mg/kg	20	20	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	mg/kg	110	110	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	mg/kg	50	--	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	mg/kg	500	500	< 3.6 U	< 3.8 U	< 3.8 U	< 8.3 U	< 7.6 U	--	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-144	SB-145	SB-145	SB-145	SB-146	SB-148	SB-148	SB-149	SB-150	SB-151	SB-152	SB-153	SB-155	SB-155	SB-156
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	8/22/2014	8/22/2014	8/22/2014	8/22/2014	8/22/2014	8/22/2014	8/22/2014	8/22/2014	8/22/2014	8/20/2014	8/20/2014	8/22/2014	8/22/2014	8/22/2014	8/22/2014
				Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
				Sample Type	N	FD	N	N	N	FD	N	N	N	N	N	N	FD	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 7.7 U	< 8.2 U	< 8.3 U	< 8.2 U	< 8.4 U	< 8.4 U	< 8.1 U	< 9.7 U	< 8.9 U	< 18 U	< 0.95 U	< 8.2 U	< 8.1 U	< 8.3 U	< 8.1 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	mg/kg	130	130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	mg/kg	400	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Aniline	62-53-3	mg/kg	2	2	< 6.9 U	< 7.3 U	< 7.4 U	< 7.3 U	< 7.5 U	--	--	--	--	--	--	--	--	--	--
Anthracene	120-12-7	mg/kg	500	1009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	mg/kg	5	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	mg/kg	43	141	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	mg/kg	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	mg/kg	360	360	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Parathion	56-38-2	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	mg/kg	110	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	mg/kg	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	mg/kg	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
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D = Compounds identified in an analysis at a secondary dilution filter
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* LCS or LCSD exceeds the control limits
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FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
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VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-F1	SB-F12	SB-F14	SB-F15	SB-F19	SB-F27	SB-F3	SB-F3A	SB-F3RE	SB-F4	SB-F4	SB-F6	SS-1	SS-2	SS-3
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	10/19/2000	10/20/2000	10/19/2000	10/18/2000	10/17/2000	10/19/2000	10/24/2000	11/8/2002	12/19/2002	8/19/2014	10/19/2000	10/19/2000	7/2/2004	7/2/2004	7/2/2004
				Sample Depth (ft bgs)	1 - 3	1 - 3	1 - 3	0 - 3	0 - 3	1 - 3	0 - 2	0 - 1	0 - 2	0 - 1	0.5 - 2	1 - 3	0 - 2	0 - 2	0 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	1.3	< 0.72 U	< 0.78 U	< 0.74 U	< 0.78 U	< 0.75 U	< 4.1 U	< 0.78 U	< 0.78 U	< 17 U	< 0.77 U	< 0.77 U	--	--	--
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
1,4-Dioxane	123-91-1	mg/kg	7	7	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	--	--	< 0.39 U	< 0.38 U	< 0.37 U
Acenaphthene	83-32-9	mg/kg	300	300	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Acenaphthylene	208-96-8	mg/kg	130	130	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Acetophenone	98-86-2	mg/kg	400	400	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Aniline	62-53-3	mg/kg	2	2	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	3.3	< 0.39 U	< 0.39 U	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Anthracene	120-12-7	mg/kg	500	1009	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Benzo(a)anthracene	56-55-3	mg/kg	5	5	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	< 0.39 U	< 0.39 U	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	< 0.39 U	< 0.39 U	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Chrysene	218-01-9	mg/kg	43	141	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Fluoranthene	206-44-0	mg/kg	500	500	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Fluorene	86-73-7	mg/kg	360	360	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Naphthalene	91-20-3	mg/kg	100	100	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	< 0.39 U	< 0.39 U	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Parathion	56-38-2	mg/kg	20	20	< 0.37 U	< 0.36 U	1.4	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	2.1	--	--	--
Phenanthrene	85-01-8	mg/kg	110	110	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	0.46	< 0.38 U	< 0.37 U
Phenol	108-95-2	mg/kg	50	--	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U
Pyrene	129-00-0	mg/kg	500	500	< 0.37 U	< 0.36 U	< 0.39 U	< 0.37 U	< 0.39 U	< 0.38 U	< 2 U	--	--	--	< 0.38 U	< 0.38 U	< 0.39 U	< 0.38 U	< 0.37 U

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SS-30	SS-31	SS-32	SS-33	SS-34	SS-35	SS-4	SS-43	SS-44	SS-45	SS-46	SS-47	SS-48	SS-49	SS-50
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	11/8/2002	11/8/2002	11/8/2002	11/8/2002	11/8/2002	11/8/2002	7/2/2004	12/17/2002	12/17/2002	12/17/2002	12/17/2002	12/17/2002	12/17/2002	12/17/2002	12/17/2002
				Sample Depth (ft bgs)	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**															
SVOCs																			
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 0.86 U	< 0.89 U	< 0.82 U	< 0.8 U	< 0.8 U	< 0.84 U	--	< 0.75 U	< 0.76 U	< 0.74 U	< 0.74 U	< 0.75 U	< 0.77 U	< 0.8 U	< 0.84 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	mg/kg	130	130	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	mg/kg	400	400	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Aniline	62-53-3	mg/kg	2	2	< 0.43 U	< 0.44 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.42 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.42 U
Anthracene	120-12-7	mg/kg	500	1009	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	mg/kg	5	5	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 0.43 U	< 0.44 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.42 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.42 U
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	1.2	1	2.2	0.5	1.7	1.3	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.42 U
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Chrysene	218-01-9	mg/kg	43	141	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	mg/kg	500	500	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Fluorene	86-73-7	mg/kg	360	360	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	< 0.43 U	< 0.44 U	< 0.41 U	< 0.4 U	< 0.4 U	< 0.42 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.38 U	< 0.4 U	< 0.42 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Parathion	56-38-2	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	mg/kg	110	110	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Phenol	108-95-2	mg/kg	50	--	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--
Pyrene	129-00-0	mg/kg	500	500	--	--	--	--	--	--	< 0.4 U	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6b
Historical and Recent Soil Analytical Data, SVOCs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SS-51	SS-52	SS-53	SS-54	SS-55	SS-56	SS-57	SS-58	SS-59	SS-60	SS-61	SS-62	SS-63
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	12/17/2002	12/17/2002	12/19/2002	12/19/2002	12/17/2002	12/19/2002	12/19/2002	12/19/2002	12/19/2002	12/19/2002	12/17/2002	12/19/2002	12/19/2002
				Sample Depth (ft bgs)	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2	1 - 2
				Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**													
SVOCs																	
1,1-Biphenyl	92-52-4	mg/kg	1	1	< 0.76 U	< 0.78 U	< 0.72 U	< 0.75 U	< 0.76 U	< 0.72 U	< 0.78 U	< 0.77 U	< 0.89 U	< 0.85 U	< 0.75 U	< 0.78 U	< 0.76 U
1,3-Dinitrobenzene	99-65-0	mg/kg	1.05	1.05	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	123-91-1	mg/kg	7	7	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	105-67-9	mg/kg	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylphenol	95-48-7	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Methylphenol, 4-Methylphenol	65794-96-	mg/kg	3.8	4.1	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methylphenol	106-44-5	mg/kg	3.8	8	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	83-32-9	mg/kg	300	300	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	208-96-8	mg/kg	130	130	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetophenone	98-86-2	mg/kg	400	400	--	--	--	--	--	--	--	--	--	--	--	--	--
Aniline	62-53-3	mg/kg	2	2	< 0.38 U	< 0.39 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.36 U	< 0.39 U	< 0.38 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.39 U	< 0.38 U
Anthracene	120-12-7	mg/kg	500	1009	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	56-55-3	mg/kg	5	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	50-32-8	mg/kg	1.64	1.64	< 0.38 U	< 0.39 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.36 U	< 0.39 U	< 0.38 U	< 0.44 U	< 0.42 U	< 0.38 U	0.72	< 0.38 U
Benzo(b)fluoranthene	205-99-2	mg/kg	5	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	mg/kg	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	207-08-9	mg/kg	13.7	46	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Chloroethyl)ether	111-44-4	mg/kg	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	50	50	< 0.38 U	< 0.39 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.36 U	< 0.39 U	< 0.38 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.39 U	< 0.38 U
Butyl benzyl phthalate	85-68-7	mg/kg	50	218.54	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	218-01-9	mg/kg	43	141	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	53-70-3	mg/kg	2	5	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	mg/kg	1.0	1.9	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	117-84-0	mg/kg	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	206-44-0	mg/kg	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	86-73-7	mg/kg	360	360	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	5	15	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	mg/kg	100	100	< 0.38 U	< 0.39 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.36 U	< 0.39 U	< 0.38 U	< 0.44 U	< 0.42 U	< 0.38 U	< 0.39 U	< 0.38 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-N-methylethylamine	10595-95-	mg/kg	0.68	1	--	--	--	--	--	--	--	--	--	--	--	--	--
Parathion	56-38-2	mg/kg	20	20	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenanthrene	85-01-8	mg/kg	110	110	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	mg/kg	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	129-00-0	mg/kg	500	500	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
SS-33 is located offsite of the VRP area and is not included in risk assessment.
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 f
D = Compounds identified in an analysis at a secondary dilution filter
J = Estimated value
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed
FD = Field Duplicate
ft bgs = feet below ground surface
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil
SVOC = Semivolatile organic compound
mg/kg = milligrams per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**	**TEF**											
Aroclors																
Aroclor 1016	12674-11-2	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1221	11104-28-2	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1232	11141-16-5	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1242	53469-21-9	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1248	12672-29-6	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1254	11097-69-1	ug/kg	1550	1550	--	< 40 U	**100**	**14000**	**98**	**170**	**200**	**260**	**150**	< 37 U	< 36 U	**210**
Aroclor 1260	11096-82-5	ug/kg	1550	1550	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1262	37324-23-5	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Aroclor 1268	11100-14-4	ug/kg	--	--	--	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U
Dioxins and Furans					--											
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	pg/g	--	--	0.03	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	pg/g	--	--	1	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	pg/g	--	--	0.3	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	pg/g	--	--	1	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	38998-75-3	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	37871-00-4	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	55684-94-1	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	34465-46-8	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	39001-02-0	pg/g	--	--	0.0003	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	3268-87-9	pg/g	--	--	0.0003	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	30402-15-4	pg/g	--	--	0.03	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	36088-22-9	pg/g	--	--	1	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	55722-27-5	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	41903-57-5	pg/g	--	--	1	--	--	--	--	--	--	--	--	--	--	--
TEQ of dioxins and furans		pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dioxin like PCBs																
PCB-105	32598-14-4	pg/g	--	--	0.00003	**1800**	**1200**	**830**	**2600**	**3300**	**3000**	**28000**	**8600**	**19**	**10**	**6200**
PCB-114	74472-37-0	pg/g	--	--	0.00003	**59**	**38**	**29**	< 100 U	< 85 U	**130**	**1400**	**350**	< 2.2 U	< 2.1 U	**220**
PCB-118	31508-00-6	pg/g	--	--	0.00003	**3900**	**2900**	**2100**	**9400**	**11000**	**6900**	**71000**	**19000**	**46**	**29**	**15000**
PCB-123	65510-44-3	pg/g	--	--	0.00003	**85**	**44**	**41**	**220**	**180**	**90**	< 1100 U	**220**	< 2.2 U	< 2.1 U	**200**
PCB-126	57465-28-8	pg/g	--	--	0.1	**130**	< 42 U	< 29 U	< 120 U	< 100 U	< 97 U	**2200**	**510**	**3.7**	< 2.1 U	**340**
PCB-156/157	156-157	pg/g	--	--	0.00003	**1400**	**620**	**460**	**2600**	**2700**	**1800**	**21000**	**3700**	**24**	**12**	**4000**
PCB-167	52663-72-6	pg/g	--	--	0.00003	**530**	**200**	**150**	**850**	**890**	**560**	**7100**	**1200**	**11**	**4.3**	**1300**
PCB-169	32774-16-6	pg/g	--	--	0.03	< 14 U	< 5.1 U	< 5.5 U	< 21 U	< 20 U	< 18 U	< 110 U	< 18 U	< 2.2 U	< 2.1 U	< 22 U
PCB-189	39635-31-9	pg/g	--	--	0.00003	**80**	**22**	**13**	**96**	**97**	**61**	**1100**	**120**	**2.9**	< 2.1 U	**160**
PCB-77	32598-13-3	pg/g	--	--	0.0001	**52**	**66**	< 3.4 U	**130**	**130**	**74**	< 120 U	< 33 U	< 2.2 U	< 2.1 U	**270**
PCB-81	70362-50-4	pg/g	--	--	0.0003	< 8.9 U	< 3.5 U	**45**	< 11 U	< 12 U	< 8.7 U	**2600**	**1600**	< 2.2 U	< 2.1 U	**55**
TEQ of dioxin like PCBs		pg/g	--	--	--	**13.20**	**0.14**	**0.10**	**0.41**	**0.48**	**0.33**	**223.52**	**52.04**	**0.37**	**0.0013**	**34.74**
TEQ of dioxins and furans and dioxin like PCBs		pg/g	115	4400	--	**13.20**	**0.14**	**0.10**	**0.41**	**0.48**	**0.33**	**223.52**	**52.04**	**0.37**	**0.0013**	**34.74**

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF											
Non-Dioxin like PCBs																
PCB-1	2051-60-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	**2500**	**4300**	< 22 U	< 21 U	< 22 U
PCB-10	33146-45-1	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-103	60145-21-3	pg/g	--	--	--	< 53 U	< 43 U	< 25 U	< 110 U	< 99 U	< 89 U	< 1300 U	< 150 U	< 22 U	< 21 U	< 180 U
PCB-104	56558-16-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-106	70424-69-0	pg/g	--	--	--	< 51 U	< 38 U	< 23 U	< 99 U	< 87 U	< 79 U	< 1100 U	< 130 U	< 22 U	< 21 U	< 160 U
PCB-107/124	107-124	pg/g	--	--	--	**190**	**120**	**79**	**640**	**640**	**290**	**3000**	**630**	< 43 U	< 42 U	**710**
PCB-109	74472-35-8	pg/g	--	--	--	**260**	**180**	**130**	**690**	**720**	**540**	**5100**	**1200**	< 22 U	< 21 U	**1200**
PCB-11	2050-67-1	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-110/115	110-115	pg/g	--	--	--	**5600**	**3600**	**1900**	**12000**	**14000**	**8900**	**130000**	**18000**	**120**	**60**	**26000**
PCB-111	39635-32-0	pg/g	--	--	--	< 42 U	< 32 U	< 23 U	< 84 U	< 73 U	< 66 U	< 960 U	< 110 U	< 22 U	< 21 U	< 130 U
PCB-112	74472-36-9	pg/g	--	--	--	< 40 U	< 33 U	< 23 U	< 87 U	< 76 U	< 69 U	< 990 U	< 120 U	< 22 U	< 21 U	< 140 U
PCB-115	74472-38-1	pg/g	--	--	--	--	--	**1900**	--	--	--	--	--	--	--	--
PCB-12/13	12-13	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	< 43 U
PCB-120	68194-12-7	pg/g	--	--	--	< 45 U	< 34 U	< 23 U	< 88 U	< 77 U	< 70 U	< 1000 U	< 120 U	< 22 U	< 21 U	< 140 U
PCB-121	56558-18-0	pg/g	--	--	--	< 42 U	< 32 U	< 23 U	< 85 U	< 75 U	< 67 U	< 970 U	< 120 U	< 22 U	< 21 U	< 130 U
PCB-122	76842-07-4	pg/g	--	--	--	**86**	< 39 U	< 23 U	< 100 U	< 90 U	< 81 U	< 1200 U	**230**	< 22 U	< 21 U	< 160 U
PCB-127	39635-33-1	pg/g	--	--	--	< 51 U	< 37 U	< 23 U	< 98 U	< 86 U	< 78 U	< 1100 U	< 130 U	< 22 U	< 21 U	< 150 U
PCB-128/166	128-166	pg/g	--	--	--	**2700**	**800**	**710**	**3600**	**3500**	**2300**	**35000**	**4500**	**61**	< 42 U	**5900**
PCB-129/138/163	129-138-163	pg/g	--	--	--	**13000**	**4300**	**3800**	**18000**	**18000**	**12000**	**160000**	**24000**	**290**	**99**	**30000**
PCB-130	52663-66-8	pg/g	--	--	--	**830**	**280**	**210**	**1100**	**1100**	**750**	**13000**	**1500**	< 22 U	< 21 U	**2100**
PCB-131	61798-70-7	pg/g	--	--	--	**110**	**38**	**31**	< 57 U	**92**	**130**	**2400**	**270**	< 22 U	< 21 U	**430**
PCB-132	38380-05-1	pg/g	--	--	--	**3000**	**1100**	**690**	**4000**	**4100**	**3000**	**57000**	**6100**	**50**	**24**	**9300**
PCB-133	35694-04-3	pg/g	--	--	--	**110**	**39**	**30**	**150**	**150**	**110**	**1900**	**230**	< 22 U	< 21 U	**310**
PCB-134/143	134-143	pg/g	--	--	--	**490**	**190**	**110**	**530**	**610**	**500**	**8900**	**920**	< 43 U	< 42 U	**1500**
PCB-135/151	135-151	pg/g	--	--	--	**1700**	**700**	**440**	**2200**	**2400**	**2000**	**33000**	**3600**	< 43 U	< 42 U	**5900**
PCB-136	38411-22-2	pg/g	--	--	--	**700**	**270**	**180**	**700**	**650**	**770**	**14000**	**1800**	< 22 U	< 21 U	**2500**
PCB-137	35694-06-5	pg/g	--	--	--	**720**	**210**	**230**	**1000**	**1000**	**670**	**7700**	**1400**	< 22 U	< 21 U	**1800**
PCB-139/140	139-140	pg/g	--	--	--	**190**	**65**	**49**	**180**	**180**	**210**	**3100**	**420**	< 43 U	< 42 U	**540**
PCB-14	34883-41-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-141	52712-04-6	pg/g	--	--	--	**1300**	**560**	**400**	**2300**	**2500**	**1500**	**20000**	**2700**	< 22 U	< 21 U	**4200**
PCB-142	41411-61-4	pg/g	--	--	--	< 49 U	< 22 U	< 23 U	< 52 U	< 55 U	< 51 U	< 780 U	< 82 U	< 22 U	< 21 U	< 76 U
PCB-144	68194-14-9	pg/g	--	--	--	**240**	**99**	**66**	**260**	**270**	**310**	**5100**	**550**	< 22 U	< 21 U	**280**
PCB-145	74472-40-5	pg/g	--	--	--	< 31 U	< 22 U	< 23 U	< 36 U	< 38 U	< 36 U	< 540 U	< 57 U	< 22 U	< 21 U	< 52 U
PCB-146	51908-16-8	pg/g	--	--	--	**1300**	**420**	**340**	**1600**	**1700**	**1200**	**19000**	**2500**	**35**	< 21 U	**3200**
PCB-147/149	147-149	pg/g	--	--	--	**4700**	**2000**	**1200**	**5900**	**5700**	**5400**	**94000**	**11000**	**100**	**46**	**16000**
PCB-148	74472-41-6	pg/g	--	--	--	< 43 U	< 22 U	< 23 U	< 48 U	< 51 U	< 48 U	< 720 U	< 76 U	< 22 U	< 21 U	< 70 U
PCB-15	2050-68-2	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	**23**	< 22 U	< 21 U	< 22 U
PCB-150	68194-08-1	pg/g	--	--	--	< 29 U	< 22 U	< 23 U	< 33 U	< 35 U	< 33 U	< 500 U	< 52 U	< 22 U	< 21 U	< 48 U
PCB-152	68194-09-2	pg/g	--	--	--	< 30 U	< 22 U	< 23 U	< 35 U	< 37 U	< 35 U	< 530 U	< 55 U	< 22 U	< 21 U	< 51 U
PCB-153/168	153-168	pg/g	--	--	--	**6000**	**2500**	**2100**	**9400**	**9700**	**6900**	**70000**	**13000**	**100**	**47**	**16000**
PCB-154	60145-22-4	pg/g	--	--	--	< 39 U	< 22 U	< 23 U	< 42 U	**60**	**69**	**950**	< 67 U	< 22 U	< 21 U	**130**
PCB-155	33979-03-2	pg/g	--	--	--	< 36 U	< 22 U	< 23 U	< 37 U	< 44 U	< 34 U	< 510 U	< 40 U	< 22 U	< 21 U	< 48 U
PCB-158	74472-42-7	pg/g	--	--	--	**1300**	**460**	**360**	**1900**	**1900**	**1200**	**18000**	**2400**	**26**	< 21 U	**3300**
PCB-159	39635-35-3	pg/g	--	--	--	**37**	< 22 U	< 23 U	**60**	**50**	< 25 U	< 230 U	**51**	< 22 U	< 21 U	< 22 U
PCB-16	38444-78-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	**53**
PCB-160	41411-62-5	pg/g	--	--	--	< 39 U	< 22 U	< 23 U	< 41 U	< 44 U	< 41 U	< 630 U	< 66 U	< 22 U	< 21 U	< 61 U
PCB-161	74472-43-8	pg/g	--	--	--	< 34 U	< 22 U	< 23 U	< 37 U	< 40 U	< 37 U	< 560 U	< 59 U	< 22 U	< 21 U	< 54 U
PCB-162	39635-34-2	pg/g	--	--	--	**77**	**23**	< 23 U	**98**	**95**	**59**	**380**	**120**	< 22 U	< 21 U	**24**
PCB-164	74472-45-0	pg/g	--	--	--	**850**	**270**	**180**	**1100**	**1100**	**740**	**14000**	**1300**	**28**	< 21 U	**2000**
PCB-165	74472-46-1	pg/g	--	--	--	< 39 U	< 22 U	< 23 U	< 43 U	< 46 U	< 43 U	< 650 U	< 68 U	< 22 U	< 21 U	< 63 U
PCB-17	37680-66-3	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	**44**
PCB-170	35065-30-6	pg/g	--	--	--	**2000**	**530**	**350**	**2400**	**2300**	**1400**	**26000**	**2600**	**130**	**22**	**4000**
PCB-171/173	171-173	pg/g	--	--	--	**550**	**160**	**120**	**680**	**650**	**410**	**7400**	**790**	< 43 U	< 42 U	**1300**
PCB-172	52663-74-8	pg/g	--	--	--	**260**	**82**	**54**	**360**	**330**	**200**	**3700**	**350**	< 22 U	< 21 U	**630**
PCB-174	38411-25-5	pg/g	--	--	--	**1300**	**460**	**300**	**1900**	**1800**	**1000**	**18000**	**1800**	**100**	< 21 U	**3700**
PCB-175	40186-70-7	pg/g	--	--	--	**49**	< 22 U	< 23 U	**65**	**64**	**43**	**760**	**77**	< 22 U	< 21 U	**150**

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF											
PCB-176	52663-65-7	pg/g	--	--	--	**100**	**37**	**26**	**120**	**120**	**100**	**1700**	**170**	< 22 U	< 21 U	**380**
PCB-177	52663-70-4	pg/g	--	--	--	**760**	**240**	**190**	**1000**	**950**	**600**	**10000**	**1100**	**63**	< 21 U	**2100**
PCB-178	52663-67-9	pg/g	--	--	--	**150**	**70**	**52**	**260**	**250**	**150**	**2500**	**260**	< 22 U	< 21 U	**520**
PCB-179	52663-64-6	pg/g	--	--	--	**270**	**130**	**87**	**500**	**460**	**290**	**4600**	**510**	< 22 U	< 21 U	**1100**
PCB-18/30	18-30	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	**110**
PCB-180/193	180-193	pg/g	--	--	--	**2800**	**870**	**570**	**4000**	**3800**	**2100**	**36000**	**3800**	**250**	< 42 U	**6800**
PCB-181	74472-47-2	pg/g	--	--	--	**37**	< 22 U	< 23 U	**41**	**42**	**27**	**470**	**53**	< 22 U	< 21 U	**75**
PCB-182	60145-23-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-183	52663-69-1	pg/g	--	--	--	**670**	**210**	**160**	**840**	**800**	**500**	**8400**	**880**	**26**	< 21 U	**1600**
PCB-184	74472-48-3	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-185	52712-05-7	pg/g	--	--	--	**70**	**37**	< 23 U	**82**	**100**	**69**	**1600**	**150**	< 22 U	< 21 U	**370**
PCB-186	74472-49-4	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-187	52663-68-0	pg/g	--	--	--	**930**	**410**	**300**	**1600**	**1400**	**890**	**14000**	**1400**	**84**	< 21 U	**3000**
PCB-188	74487-85-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-19	38444-73-4	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-190	41411-64-7	pg/g	--	--	--	**340**	**100**	**57**	**450**	**420**	**240**	**3900**	**410**	< 22 U	< 21 U	**720**
PCB-191	74472-50-7	pg/g	--	--	--	**79**	< 22 U	< 23 U	**97**	**93**	**52**	**1000**	**83**	< 22 U	< 21 U	**160**
PCB-192	74472-51-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-194	35694-08-7	pg/g	--	--	--	**320**	**150**	**61**	**670**	**610**	**300**	**6500**	**410**	**61**	< 21 U	**750**
PCB-195	52663-78-2	pg/g	--	--	--	**110**	**46**	**23**	**210**	**180**	**94**	**1900**	**140**	< 22 U	< 21 U	**300**
PCB-196	42740-50-1	pg/g	--	--	--	**160**	**79**	**35**	**360**	**320**	**150**	**3400**	**210**	**24**	< 21 U	**520**
PCB-197	33091-17-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	**33**
PCB-198/199	198-199	pg/g	--	--	--	**300**	**190**	**84**	**750**	**630**	**310**	**6900**	**460**	**73**	< 42 U	**1100**
PCB-2	2051-61-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	**880**	**3500**	< 22 U	**39**	< 22 U
PCB-20/28	20-28	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	**71**	< 43 U	< 42 U	**44**
PCB-200	52663-73-7	pg/g	--	--	--	**35**	**24**	< 23 U	**100**	**86**	**41**	**890**	**53**	< 22 U	< 21 U	**160**
PCB-201	40186-71-8	pg/g	--	--	--	**32**	**22**	< 23 U	**85**	**70**	**36**	**740**	**50**	< 22 U	< 21 U	**140**
PCB-202	2136-99-4	pg/g	--	--	--	**41**	**45**	< 23 U	**130**	**120**	**59**	**1100**	**64**	< 22 U	< 21 U	**160**
PCB-203	52663-76-0	pg/g	--	--	--	**200**	**120**	**49**	**500**	**430**	**210**	**4500**	**260**	**42**	< 21 U	**640**
PCB-204	74472-52-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-205	74472-53-0	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	**39**	**36**	< 25 U	**390**	**26**	< 22 U	< 21 U	**47**
PCB-206	40186-72-9	pg/g	--	--	--	**130**	**75**	**44**	**370**	**270**	**160**	**3700**	**170**	**87**	< 21 U	**310**
PCB-207	52663-79-3	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	**44**	**32**	< 25 U	**370**	< 23 U	< 22 U	< 21 U	**39**
PCB-208	52663-77-1	pg/g	--	--	--	**27**	**24**	< 23 U	**80**	**60**	**46**	**770**	**42**	**37**	< 21 U	**76**
PCB-21/33	21-33	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	< 43 U
PCB-22	38444-85-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	**23**	< 22 U	< 21 U	**58**
PCB-23	55720-44-0	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-24	55702-45-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-25	55712-37-3	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-26/29	26-29	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	< 43 U
PCB-27	38444-76-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-3	2051-62-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	**260**	**770**	< 22 U	**31**	< 22 U
PCB-31	16606-02-3	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	**25**	< 25 U	**500**	**150**	< 22 U	< 21 U	< 22 U
PCB-32	38444-77-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	**30**
PCB-34	37680-68-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-35	37680-69-6	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	**23**	< 22 U	< 21 U	< 22 U
PCB-36	38444-87-0	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	**26**	< 22 U	< 21 U	**39**
PCB-37	38444-90-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	**120**	< 22 U	< 21 U	< 37 U
PCB-38	53555-66-1	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-39	38444-88-1	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	**94**
PCB-4	13029-08-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 27 U	< 25 U	< 230 U	**33**	< 22 U	< 21 U	< 22 U
PCB-40/71	40-71	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	**56**	**56**	**60**	**1200**	**340**	< 43 U	< 42 U	< 43 U
PCB-41	52663-59-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-42	36559-22-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	**24**	**26**	< 25 U	**420**	**150**	< 22 U	< 21 U	**120**
PCB-43	70362-46-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	**23**
PCB-44/47/65	44-57-65	pg/g	--	--	--	**170**	**230**	**150**	**340**	**380**	**410**	**7500**	**2400**	< 65 U	< 64 U	**1600**

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF											
PCB-45	70362-45-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-46	41464-47-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-48	70362-47-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	**250**	**79**	< 22 U	< 21 U	**82**
PCB-49/69	49-69	pg/g	--	--	--	**80**	**150**	**82**	**180**	**200**	**220**	**3200**	**1200**	< 43 U	< 42 U	**810**
PCB-5	16605-91-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-50/53	50-53	pg/g	--	--	--	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	**98**	< 43 U	< 42 U	< 43 U
PCB-51	68194-04-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-52	35693-99-3	pg/g	--	--	--	**600**	**850**	**550**	**1400**	**1500**	**1500**	**24000**	**7100**	< 22 U	< 21 U	**5200**
PCB-54	15968-05-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-55	74338-24-2	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U
PCB-56	41464-43-1	pg/g	--	--	--	**82**	**66**	**44**	**130**	**180**	**150**	**2000**	**740**	< 22 U	< 21 U	**420**
PCB-57	70424-67-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 28 U	< 22 U	< 21 U	< 22 U
PCB-58	41464-49-7	pg/g	--	--	--	< 24 U	< 22 U	**25**	< 24 U	< 24 U	< 25 U	< 230 U	**180**	< 22 U	< 21 U	< 22 U
PCB-59/62/75	59-62-75	pg/g	--	--	--	< 72 U	< 66 U	< 70 U	< 72 U	< 72 U	< 76 U	< 680 U	< 69 U	< 65 U	< 64 U	< 65 U
PCB-6	25569-80-6	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-60	33025-41-1	pg/g	--	--	--	< 24 U	**22**	< 23 U	**39**	**37**	**51**	**650**	**270**	< 22 U	< 21 U	**160**
PCB-61/70/74/76	61-70-74-76	pg/g	--	--	--	**640**	**620**	**560**	**1600**	**2000**	**1400**	**20000**	**7900**	< 87 U	< 85 U	**2800**
PCB-63	74472-34-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 26 U	< 22 U	< 21 U	**30**
PCB-64	52663-58-8	pg/g	--	--	--	**64**	**52**	**52**	**140**	**120**	**170**	**2300**	**650**	< 22 U	< 21 U	< 22 U
PCB-66	32598-10-0	pg/g	--	--	--	**130**	**200**	**150**	**400**	**500**	**400**	**5000**	**2200**	< 22 U	< 21 U	**1100**
PCB-67	73575-53-8	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U
PCB-68	73575-52-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U
PCB-7	33284-50-3	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-72	41464-42-0	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 26 U	< 22 U	< 21 U	< 22 U
PCB-73	74338-23-1	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-78	70362-49-1	pg/g	--	--	--	**27**	< 22 U	< 23 U	**41**	**43**	**44**	< 230 U	**55**	< 22 U	< 21 U	**84**
PCB-79	41464-48-6	pg/g	--	--	--	**46**	< 22 U	**24**	< 24 U	< 24 U	< 25 U	**1100**	**230**	< 22 U	< 21 U	**260**
PCB-8	34883-43-7	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-80	33284-52-5	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U
PCB-82	52663-62-4	pg/g	--	--	--	**360**	**280**	**140**	**650**	**950**	**590**	**8600**	**1900**	< 22 U	< 21 U	**1500**
PCB-83	60145-20-2	pg/g	--	--	--	**99**	< 59 U	< 34 U	**200**	**280**	**180**	**4000**	**770**	< 22 U	< 21 U	**650**
PCB-84	52663-60-2	pg/g	--	--	--	**600**	**500**	**340**	**840**	**910**	**1000**	**22000**	**3700**	< 22 U	< 21 U	**2600**
PCB-85/116/117	85-116-117	pg/g	--	--	--	**770**	**500**	**330**	**1200**	**1200**	**1400**	**11000**	**2800**	< 65 U	< 64 U	**2600**
PCB-86/87/97/108/119/125	8687971081191	pg/g	--	--	--	**1800**	**1700**	**1000**	**4000**	**4600**	**3600**	**49000**	**10000**	< 130 U	< 130 U	**11000**
PCB-88/91	88-91	pg/g	--	--	--	**380**	**270**	**160**	**370**	**350**	**610**	**11000**	**1700**	< 43 U	< 42 U	**1700**
PCB-89	73575-57-2	pg/g	--	--	--	< 64 U	< 51 U	< 29 U	< 130 U	< 120 U	< 110 U	< 1500 U	< 180 U	< 22 U	< 21 U	< 210 U
PCB-9	34883-39-1	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U
PCB-90/101/113	90-101-113	pg/g	--	--	--	**2500**	**2700**	**1500**	**5900**	**7200**	**5300**	**69000**	**14000**	< 65 U	< 64 U	**15000**
PCB-92	52663-61-3	pg/g	--	--	--	**500**	**510**	**290**	**1400**	**1600**	**1200**	**14000**	**2400**	< 22 U	< 21 U	**1900**
PCB-93/100	93-100	pg/g	--	--	--	< 57 U	< 46 U	< 47 U	< 120 U	< 110 U	< 95 U	< 1400 U	< 160 U	< 43 U	< 42 U	< 190 U
PCB-94	73575-55-0	pg/g	--	--	--	< 61 U	< 48 U	< 28 U	< 130 U	< 110 U	< 100 U	< 1400 U	< 170 U	< 22 U	< 21 U	< 200 U
PCB-95	38379-99-6	pg/g	--	--	--	**1800**	**1800**	**1000**	**3400**	**3300**	**3700**	**63000**	**8100**	**33**	**31**	**5500**
PCB-96	73575-54-9	pg/g	--	--	--	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	**330**	**53**	< 22 U	< 21 U	**67**
PCB-98/102	98-102	pg/g	--	--	--	< 53 U	< 44 U	< 47 U	< 110 U	< 96 U	< 87 U	**1300**	< 150 U	< 43 U	< 42 U	< 170 U
PCB-99	38380-01-7	pg/g	--	--	--	**1700**	**1300**	**740**	**2100**	**2300**	**3200**	**27000**	**6600**	< 22 U	< 21 U	**6600**
PCB-209 (Decachlorobiphenyl)	2051-24-3	pg/g	--	--	--	< 24 U	< 22 U	**--**	**32**	< 24 U	**90**	**--**	**--**	**100**	< 21 U	**96**
Total Non-Dioxin like PCBs		pg/g	1550000	4400000	--	69558	34085	24834	109583	114397	84300	1238710	199393	1920	399	226578

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136	SB-137	SB-F1	SB-F12	SB-F14
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	10/19/2000	8/20/2014	8/20/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	1 - 3	0 - 1	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**	**TEF**											
Aroclors																
Aroclor 1016	12674-11-2	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	< 38 U	< 36 U	< 38 U
Aroclor 1221	11104-28-2	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	< 78 U	< 36 U	< 38 U
Aroclor 1232	11141-16-5	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	< 38 U	< 36 U	< 38 U
Aroclor 1242	53469-21-9	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	< 38 U	< 36 U	< 38 U
Aroclor 1248	12672-29-6	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	< 38 U	< 36 U	< 38 U
Aroclor 1254	11097-69-1	ug/kg	1550	1550	--	**290**	**340**	**210**	**94**	**560**	**290**	**770**	**1700**	< 38 U	< 36 U	**560**
Aroclor 1260	11096-82-5	ug/kg	1550	1550	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	< 38 U	< 36 U	< 38 U
Aroclor 1262	37324-23-5	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	--	< 36 U	< 38 U
Aroclor 1268	11100-14-4	ug/kg	--	--	--	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U	< 41 U	--	< 36 U	< 38 U
Dioxins and Furans					--											
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	**7.85**	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	**101**	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	**0.5**	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**0.567**	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**13.4**	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**0.469**	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**0.712**	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**0.129**	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**6.75**	--	--
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	pg/g	--	--	0.03	--	--	--	--	--	--	--	--	**0.165**	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	pg/g	--	--	1	--	--	--	--	--	--	--	--	**0.893**	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**0.588**	--	--
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	pg/g	--	--	0.3	--	--	--	--	--	--	--	--	**0.628**	--	--
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**1.13**	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	pg/g	--	--	1	--	--	--	--	--	--	--	--	**0.142**	< 1.1 U	< 1.1 U
Heptachlorodibenzofurans	38998-75-3	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	**26.8**	--	--
Heptachlorodibenzo-p-dioxins	37871-00-4	pg/g	--	--	0.01	--	--	--	--	--	--	--	--	**244**	--	--
Hexachlorodibenzofurans	55684-94-1	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**11.6**	< 5.3 U	**11**
Hexachlorodibenzo-p-dioxins	34465-46-8	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**115**	< 5.3 U	**18**
Octachlorodibenzofuran	39001-02-0	pg/g	--	--	0.0003	--	--	--	--	--	--	--	--	**17.8**	--	--
Octachlorodibenzo-p-dioxin	3268-87-9	pg/g	--	--	0.0003	--	--	--	--	--	--	--	--	**1800**	--	--
Pentachlorodibenzofurans, Total	30402-15-4	pg/g	--	--	0.03	--	--	--	--	--	--	--	--	**8.77**	< 5.3 U	**9.3**
Pentachlorodibenzo-p-dioxins, Total	36088-22-9	pg/g	--	--	1	--	--	--	--	--	--	--	--	**9.92**	< 5.3 U	< 5.7 U
Tetrachlorodibenzofurans, Total	55722-27-5	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	**8.27**	< 1.1 U	**12**
Tetrachlorodibenzo-p-dioxins, Total	41903-57-5	pg/g	--	--	1	--	--	--	--	--	--	--	--	**3.77**	< 1.1 U	**1.1**
TEQ of dioxins and furans		pg/g	--	--	--	--	--	--	--	--	--	--	--	**27.4401**	--	**5.479**
Dioxin like PCBs																
PCB-105	32598-14-4	pg/g	--	--	0.00003	**4300**	**4000**	**2000**	**3700**	**30000**	**18000**	**11000**	**50000**	--	**180**	**32000**
PCB-114	74472-37-0	pg/g	--	--	0.00003	**200**	**140**	< 59 U	< 120 U	**1500**	**600**	**340**	**2200**	--	**8.2**	**1000**
PCB-118	31508-00-6	pg/g	--	--	0.00003	**10000**	**9300**	**4600**	**9000**	**69000**	**46000**	**24000**	**120000**	--	**470**	**79000**
PCB-123	65510-44-3	pg/g	--	--	0.00003	**170**	**110**	**86**	**730**	**650**	**630**	**420**	**1400**	--	**5.3**	**800**
PCB-126	57465-28-8	pg/g	--	--	0.1	**160**	**180**	**110**	< 160 U	**950**	**780**	**530**	**1300**	--	< 7.1 U	**1100**
PCB-156/157	156-157	pg/g	--	--	0.00003	**1900**	**3500**	**1300**	**2200**	**14000**	**8100**	**4500**	**25000**	--	**91**	**13000**
PCB-167	52663-72-6	pg/g	--	--	0.00003	**590**	**1000**	**420**	**710**	**3800**	**2500**	**1500**	**7000**	--	**28**	**3900**
PCB-169	32774-16-6	pg/g	--	--	0.03	< 14 U	< 17 U	< 12 U	< 17 U	< 130 U	< 55 U	< 42 U	< 180 U	--	< 2.2 U	< 110 U
PCB-189	39635-31-9	pg/g	--	--	0.00003	**73**	**160**	**63**	**98**	**480**	**270**	**140**	**840**	--	**3.6**	**410**
PCB-77	32598-13-3	pg/g	--	--	0.0001	**130**	**76**	**55**	**90**	**1300**	**1000**	**1300**	**1100**	--	**7.2**	**1500**
PCB-81	70362-50-4	pg/g	--	--	0.0003	< 15 U	< 7.7 U	< 7.3 U	< 20 U	< 230 U	< 80 U	< 57 U	< 280 U	--	< 2.2 U	< 120 U
TEQ of dioxin like PCBs		pg/g	--	--	--	**16.47**	**18.45**	**11.22**	**0.44**	**98.71**	**80.38**	**54.39**	**136.30**		**0.02**	**113.66**
TEQ of dioxins and furans and dioxin like PCBs		pg/g	115	4400	--	**16.47**	**18.45**	**11.22**	**0.44**	**98.71**	**80.38**	**54.39**	**136.30**	**27.44**	**0.02**	**119.14**

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shov
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136	SB-137	SB-F1	SB-F12	SB-F14
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	10/19/2000	8/20/2014	8/20/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	1 - 3	0 - 1	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF											
Non-Dioxin like PCBs																
PCB-1	2051-60-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	**34**
PCB-10	33146-45-1	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-103	60145-21-3	pg/g	--	--	--	< 120 U	< 120 U	< 62 U	< 130 U	< 710 U	< 400 U	< 220 U	< 840 U	--	< 22 U	< 600 U
PCB-104	56558-16-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-106	70424-69-0	pg/g	--	--	--	< 110 U	< 110 U	< 60 U	< 120 U	< 690 U	< 390 U	< 210 U	< 820 U	--	< 22 U	< 580 U
PCB-107/124	107-124	pg/g	--	--	--	**470**	**410**	**180**	**350**	**3000**	**1700**	**1100**	**4600**	--	< 43 U	**3100**
PCB-109	74472-35-8	pg/g	--	--	--	**720**	**800**	**310**	**680**	**4100**	**2600**	**1600**	**6900**	--	**29**	**5400**
PCB-11	2050-67-1	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**63**	**80**	< 22 U	**52**	--	< 22 U	< 23 U
PCB-110/115	110-115	pg/g	--	--	--	**15000**	**19000**	**7900**	**14000**	**96000**	**54000**	**31000**	**170000**	--	**630**	**98000**
PCB-111	39635-32-0	pg/g	--	--	--	< 92 U	< 92 U	< 49 U	< 100 U	< 560 U	< 320 U	< 170 U	< 670 U	--	< 22 U	< 470 U
PCB-112	74472-36-9	pg/g	--	--	--	< 96 U	< 95 U	< 47 U	< 97 U	< 540 U	< 310 U	< 170 U	< 640 U	--	< 22 U	< 460 U
PCB-115	74472-38-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12/13	12-13	pg/g	--	--	--	< 45 U	< 45 U	< 50 U	< 45 U	< 51 U	**75**	< 43 U	< 49 U	--	< 43 U	< 45 U
PCB-120	68194-12-7	pg/g	--	--	--	< 97 U	< 96 U	< 52 U	< 110 U	< 590 U	< 340 U	< 180 U	< 710 U	--	< 22 U	< 500 U
PCB-121	56558-18-0	pg/g	--	--	--	< 94 U	< 93 U	< 49 U	< 100 U	< 560 U	< 320 U	< 170 U	< 660 U	--	< 22 U	< 470 U
PCB-122	76842-07-4	pg/g	--	--	--	**160**	< 110 U	< 62 U	< 130 U	**960**	**450**	**370**	**2000**	--	< 22 U	**1100**
PCB-127	39635-33-1	pg/g	--	--	--	< 110 U	< 110 U	< 60 U	< 120 U	< 680 U	< 390 U	< 210 U	< 820 U	--	< 22 U	< 580 U
PCB-128/166	128-166	pg/g	--	--	--	**2500**	**4100**	**1800**	**2900**	**16000**	**11000**	**6000**	**29000**	--	**110**	**16000**
PCB-129/138/163	129-138-163	pg/g	--	--	--	**14000**	**22000**	**9500**	**15000**	**90000**	**56000**	**31000**	**160000**	--	**640**	**93000**
PCB-130	52663-66-8	pg/g	--	--	--	**900**	**1400**	**690**	**1100**	**6400**	**3800**	**2100**	**11000**	--	**43**	**6500**
PCB-131	61798-70-7	pg/g	--	--	--	**180**	**290**	**120**	**210**	**1400**	**740**	**660**	**2400**	--	< 22 U	**1200**
PCB-132	38380-05-1	pg/g	--	--	--	**4200**	**6200**	**2700**	**4500**	**30000**	**16000**	**9300**	**51000**	--	**190**	**26000**
PCB-133	35694-04-3	pg/g	--	--	--	**120**	**200**	**96**	**160**	**810**	**510**	**410**	**1500**	--	< 22 U	**960**
PCB-134/143	134-143	pg/g	--	--	--	**680**	**1000**	**460**	**730**	**4700**	**2300**	**2200**	**8200**	--	< 43 U	**4500**
PCB-135/151	135-151	pg/g	--	--	--	**2500**	**3500**	**1600**	**2700**	**18000**	**8700**	**4100**	**28000**	--	**110**	**18000**
PCB-136	38411-22-2	pg/g	--	--	--	**1100**	**1500**	**680**	**1100**	**8500**	**4300**	**2300**	**12000**	--	**48**	**6900**
PCB-137	35694-06-5	pg/g	--	--	--	**790**	**1200**	**530**	**850**	**5300**	**3500**	**1800**	**9900**	--	**33**	**4800**
PCB-139/140	139-140	pg/g	--	--	--	**220**	**350**	**160**	**260**	**1500**	**1100**	**570**	**2600**	--	< 43 U	**1400**
PCB-14	34883-41-5	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-141	52712-04-6	pg/g	--	--	--	**2100**	**2900**	**1300**	**2100**	**13000**	**7500**	**4300**	**26000**	--	**93**	**12000**
PCB-142	41411-61-4	pg/g	--	--	--	< 33 U	< 83 U	< 25 U	**190**	< 330 U	< 190 U	< 110 U	< 350 U	--	< 22 U	< 320 U
PCB-144	68194-14-9	pg/g	--	--	--	**420**	**560**	**240**	**400**	**1900**	**1200**	**550**	< 310 U	--	< 22 U	**1800**
PCB-145	74472-40-5	pg/g	--	--	--	< 23 U	< 58 U	< 25 U	< 37 U	< 210 U	< 120 U	< 68 U	< 220 U	--	< 22 U	< 210 U
PCB-146	51908-16-8	pg/g	--	--	--	**1300**	**2100**	**1000**	**1700**	**9500**	**5700**	**3100**	**16000**	--	**65**	**9900**
PCB-147/149	147-149	pg/g	--	--	--	**7200**	**10000**	**4500**	**7600**	**51000**	**27000**	**15000**	**83000**	--	**330**	**48000**
PCB-148	74472-41-6	pg/g	--	--	--	< 30 U	< 77 U	< 25 U	< 51 U	< 290 U	< 170 U	< 94 U	< 310 U	--	< 22 U	< 290 U
PCB-15	2050-68-2	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**200**	**41**	**45**	**100**	--	< 22 U	**98**
PCB-150	68194-08-1	pg/g	--	--	--	< 23 U	< 53 U	< 25 U	< 34 U	< 200 U	< 110 U	< 63 U	< 210 U	--	< 22 U	< 190 U
PCB-152	68194-09-2	pg/g	--	--	--	< 23 U	< 56 U	< 25 U	< 35 U	< 200 U	< 120 U	< 65 U	< 210 U	--	< 22 U	< 200 U
PCB-153/168	153-168	pg/g	--	--	--	**7700**	**12000**	**4900**	**8100**	**52000**	**31000**	**16000**	**91000**	--	**360**	**54000**
PCB-154	60145-22-4	pg/g	--	--	--	**65**	**100**	< 25 U	< 45 U	< 260 U	**290**	**530**	**730**	--	< 22 U	**570**
PCB-155	33979-03-2	pg/g	--	--	--	< 23 U	< 51 U	< 25 U	< 36 U	< 190 U	< 120 U	< 240 U	< 240 U	--	< 22 U	< 200 U
PCB-158	74472-42-7	pg/g	--	--	--	**1500**	**2400**	**1000**	**1700**	**10000**	**6300**	**3500**	**18000**	--	**70**	**9600**
PCB-159	39635-35-3	pg/g	--	--	--	< 23 U	< 23 U	**30**	**46**	**110**	**44**	< 32 U	< 150 U	--	< 22 U	< 80 U
PCB-16	38444-78-9	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	**32**	**600**	< 24 U	< 220 U	**220**	--	< 22 U	**240**
PCB-160	41411-62-5	pg/g	--	--	--	< 26 U	< 67 U	< 25 U	< 45 U	< 260 U	< 150 U	< 84 U	< 270 U	--	< 22 U	< 250 U
PCB-161	74472-43-8	pg/g	--	--	--	< 23 U	< 60 U	< 25 U	< 39 U	< 230 U	< 130 U	< 73 U	< 240 U	--	< 22 U	< 220 U
PCB-162	39635-34-2	pg/g	--	--	--	< 23 U	**33**	**58**	**88**	**270**	**180**	**120**	**490**	--	< 22 U	**210**
PCB-164	74472-45-0	pg/g	--	--	--	**840**	**1400**	**670**	**1000**	**5800**	**3500**	**2000**	**10000**	--	**41**	**5700**
PCB-165	74472-46-1	pg/g	--	--	--	< 27 U	< 69 U	< 25 U	< 45 U	< 260 U	< 150 U	< 84 U	< 280 U	--	< 22 U	< 260 U
PCB-17	37680-66-3	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	**24**	**450**	**33**	< 220 U	**180**	--	< 22 U	**380**
PCB-170	35065-30-6	pg/g	--	--	--	**1800**	**3200**	**1400**	**2300**	**12000**	**6100**	**3400**	**20000**	--	**86**	**11000**
PCB-171/173	171-173	pg/g	--	--	--	**540**	**920**	**420**	**680**	**4100**	**2000**	**1200**	**5900**	--	< 43 U	**3300**
PCB-172	52663-74-8	pg/g	--	--	--	**260**	**450**	**210**	**330**	**1800**	**630**	**320**	**2700**	--	< 22 U	**1500**
PCB-174	38411-25-5	pg/g	--	--	--	**1500**	**2300**	**1100**	**1800**	**12000**	**4400**	**2700**	**15000**	--	**70**	**8700**
PCB-175	40186-70-7	pg/g	--	--	--	**56**	**88**	**42**	**69**	**450**	**180**	**130**	**610**	--	< 22 U	**360**

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shov
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136	SB-137	SB-F1	SB-F12	SB-F14
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	10/19/2000	8/20/2014	8/20/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	1 - 3	0 - 1	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF											
PCB-176	52663-65-7	pg/g	--	--	--	**150**	**200**	**95**	**160**	**1200**	**440**	**280**	**1400**	--	< 22 U	**870**
PCB-177	52663-70-4	pg/g	--	--	--	**810**	**1400**	**640**	**1000**	**6100**	**2600**	**1800**	**8300**	--	**38**	**5100**
PCB-178	52663-67-9	pg/g	--	--	--	**200**	**320**	**150**	**250**	**1800**	**570**	**430**	**2000**	--	< 22 U	**1500**
PCB-179	52663-64-6	pg/g	--	--	--	**430**	**600**	**290**	**470**	**4100**	**1200**	**880**	**3900**	--	< 22 U	**2600**
PCB-18/30	18-30	pg/g	--	--	--	< 45 U	< 45 U	< 50 U	< 45 U	**1000**	**81**	< 430 U	**430**	--	< 43 U	**440**
PCB-180/193	180-193	pg/g	--	--	--	**2900**	**4800**	**2200**	**3600**	**22000**	**8800**	**5200**	**29000**	--	**140**	**17000**
PCB-181	74472-47-2	pg/g	--	--	--	**30**	**58**	**25**	**40**	**200**	**130**	**82**	**400**	--	< 22 U	**200**
PCB-182	60145-23-5	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	**25**	< 22 U	**91**	--	< 22 U	**67**
PCB-183	52663-69-1	pg/g	--	--	--	**680**	**1000**	**530**	**920**	**5900**	**2300**	**1500**	**7700**	--	**36**	**4200**
PCB-184	74472-48-3	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-185	52712-05-7	pg/g	--	--	--	**130**	**220**	**93**	**110**	**990**	**350**	**190**	**980**	--	< 22 U	**570**
PCB-186	74472-49-4	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-187	52663-68-0	pg/g	--	--	--	**1200**	**1900**	**930**	**1500**	**11000**	**3400**	**2300**	**12000**	--	**53**	**7900**
PCB-188	74487-85-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-19	38444-73-4	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**190**	< 24 U	< 22 U	**110**	--	< 22 U	**150**
PCB-190	41411-64-7	pg/g	--	--	--	**320**	**580**	**240**	**370**	**2200**	**1000**	**510**	**3500**	--	< 22 U	**1800**
PCB-191	74472-50-7	pg/g	--	--	--	**72**	**130**	**61**	**93**	**460**	**230**	**130**	**850**	--	< 22 U	**420**
PCB-192	74472-51-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-194	35694-08-7	pg/g	--	--	--	**400**	**650**	**300**	**530**	**3000**	**810**	**440**	**3200**	--	< 22 U	**1700**
PCB-195	52663-78-2	pg/g	--	--	--	**130**	**230**	**110**	**180**	**1200**	**320**	**160**	**1200**	--	< 22 U	**690**
PCB-196	42740-50-1	pg/g	--	--	--	**210**	**360**	**170**	**310**	**2100**	**430**	**210**	**1900**	--	< 22 U	**1300**
PCB-197	33091-17-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**110**	**29**	**25**	**120**	--	< 22 U	**77**
PCB-198/199	198-199	pg/g	--	--	--	**400**	**790**	**400**	**690**	**5000**	**930**	**1000**	**4100**	--	< 43 U	**3000**
PCB-2	2051-61-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-20/28	20-28	pg/g	--	--	--	**59**	< 45 U	< 50 U	**87**	**1800**	**110**	**510**	**720**	--	< 43 U	**1500**
PCB-200	52663-73-7	pg/g	--	--	--	**60**	**100**	**44**	**79**	**600**	**110**	**140**	**450**	--	< 22 U	**380**
PCB-201	40186-71-8	pg/g	--	--	--	**50**	**87**	**41**	**77**	**440**	**110**	**150**	**460**	--	< 22 U	**370**
PCB-202	2136-99-4	pg/g	--	--	--	**67**	**130**	**62**	**110**	**830**	**130**	**190**	**640**	--	< 22 U	**530**
PCB-203	52663-76-0	pg/g	--	--	--	**250**	**500**	**250**	**440**	**2600**	**570**	**580**	**2600**	--	< 22 U	**1900**
PCB-204	74472-52-9	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-205	74472-53-0	pg/g	--	--	--	**24**	**44**	< 25 U	**34**	**170**	**52**	**40**	**190**	--	< 22 U	**120**
PCB-206	40186-72-9	pg/g	--	--	--	**110**	**400**	**250**	**410**	**1400**	**330**	**700**	**2400**	--	< 22 U	**1200**
PCB-207	52663-79-3	pg/g	--	--	--	< 23 U	**46**	**26**	**47**	**180**	**37**	**79**	**210**	--	< 22 U	**150**
PCB-208	52663-77-1	pg/g	--	--	--	**24**	**100**	**76**	**110**	**330**	**72**	**160**	**640**	--	< 22 U	**330**
PCB-21/33	21-33	pg/g	--	--	--	**100**	< 45 U	< 50 U	**54**	**870**	**49**	< 430 U	**300**	--	< 43 U	**680**
PCB-22	38444-85-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	**33**	**660**	**26**	< 220 U	**220**	--	< 22 U	**280**
PCB-23	55720-44-0	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 160 U	< 24 U	< 220 U	< 27 U	--	< 22 U	< 40 U
PCB-24	55702-45-9	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 220 U	< 25 U	--	< 22 U	< 23 U
PCB-25	55712-37-3	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**190**	< 24 U	< 220 U	**75**	--	< 22 U	**150**
PCB-26/29	26-29	pg/g	--	--	--	< 45 U	< 45 U	< 50 U	< 45 U	**520**	**79**	< 430 U	**110**	--	< 43 U	**110**
PCB-27	38444-76-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**130**	< 24 U	< 220 U	**47**	--	< 22 U	**55**
PCB-3	2051-62-9	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-31	16606-02-3	pg/g	--	--	--	**84**	< 23 U	**26**	**98**	**1800**	**270**	**390**	**880**	--	< 22 U	**1200**
PCB-32	38444-77-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**480**	< 24 U	< 220 U	**180**	--	< 22 U	**870**
PCB-34	37680-68-5	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 170 U	< 24 U	< 220 U	< 28 U	--	< 22 U	< 42 U
PCB-35	37680-69-6	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**510**	< 24 U	< 220 U	**41**	--	< 22 U	**50**
PCB-36	38444-87-0	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**220**	**81**	< 220 U	**330**	--	< 22 U	**400**
PCB-37	38444-90-5	pg/g	--	--	--	**29**	< 23 U	< 25 U	**38**	**390**	**87**	< 220 U	**310**	--	< 22 U	**340**
PCB-38	53555-66-1	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 180 U	< 24 U	< 220 U	< 30 U	--	< 22 U	< 46 U
PCB-39	38444-88-1	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 170 U	< 24 U	< 220 U	< 29 U	--	< 22 U	< 43 U
PCB-4	13029-08-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**90**	< 24 U	< 22 U	**69**	--	< 22 U	**110**
PCB-40/71	40-71	pg/g	--	--	--	**270**	**150**	**65**	**150**	**2600**	**690**	< 43 U	**3300**	--	< 43 U	**3800**
PCB-41	52663-59-9	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**120**	< 24 U	< 22 U	**160**	--	< 22 U	**67**
PCB-42	36559-22-5	pg/g	--	--	--	**110**	**48**	**30**	**76**	**1200**	**370**	< 22 U	**1700**	--	< 22 U	**2100**
PCB-43	70362-46-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**160**	< 24 U	< 22 U	**210**	--	< 22 U	**140**
PCB-44/47/65	44-57-65	pg/g	--	--	--	**1500**	**750**	**410**	**1100**	**11000**	**5000**	**1200**	**20000**	--	**96**	**19000**

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shov
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136	SB-137	SB-F1	SB-F12	SB-F14
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	10/19/2000	8/20/2014	8/20/2014
					Sample Depth (ft bgs)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	1 - 3	0 - 1	0 - 1
					Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF											
PCB-45	70362-45-7	pg/g	--	--	--	**41**	**23**	< 25 U	< 23 U	**550**	**97**	< 22 U	**520**	--	< 22 U	**89**
PCB-46	41464-47-5	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**260**	**52**	< 22 U	**210**	--	< 22 U	**540**
PCB-48	70362-47-9	pg/g	--	--	--	**61**	< 23 U	< 25 U	**40**	**590**	**160**	**250**	**740**	--	< 22 U	**380**
PCB-49/69	49-69	pg/g	--	--	--	**700**	**270**	**200**	**520**	**4800**	**2700**	**750**	**9300**	--	**70**	**12000**
PCB-5	16605-91-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-50/53	50-53	pg/g	--	--	--	**81**	**63**	< 50 U	**58**	**1000**	**340**	**97**	**1100**	--	< 43 U	**2500**
PCB-51	68194-04-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**140**	**34**	< 22 U	**95**	--	< 22 U	**1400**
PCB-52	35693-99-3	pg/g	--	--	--	**4200**	**3100**	**1300**	**3500**	**32000**	**13000**	**5400**	**58000**	--	**200**	**38000**
PCB-54	15968-05-5	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	**170**
PCB-55	74338-24-2	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 160 U	< 61 U	< 34 U	< 260 U	--	< 22 U	< 99 U
PCB-56	41464-43-1	pg/g	--	--	--	**440**	**200**	**120**	**260**	**2500**	**1100**	< 37 U	**4000**	--	< 22 U	**2800**
PCB-57	70424-67-8	pg/g	--	--	--	< 23 U	< 23 U	**100**	**200**	< 150 U	< 60 U	< 34 U	< 250 U	--	< 22 U	< 97 U
PCB-58	41464-49-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 160 U	< 61 U	< 34 U	< 260 U	--	< 22 U	< 98 U
PCB-59/62/75	59-62-75	pg/g	--	--	--	< 68 U	< 68 U	< 75 U	< 68 U	**290**	< 72 U	< 65 U	**310**	--	< 65 U	**370**
PCB-6	25569-80-6	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	**40**	< 24 U	< 22 U	< 25 U	--	< 22 U	**34**
PCB-60	33025-41-1	pg/g	--	--	--	**180**	**64**	**44**	**94**	**880**	**420**	< 36 U	**1500**	--	< 22 U	**850**
PCB-61/70/74/76	61-70-74-76	pg/g	--	--	--	**4000**	**1700**	**1100**	**2800**	**22000**	**11000**	< 87 U	**40000**	--	**150**	**31000**
PCB-63	74472-34-7	pg/g	--	--	--	**36**	< 23 U	< 25 U	< 23 U	**210**	**98**	< 31 U	< 240 U	--	< 22 U	**140**
PCB-64	52663-58-8	pg/g	--	--	--	**490**	**380**	**150**	**310**	**3500**	**1800**	**65**	**5500**	--	< 22 U	**2200.0**
PCB-66	32598-10-0	pg/g	--	--	--	**1200**	**470**	**320**	**680**	**5700**	**3500**	< 38 U	**12000**	--	**59**	**13000**
PCB-67	73575-53-8	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 140 U	< 56 U	< 31 U	< 240 U	--	< 22 U	< 91 U
PCB-68	73575-52-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 140 U	< 54 U	< 30 U	< 230 U	--	< 22 U	**160**
PCB-7	33284-50-3	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-72	41464-42-0	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 150 U	< 59 U	< 32 U	< 250 U	--	< 22 U	**230**
PCB-73	74338-23-1	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 38 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-78	70362-49-1	pg/g	--	--	--	< 23 U	< 23 U	**28**	**43**	< 180 U	< 69 U	< 38 U	< 290 U	--	< 22 U	< 110 U
PCB-79	41464-48-6	pg/g	--	--	--	**200**	**160**	**69**	**150**	**980**	**500**	< 33 U	**2000**	--	< 22 U	**950**
PCB-8	34883-43-7	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	**25**	**150**	**25**	**37**	**100**	--	< 22 U	**170**
PCB-80	33284-52-5	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 150 U	< 57 U	< 32 U	< 240 U	--	< 22 U	< 92 U
PCB-82	52663-62-4	pg/g	--	--	--	**1300**	**1400**	**530**	**1100**	**9800**	**3600**	**2400**	**17000**	--	**58**	**8100**
PCB-83	60145-20-2	pg/g	--	--	--	**320**	**470**	**200**	**380**	**3500**	**1300**	< 340 U	**5900**	--	**22**	**2600**
PCB-84	52663-60-2	pg/g	--	--	--	**2700**	**3100**	**1100**	**2200**	**21000**	**7200**	**650**	**34000**	--	**120**	**18000**
PCB-85/116/117	85-116-117	pg/g	--	--	--	**1800**	**1900**	**870**	**1400**	**11000**	**8400**	**4000**	**19000**	--	**65**	**12000**
PCB-86/87/97/108/119/125	8687971081191	pg/g	--	--	--	**7400**	**7000**	**2900**	**6100**	**54000**	**21000**	**13000**	**94000**	--	**340**	**50000**
PCB-88/91	88-91	pg/g	--	--	--	**1300**	**1400**	**590**	**1100**	**8300**	**4300**	**1200**	**13000**	--	**51**	**9500**
PCB-89	73575-57-2	pg/g	--	--	--	< 150 U	< 150 U	< 75 U	< 150 U	< 850 U	< 490 U	< 270 U	< 1000 U	--	< 22 U	< 720 U
PCB-9	34883-39-1	pg/g	--	--	--	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U	< 25 U	--	< 22 U	< 23 U
PCB-90/101/113	90-101-113	pg/g	--	--	--	**10000**	**9700**	**4300**	**8900**	**73000**	**30000**	**18000**	**130000**	--	**500**	**77000**
PCB-92	52663-61-3	pg/g	--	--	--	**2000**	**2200**	**920**	**1700**	**12000**	**5400**	< 250 U	**23000**	--	**96**	**15000**
PCB-93/100	93-100	pg/g	--	--	--	< 130 U	< 130 U	< 67 U	< 140 U	< 760 U	< 440 U	< 240 U	< 910 U	--	< 43 U	< 650 U
PCB-94	73575-55-0	pg/g	--	--	--	< 140 U	< 140 U	< 71 U	< 150 U	< 810 U	< 460 U	< 250 U	< 970 U	--	< 22 U	< 680 U
PCB-95	38379-99-6	pg/g	--	--	--	**7800**	**8000**	**3200**	**6200**	**42000**	**19000**	**620**	**95000**	--	**250**	**54000**
PCB-96	73575-54-9	pg/g	--	--	--	**42**	**36**	< 25 U	**30**	**350**	**160**	**49**	**460**	--	< 22 U	**330**
PCB-98/102	98-102	pg/g	--	--	--	**170**	**180**	< 63 U	< 130 U	**1500**	**640**	**630**	**2400**	--	< 43 U	< 600 U
PCB-99	38380-01-7	pg/g	--	--	--	**4600**	**4400**	**2200**	**4200**	**32000**	**20000**	**10000**	**58000**	--	**220**	**37000**
PCB-209 (Decachlorobiphenyl)	2051-24-3	pg/g	--	--	--	< 23 U	**130**	**170**	**160**	**130**	**50**	**75**	**670**	--	< 22 U	**370**
Total Non-Dioxin like PCBs		pg/g	1550000	4400000	--	130681	162340	71521	128015	903923	450647	223904	1534310	--	5512	930551

Notes
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Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shov
U = Not detected above reporting limit
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-- Not Analyzed/No Standard
ft bgs = feet below ground surface
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pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

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Hercules Inc. - Savannah, GA

					Well	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
					Sample Depth (ft bgs)	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**	**TEF**									
Aroclors														
Aroclor 1016	12674-11-2	ug/kg	--	--	--	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1221	11104-28-2	ug/kg	--	--	--	--	< 80 U	--	--	--	--	< 84 U	< 72 U	< 77 U
Aroclor 1232	11141-16-5	ug/kg	--	--	--	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1242	53469-21-9	ug/kg	--	--	--	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1248	12672-29-6	ug/kg	--	--	--	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1254	11097-69-1	ug/kg	1550	1550	--	--	< 39 U	--	--	--	--	**780**	**55**	**180**
Aroclor 1260	11096-82-5	ug/kg	1550	1550	--	--	< 39 U	--	--	--	--	**250**	< 36 U	**94**
Aroclor 1262	37324-23-5	ug/kg	--	--	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	11100-14-4	ug/kg	--	--	--	--	--	--	--	--	--	--	--	--
Dioxins and Furans					--									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	pg/g	--	--	0.01	--	**3.21**	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	pg/g	--	--	0.01	--	**39.9**	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	pg/g	--	--	0.01	--	**0.284**	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	pg/g	--	--	0.1	--	**0.433**	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	pg/g	--	--	0.1	--	**1.68**	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	pg/g	--	--	0.1	--	**0.265**	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	pg/g	--	--	0.1	--	< 0.82 U	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	pg/g	--	--	0.1	--	**0.12**	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	pg/g	--	--	0.1	--	**1.15**	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	pg/g	--	--	0.03	--	**0.154**	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	pg/g	--	--	1	--	< 0.262 U	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	pg/g	--	--	0.1	--	**0.297**	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	pg/g	--	--	0.3	--	**0.388**	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	pg/g	--	--	0.1	--	**0.618**	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	pg/g	--	--	1	< 1.2 U	**0.106**	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	--	--	--
Heptachlorodibenzofurans	38998-75-3	pg/g	--	--	0.01	--	**10.9**	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	37871-00-4	pg/g	--	--	0.01	--	**121**	--	--	--	--	--	--	--
Hexachlorodibenzofurans	55684-94-1	pg/g	--	--	0.1	**75**	**4.54**	**39**	**23**	**25**	< 5.8 U	--	--	--
Hexachlorodibenzo-p-dioxins	34465-46-8	pg/g	--	--	0.1	**900**	**19.7**	**74**	**110**	**44**	**12**	--	--	--
Octachlorodibenzofuran	39001-02-0	pg/g	--	--	0.0003	--	**10.7**	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	3268-87-9	pg/g	--	--	0.0003	--	**4640**	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	30402-15-4	pg/g	--	--	0.03	**30**	**3.52**	**19**	**17**	**16**	< 5.8 U	--	--	--
Pentachlorodibenzo-p-dioxins, Total	36088-22-9	pg/g	--	--	1	**51**	**1.75**	**5.8**	**5.9**	< 5.7 U	< 5.8 U	--	--	--
Tetrachlorodibenzofurans, Total	55722-27-5	pg/g	--	--	0.1	**17**	**3.77**	**11**	**11**	**9.2**	< 1.2 U	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	41903-57-5	pg/g	--	--	1	**9.2**	**0.303**	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	--	--	--
TEQ of dioxins and furans		pg/g	--	--	--	**160.3**	**4.9596**	**18.77**	**20.81**	**8.3**	**1.2**	--	--	--
Dioxin like PCBs														
PCB-105	32598-14-4	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-114	74472-37-0	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-118	31508-00-6	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-123	65510-44-3	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-126	57465-28-8	pg/g	--	--	0.1	--	--	--	--	--	--	--	--	--
PCB-156/157	156-157	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-167	52663-72-6	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-169	32774-16-6	pg/g	--	--	0.03	--	--	--	--	--	--	--	--	--
PCB-189	39635-31-9	pg/g	--	--	0.00003	--	--	--	--	--	--	--	--	--
PCB-77	32598-13-3	pg/g	--	--	0.0001	--	--	--	--	--	--	--	--	--
PCB-81	70362-50-4	pg/g	--	--	0.0003	--	--	--	--	--	--	--	--	--
TEQ of dioxin like PCBs		pg/g	--	--	--									
TEQ of dioxins and furans and dioxin like PCBs		pg/g	115	4400	--	**160.30**	**4.96**	**18.77**	**20.81**	**8.30**	**1.20**	--	--	--

Notes
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U = Not detected above reporting limit
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Hercules Inc. - Savannah, GA

					Well	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
					Sample Depth (ft bgs)	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF									
Non-Dioxin like PCBs														
PCB-1	2051-60-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-10	33146-45-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-103	60145-21-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-104	56558-16-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-106	70424-69-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-107/124	107-124	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-109	74472-35-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-11	2050-67-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-110/115	110-115	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-111	39635-32-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-112	74472-36-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-115	74472-38-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12/13	12-13	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-120	68194-12-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-121	56558-18-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-122	76842-07-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-127	39635-33-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-128/166	128-166	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-129/138/163	129-138-163	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-130	52663-66-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-131	61798-70-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-132	38380-05-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-133	35694-04-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-134/143	134-143	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-135/151	135-151	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-136	38411-22-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-137	35694-06-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-139/140	139-140	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-14	34883-41-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-141	52712-04-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-142	41411-61-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-144	68194-14-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-145	74472-40-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-146	51908-16-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-147/149	147-149	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-148	74472-41-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-15	2050-68-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-150	68194-08-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-152	68194-09-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-153/168	153-168	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-154	60145-22-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-155	33979-03-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-158	74472-42-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-159	39635-35-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-16	38444-78-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-160	41411-62-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-161	74472-43-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-162	39635-34-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-164	74472-45-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-165	74472-46-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-17	37680-66-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-170	35065-30-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-171/173	171-173	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-172	52663-74-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-174	38411-25-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-175	40186-70-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--

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					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
					Sample Depth (ft bgs)	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Constituent	CAS	Units	Type 1/2 RRS	Type 3/4 RRS	TEF									
PCB-176	52663-65-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-177	52663-70-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-178	52663-67-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-179	52663-64-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-18/30	18-30	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-180/193	180-193	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-181	74472-47-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-182	60145-23-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-183	52663-69-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-184	74472-48-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-185	52712-05-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-186	74472-49-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-187	52663-68-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-188	74487-85-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-19	38444-73-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-190	41411-64-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-191	74472-50-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-192	74472-51-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-194	35694-08-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-195	52663-78-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-196	42740-50-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-197	33091-17-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-198/199	198-199	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-2	2051-61-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-20/28	20-28	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-200	52663-73-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-201	40186-71-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-202	2136-99-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-203	52663-76-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-204	74472-52-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-205	74472-53-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-206	40186-72-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-207	52663-79-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-208	52663-77-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-21/33	21-33	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-22	38444-85-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-23	55720-44-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-24	55702-45-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-25	55712-37-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-26/29	26-29	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-27	38444-76-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-3	2051-62-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-31	16606-02-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-32	38444-77-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-34	37680-68-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-35	37680-69-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-36	38444-87-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-37	38444-90-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-38	53555-66-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-39	38444-88-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-4	13029-08-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-40/71	40-71	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-41	52663-59-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-42	36559-22-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-43	70362-46-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-44/47/65	44-57-65	pg/g	--	--	--	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shov
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6c
Historical and Recent Soil Analytical Data, PCBs
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

					Well	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
					Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO
					Date	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
					Sample Depth (ft bgs)	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4 RRS**	**TEF**									
PCB-45	70362-45-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-46	41464-47-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-48	70362-47-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-49/69	49-69	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-5	16605-91-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-50/53	50-53	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-51	68194-04-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-52	35693-99-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-54	15968-05-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-55	74338-24-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-56	41464-43-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-57	70424-67-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-58	41464-49-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-59/62/75	59-62-75	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-6	25569-80-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-60	33025-41-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-61/70/74/76	61-70-74-76	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-63	74472-34-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-64	52663-58-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-66	32598-10-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-67	73575-53-8	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-68	73575-52-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-7	33284-50-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-72	41464-42-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-73	74338-23-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-78	70362-49-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-79	41464-48-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-8	34883-43-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-80	33284-52-5	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-82	52663-62-4	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-83	60145-20-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-84	52663-60-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-85/116/117	85-116-117	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-86/87/97/108/119/125	8687971081191	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-88/91	88-91	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-89	73575-57-2	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-9	34883-39-1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-90/101/113	90-101-113	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-92	52663-61-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-93/100	93-100	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-94	73575-55-0	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-95	38379-99-6	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-96	73575-54-9	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-98/102	98-102	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-99	38380-01-7	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
PCB-209 (Decachlorobiphenyl)	2051-24-3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--
Total Non-Dioxin like PCBs		pg/g	1550000	4400000	--	--	--	--	--	--	--	--	--	--

Notes
Bolded values indicated detections
Highlighted values indicated concentrations above Type 1 RRS
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shov
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed/No Standard
ft bgs = feet below ground surface
N = Normal Sample
pg/g = picograms per gram
RRS = Risk Reduction Standard
SO = Soil
TEF = Toxic Equivalency Factor
TEQ = Toxic Equivalency
µg/kg = micrograms per kilogram

Table 6d
Historical and Recent Soil Analytical Data, Pesticides
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

				Well	SB-F1	SB-F12	SB-F14	SB-F14/F12	SB-F15	SB-F19	SB-F27	SB-F27	SB-F3	SB-F4	SB-F6
				Sample Matrix	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
				Date	10/19/2000	8/20/2014	8/20/2014	10/20/2000	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/20/2014	8/19/2014	8/19/2014
				Sample Depth (ft bgs)	1 - 3	0 - 1	0 - 1	1 - 3	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1
				Sample Type	N	N	N	N	N	N	N	N	N	N	N
Constituent	**CAS**	**Units**	**Type 1/2 RRS**	**Type 3/4RRS**											
Pesticides															
4,4-DDT	50-29-3	mg/kg	0.84	2.8	< 0.0038 U	< 0.0018 U	< 0.0019 U	< 0.0035 U	< 0.0020 U	< 0.0039 U	< 0.0073 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0020 U
Endrin	72-20-8	mg/kg	10	10	< 0.0038 U	< 0.0018 U	< 0.0019 U	< 0.0035 U	< 0.0020 U	< 0.0039 U	< 0.0073 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0020 U
Endrin aldehyde	7421-93-4	mg/kg	10	10	< 0.0038 U	< 0.0018 U	< 0.0019 U	< 0.0035 U	< 0.0020 U	< 0.0039 U	< 0.0073 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0020 U
Methoxychlor	72-43-5	mg/kg	10	28	< 0.002 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0020 U	< 0.02 U	< 0.0073 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0020 U

Notes
Where Type 3/4 values differed in 0 to 2 feet below ground surface (bgs) and greater than 2 feet bgs, both values are shown (0-2 feet bgs RRS/greater than 2 feet bgs RRS)
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
-- Not Analyzed
ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
N = Normal Sample
RRS = Risk Reduction Standard
SO = Soil

Table 7a
Surface Water Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SW-01	SW-02	SW-02	SW-03
		Sample Matrix	SW	SW	SW	SW
		Date	8/28/2014	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	FD	N	N
Constituent	**CAS No.**	**Units**				
Anions						
Ammonia Nitrogen	7664-41-7	ug/l	**320**	--	**150**	**130**
Fluoride (F-, Anion)	16984-48-8	ug/l	**160**	--	**430**	**530**
SVOCs						
1,1-Biphenyl	92-52-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,2,4-Trichlorobenzene	120-82-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,2-Dichlorobenzene	95-50-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,3,5-Trinitrobenzene	99-35-4	ug/l	< 0.98 U*	--	< 0.97 U*	< 1.0 U*
1,3-Dichlorobenzene	541-73-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,3-Dinitrobenzene	99-65-0	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,4-Dichlorobenzene	106-46-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1,4-Dioxane	123-91-1	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
1,4-Naphthoquinone	130-15-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
1-Naphthylamine	134-32-7	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
2,2-Oxybis(1-Chloropropane)	108-60-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,4,5-Trichlorophenol	95-95-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,4,6-Trichlorophenol	88-06-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,4-Dichlorophenol	120-83-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,4-Dimethylphenol	105-67-9	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
2,4-Dinitrophenol	51-28-5	ug/l	< 9.8 U	--	< 9.7 U	< 10 U
2,4-Dinitrotoluene	121-14-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,6-Dichlorophenol	87-65-0	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2,6-Dinitrotoluene	606-20-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2-Acetylaminofluorene	53-96-3	ug/l	< 0.98 U*	--	< 0.97 U*	< 1.0 U*
2-Chloronaphthalene	91-58-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2-Chlorophenol	95-57-8	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2-Methyl-4,6-dinitrophenol	534-52-1	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
2-Methylnaphthalene	91-57-6	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
2-Methylphenol	95-48-7	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
2-Naphthylamine	91-59-8	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
2-Nitroaniline	88-74-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2-Nitrophenol	88-75-5	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
2-Picoline	109-06-8	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
3,3-Dichlorobenzidine	91-94-1	ug/l	< 20 U	--	< 19 U	< 20 U
3,3-Dimethylbenzidine	119-93-7	ug/l	< 20 U	--	< 19 U	< 20 U
3-Methylchloranthrene	56-49-5	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
3-Nitroaniline	99-09-2	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
4-Aminobiphenyl	92-67-1	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
4-Bromophenyl phenyl ether	101-55-3	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
4-Chloro-3-Methylphenol	59-50-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
4-Chlorophenyl phenyl ether	7005-72-3	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
4-Dimethylaminoazobenzene	60-11-7	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
4-Methylphenol	106-44-5	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
4-Nitroaniline	100-01-6	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
4-Nitrophenol	100-02-7	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
4-Nitroquinoline-N-Oxide	56-57-5	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
5-Nitro-o-Toluidine	99-55-8	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
7,12-Dimethylbenz(a)anthracene	57-97-6	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Acenaphthene	83-32-9	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Acenaphthylene	208-96-8	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Acetophenone	98-86-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Aniline	62-53-3	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Anthracene	120-12-7	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Aramite	140-57-8	ug/l	< 1.5 U*	--	< 1.5 U*	< 1.5 U*
Benzo(a)anthracene	56-55-3	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Benzo(a)pyrene	50-32-8	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Benzo(b)fluoranthene	205-99-2	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Benzo(g,h,i)perylene	191-24-2	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Benzo(k)fluoranthene	207-08-9	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Benzyl Alcohol	100-51-6	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
bis(2-Chloroethoxy)methane	111-91-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
bis(2-Chloroethyl)ether	111-44-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
bis(2-Ethylhexyl)phthalate	117-81-7	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Butyl benzyl phthalate	85-68-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Chrysene	218-01-9	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Diallate	2303-16-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Dibenzo(a,h)anthracene	53-70-3	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Dibenzofuran	132-64-9	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Diethyl phthalate	84-66-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Dimethoate	60-51-5	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Dimethyl phthalate	131-11-3	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Dimethylphenethylamine	122-09-8	ug/l	< 9.8 U	--	< 9.7 U	< 10 U

Table 7a
Surface Water Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SW-01	SW-02	SW-02	SW-03
		Sample Matrix	SW	SW	SW	SW
		Date	8/28/2014	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	FD	N	N
Constituent	**CAS No.**	**Units**				
Di-n-butyl phthalate	84-74-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Di-n-octyl phthalate	117-84-0	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Dinoseb	88-85-7	ug/l	< 2.0 U*	--	< 1.9 U*	< 2.0 U*
Disulfoton	298-04-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Ethyl Methanesulfonate	62-50-0	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Famphur	52-85-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Fluoranthene	206-44-0	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Fluorene	86-73-7	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Hexachloro-1,3-butadiene	87-68-3	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Hexachlorobenzene	118-74-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Hexachlorocyclopentadiene	77-47-4	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Hexachloroethane	67-72-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Hexachlorophene	70-30-4	ug/l	< 490 U	--	< 490 U	< 510 U
Hexachloropropene	1888-71-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Isophorone	78-59-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Isosafrole	120-58-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Methapyrilene	91-80-5	ug/l	< 200 U	--	< 190 U	< 200 U
Methyl Methanesulfonate	66-27-3	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Methyl Parathion	298-00-0	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Naphthalene	91-20-3	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Nitrobenzene	98-95-3	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
N-Nitrosodiethylamine	55-18-5	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
N-Nitrosodimethylamine	62-75-9	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
n-Nitrosodi-n-butylamine	924-16-3	ug/l	< 0.98 U	--	**7.8**	< 1.0 U
n-Nitrosodi-n-propylamine	621-64-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
N-nitrosodiphenylamine	86-30-6	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
N-Nitrosomorpholine	59-89-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
N-Nitroso-N-methylethylamine	10595-95-6	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
N-Nitrosopiperidine	100-75-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
N-Nitrosopyrrolidine	930-55-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
o,o,o-Triethyl phosphorothioate	126-68-1	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
o,o-Diethyl o-pyrazinyl phosphorothioate	297-97-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
o-Toluidine	95-53-4	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Parathion	56-38-2	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
p-Chloroaniline	106-47-8	ug/l	< 2.0 U	--	< 1.9 U	< 2.0 U
Pentachlorobenzene	608-93-5	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Pentachloronitrobenzene	82-68-8	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Pentachlorophenol	87-86-5	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
Phenacetin	62-44-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Phenanthrene	85-01-8	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Phenol	108-95-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Phorate	298-02-2	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
p-Phenylenediamine	106-50-3	ug/l	< 200 U	--	< 190 U	< 200 U
Propyzamide	23950-58-5	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Pyrene	129-00-0	ug/l	< 0.20 U	--	< 0.19 U	< 0.20 U
Pyridine	110-86-1	ug/l	< 4.9 U	--	< 4.9 U	< 5.1 U
Safrole	94-59-7	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
Sulfotep	3689-24-5	ug/l	< 0.98 U	--	< 0.97 U	< 1.0 U
VOCs						
1,1,1,2-Tetrachloroethane	630-20-6	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	71-55-6	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	79-00-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	75-34-3	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	75-35-4	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	107-06-2	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	78-87-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	78-93-3	ug/l	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlor-1,3-Butadiene	126-99-8	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Methyl-1-propanol	78-83-1	ug/l	< 40 U	< 40 U	< 40 U	< 40 U
4-Methyl-2-Pentanone	108-10-1	ug/l	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	67-64-1	ug/l	< 25 U	< 25 U	< 25 U	< 25 U
Acetonitrile	75-05-8	ug/l	< 40 U	< 40 U	< 40 U	< 40 U
Acrolein	107-02-8	ug/l	< 20 U	< 20 U	< 20 U	< 20 U
Acrylonitrile	107-13-1	ug/l	< 20 U	< 20 U	< 20 U	< 20 U
Allyl chloride	107-05-1	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	71-43-2	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	75-27-4	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromoform	75-25-2	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	74-83-9	ug/l	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon Disulfide	75-15-0	ug/l	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Carbon Tetrachloride	56-23-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CFC-11	75-69-4	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

Table 7a
Surface Water Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SW-01	SW-02	SW-02	SW-03
		Sample Matrix	SW	SW	SW	SW
		Date	8/28/2014	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	FD	N	N
Constituent	**CAS No.**	**Units**				
CFC-12	75-71-8	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	108-90-7	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorodibromomethane	124-48-1	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	75-00-3	ug/l	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroform	67-66-3	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	74-87-3	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	10061-01-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	74-95-3	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichloromethane	75-09-2	ug/l	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Ethyl Methacrylate	97-63-2	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	100-41-4	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Iodomethane	74-88-4	ug/l	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Methyl Methacrylate	80-62-6	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl N-Butyl Ketone	591-78-6	ug/l	< 10 U	< 10 U	< 10 U	< 10 U
Methylacrylonitrile	126-98-7	ug/l	< 20 U	< 20 U	< 20 U	< 20 U
Pentachloroethane	76-01-7	ug/l	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Propane Nitrile	107-12-0	ug/l	< 20 U	< 20 U	< 20 U	< 20 U
Styrene (Monomer)	100-42-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	127-18-4	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	108-88-3	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Total Xylenes	1330-20-7	ug/l	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
trans-1,2-Dichloroethene	156-60-5	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,4-Dichlorobutene	110-57-6	ug/l	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Trichloroethene	79-01-6	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl acetate	108-05-4	ug/l	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Vinyl chloride	75-01-4	ug/l	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
General Chemistry						
pH (Field Measured)		s.u.	7.09	8.5	8.5	7.76

Notes
pH values were recorded in the field.
Bolded values indicated detections
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
-- Not Analyzed/No Standard
FD = Field Duplicate
N = Normal Sample
s.u. = Standard Unit
SVOC = Semivolatile organic compound
SW = Surface water
µg/l = micrograms per liter
VOC = Volatile organic compound

Table 7b
Sediment Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SED-1	SED-2	SED-3
		Sample Matrix	SED	SED	SED
		Date	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	N	N
Constituent	**CAS No.**	**Units**			
Dioxins and Furans					
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	mg/kg	< 0.0000015 Uq	< 0.0000019 Uq	< 0.0000014 Uq
Hexachlorodibenzofurans	55684-94-1	mg/kg	**0.000013**	**0.000077 q**	**0.000034**
Hexachlorodibenzo-p-dioxins	34465-46-8	mg/kg	**0.000056**	**0.00032**	**0.00013**
Pentachlorodibenzofurans, Total	30402-15-4	mg/kg	< 0.0000073 Uq	**0.000028 q**	**0.000015 q**
Pentachlorodibenzo-p-dioxins, Total	36088-22-9	mg/kg	< 0.0000073 Uq	**0.00002 q**	**0.000011 q**
Tetrachlorodibenzofuran	30402-14-3	mg/kg	**0.0000045 q**	**0.000015 q**	**0.0000061 q**
Tetrachlorodibenzo-p-dioxins, Total	41903-57-5	mg/kg	**0.0000018 q**	**0.0000042 q**	**0.0000049 q**
TEQ of dioxins and furans		mg/kg	**0.000009**	**0.00007**	**0.00003**
GenChem					
Moisture Content		%	33.2	46.3	28.8
Total Organic Carbon	ARC-TOC	mg/kg	14000	20000	9800
SVOCs					
1,1-Biphenyl	92-52-4	mg/kg	< 25 U	< 32 U	< 24 U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,2-Dichlorobenzene	95-50-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,3,5-Trinitrobenzene	99-35-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,3-Dichlorobenzene	541-73-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,3-Dinitrobenzene	99-65-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,4-Dichlorobenzene	106-46-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,4-Dioxane	123-91-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1,4-Naphthoquinone	130-15-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
1-Naphthylamine	134-32-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,2-Oxybis(1-Chloropropane)	108-60-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,4,5-Trichlorophenol	95-95-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,4,6-Trichlorophenol	88-06-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,4-Dichlorophenol	120-83-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,4-Dimethylphenol	105-67-9	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,4-Dinitrophenol	51-28-5	mg/kg	< 25 U	< 32 U	< 24 U
2,4-Dinitrotoluene	121-14-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,6-Dichlorophenol	87-65-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2,6-Dinitrotoluene	606-20-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Acetylaminofluorene	53-96-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Chloronaphthalene	91-58-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Chlorophenol	95-57-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Methyl-4,6-dinitrophenol	534-52-1	mg/kg	< 25 U	< 32 U	< 24 U
2-Methylnaphthalene	91-57-6	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Methylphenol	95-48-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Naphthylamine	91-59-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Nitroaniline	88-74-4	mg/kg	< 25 U	< 32 U	< 24 U
2-Nitrophenol	88-75-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
2-Picoline	109-06-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
3,3-Dichlorobenzidine	91-94-1	mg/kg	< 9.9 U	< 12 U	< 9.2 U
3,3-Dimethylbenzidine	119-93-7	mg/kg	< 25 U	< 32 U	< 24 U
3-Methylchloranthrene	56-49-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U*
3-Nitroaniline	99-09-2	mg/kg	< 25 U	< 32 U	< 24 U
4-Aminobiphenyl	92-67-1	mg/kg	< 4.9 U*	< 6.1 U*	< 4.6 U
4-Bromophenyl phenyl ether	101-55-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
4-Chloro-3-Methylphenol	59-50-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
4-Dimethylaminoazobenzene	60-11-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
4-Methylphenol	106-44-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
4-Nitroaniline	100-01-6	mg/kg	< 25 U	< 32 U	< 24 U
4-Nitrophenol	100-02-7	mg/kg	< 25 U	< 32 U	< 24 U
4-Nitroquinoline-N-Oxide	56-57-5	mg/kg	< 49 U	< 61 U	< 46 U
5-Nitro-o-Toluidine	99-55-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
7,12-Dimethylbenz(a)anthracene	57-97-6	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Acenaphthene	83-32-9	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U

Table 7b
Sediment Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SED-1	SED-2	SED-3
		Sample Matrix	SED	SED	SED
		Date	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	N	N
Acenaphthylene	208-96-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Acetophenone	98-86-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Aniline	62-53-3	mg/kg	< 9.9 U	< 12 U	< 9.2 U
Anthracene	120-12-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Aramite	140-57-8	mg/kg	< 4.9 U*	< 6.1 U*	< 4.6 U*
Benzo(a)anthracene	56-55-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Benzo(a)pyrene	50-32-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Benzo(b)fluoranthene	205-99-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Benzo(g,h,i)perylene	191-24-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Benzo(k)fluoranthene	207-08-9	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Benzyl Alcohol	100-51-6	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
bis(2-Chloroethoxy)methane	111-91-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
bis(2-Chloroethyl)ether	111-44-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Butyl benzyl phthalate	85-68-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Chrysene	218-01-9	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Diallate	2303-16-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Dibenzofuran	132-64-9	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Diethyl phthalate	84-66-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Dimethoate	60-51-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Dimethyl phthalate	131-11-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Dimethylphenethylamine	122-09-8	mg/kg	< 1000 U	< 1200 U	< 940 U
Di-n-butyl phthalate	84-74-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Di-n-octyl phthalate	117-84-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Dinoseb	88-85-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Disulfoton	298-04-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Ethyl Methanesulfonate	62-50-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Famphur	52-85-7	mg/kg	< 4.9 U*	< 6.1 U*	< 4.6 U*
Fluoranthene	206-44-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Fluorene	86-73-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Hexachloro-1,3-butadiene	87-68-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Hexachlorobenzene	118-74-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Hexachlorocyclopentadiene	77-47-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Hexachloroethane	67-72-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Hexachlorophene	70-30-4	mg/kg	< 2500 U	< 3200 U	< 2400 U
Hexachloropropene	1888-71-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Isophorone	78-59-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Isosafrole	120-58-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U*
Methapyrilene	91-80-5	mg/kg	< 1000 U	< 1200 U	< 940 U
Methyl Methanesulfonate	66-27-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Methyl Parathion	298-00-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Naphthalene	91-20-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Nitrobenzene	98-95-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-Nitrosodiethylamine	55-18-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-Nitrosodimethylamine	62-75-9	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
n-Nitrosodi-n-butylamine	924-16-3	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
n-Nitrosodi-n-propylamine	621-64-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-nitrosodiphenylamine	86-30-6	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-Nitrosomorpholine	59-89-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-Nitroso-N-methylethylamine	10595-95-6	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-Nitrosopiperidine	100-75-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
N-Nitrosopyrrolidine	930-55-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
o,o,o-Triethyl phosphorothioate	126-68-1	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
o,o-Diethyl o-pyrazinyl phosphorothioate	297-97-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
o-Toluidine	95-53-4	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Parathion	56-38-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
p-Chloroaniline	106-47-8	mg/kg	< 9.9 U	< 12 U	< 9.2 U

Table 7b
Sediment Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SED-1	SED-2	SED-3
		Sample Matrix	SED	SED	SED
		Date	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	N	N
Pentachlorobenzene	608-93-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Pentachloronitrobenzene	82-68-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Pentachlorophenol	87-86-5	mg/kg	< 25 U	< 32 U	< 24 U
Phenacetin	62-44-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Phenanthrene	85-01-8	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Phenol	108-95-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Phorate	298-02-2	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
p-Phenylenediamine	106-50-3	mg/kg	< 25 U	< 32 U	< 24 U
Propyzamide	23950-58-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Pyrene	129-00-0	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Pyridine	110-86-1	mg/kg	< 9.9 U	< 12 U	< 9.2 U
Safrole	94-59-7	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
Sulfotep	3689-24-5	mg/kg	< 4.9 U	< 6.1 U	< 4.6 U
VOCs					
1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,1,1-Trichloroethane	71-55-6	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,1,2-Trichloroethane	79-00-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,1-Dichloroethane	75-34-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,1-Dichloroethene	75-35-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,2,3-Trichloropropane	96-18-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg	< 0.011 U	< 0.016 U	< 0.0096 U
1,2-Dibromoethane	106-93-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,2-Dichlorobenzene	95-50-1	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,2-Dichloroethane	107-06-2	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,2-Dichloropropane	78-87-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,3-Dichlorobenzene	541-73-1	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,4-Dichlorobenzene	106-46-7	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
1,4-Dioxane	123-91-1	mg/kg	< 0.056 U	< 0.082 U	< 0.048 U
2-Butanone (MEK)	78-93-3	mg/kg	< 0.028 U	< 0.041 U	< 0.024 U
2-Chlor-1,3-Butadiene	126-99-8	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
2-Methyl-1-propanol	78-83-1	mg/kg	< 0.22 U	< 0.33 U	< 0.19 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	< 0.028 U	< 0.041 U	< 0.024 U
Acetone	67-64-1	mg/kg	< 0.056 U	**0.1**	< 0.048 U
Acetonitrile	75-05-8	mg/kg	< 0.22 U	< 0.33 U	< 0.19 U
Acrolein	107-02-8	mg/kg	< 0.11 U*	< 0.16 U*	< 0.096 U*
Acrylonitrile	107-13-1	mg/kg	< 0.11 U	< 0.16 U	< 0.096 U
Allyl chloride	107-05-1	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Benzene	71-43-2	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Bromodichloromethane	75-27-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Bromoform	75-25-2	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Bromomethane	74-83-9	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Carbon Disulfide	75-15-0	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Carbon Tetrachloride	56-23-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
CFC-11	75-69-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
CFC-12	75-71-8	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Chlorobenzene	108-90-7	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Chlorodibromomethane	124-48-1	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Chloroethane	75-00-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Chloroform	67-66-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Chloromethane	74-87-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
cis-1,3-Dichloropropene	10061-01-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Dibromomethane	74-95-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Dichloromethane	75-09-2	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Ethyl Methacrylate	97-63-2	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Ethylbenzene	100-41-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Hexachloro-1,3-butadiene	87-68-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Iodomethane	74-88-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U

Table 7b
Sediment Analytical Results, August 2014
VIRP Semiannual Progress Report
Hercules Inc. - Savannah, GA

		Well	SED-1	SED-2	SED-3
		Sample Matrix	SED	SED	SED
		Date	8/28/2014	8/28/2014	8/28/2014
		Sample Type	N	N	N
Methyl Methacrylate	80-62-6	mg/kg	< 0.011 U	< 0.016 U	< 0.0096 U
Methyl N-Butyl Ketone (2-Hexanone)	591-78-6	mg/kg	< 0.028 U	< 0.041 U	< 0.024 U
Methylacrylonitrile	126-98-7	mg/kg	< 0.11 U	< 0.16 U	< 0.096 U
Naphthalene	91-20-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Pentachloroethane	76-01-7	mg/kg	< 0.028 U	< 0.041 U	< 0.024 U
Propane Nitrile	107-12-0	mg/kg	< 0.11 U	< 0.16 U	< 0.096 U
Styrene (Monomer)	100-42-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Tetrachloroethene	127-18-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Toluene	108-88-3	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Total Xylenes	1330-20-7	mg/kg	< 0.011 U	< 0.016 U	< 0.0096 U
trans-1,2-Dichloroethene	156-60-5	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
trans-1,3-Dichloropropene	10061-02-6	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
trans-1,4-Dichlorobutene	110-57-6	mg/kg	< 0.011 U	< 0.016 U	< 0.0096 U
Trichloroethene	79-01-6	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Vinyl acetate	108-05-4	mg/kg	< 0.011 U	< 0.016 U	< 0.0096 U
Vinyl chloride	75-01-4	mg/kg	< 0.0056 U	< 0.0082 U	< 0.0048 U
Grain Size					
Clay	ARC-PCLAY	mg/kg	43000	103000	260000
Gravel	ARC-PGRAVEL	mg/kg	26000	30000	29000
HYDROMETER, READING 1	ARC-HYD01	mg/kg	125000	25000	67000
HYDROMETER, READING 2	ARC-HYD02	mg/kg	5000	6000	8000
HYDROMETER, READING 3	ARC-HYD03	mg/kg	0	0	18000
HYDROMETER, READING 4	ARC-HYD04	mg/kg	5000	11000	9000
HYDROMETER, READING 5	ARC-HYD05	mg/kg	5000	6000	26000
HYDROMETER, READING 6	ARC-HYD06	mg/kg	6000	13000	28000
HYDROMETER, READING 7	ARC-HYD07	mg/kg	5000	23000	26000
Sand	ARC-PSAND	mg/kg	792000	819000	583000
Sand Coarse	ARC-PSANDC	mg/kg	56000	22000	30000
Sand Fine	ARC-PSANDF	mg/kg	579000	644000	470000
Sand Medium	ARC-PSANDM	mg/kg	157000	153000	83000
SIEVE 0.375 inch, % passing	ARC-SIEVE9.5KU	mg/kg	0	0	0
SIEVE 0.75 inch, % passing	ARC-SIEVE19KU	mg/kg	0	0	0
SIEVE 1 inch, % passing	ARC-SIEVE25KU	mg/kg	0	0	0
SIEVE 1.5 inch, % passing	ARC-SIEVE37.5KU	mg/kg	0	0	0
SIEVE 2 inch, % passing	ARC-SIEVE50KU	mg/kg	0	0	0
SIEVE 3 inch, % passing	ARC-SIEVE75KU	mg/kg	0	0	0
SIEVE NO. 10, % passing	ARC-SIEVE10	mg/kg	56000	22000	30000
SIEVE NO. 200, % passing	ARC-SIEVE200	mg/kg	355000	326000	209000
SIEVE NO. 4, % passing	ARC-SIEVE4	mg/kg	26000	30000	29000
SIEVE NO. 40, % passing	ARC-SIEVE40	mg/kg	73000	106000	60000
SIEVE NO. 80, % passing	ARC-SIEVE80	mg/kg	62000	97000	90000
SIEVE, NO. 100, % passing	ARC-SIEVE100	mg/kg	101000	118000	105000
SIEVE, NO. 20, % passing	ARC-SIEVE20	mg/kg	84000	47000	23000
SIEVE, NO. 60, % passing	ARC-SIEVE60	mg/kg	61000	103000	66000
Silt	ARC-PSILT	mg/kg	140000	48000	128000

Notes
Bolded values indicated detections
ft bgs = feet below ground surface
U = Not detected above reporting limit
< = Concentration is less than the reporting limit
* LCS or LCSD exceeds the control limits
FD = Field Duplicate
GW = Groundwater
N = Normal Sample
mg/kg = milligrams per kilogram
SED = Sediment Sample
s.u. = Standard Unit
SVOC = Semivolatile organic compound
TEQ = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxic equivalence.
TEF = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxicity equivalence factor.
VOC = Volatile organic compound

Figures

LEGEND

HSI 10696 Site Boundary

PROJECTION: NAD83 State Plane Georgia East Feet

SOURCES:
1) ESRI Online Services (USA Topo Maps).
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

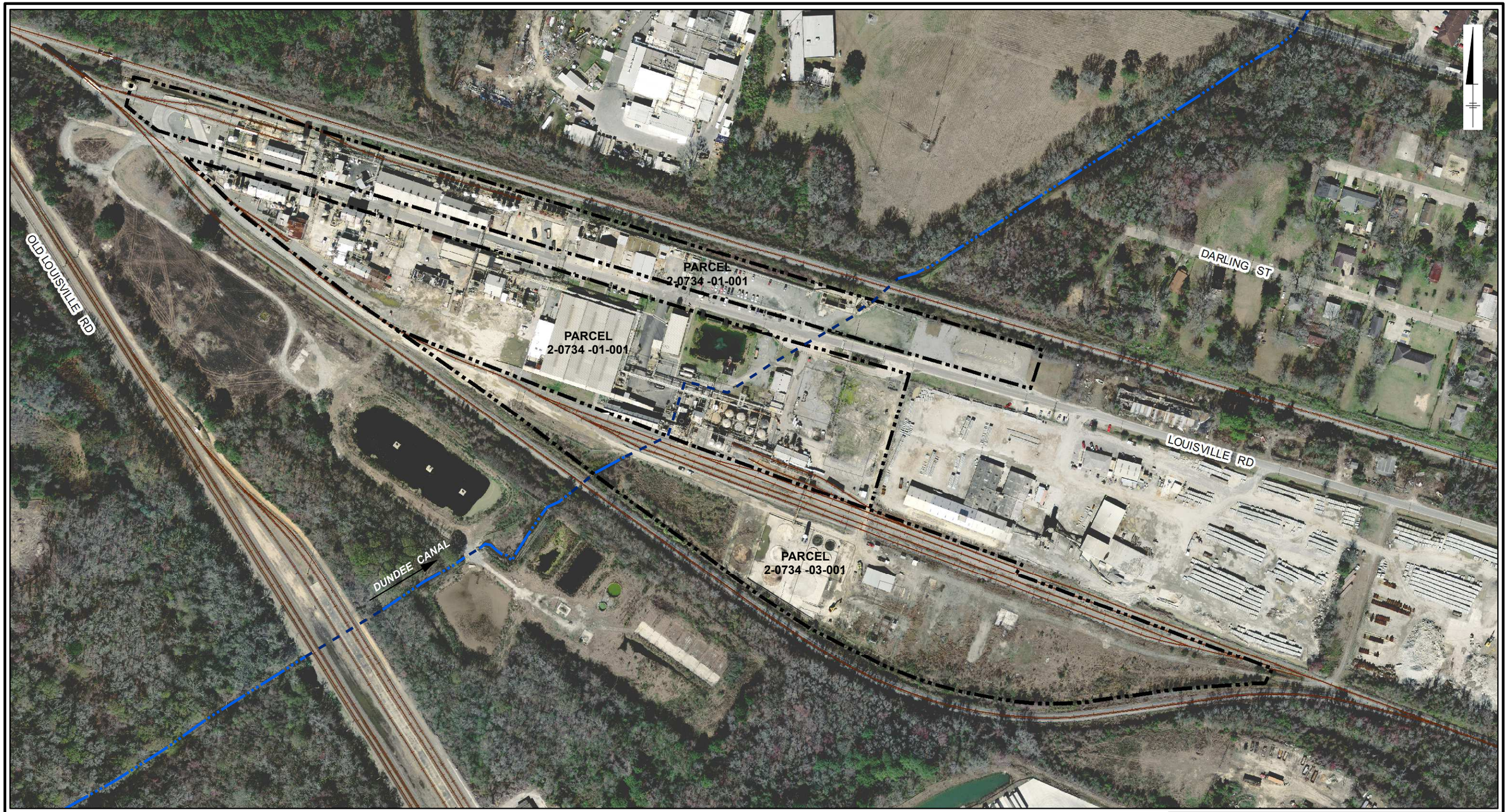
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Site Location Map

ARCADIS

FIGURE
1

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4 DRAFT\F1 GA60_VRPSA4 REG.MXD SAVED: 2/12/2015



BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

LEGEND

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

0 240 480
SCALE IN FEET

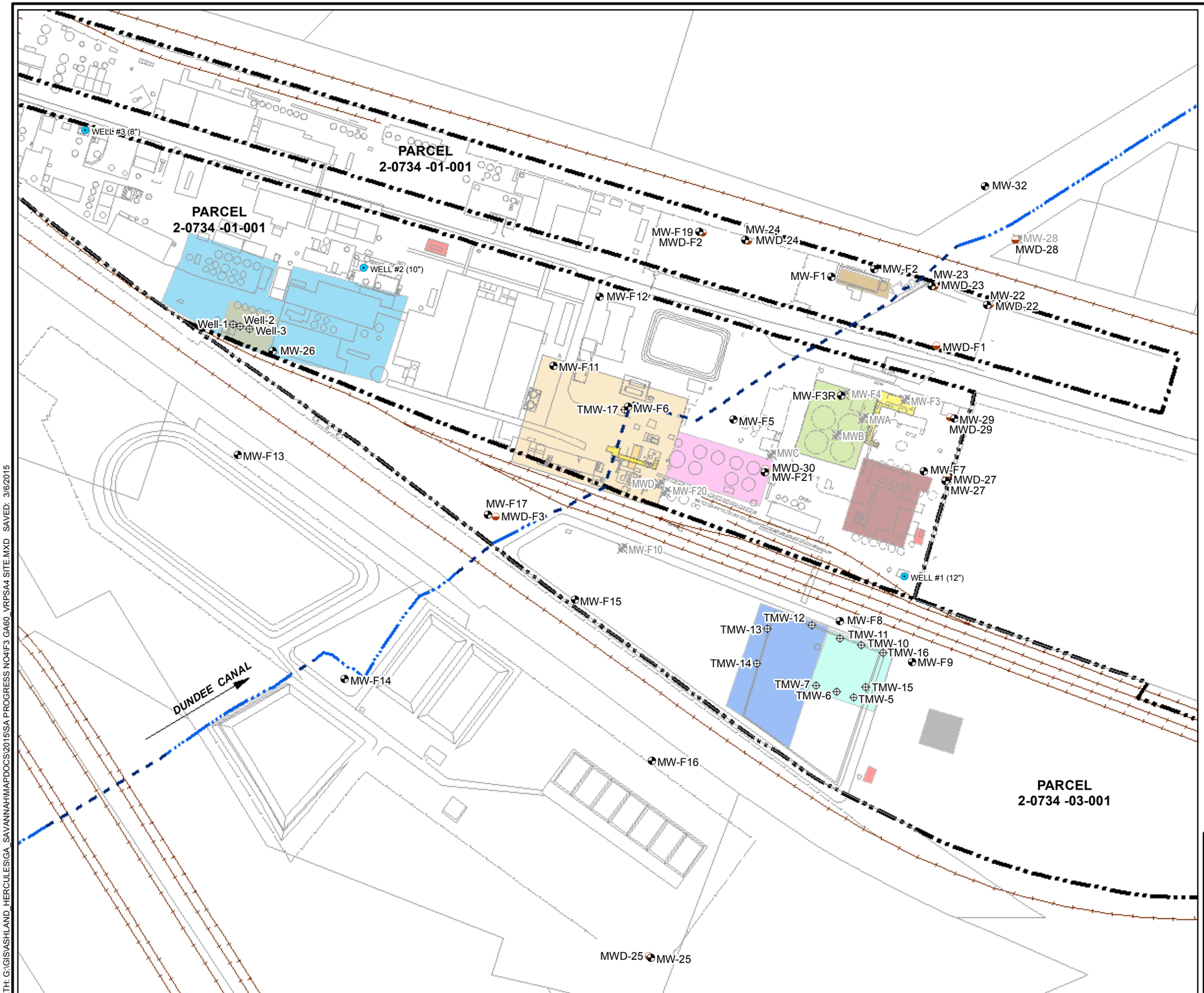
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Site Layout – Aerial View

ARCADIS

FIGURE
2

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4 DRAFT\F2 GA60_VRPSA4 AERIAL.MXD SAVED: 2/12/2015



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (deep)
- Temporary Monitoring Well (shallow)
- Production Well
- Monitoring Well (abandoned/destroyed)
- 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:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Site Map

ARCADIS

FIGURE
3

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
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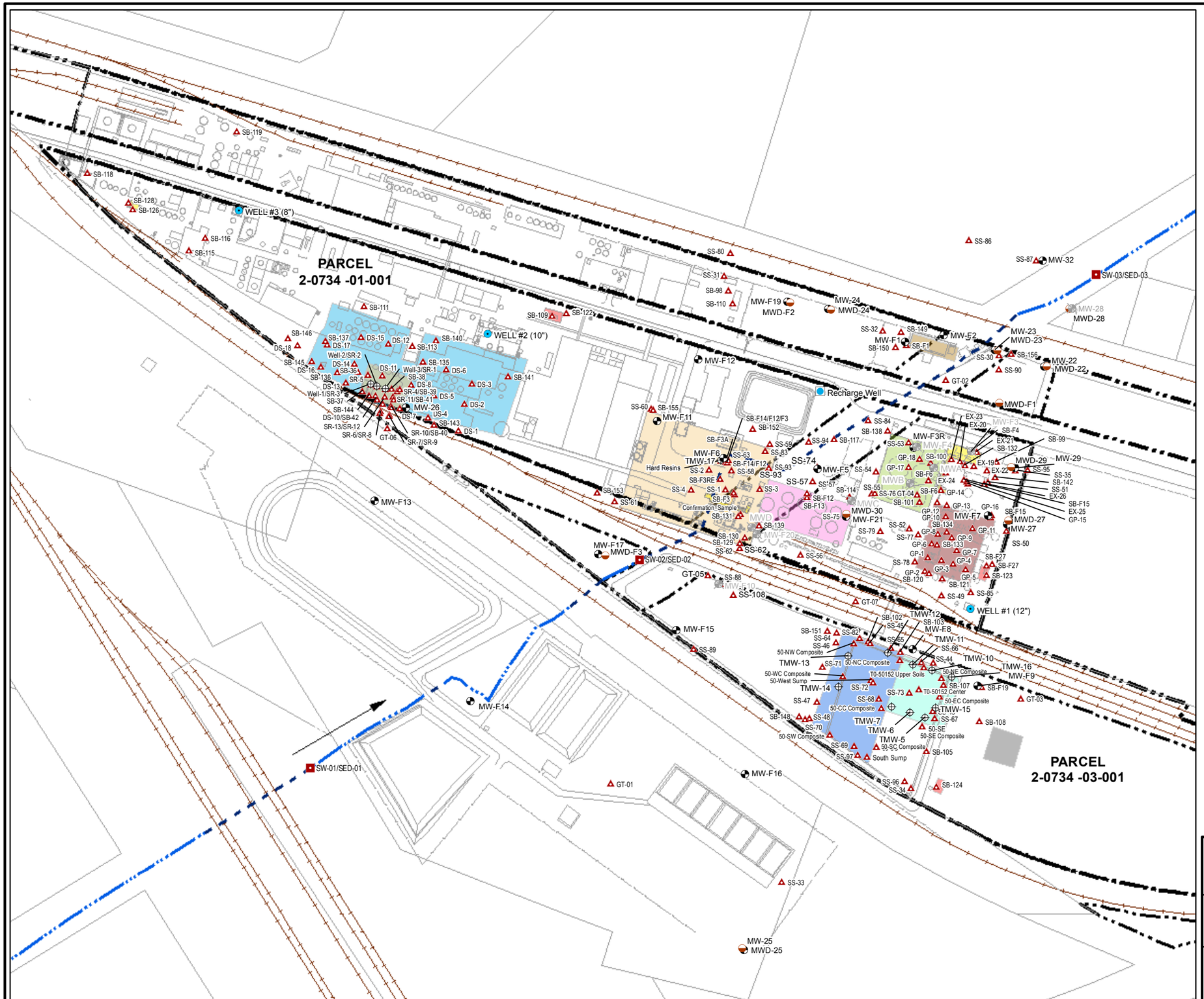


LEGEND

- Monitoring Well (shallow)
- Temporary Monitoring Well (shallow)
- Monitoring Well (deep)
- Monitoring Well (abandoned)
- Production Well
- Recharge Well
- Soil Sample
- Surface Water/Sediment Sample (August 2014)
- Former Dry Size Area
- Former Size Tank Area
- Former Dowtherm Unit
- Electrical Substation
- 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
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

0 180 360

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

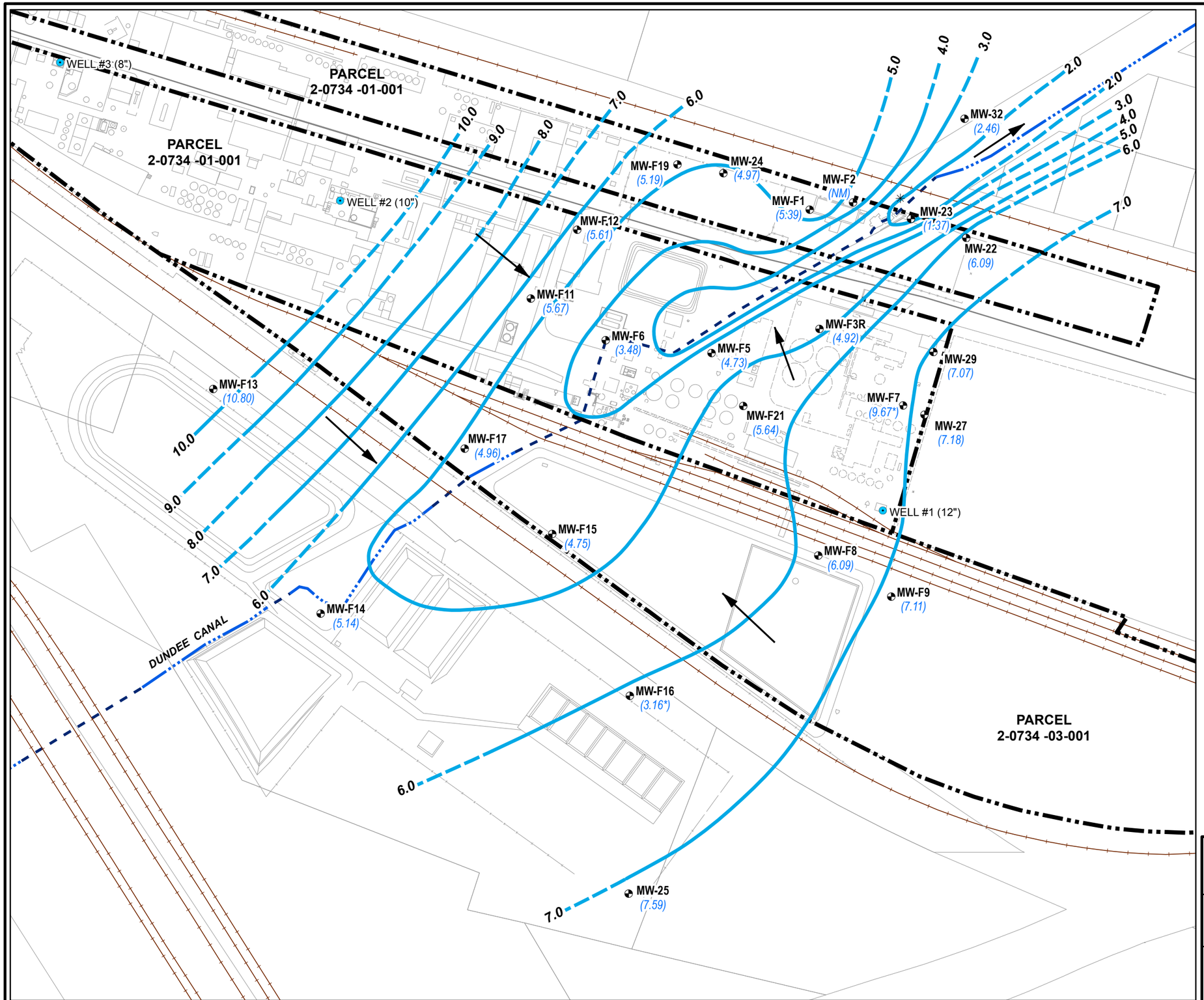
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Sampling Locations

ARCADIS

FIGURE
4

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F4 GA60_VRPSA4 ALL LOCS.MXD SAVED: 3/16/2015



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Monitoring Well (deep)
- Production Well
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Groundwater Contour Line (ft amsl)
- (inferred where dashed)
- Groundwater Flow Direction
- (7.18) Groundwater Elevation (ft amsl) Measured November 4, 2014
- (9.67*) Not Used to Construct Contours

0 160 320

SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Shallow Potentiometric Surface Map
November 4, 2014

ARCADIS

FIGURE
5

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
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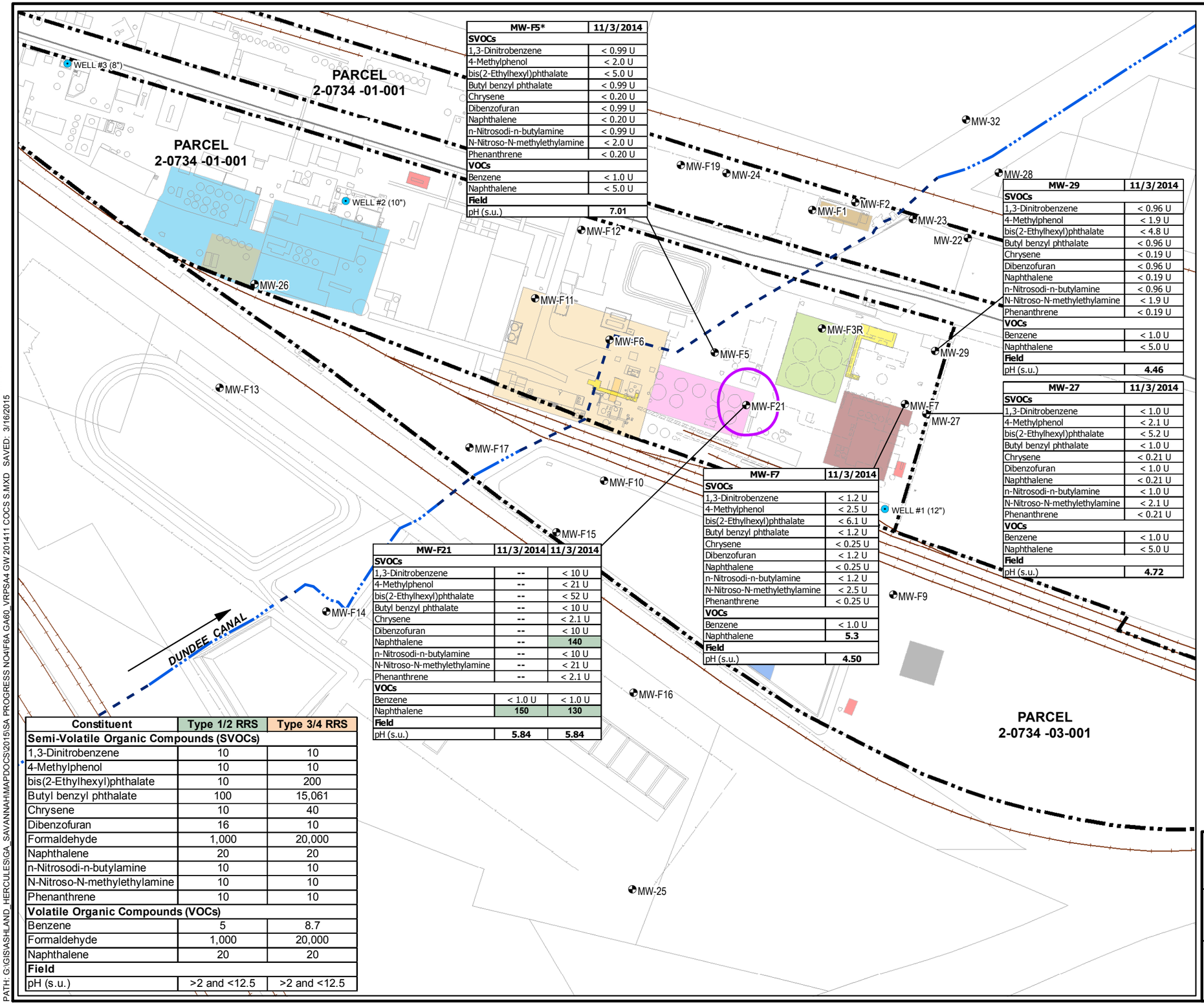


MW-F5*	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 0.99 U
4-Methylphenol	< 2.0 U
bis(2-Ethylhexyl)phthalate	< 5.0 U
Butyl benzyl phthalate	< 0.99 U
Chrysene	< 0.20 U
Dibenzofuran	< 0.99 U
Naphthalene	< 0.20 U
n-Nitrosodi-n-butylamine	< 0.99 U
N-Nitroso-N-methylethylamine	< 2.0 U
Phenanthrene	< 0.20 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**7.01**

MW-29	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 0.96 U
4-Methylphenol	< 1.9 U
bis(2-Ethylhexyl)phthalate	< 4.8 U
Butyl benzyl phthalate	< 0.96 U
Chrysene	< 0.19 U
Dibenzofuran	< 0.96 U
Naphthalene	< 0.19 U
n-Nitrosodi-n-butylamine	< 0.96 U
N-Nitroso-N-methylethylamine	< 1.9 U
Phenanthrene	< 0.19 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**4.46**

MW-27	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 1.0 U
4-Methylphenol	< 2.1 U
bis(2-Ethylhexyl)phthalate	< 5.2 U
Butyl benzyl phthalate	< 1.0 U
Chrysene	< 0.21 U
Dibenzofuran	< 1.0 U
Naphthalene	< 0.21 U
n-Nitrosodi-n-butylamine	< 1.0 U
N-Nitroso-N-methylethylamine	< 2.1 U
Phenanthrene	< 0.21 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**4.72**

MW-F7	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 1.2 U
4-Methylphenol	< 2.5 U
bis(2-Ethylhexyl)phthalate	< 6.1 U
Butyl benzyl phthalate	< 1.2 U
Chrysene	< 0.25 U
Dibenzofuran	< 1.2 U
Naphthalene	< 0.25 U
n-Nitrosodi-n-butylamine	< 1.2 U
N-Nitroso-N-methylethylamine	< 2.5 U
Phenanthrene	< 0.25 U
VOCs	
Benzene	< 1.0 U
Naphthalene	**5.3**
Field	
pH (s.u.)	**4.50**

MW-F21	11/3/2014	11/3/2014
SVOCs		
1,3-Dinitrobenzene	--	< 10 U
4-Methylphenol	--	< 21 U
bis(2-Ethylhexyl)phthalate	--	< 52 U
Butyl benzyl phthalate	--	< 10 U
Chrysene	--	< 2.1 U
Dibenzofuran	--	< 10 U
Naphthalene	--	**140**
n-Nitrosodi-n-butylamine	--	< 10 U
N-Nitroso-N-methylethylamine	--	< 21 U
Phenanthrene	--	< 2.1 U
VOCs		
Benzene	< 1.0 U	< 1.0 U
Naphthalene	**150**	**130**
Field		
pH (s.u.)	**5.84**	**5.84**

Constituent	Type 1/2 RRS	Type 3/4 RRS
Semi-Volatile Organic Compounds (SVOCs)		
1,3-Dinitrobenzene	10	10
4-Methylphenol	10	10
bis(2-Ethylhexyl)phthalate	10	200
Butyl benzyl phthalate	100	15,061
Chrysene	10	40
Dibenzofuran	16	10
Formaldehyde	1,000	20,000
Naphthalene	20	20
n-Nitrosodi-n-butylamine	10	10
N-Nitroso-N-methylethylamine	10	10
Phenanthrene	10	10
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Formaldehyde	1,000	20,000
Naphthalene	20	20
Field		
pH (s.u.)	>2 and <12.5	>2 and <12.5

LEGEND

- HSI 10696 Site Boundary
- 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
- Type 1 RRS Isocontour

NOTES:
1) Analytical results represent data from Movember 3-4, 2014, sampling event.
2) All concentrations reported in micrograms per liter (µg/L) unless otherwise shown.
3) Only constituents with historical detections above Type 1 Risk Reduction Standards (RRS) are shown.
4) **BOLD** - Concentration exceeds Type I RRS.
5) * Duplicate performed on this well.

U - Indicates the analyte was analyzed for but not detected.
s.u. - Standard unit

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

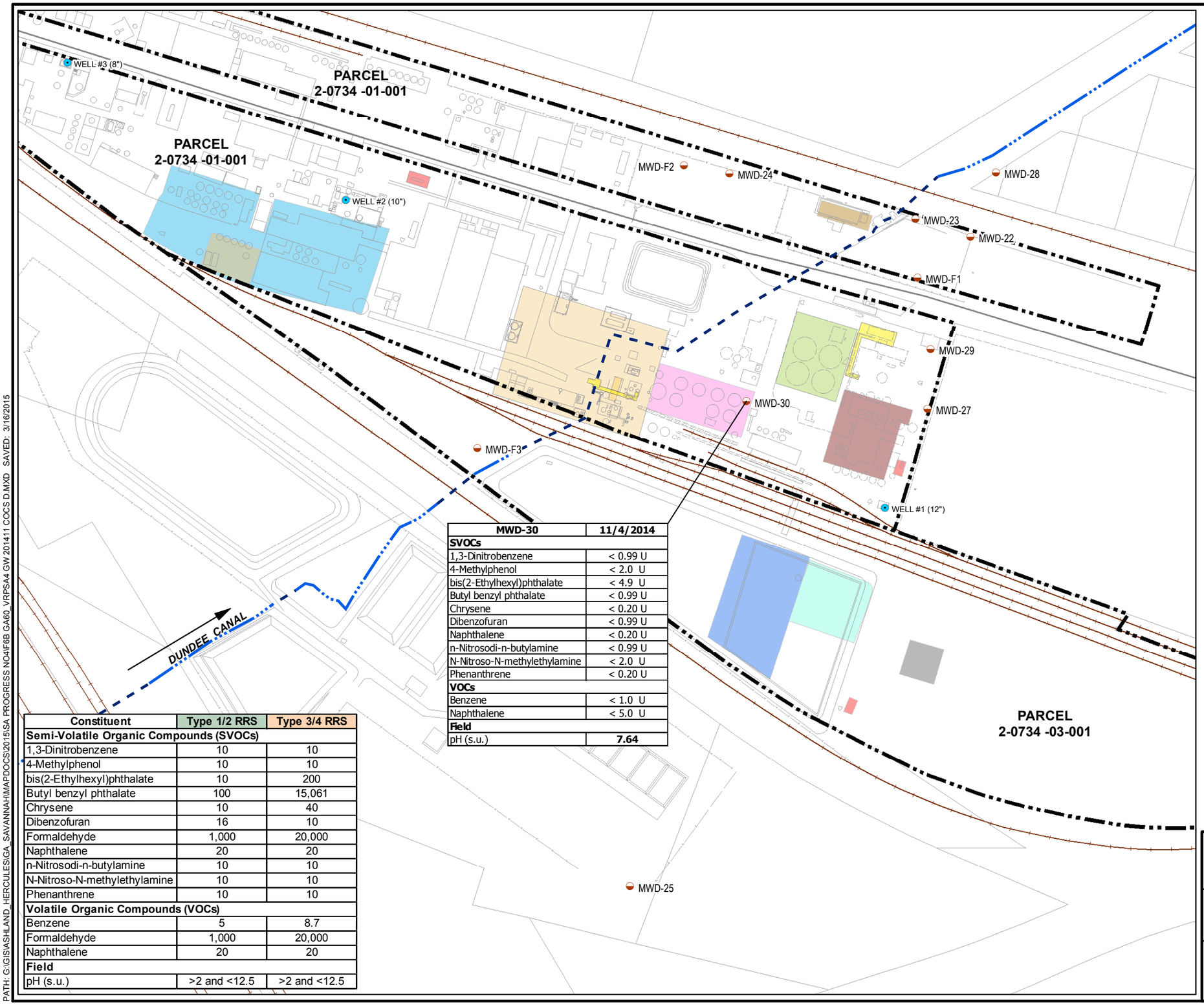
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Constituents of Concern in Groundwater (Shallow Aquifer), November 2014

ARCADIS

FIGURE
6a

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F6A GA60_VRPSA4 GW 201411 COCS S.MXD SAVED: 3/16/2015



MWD-30	11/4/2014
SVOCs	
1,3-Dinitrobenzene	< 0.99 U
4-Methylphenol	< 2.0 U
bis(2-Ethylhexyl)phthalate	< 4.9 U
Butyl benzyl phthalate	< 0.99 U
Chrysene	< 0.20 U
Dibenzofuran	< 0.99 U
Naphthalene	< 0.20 U
n-Nitrosodi-n-butylamine	< 0.99 U
N-Nitroso-N-methylethylamine	< 2.0 U
Phenanthrene	< 0.20 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**7.64**

Constituent	Type 1/2 RRS	Type 3/4 RRS
Semi-Volatile Organic Compounds (SVOCs)		
1,3-Dinitrobenzene	10	10
4-Methylphenol	10	10
bis(2-Ethylhexyl)phthalate	10	200
Butyl benzyl phthalate	100	15,061
Chrysene	10	40
Dibenzofuran	16	10
Formaldehyde	1,000	20,000
Naphthalene	20	20
n-Nitrosodi-n-butylamine	10	10
N-Nitroso-N-methylethylamine	10	10
Phenanthrene	10	10
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Formaldehyde	1,000	20,000
Naphthalene	20	20
Field		
pH (s.u.)	>2 and <12.5	>2 and <12.5

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 Movember 3-4, 2014, sampling event.
2) All concentrations reported in micrograms per liter (µg/L) unless otherwise shown.
3) Only constituents with historical detections above Type 1 Risk Reduction Standards (RRS) are shown.
4) **BOLD** - Concentration exceeds Type I RRS.
5) * Duplicate performed on this well.

U - Indicates the analyte was analyzed for but not detected.
s.u. - Standard unit

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

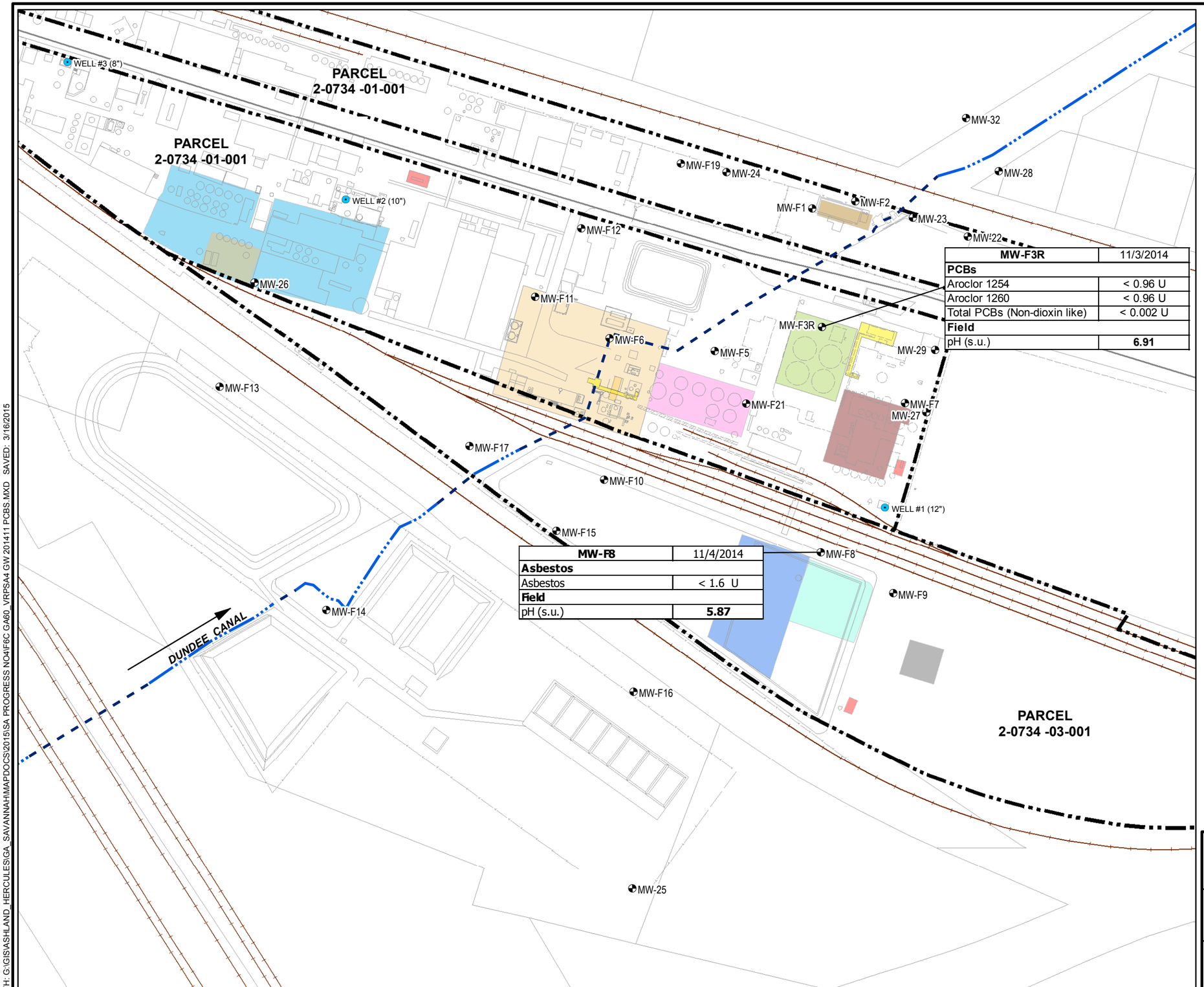
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Constituents of Concern in Groundwater (Deep Aquifer), November 2014

ARCADIS

FIGURE
6b

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F6B GA60_VRPSA4 GW 201411 COCS D.MXD SAVED: 3/16/2015



MW-F3R	11/3/2014
PCBs	
Aroclor 1254	< 0.96 U
Aroclor 1260	< 0.96 U
Total PCBs (Non-dioxin like)	< 0.002 U
Field	
pH (s.u.)	**6.91**

MW-F8	11/4/2014
Asbestos	
Asbestos	< 1.6 U
Field	
pH (s.u.)	**5.87**

LEGEND

- HSI 10696 Site Boundary
- 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

Constituent	Type 1/2 RRS	Type 3/4 RRS
Polychlorinated Biphenyls (PCBs)		
Aroclor 1254	0.5	1.4
Aroclor 1260	0.5	1.4
Total PCBs (Non-dioxin like)	0.5	1.4
TEQ	> 2	< 12
Other		
Asbestos (MFL)	7	7
Field		
pH (s.u.)	>2 and <12.5	>2 and <12.5

NOTES:
1) Analytical results represent PCBs and Asbestos data from November 3-4, 2014, sampling event.

ND - Indicates the analyte was analyzed for but not detected.
MFL - miillions of fibers per liter
pg/L - pictograms per liter
µg/L - micrograms per liter

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

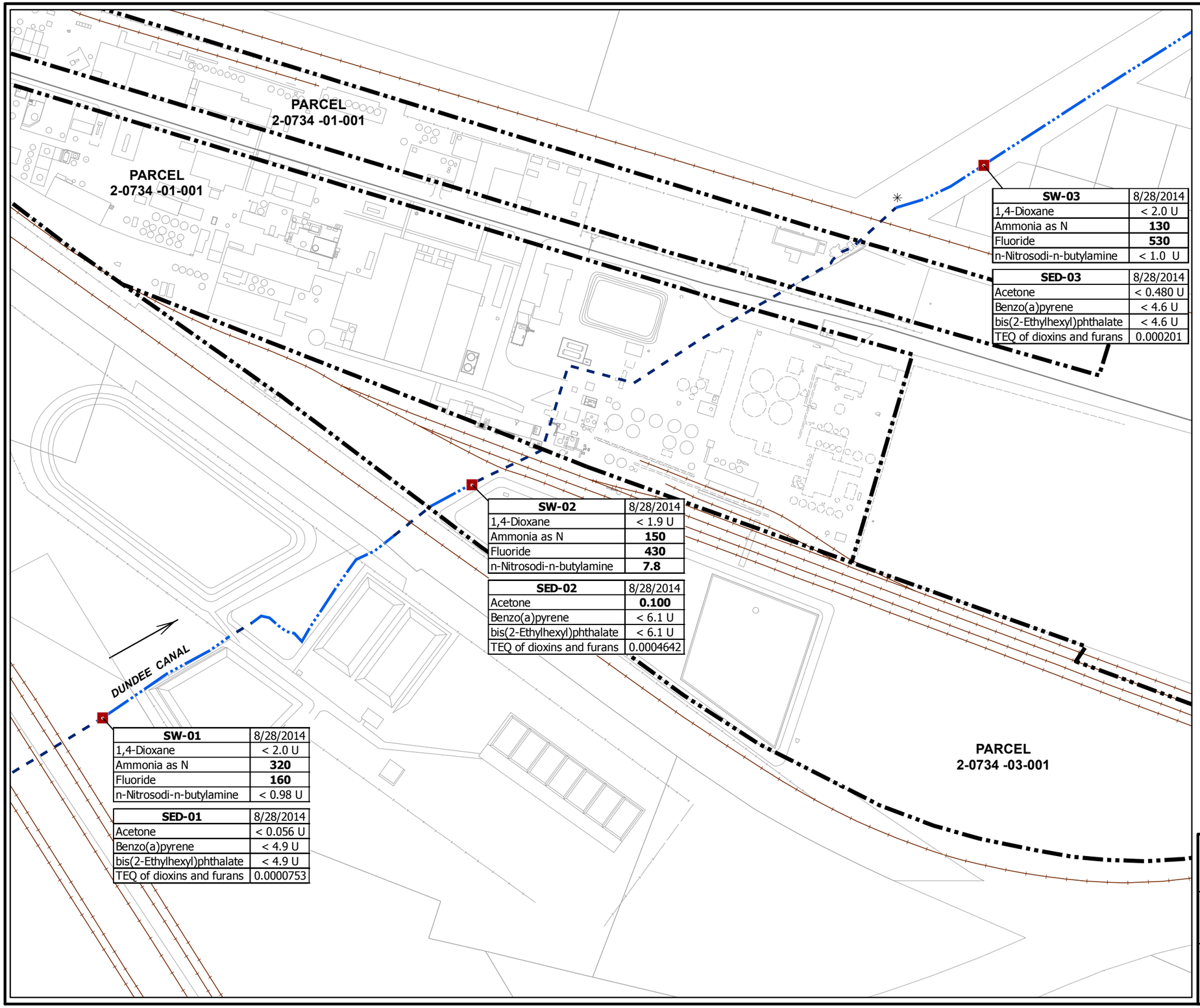
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

PCBs and Asbestos in Groundwater (Shallow Aquifer), November 2014

ARCADIS

FIGURE
6c

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F6C GA60_VRPSA4 GW 201411 PCBS.MXD SAVED: 3/16/2015



SW-03	8/28/2014
1,4-Dioxane	< 2.0 U
Ammonia as N	**130**
Fluoride	**530**
n-Nitrosodi-n-butylamine	< 1.0 U

SED-03	8/28/2014
Acetone	< 0.480 U
Benzo(a)pyrene	< 4.6 U
bis(2-Ethylhexyl)phthalate	< 4.6 U
TEQ of dioxins and furans	0.000201

SW-02	8/28/2014
1,4-Dioxane	< 1.9 U
Ammonia as N	**150**
Fluoride	**430**
n-Nitrosodi-n-butylamine	**7.8**

SED-02	8/28/2014
Acetone	**0.100**
Benzo(a)pyrene	< 6.1 U
bis(2-Ethylhexyl)phthalate	< 6.1 U
TEQ of dioxins and furans	0.0004642

SW-01	8/28/2014
1,4-Dioxane	< 2.0 U
Ammonia as N	**320**
Fluoride	**160**
n-Nitrosodi-n-butylamine	< 0.98 U

SED-01	8/28/2014
Acetone	< 0.056 U
Benzo(a)pyrene	< 4.9 U
bis(2-Ethylhexyl)phthalate	< 4.9 U
TEQ of dioxins and furans	0.0000753

LEGEND

- HSI 10696 Site Boundary
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Surface Water Flow Direction
- Surface Water/Sediment Sample (August 2014)

NOTES:
1) All surface water concentrations are reported in micrograms per liter (µg/L).
2) All sediment concentrations are reported in milligrams per kilogram (mg/kg).
3) **BOLD** concentration were detected above reporting limits.
4) Only constituents with historical detections are shown.

0 160 320
SCALE IN FEET

BASE REFERENCE:
1) Ashland (baseplot.dwg and toplot.dwg).
2) SAGIS parcels (2008).
3) Ashland Savannabase.dwg (March 2014).
PROJECTION: NAD83 State Plane Georgia East Feet

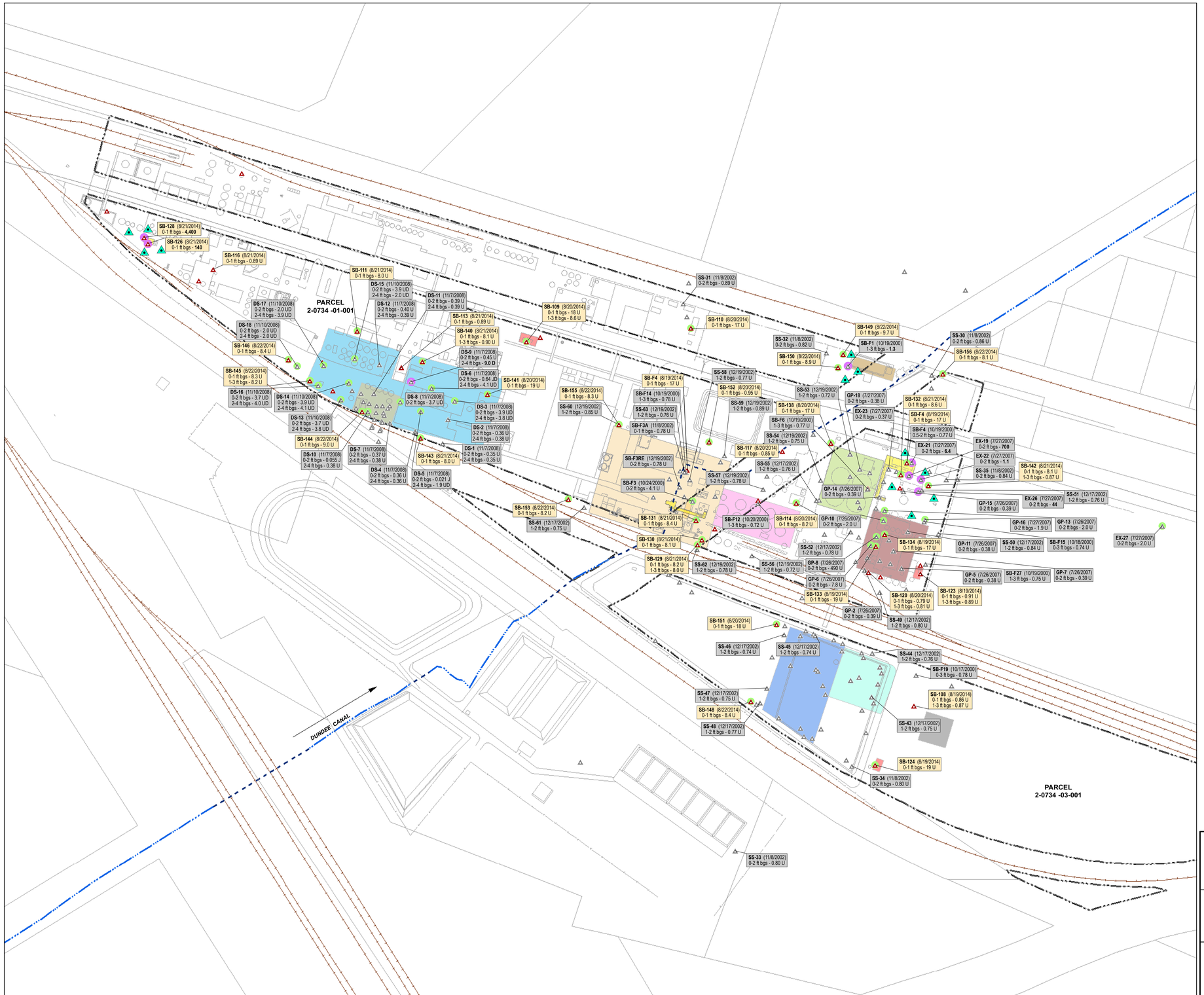
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Regulated Substances Detected in Surface Water/Sediment Samples

ARCADIS

FIGURE
7

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F7 GA60_VRPSA4 SW-SED 2014.MXD SAVED: 3/16/2015



LEGEND

- HSI 10696 Site Boundary
- 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
- Soil Boring (2000-2008)
- Soil Boring (August 2014)
- Laboratory Reporting Limit above Type 1/2 RRS
- Result above Type 1/2 RRS (1.0 mg/kg)
- Proposed Soil Boring

EX-19 (7/27/2007) 0 - 2 ft bgs - 700 — Sample ID (Date) Depth - 1,1-Biphenyl Concentration Reported in Voluntary Investigation and Remediation Plan (ARCADIS 2012).

SB-132 (8/21/2014) 0 - 1 ft bgs - 8.6 U — Sample ID (Date) Depth - 1,1-Biphenyl Concentration (ARCADIS 2014)

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) If a duplicate was taken, the highest value is shown.
4) 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.
RRS - Risk Reduction Standard

0 100 200 300 400
SCALE IN FEET

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

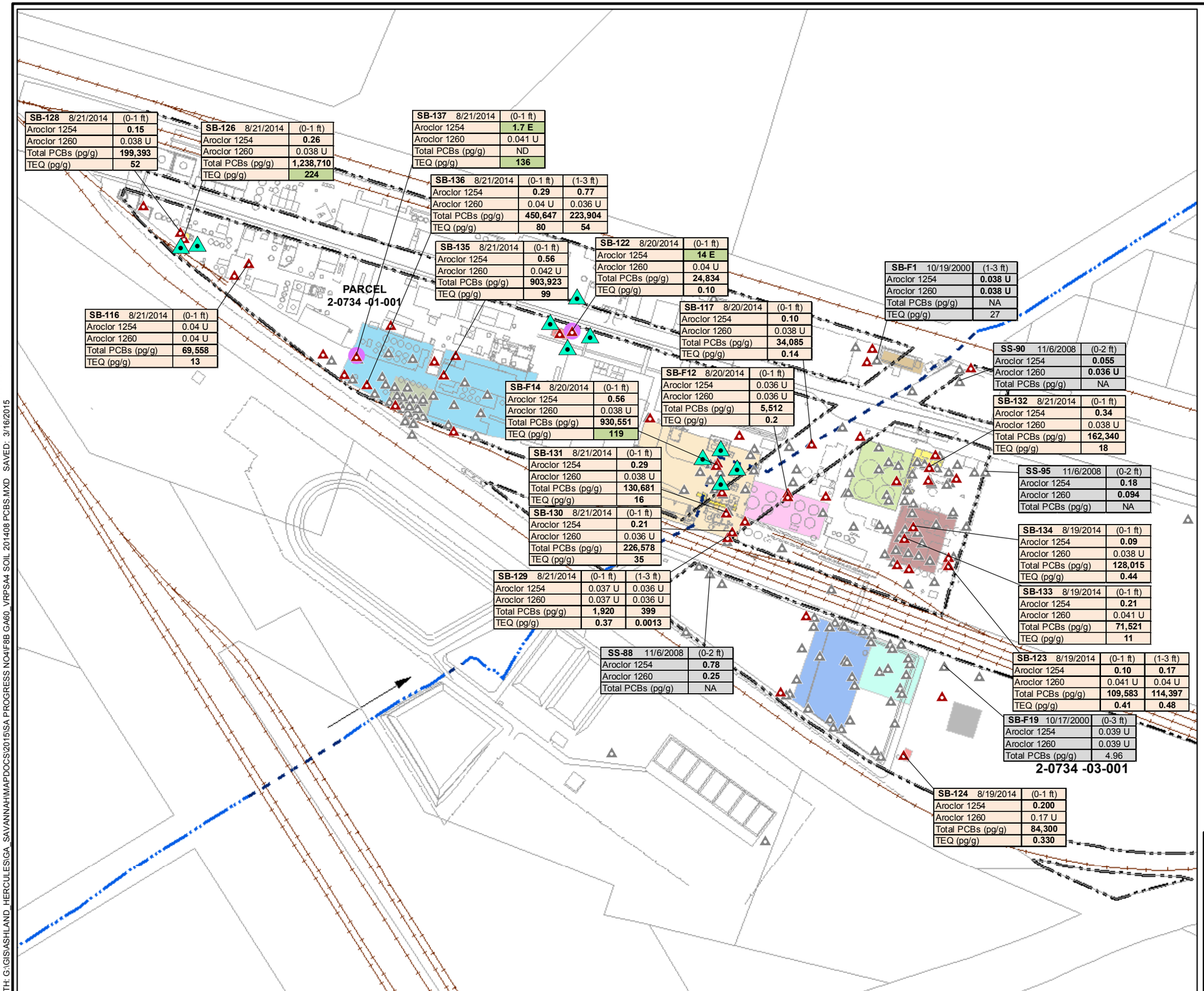
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

1,1-Biphenyl Delineation in Soil

ARCADIS

FIGURE
8a

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: C.MILLER BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F8A GA60_VRPSA4 SOIL 201408 BIPHENYL DSIZE.MXD SAVED: 3/16/2015



SB-128 8/21/2014	(0-1 ft)
Aroclor 1254	**0.15**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**199,393**
TEQ (pg/g)	**52**

SB-126 8/21/2014	(0-1 ft)
Aroclor 1254	**0.26**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**1,238,710**
TEQ (pg/g)	**224**

SB-137 8/21/2014	(0-1 ft)
Aroclor 1254	**1.7 E**
Aroclor 1260	0.041 U
Total PCBs (pg/g)	ND
TEQ (pg/g)	**136**

SB-136 8/21/2014	(0-1 ft)	(1-3 ft)
Aroclor 1254	**0.29**	**0.77**
Aroclor 1260	0.04 U	0.036 U
Total PCBs (pg/g)	**450,647**	**223,904**
TEQ (pg/g)	**80**	**54**

SB-135 8/21/2014	(0-1 ft)
Aroclor 1254	**0.56**
Aroclor 1260	0.042 U
Total PCBs (pg/g)	**903,923**
TEQ (pg/g)	**99**

SB-122 8/20/2014	(0-1 ft)
Aroclor 1254	**14 E**
Aroclor 1260	0.04 U
Total PCBs (pg/g)	**24,834**
TEQ (pg/g)	**0.10**

SB-116 8/21/2014	(0-1 ft)
Aroclor 1254	0.04 U
Aroclor 1260	0.04 U
Total PCBs (pg/g)	**69,558**
TEQ (pg/g)	**13**

SB-117 8/20/2014	(0-1 ft)
Aroclor 1254	**0.10**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**34,085**
TEQ (pg/g)	**0.14**

SB-F1 10/19/2000	(1-3 ft)
Aroclor 1254	**0.038 U**
Aroclor 1260	**0.038 U**
Total PCBs (pg/g)	NA
TEQ (pg/g)	27

SS-90 11/6/2008	(0-2 ft)
Aroclor 1254	**0.055**
Aroclor 1260	**0.036 U**
Total PCBs (pg/g)	NA

SB-F14 8/20/2014	(0-1 ft)
Aroclor 1254	**0.56**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**930,551**
TEQ (pg/g)	**119**

SB-F12 8/20/2014	(0-1 ft)
Aroclor 1254	0.036 U
Aroclor 1260	0.036 U
Total PCBs (pg/g)	**5,512**
TEQ (pg/g)	**0.2**

SB-132 8/21/2014	(0-1 ft)
Aroclor 1254	**0.34**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**162,340**
TEQ (pg/g)	**18**

SB-131 8/21/2014	(0-1 ft)
Aroclor 1254	**0.29**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**130,681**
TEQ (pg/g)	**16**

SS-95 11/6/2008	(0-2 ft)
Aroclor 1254	**0.18**
Aroclor 1260	**0.094**
Total PCBs (pg/g)	NA

SB-130 8/21/2014	(0-1 ft)
Aroclor 1254	**0.21**
Aroclor 1260	0.036 U
Total PCBs (pg/g)	**226,578**
TEQ (pg/g)	**35**

SB-134 8/19/2014	(0-1 ft)
Aroclor 1254	**0.09**
Aroclor 1260	0.038 U
Total PCBs (pg/g)	**128,015**
TEQ (pg/g)	**0.44**

SB-129 8/21/2014	(0-1 ft)	(1-3 ft)
Aroclor 1254	0.037 U	0.036 U
Aroclor 1260	0.037 U	0.036 U
Total PCBs (pg/g)	**1,920**	**399**
TEQ (pg/g)	**0.37**	**0.0013**

SB-133 8/19/2014	(0-1 ft)
Aroclor 1254	**0.21**
Aroclor 1260	0.041 U
Total PCBs (pg/g)	**71,521**
TEQ (pg/g)	**11**

SS-88 11/6/2008	(0-2 ft)
Aroclor 1254	**0.78**
Aroclor 1260	**0.25**
Total PCBs (pg/g)	NA

SB-123 8/19/2014	(0-1 ft)	(1-3 ft)
Aroclor 1254	**0.10**	**0.17**
Aroclor 1260	0.041 U	0.04 U
Total PCBs (pg/g)	**109,583**	**114,397**
TEQ (pg/g)	**0.41**	**0.48**

SB-F19 10/17/2000	(0-3 ft)
Aroclor 1254	0.039 U
Aroclor 1260	0.039 U
Total PCBs (pg/g)	4.96

SB-124 8/19/2014	(0-1 ft)
Aroclor 1254	**0.200**
Aroclor 1260	0.17 U
Total PCBs (pg/g)	**84,300**
TEQ (pg/g)	**0.330**

LEGEND

- HSI 10696 Site Boundary
- 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
- Soil Boring (2000-2008)
- Soil Boring (August 2014)
- Laboratory Reporting Limit above Type 1/2 RRS
- Result above Type 1/2 RRS (1.55 mg/kg)
- Proposed Soil Boring

Constituent	Type 1 RSS
Aroclor 1254	1.55 mg/kg
Aroclor 1260	1.55 mg/kg
Total PCBs (pg/g)	1,550,000 pg/g
TEQ (pg/g)	115 pg/g

NOTES:
1) All locations are approximate.
2) Location IDs and data boxes are provided only for soil sample locations where the target constituent was analyzed.
3) If a duplicate was taken, the highest value is shown.
4) Composite samples were not included in the analytical data shown.
5) All concentrations reported in milligrams per kilogram (mg/kg) except Toxic Equivalency (TEQ) and theTotal PCBs that are the sum of all Total Non-Dioxin-like PCBs which have been calculated in pictograms per gram (pg/g).
6) The highest of the Type 1/2 RRS was used for delineation purposes.
7) Shaded represent results from August 2014 sampling event.
8) Shaded represent results above the Type 1/2 RRS (1.55 mg/kg).

NA - Not Analyzed
ND - Not Detected
E - Analyte exceeds the calibration range of equipment.
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.
RRS - Risk Reduction Standard

0 200 400
SCALE IN FEET

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

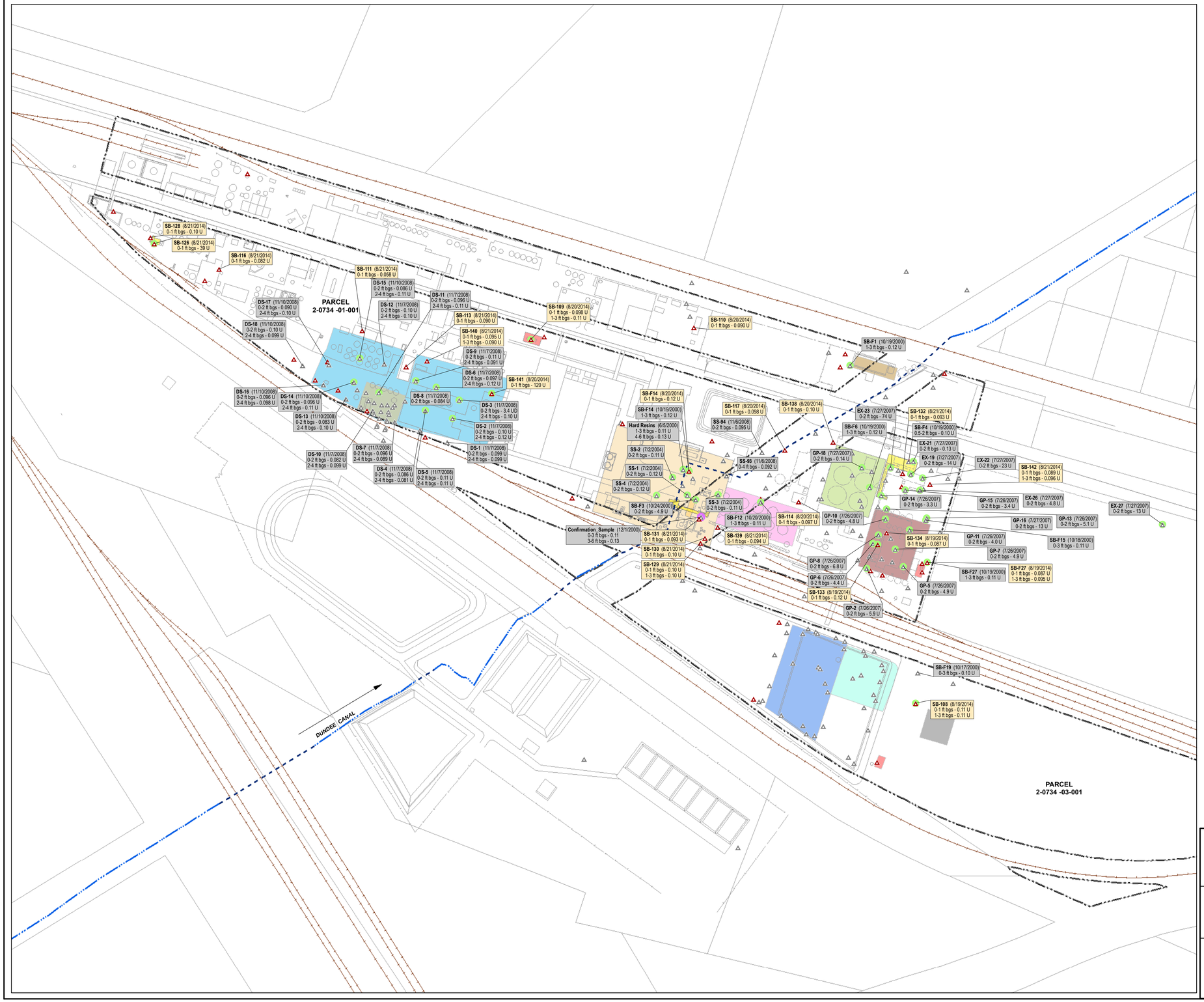
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

PCBs Delineation in Soil

ARCADIS

FIGURE
8b

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MAHONEY/C.MILLER BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA.PROGRESS.NO4\F8B GA60_VRPSA4 SOIL 201408 PCBS.MXD SAVED: 3/16/2015



LEGEND

- HSI 10696 Site Boundary
- 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
- Soil Boring (2000-2008)
- Soil Boring (August 2014)
- Laboratory Reporting Limit above Type 1/2 RRS
- Result above Type 1/2 RRS (0.1 mg/kg)

EX-27 (7/27/2007) 0 - 2 ft bgs - 13 U — Sample ID (Date) Depth - Acrolein Concentration Reported in Voluntary Investigation and Remediation Plan (ARCADIS 2012).

SB-132 (8/21/2014) 0 - 1 ft bgs - 0.093 U — Sample ID (Date) Depth - Acrolein Concentration (ARCADIS 2014)

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) If a duplicate was taken, the highest value is shown.
4) 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.
RRS - Risk Reduction Standard

0 100 200 300 400
SCALE IN FEET

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

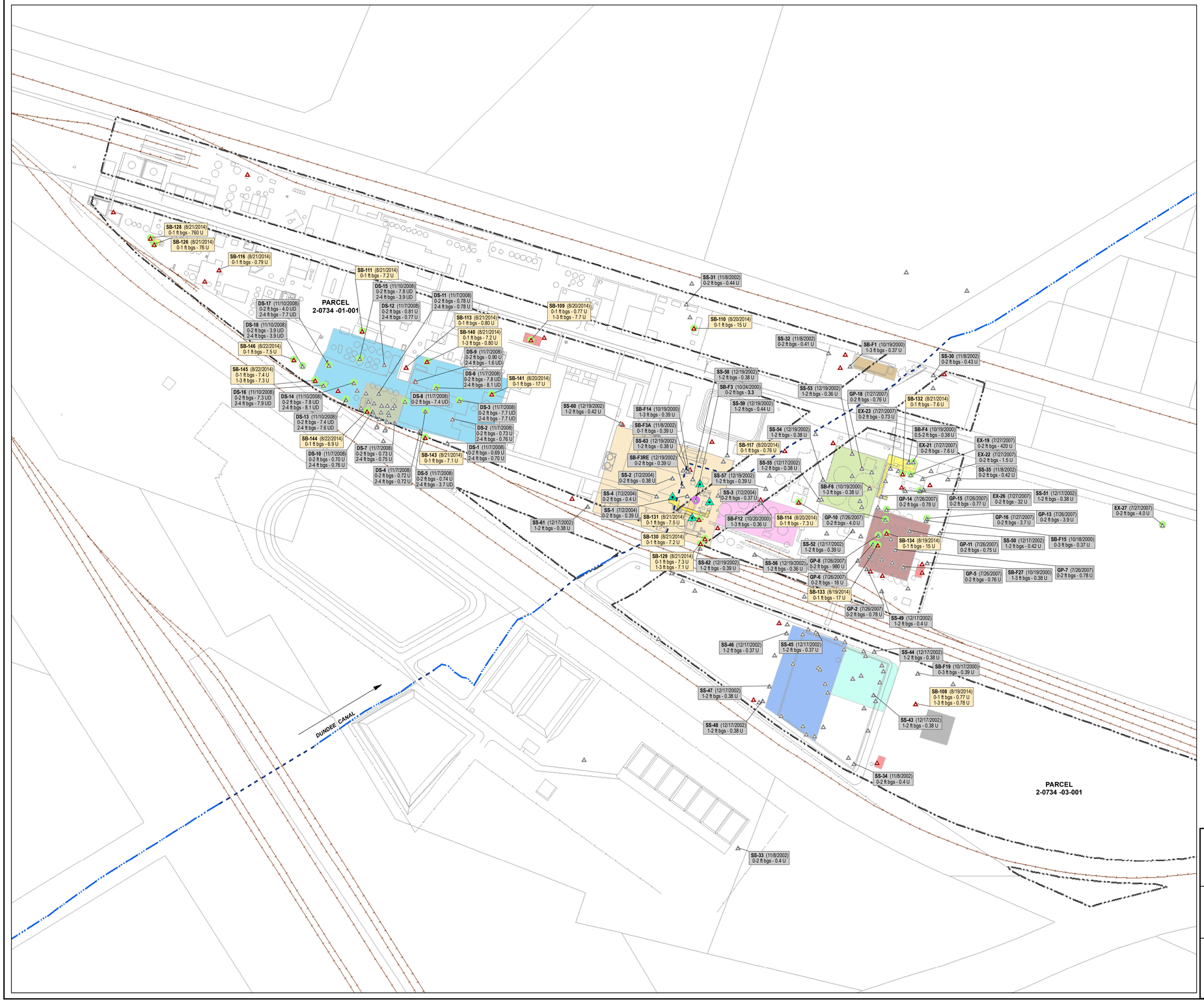
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Acrolein Delineation in Soil

ARCADIS

FIGURE
8c

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: C.MILLER BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F8C GA60_VRPSA4 SOIL 201408 ACROLEIN DSIZE.MXD SAVED: 3/16/2015



LEGEND

- HSI 10696 Site Boundary
- 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
- Soil Boring (2000-2008)
- Soil Boring (August 2014)
- Laboratory Reporting Limit above Type 1/2 RRS
- Result above Type 1/2 RRS (2.0 mg/kg)
- Proposed Soil Boring

EX-27 (7/27/2007) 0-2 ft bgs - 4.0 U — Sample ID (Date) Depth - Aniline Concentration Reported in Voluntary Investigation and Remediation Plan (ARCADIS 2012).

SB-132 (8/21/2014) 0-1 ft bgs - 7.6 U — Sample ID (Date) Depth - Aniline Concentration (ARCADIS 2014)

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) If a duplicate was taken, the highest value is shown.
4) 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.
RRS - Risk Reduction Standard

0 100 200 300 400
SCALE IN FEET

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

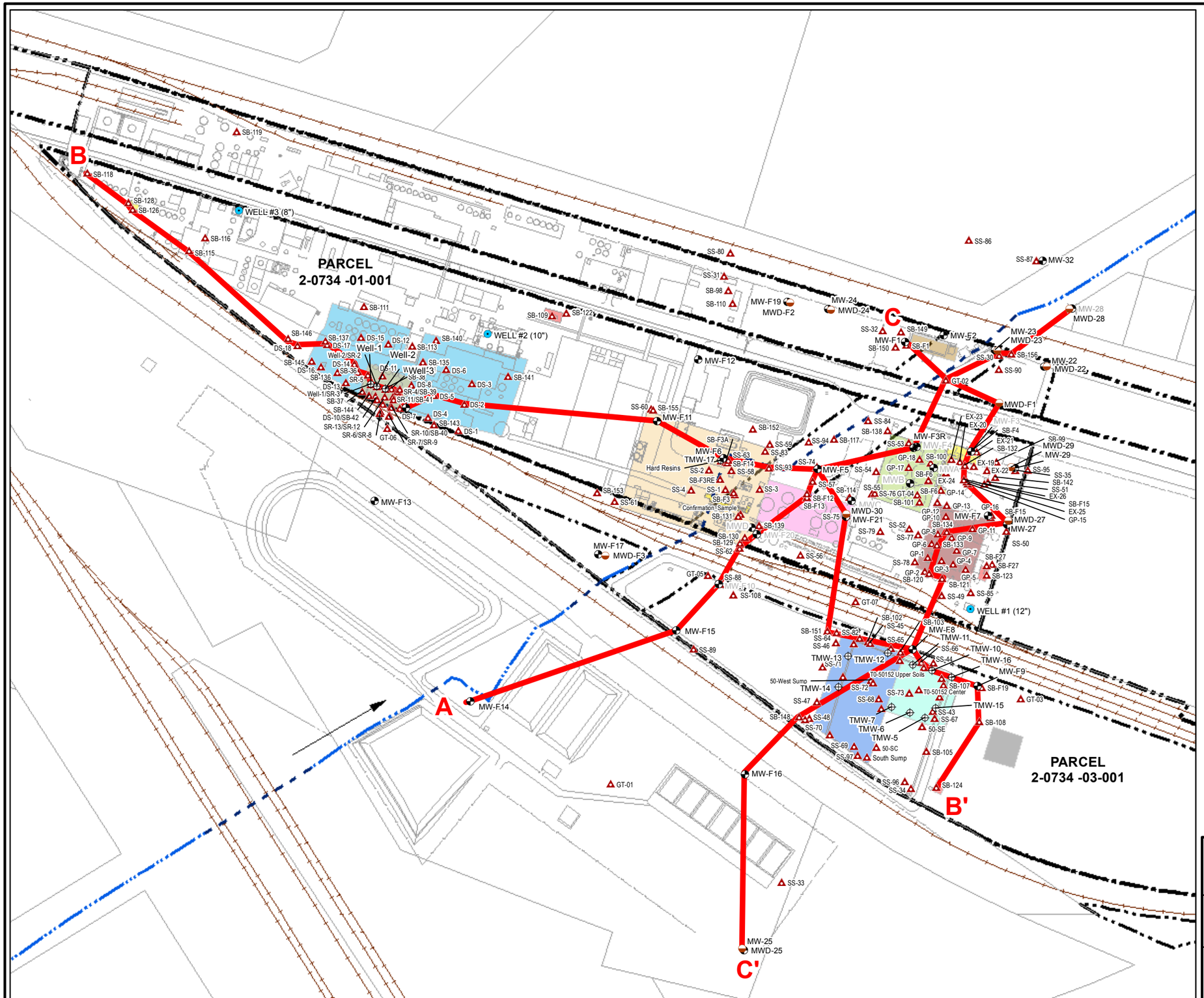
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Aniline Delineation in Soil

ARCADIS

FIGURE
8d

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: C.MILLER BY: BALTOM PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F8D GA60_VRPSA4 SOIL 201408 ANILINE DSIZE.MXD SAVED: 3/16/2015



LEGEND

- Monitoring Well (shallow)
- Temporary Monitoring Well (shallow)
- Monitoring Well (deep)
- Monitoring Well (abandoned/destroyed)
- Production Well
- Former Dry Size Area
- Former Size Tank Area
- Former Dowtherm Unit
- Electrical Substation
- 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
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Canal Flow Direction

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

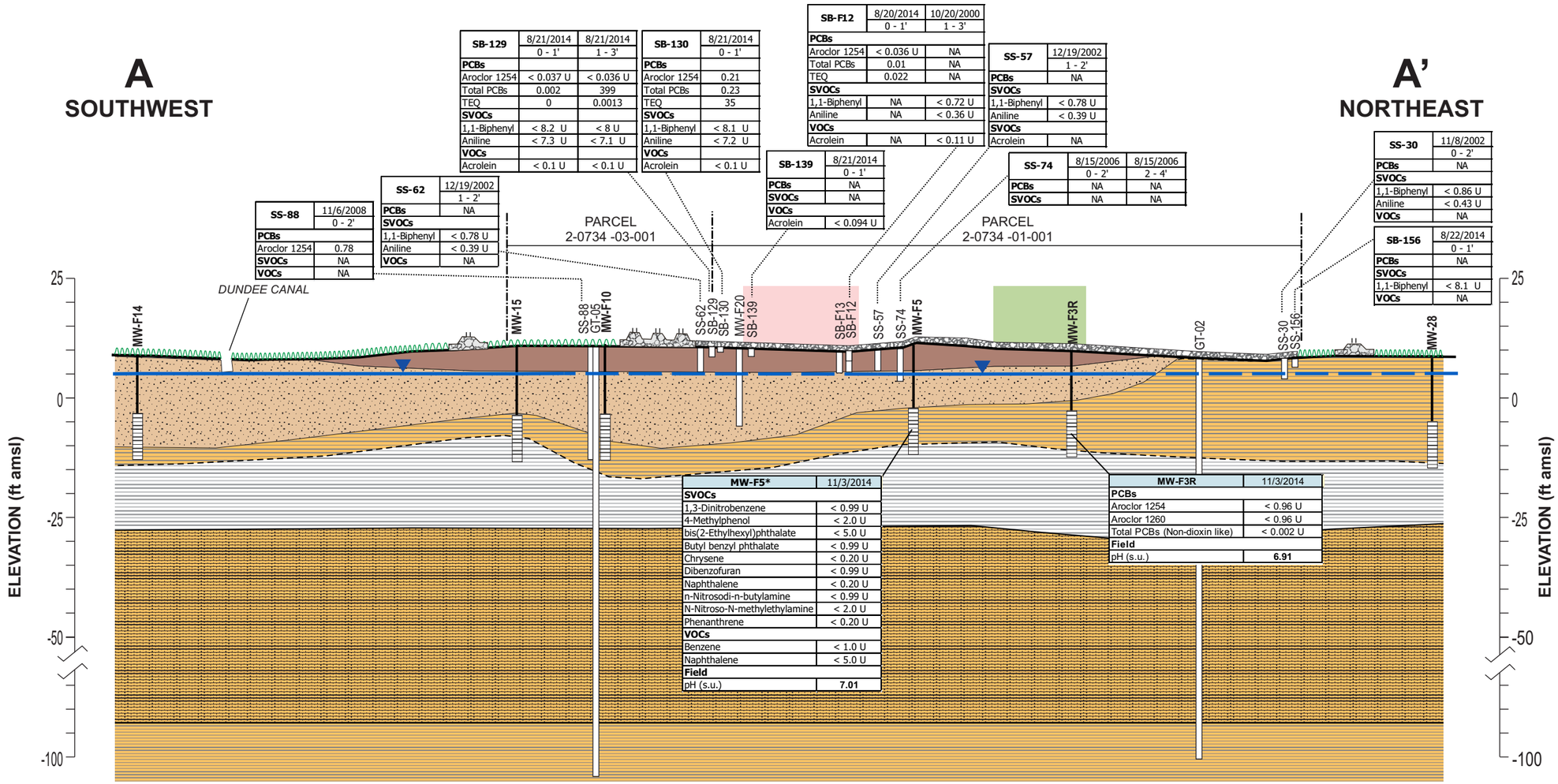
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Geologic Cross-Section Locations

ARCADIS

FIGURE
9a

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY BY: BALTOM PROJECT: OH008000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F9A GA60_VRPSA4 XSEC LOCS.MXD SAVED: 3/16/2015



SB-129	8/21/2014	8/21/2014
	0 - 1'	1 - 3'
PCBs		
Aroclor 1254	< 0.037 U	< 0.036 U
Total PCBs	0.002	399
TEQ	0	0.0013
SVOCs		
1,1-Biphenyl	< 8.2 U	< 8 U
Aniline	< 7.3 U	< 7.1 U
VOCs		
Acrolein	< 0.1 U	< 0.1 U

SB-130	8/21/2014
	0 - 1'
PCBs	
Aroclor 1254	0.21
Total PCBs	0.23
TEQ	35
SVOCs	
1,1-Biphenyl	< 8.1 U
Aniline	< 7.2 U
VOCs	
Acrolein	< 0.1 U

SB-F12	8/20/2014	10/20/2000
	0 - 1'	1 - 3'
PCBs		
Aroclor 1254	< 0.036 U	NA
Total PCBs	0.01	NA
TEQ	0.022	NA
SVOCs		
1,1-Biphenyl	NA	< 0.72 U
Aniline	NA	< 0.36 U
VOCs		
Acrolein	NA	< 0.11 U

SS-57	12/19/2002
	1 - 2'
PCBs	NA
SVOCs	
1,1-Biphenyl	< 0.78 U
Aniline	< 0.39 U
SVOCs	
Acrolein	NA

SS-88	11/6/2008
	0 - 2'
PCBs	
Aroclor 1254	0.78
SVOCs	NA
VOCs	NA

SS-62	12/19/2002
	1 - 2'
PCBs	NA
SVOCs	
1,1-Biphenyl	< 0.78 U
Aniline	< 0.39 U
VOCs	NA

SB-139	8/21/2014
	0 - 1'
PCBs	NA
SVOCs	NA
VOCs	
Acrolein	< 0.094 U

SS-74	8/15/2006	8/15/2006
	0 - 2'	2 - 4'
PCBs	NA	NA
SVOCs	NA	NA

SS-30	11/8/2002
	0 - 2'
PCBs	NA
SVOCs	
1,1-Biphenyl	< 0.86 U
Aniline	< 0.43 U
VOCs	NA

SB-156	8/22/2014
	0 - 1'
PCBs	NA
SVOCs	
1,1-Biphenyl	< 8.1 U
VOCs	NA

MW-F5*	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 0.99 U
4-Methylphenol	< 2.0 U
bis(2-Ethylhexyl)phthalate	< 5.0 U
Butyl benzyl phthalate	< 0.99 U
Chrysene	< 0.20 U
Dibenzofuran	< 0.99 U
Naphthalene	< 0.20 U
n-Nitrosodi-n-butylamine	< 0.99 U
N-Nitroso-N-methylethylamine	< 2.0 U
Phenanthrene	< 0.20 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**7.01**

MW-F3R	11/3/2014
PCBs	
Aroclor 1254	< 0.96 U
Aroclor 1260	< 0.96 U
Total PCBs (Non-dioxin like)	< 0.002 U
Field	
pH (s.u.)	**6.91**

SOIL	Units	Type 1/2 RSS	Type 3/4 RRS
Polychlorinated Biphenyls (PCBs)			
Aroclor 1254	mg/kg	1.55	1.55
Total PCBs	mg/kg	1.55	1.55
TEQ	pg/g	115	440
Semi-Volatile Organic Compounds (SVOCs)			
1,1-Biphenyl	mg/kg	1	1
Aniline	mg/kg	2	2
Volatile Organic Compounds (VOCs)			
Acrolein	mg/kg	0.1	0.1

GROUNDWATER	Type 1/2 RRS	Type 3/4 RRS
Semi-Volatile Organic Compounds (SVOCs)		
1,3-Dinitrobenzene	10	10
4-Methylphenol	10	10
bis(2-Ethylhexyl)phthalate	10	200
Butyl benzyl phthalate	100	15,061
Chrysene	10	40
Dibenzofuran	16	10
Formaldehyde	1,000	20,000
Naphthalene	20	20
n-Nitrosodi-n-butylamine	10	10
N-Nitroso-N-methylethylamine	10	10
Phenanthrene	10	10
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Formaldehyde	1,000	20,000
Naphthalene	20	20
Polychlorinated Biphenyls (PCBs)		
Aroclor 1254	0.5	1.4
Aroclor 1260	0.5	1.4
Total PCBs (Non-dioxin like)	0.5	1.4
TEQ	> 2	< 12
Other		
Asbestos (MFL)	7	7
Field		
pH (s.u.)	>2 and <12.5	>2 and <12.5

LEGEND

- Water-Table (November 2014) (inferred where dashed)
- Soil Boring
- Monitoring Well Screened Interval
- Railroad Easement
- Concrete/Asphalt
- Grass
- FILL MATERIAL, gravel, silty, sandy
- SAND, fine-grained, silty, clayey
- CLAY, high-plasticity (inferred where dashed)
- SAND, clayey, silty; with shell fragments (inferred where dashed)
- SILT, sandy (inferred where dashed)
- AQUITARD
- ASTs 30's
- Former CTO Tank Area (Tall Oil Release)

NOTES:
1) Groundwater analytical results represent data from November 3-4, 2014, sampling event.
2) All soil concentrations reported in milligrams per kilogram (mg/kg) except Toxic Equivalency (TEQ) and theTotal PCBs that are the sum of all Total Non-Dioxin-like PCBs which have been calculated in pictograms per gram (pg/g).
3) All groundwater concentrations reported in micrograms per liter (µg/L) unless otherwise shown.
4) Only constituents with historical detections above Type 1 Risk Reduction Standards (RRS) are shown.
5) **BOLD** - Concentration exceeds Type I RRS.
6) * Duplicate performed on this well. Higher concentration shown.

U - Indicates the analyte was analyzed for but not detected.
s.u. - Standard unit.

0 125' 250'
HORIZONTAL SCALE

VERTICAL EXAGGERATION: 5X

HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

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

ARCADIS

FIGURE
9b

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM
PROJECT: OH008000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F9b GA60_VRPSA4 XSEC AA.cdr SAVED: 10MAR2015

SB-128	8/21/2014 0 - 1'
PCBs	
Aroclor 1254	0.15
Total PCBs	0.20
TEQ	52
SVOCs	
1,1-Biphenyl	**4.400**
Aniline	< 760 U
VOCs	
Acrolein	< 0.1 U

SB-126	8/21/2014 0 - 1'
PCBs	
Aroclor 1254	0.26
Total PCBs	1.24
TEQ	224
SVOCs	
1,1-Biphenyl	**140**
Aniline	< 76 U
VOCs	
Acrolein	< 39 U

SB-116	8/21/2014 0 - 1'
PCBs	
Aroclor 1254	< 0.04 U
Total PCBs	0.1
TEQ	13
SVOCs	
1,1-Biphenyl	< 0.89 U
Aniline	< 0.79 U
VOCs	
Acrolein	< 0.082 U

DS-18	11/10/2008 0 - 2'	11/10/2008 2 - 4'
PCBs	NA	NA
SVOCs		
1,1-Biphenyl	< 2 UD	< 2 UD
Aniline	< 3.9 UD	< 3.9 UD
VOCs		
Acrolein	< 0.1 U	< 0.099 U

DS-17	11/10/2008 0 - 2'	11/10/2008 2 - 4'
PCBs	NA	NA
SVOCs		
1,1-Biphenyl	< 2 UD	< 3.9 UD
Aniline	< 4 UD	< 7.7 UD
VOCs		
Acrolein	< 0.09 U	< 0.1 U

SB-146	8/22/2014 0 - 1'
PCBs	NA
SVOCs	
1,1-Biphenyl	< 8.4 U
Aniline	< 7.5 U
VOCs	NA

DS-14	11/10/2008 0 - 2'	11/10/2008 2 - 4'
PCBs	NA	NA
SVOCs		
1,1-Biphenyl	< 3.9 UD	< 4.1 UD
Aniline	< 7.8 UD	< 8.1 UD
VOCs		
Acrolein	< 0.096 U	< 0.11 U

DS-5	11/7/2008 0 - 2'	11/7/2008 2 - 4'
PCBs	NA	NA
SVOCs		
1,1-Biphenyl	0.021 J	< 1.9 UD
Aniline	< 0.74 U	< 3.7 UD
VOCs		
Acrolein	< 0.11 U	< 0.11 U

DS-2	11/7/2008 0 - 2'	11/7/2008 2 - 4'
PCBs	NA	NA
SVOCs		
1,1-Biphenyl	< 0.36 U	< 0.38 U
Aniline	< 0.73 U	< 0.76 U
VOCs		
Acrolein	< 0.1 U	< 0.12 U

SS-93	11/6/2008 0 - 4'
PCBs	NA
SVOCs	NA
VOCs	
Acrolein	< 0.092 U

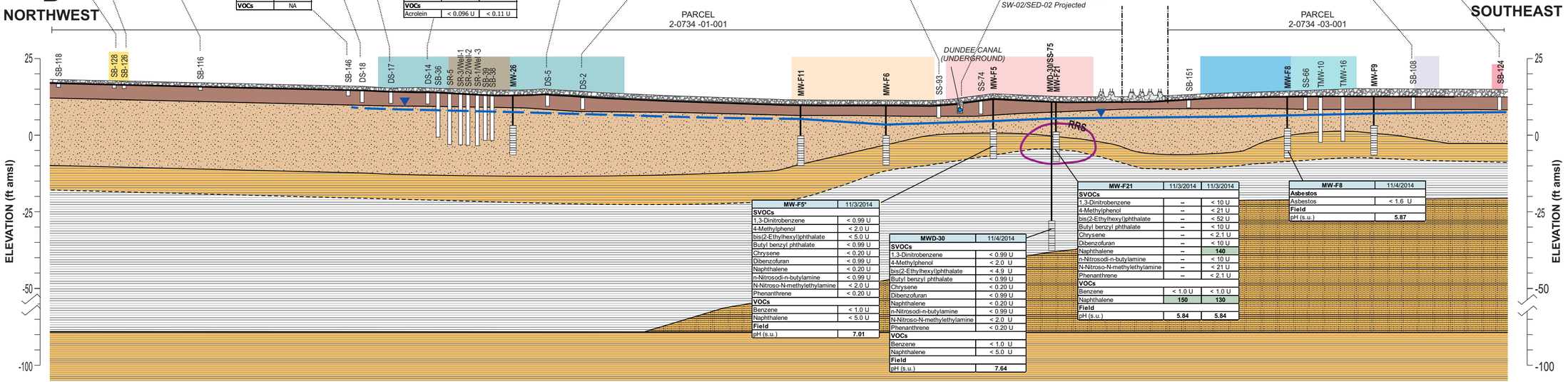
SW-02	8/28/2014
1,4-Dioxane	< 1.9 U
Ammonia as N	**150**
Fluoride	**430**
n-Nitrosodi-n-butylamine	**7.8**

SED-02	8/28/2014
Acetone	**0.100**
Benzo(a)pyrene	< 6.1 U
bis(2-Ethylhexyl)phthalate	< 6.1 U
TEQ of dioxins and furans	0.0004642

SW-02/SED-02 Projected

SB-108	8/19/2014 0 - 1'	8/19/2014 1 - 3'
PCBs	NA	NA
SVOCs		
1,1-Biphenyl	< 0.86 U	< 0.87 U
Aniline	< 0.77 U	< 0.78 U
VOCs		
Acrolein	< 0.11 U	< 0.11 U

SB-124	8/19/2014 0 - 1'
PCBs	
Aroclor 1254	0.2
Total PCBs	0.08
TEQ	0.33
SVOCs	
1,1-Biphenyl	< 19 U
VOCs	NA



MW-F5*	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 0.99 U
4-Methylphenol	< 2.0 U
bis(2-Ethylhexyl)phthalate	< 5.0 U
Butyl benzyl phthalate	< 0.99 U
Chrysene	< 0.20 U
Dibenzofuran	< 0.99 U
Naphthalene	< 0.20 U
n-Nitrosodi-n-butylamine	< 0.99 U
N-Nitroso-N-methylethylamine	< 2.0 U
Phenanthrene	< 0.20 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**7.01**

MWD-30	11/4/2014
SVOCs	
1,3-Dinitrobenzene	< 0.99 U
4-Methylphenol	< 2.0 U
bis(2-Ethylhexyl)phthalate	< 4.9 U
Butyl benzyl phthalate	< 0.99 U
Chrysene	< 0.20 U
Dibenzofuran	< 0.99 U
Naphthalene	< 0.20 U
n-Nitrosodi-n-butylamine	< 0.99 U
N-Nitroso-N-methylethylamine	< 2.0 U
Phenanthrene	< 0.20 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**7.64**

MW-F21	11/3/2014	11/3/2014
SVOCs		
1,3-Dinitrobenzene	--	< 10 U
4-Methylphenol	--	< 21 U
bis(2-Ethylhexyl)phthalate	--	< 52 U
Butyl benzyl phthalate	--	< 10 U
Chrysene	--	< 2.1 U
Dibenzofuran	--	< 10 U
Naphthalene	--	**140**
n-Nitrosodi-n-butylamine	--	< 10 U
N-Nitroso-N-methylethylamine	--	< 21 U
Phenanthrene	--	< 2.1 U
VOCs		
Benzene	< 1.0 U	< 1.0 U
Naphthalene	**150**	**130**
Field		
pH (s.u.)	**5.84**	**5.84**

MW-F8	11/4/2014
Asbestos	
Asbestos	< 1.6 U
Field	
pH (s.u.)	**5.87**

SOIL	Units	Type 1/2 RSS	Type 3/4 RRS
Polychlorinated Biphenyls (PCBs)			
Aroclor 1254	mg/kg	1.55	1.55
Total PCBs	mg/kg	1.55	1.55
TEQ	pg/g	115	440
Semi-Volatile Organic Compounds (SVOCs)			
1,1-Biphenyl	mg/kg	1	1
Aniline	mg/kg	2	2
Volatile Organic Compounds (VOCs)			
Acrolein	mg/kg	0.1	0.1

GROUNDWATER	Type 1/2 RRS	Type 3/4 RRS
Polychlorinated Biphenyls (PCBs)		
Aroclor 1254	0.5	1.4
Aroclor 1260	0.5	1.4
Total PCBs (Non-dioxin like)	0.5	1.4
TEQ	> 2	< 12
Other		
Asbestos (MFL)	7	7
Constituent	**Type 1/2 RRS**	**Type 3/4 RRS**
Semi-Volatile Organic Compounds (SVOCs)		
1,3-Dinitrobenzene	10	10
4-Methylphenol	10	10
bis(2-Ethylhexyl)phthalate	10	200
Butyl benzyl phthalate	100	15,061
Chrysene	10	40
Dibenzofuran	16	10
Formaldehyde	1,000	20,000
Naphthalene	20	20
n-Nitrosodi-n-butylamine	10	10
N-Nitroso-N-methylethylamine	10	10
Phenanthrene	10	10
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Formaldehyde	1,000	20,000
Naphthalene	20	20
Field		
pH (s.u.)	>2 and <12.5	>2 and <12.5

LEGEND

- Water-Table (November 2014) (inferred where dashed)
- Soil Boring
- Monitoring Well Screened Interval
- Railroad Easement
- Concrete/Asphalt
- Grass
- Concentrations Exceed Type 1 (RRS)
- FILL MATERIAL, gravel, silty, sandy
- SAND, fine-grained, silty, clayey
- CLAY, high-plasticity (inferred where dashed)
- SAND, clayey, silty; with shell fragments (inferred where dashed)
- SILT, sandy (inferred where dashed)
- AQUITARD
- Former Dry Size Area
- Tank Area
- Hard Resins Area
- Former Fatty Acid ASTs 50's
- Former CTO ASTs 60's
- ASTs 30's
- Former Dowtherm Unit
- Contractor Yard
- Electrical Substation

NOTES:
1) Groundwater analytical results represent data from November 3-4, 2014, sampling event.
2) All soil concentrations reported in milligrams per kilogram (mg/kg) except Toxic Equivalency (TEQ) and theTotal PCBs that are the sum of all Total Non-Dioxin-like PCBs which have been calculated in pictograms per gram (pg/g).
3) All groundwater concentrations reported in micrograms per liter (µg/L) unless otherwise shown.
4) Only constituents with historical detections above Type 1 Risk Reduction Standards (RRS) are shown.
5) **BOLD** - Concentration exceeds Type I RRS.
6) * Duplicate performed on this well. Higher concentration shown.

U - Indicates the analyte was analyzed for but not detected.
s.u. - Standard unit.

0 125' 250'
HORIZONTAL SCALE

VERTICAL EXAGGERATION: 5X

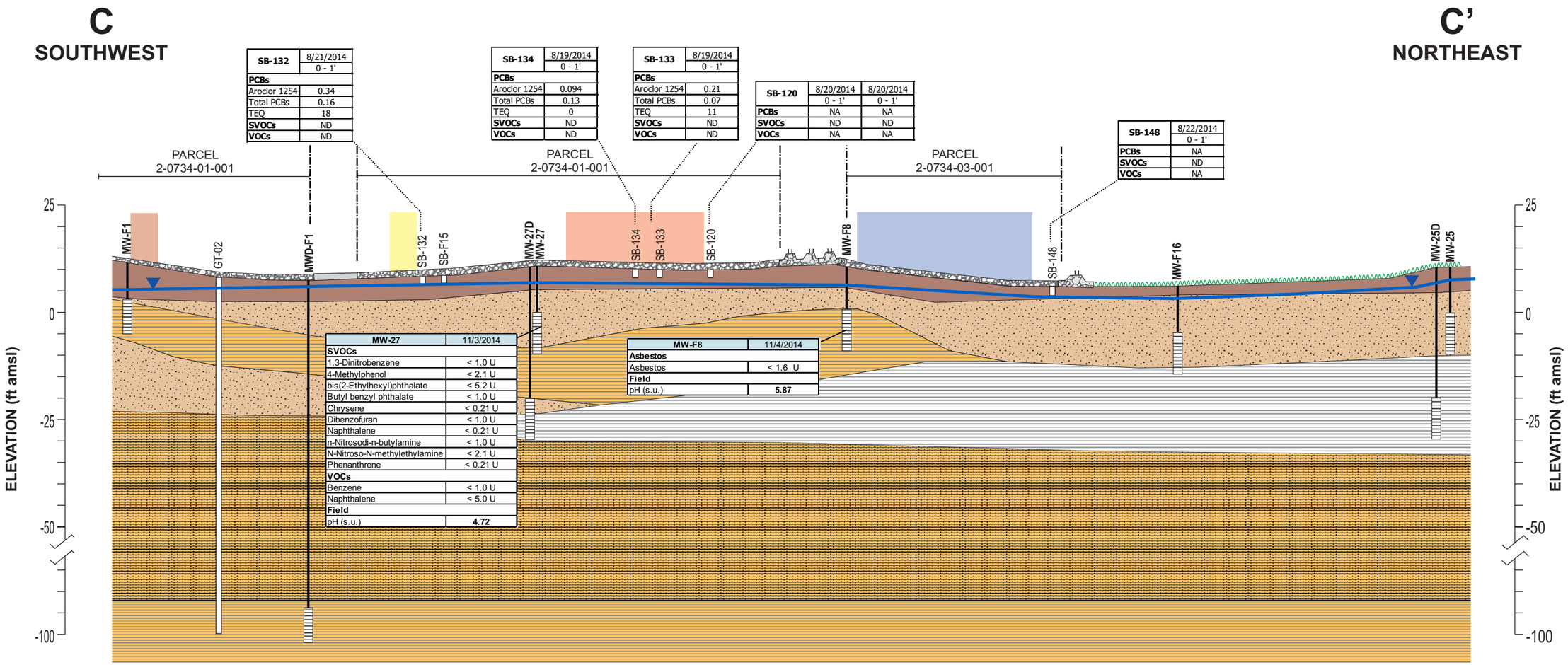
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

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

ARCADIS

FIGURE
9c

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM
PROJECT: OH080800.0400 PATH: G:\GIS\ASHLAND_HERCULES\SA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NOAPI\sc-G\400_VIPPS\A4 XSEC BB.cdf SAVED: 10MAR2015



SB-132	8/21/2014
	0 - 1'
PCBs	
Aroclor 1254	0.34
Total PCBs	0.16
TEQ	18
SVOCs	ND
VOCs	ND

SB-134	8/19/2014
	0 - 1'
PCBs	
Aroclor 1254	0.094
Total PCBs	0.13
TEQ	0
SVOCs	ND
VOCs	ND

SB-133	8/19/2014
	0 - 1'
PCBs	
Aroclor 1254	0.21
Total PCBs	0.07
TEQ	11
SVOCs	ND
VOCs	ND

SB-120	8/20/2014	8/20/2014
	0 - 1'	0 - 1'
PCBs	NA	NA
SVOCs	ND	ND
VOCs	NA	NA

SB-148	8/22/2014
	0 - 1'
PCBs	NA
SVOCs	ND
VOCs	NA

MW-27	11/3/2014
SVOCs	
1,3-Dinitrobenzene	< 1.0 U
4-Methylphenol	< 2.1 U
bis(2-Ethylhexyl)phthalate	< 5.2 U
Butyl benzyl phthalate	< 1.0 U
Chrysene	< 0.21 U
Dibenzofuran	< 1.0 U
Naphthalene	< 0.21 U
n-Nitrosodi-n-butylamine	< 1.0 U
N-Nitroso-N-methylethylamine	< 2.1 U
Phenanthrene	< 0.21 U
VOCs	
Benzene	< 1.0 U
Naphthalene	< 5.0 U
Field	
pH (s.u.)	**4.72**

MW-F8	11/4/2014
Asbestos	
Asbestos	< 1.6 U
Field	
pH (s.u.)	**5.87**

LEGEND

- Water-Table (November 2014) (inferred where dashed)
- Soil Boring
- Monitoring Well Screened Interval
- Railroad Easement
- Concrete/Asphalt
- Grass
- Former CTO ASTs 60's
- Former Tall Oil Plant
- FILL MATERIAL, gravel, silty, sandy
- SAND, fine-grained, silty, clayey
- CLAY, high-plasticity (inferred where dashed)
- SAND, clayey, silty; with shell fragments (inferred where dashed)
- SILT, sandy (inferred where dashed)
- AQUITARD
- Former Dowtherm Unit
- Primary Oil/Water Separator

SOIL	Units	Type 1/2 RSS	Type 3/4 RRS
Polychlorinated Biphenyls (PCBs)			
Aroclor 1254	mg/kg	1.55	1.55
Total PCBs	mg/kg	1.55	1.55
TEQ	pg/g	115	440
Semi-Volatile Organic Compounds (SVOCs)			
1,1-Biphenyl	mg/kg	1	1
Aniline	mg/kg	2	2
Volatile Organic Compounds (VOCs)			
Acrolein	mg/kg	0.1	0.1

NOTES:
1) Groundwater analytical results represent data from November 3-4, 2014, sampling event.
2) All soil concentrations reported in milligrams per kilogram (mg/kg) except Toxic Equivalency (TEQ) and theTotal PCBs that are the sum of all Total Non-Dioxin-like PCBs which have been calculated in pictograms per gram (pg/g).
3) All groundwater concentrations reported in micrograms per liter (µg/L) unless otherwise shown.
4) Only constituents with historical detections above Type 1 Risk Reduction Standards (RRS) are shown.
5) **BOLD** - Concentration exceeds Type I RRS.
6) * Duplicate performed on this well. Higher concentration shown.

U - Indicates the analyte was analyzed for but not detected.
s.u. - Standard unit.

GROUNDWATER	Type 1/2 RRS	Type 3/4 RRS
Polychlorinated Biphenyls (PCBs)		
Aroclor 1254	0.5	1.4
Aroclor 1260	0.5	1.4
Total PCBs (Non-dioxin like)	0.5	1.4
TEQ	> 2	< 12
Other		
Asbestos (MFL)	7	7
Constituent	**Type 1/2 RRS**	**Type 3/4 RRS**
Semi-Volatile Organic Compounds (SVOCs)		
1,3-Dinitrobenzene	10	10
4-Methylphenol	10	10
bis(2-Ethylhexyl)phthalate	10	200
Butyl benzyl phthalate	100	15,061
Chrysene	10	40
Dibenzofuran	16	10
Formaldehyde	1,000	20,000
Naphthalene	20	20
n-Nitrosodi-n-butylamine	10	10
N-Nitroso-N-methylethylamine	10	10
Phenanthrene	10	10
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Formaldehyde	1,000	20,000
Naphthalene	20	20
Field		
pH (s.u.)	>2 and <12.5	>2 and <12.5

0 125' 250'
HORIZONTAL SCALE

VERTICAL EXAGGERATION: 5X

HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Distribution of Select Constituents along Geologic Cross-Section C-C'

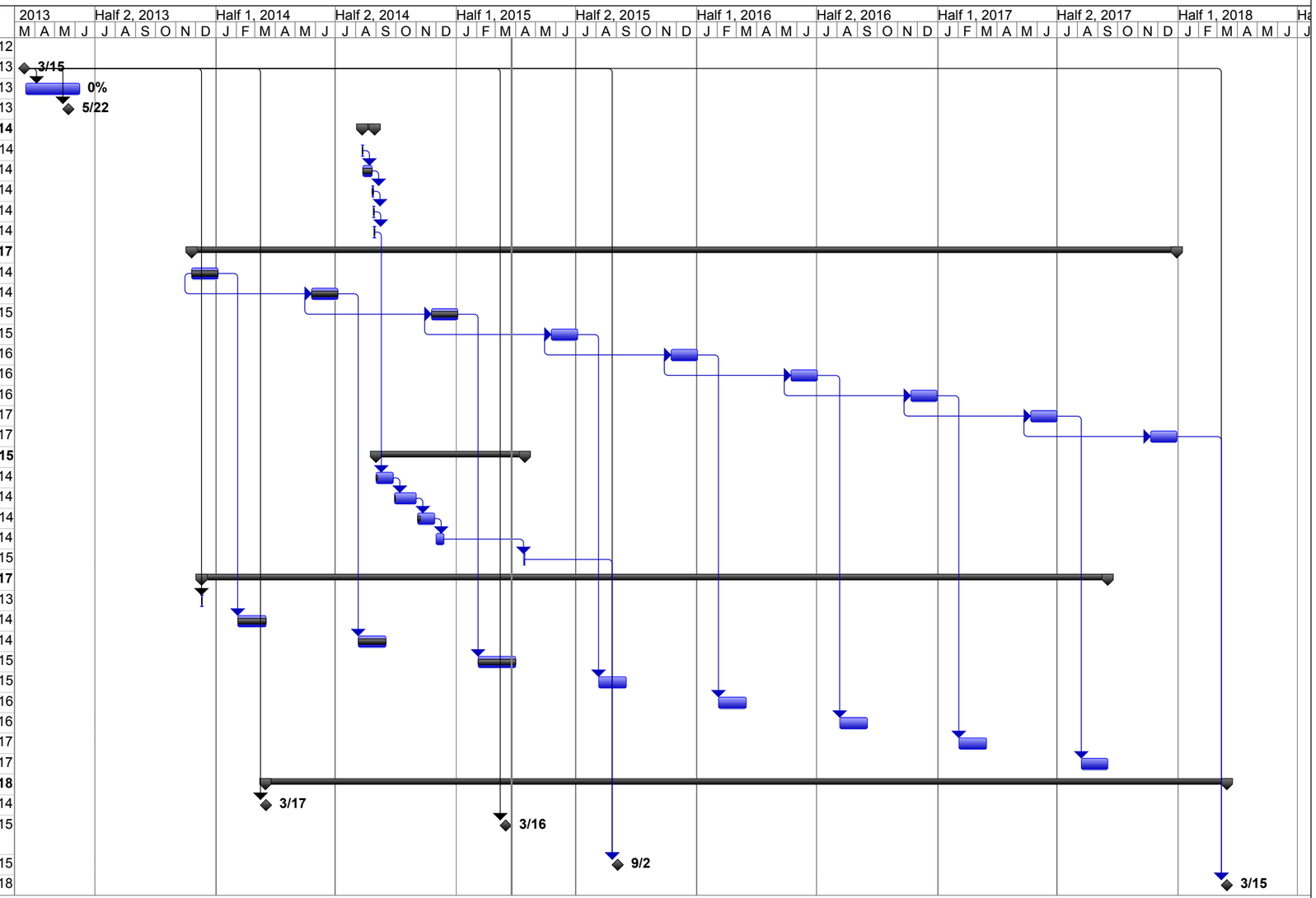
ARCADIS

FIGURE
9d

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: K.MALONEY/C.MILLER BY: BALTOM
PROJECT: OH008000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\F9d GA60_VRPSA4 XSEC CC.cdr SAVED: 10MAR2015

Figure 10
Hercules Incorporated
3000 Louisville Road, Savannah, Georgia
Updated 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	✓	EPD Approval of VRP Application	1 day	Fri 3/15/13	Fri 3/15/13
3		Prepare Investigation Work Plan	60 days	Mon 3/18/13	Fri 6/7/13
4	✓	Record deed notice	0 days	Wed 5/22/13	Wed 5/22/13
5	✓	**Field Activities**	**15 days**	**Mon 8/11/14**	**Fri 8/29/14**
6	✓	Mobilize for data collection	1 day	Mon 8/11/14	Mon 8/11/14
7	✓	Confirmatory soil sampling	10 days	Tue 8/12/14	Mon 8/25/14
8	✓	Slug testing	2 days	Tue 8/26/14	Wed 8/27/14
9	✓	Well gauging	1 day	Thu 8/28/14	Thu 8/28/14
10	✓	Surface water/ sediment sampling	1 day	Fri 8/29/14	Fri 8/29/14
11		**Semiannual groundwater sampling**	**1070 days**	**Mon 11/25/13**	**Fri 12/29/17**
12	✓	Sampling and analysis event	30 days	Mon 11/25/13	Fri 1/3/14
13	✓	Sampling and analysis event	30 days	Mon 5/26/14	Fri 7/4/14
14	✓	Sampling and analysis event	30 days	Mon 11/24/14	Fri 1/2/15
15		Sampling and analysis event	30 days	Mon 5/25/15	Fri 7/3/15
16		Sampling and analysis event	30 days	Mon 11/23/15	Fri 1/1/16
17		Sampling and analysis event	30 days	Mon 5/23/16	Fri 7/1/16
18		Sampling and analysis event	30 days	Mon 11/21/16	Fri 12/30/16
19		Sampling and analysis event	30 days	Mon 5/22/17	Fri 6/30/17
20		Sampling and analysis event	30 days	Mon 11/20/17	Fri 12/29/17
21		**Data analysis**	**162 days**	**Mon 9/1/14**	**Tue 4/14/15**
22		Delineation assessment	20 days	Mon 9/1/14	Fri 9/26/14
23		Human health risk assessment	25 days	Mon 9/29/14	Fri 10/31/14
24		Ecological risk assessment	20 days	Mon 11/3/14	Fri 11/28/14
25		CSM update	10 days	Mon 12/1/14	Fri 12/12/14
26		Delineation assessment phase 2	2 days	Mon 4/13/15	Tue 4/14/15
27		**Reporting**	**984 days**	**Tue 12/10/13**	**Fri 9/15/17**
28	✓	Semiannual Progress Update #1	1 day	Tue 12/10/13	Tue 12/10/13
29	✓	Semiannual Progress Report #2	31 days	Mon 2/3/14	Mon 3/17/14
30	✓	Semiannual Progress Report #3	30 days	Tue 8/5/14	Mon 9/15/14
31	✓	Semiannual Progress Report #4	41 days	Tue 2/3/15	Tue 3/31/15
32		Semiannual Progress Report #5	30 days	Wed 8/5/15	Tue 9/15/15
33		Semiannual Progress Report #6	30 days	Wed 2/3/16	Tue 3/15/16
34		Semiannual Progress Report #7	30 days	Fri 8/5/16	Thu 9/15/16
35		Semiannual Progress Report #8	30 days	Thu 2/2/17	Wed 3/15/17
36		Semiannual Progress Report #9	30 days	Mon 8/7/17	Fri 9/15/17
37		**Required Performance Milestones**	**1044 days**	**Mon 3/17/14**	**Thu 3/15/18**
38	✓	Horizontal delineation complete (onsite)	1 day	Mon 3/17/14	Mon 3/17/14
39		Horizontal delineation complete (off-site)	1 day	Mon 3/16/15	Mon 3/16/15
40		Submit updated CSM	1 day	Wed 9/2/15	Wed 9/2/15
41		CSR submittal	1 day	Thu 3/15/18	Thu 3/15/18



Project: 2015_03_26_Savannah Herc
Date: Thu 3/26/15

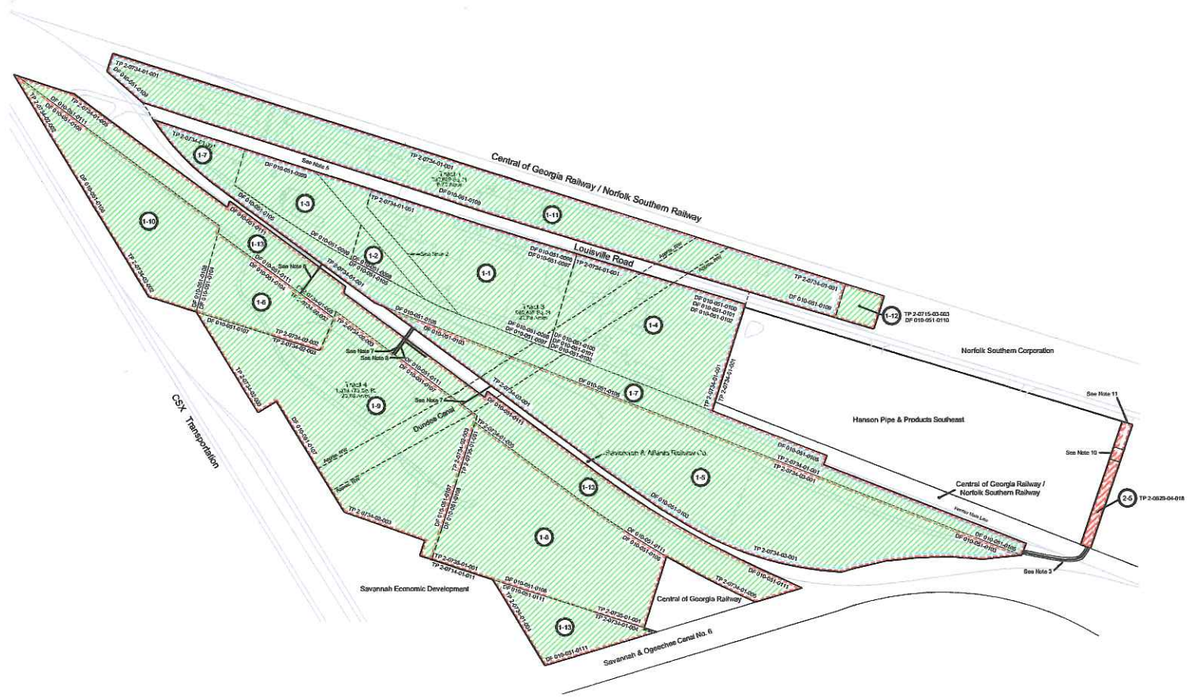
Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

Appendix A

Tax Parcel Map

HERCULES INCORPORATED

3000 LOUISVILLE ROAD, SAVANNAH, CHATHAM COUNTY, GEORGIA



Parcels Currently Owned by Hercules Incorporated
Approximately 53.27 Acres

Parcel	Deed File	Grantor	Deed Source	Area	Comments
1-1	010-051-0096	Western Paper Makers Chemical	Deed Book 31-Z, Folio 193	3.49 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
	010-051-0097	Paper Makers Chemical Corp.	Deed Book 31-X, Folio 353		A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-2	010-051-0098	Paper Makers Chemical Corp.	Deed Book 31-Y, Folio 032	0.33 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-3	010-051-0099	Paper Makers Chemical Corp.	Deed Book 31-X, Folio 354	1.42 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-4	010-051-0100	James R. Sheldon, Executor	Deed Book 41-X, Folio 197	4.08 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
	010-051-0101	Emma W. Morellas	Deed Book 41-Y, Folio 086		
	010-051-0102	James R. Sheldon	Deed Book 41-X, Folio 214		
1-5	* 010-051-0103	Savannah & Atlanta Railway Co.	Deed Book 65-Q, Folio 441	8.47 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-6	010-051-0104	R.F. Simmons	Deed Book 66-B, Folio 355	1.73 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-7	010-051-0105	Savannah & Atlanta Railway Co.	Deed Book 97-D, Folio 645	4.22 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-8	010-051-0106	Sidney L. Raskin, et,al	Deed Book 99-A, Folio 253	5.33 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-9	010-051-0107	Jack W. Shearouse	Deed Book 99-O, Folio 017	7.02 Acres	A part of Parcel 1 as shown on the Boundary and Site Survey for the Bank of America of
1-10	010-051-0108	Jewel Tuten Hoggan	Deed Book 118-Y, Folio 842	3.31 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-11	010-051-0109	Central of Georgia Railroad Co.	Deed Book 121-C, Folio 218	6.41 Acres	A part of Tract 1 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-12	010-051-0110	Central of Georgia Railroad Co.	Deed Book 126-T, Folio 474	0.31 Acres	A part of Tract 1 on the Boundary Survey by Conner & Associates dated March 16, 2001.
1-13	010-051-0111	CSX Transportation Inc.	Deed Book 135-B, Folio 113	5.21 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
	010-051-0111			1.26 Acres	A part of Tract 4 on the Boundary Survey by Conner & Associates dated March 16, 2001.
N/A				0.68 Acres	A part of Tract 3 on the Boundary Survey by Conner & Associates dated March 16, 2001.
Total				53.27 Acres	

Parcels Formerly Owned by Hercules Incorporated

Parcel	Deed File	Grantor	Deed Source	Area	Comments
2-5	*010-051-0103	Savannah & Atlanta Railway Co.	Deed Book 65-Q, Folio 441	0.31 Acres	Acreage shown is calculated from the deed plot.

Tax Parcel Summary

Parcel	Tax Parcel	Deed Reference	Assessor Area	Survey/Calc. Area	Comments
1-1	2-0734-01-001	All of Deed Book 31-Z, Folio 193	14.43 Acres	3.49 Acres	
		All of Deed Book 31-X, Folio 353			
1-2		All of Deed Book 31-Y, Folio 032		0.33 Acres	
1-3		All of Deed Book 31-X, Folio 354		1.42 Acres	
1-4		All of Deed Book 41-X, Folio 197		4.08 Acres	
		All of Deed Book 41-Y, Folio 086			
		All of Deed Book 41-X, Folio 214			
1-7		All of Deed Book 97-D, Folio 645		4.22 Acres	
1-11		All of Deed Book 121-C, Folio 218		6.41 Acres	
N/A		N/A		0.68 Acres	
1-5	2-0734-03-001	Part of Deed Book 65-Q, Folio 441	7.86 Acres	8.47 Acres	
1-6	2-0734-02-002	All of Deed Book 66-B, Folio 355	6.24 Acres	1.73 Acres	
1-10		All of Deed Book 118-Y, Folio 842		3.31 Acres	
1-8	2-0735-01-001	All of Deed Book 99-A, Folio 253	7.85 Acres	5.33 Acres	
1-9	2-0734-02-003	All of Deed Book 99-O, Folio 017	7.19 Acres	7.02 Acres	
1-12	2-0715-03-003	All of Deed Book 126-T, Folio 474	0.31 Acres	0.31 Acres	
1-13	2-0734-01-004	Part of Deed Book 135-B, Folio 113	1.08 Acres	1.26 Acres	
1-13	2-0734-01-005	Part of Deed Book 135-B, Folio 113	8.11 Acres	5.21 Acres	
Total			53.07 Acres	53.27 Acres	

Notes

1. Property lines shown are take from survey plats by Conner and Associates dated March 16, 2001.
2. A deed of correction by and between Charles Lamas to Western Paper Makers Chemical dated August 1, 1922 of record in Deed Book 17-K, Page 249 states "This error in description was due to the fact that the surveyor did not show the right-of way of the Midland Railroad which crosses Patterson's four acres in a curve near the northwestern boundary. This was due to the fact that the Midland Railroad has been abandoned and its tracks taken up. All of this right-of-way we understand is now under fence by the Paper Makers Chemical Corporation."
3. On October 7, 1976, the Central of Georgia Railroad Company granted unto Hercules, Incorporated, a license to construct, maintain and use as a private access road upon and along, and across at grade, the right-of-way or property of the Railroad. Please note Item 4 of this agreement states "This license is a personal privilege to Licensee hereunder, and shall not be transferred or assigned without the written consent of Railroad."
4. All of Tract 1 with the exception of Parcel 1-12, and all of Tract 3 are subject to an Affidavit Pursuant to the Voluntary Remediation Program Act - Officer's Affidavit, Hercules Incorporated dated May 1, 2013.
5. On March 11, 1966, the Board of County Commissioners granted to Hercules Powder Company a perpetual right-of-way and easement to construct and maintain a sanitary sewer, storm sewer and industrial sewer over and along this portion of Louisville Road. This record is found in Minute Book A-7.
6. Approximate location of a pipe bridge and gravel walkway crossing as shown on the Hercules Facilities map dated September 28, 1982 and referenced as an agreement acquired on June 8, 1959 from the Savannah and Atlanta Railway Company.
7. Approximate location of a pipe crossing as shown on the Hercules Facilities map dated September 28, 1982 and referenced as an agreement acquired on February 14, 1972 from the Seaboard Coast Line Railroad and Central of Georgia Railway Company.
8. Approximate location of a wire crossing as shown on the Hercules Facilities map dated September 28, 1982 and referenced as an agreement acquired on March 19, 1973 from the Central of Georgia Railway Company.
9. The Dundee Canal is shown in its approximate location based on surveys by Conner and Associates dated Match 16, 2001 for Hercules Incorporated and a survey by Kern-Coleman & Company dated May 29, 2008 for the Seaboard System Railroad.
10. 40 Ft. Access Easement per agreement dated November 24, 1998 by and between Hercules Incorporated and Sherman International Corp. as shown on attached plat by Barrett Land Surveying, Inc., dated November 18, 1997
11. See letter agreement dated May 23, 1967 by and between Hercules Incorporated and Ken-Block Company granting permission to maintain a fence over and across the property of Hercules Incorporated.

Legend

- Property currently owned by Hercules Incorporated
- Boundary line per deed record.
- Surveyed tract boundary line.
- Tax Parcel Boundary.
- Area subject to Voluntary Remediation Program Act.
- TP — Tax Parcel Number.
- DF — Ashland Inc. Deed File Reference.

Graphic Scale

0 200 400 800

Scale: 1 inch = 200 feet

Parcel Map

Revised	
Date	By
Mar. 5, 2014	BCP

Site: Hercules Incorporated
3000 Louisville Road
Savannah, GA 31410

ASHLAND — Ashland Inc. Corporate Real Estate Lexington, Kentucky

Drawn: Sep. 17, 2013	By: Barry Peters	Revised: As Shown	
Master File No.: MF-GA-H	Scale: 1 Inch = 200 Feet	Drawing No.: SAVANNAHBASE	

Appendix B

Purging and Sample Logs

GROUNDWATER SAMPLING LOG

SITE NAME: Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW-F21	SAMPLE ID: MW-F21(110314)		DATE: 11/3/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 6.81	PURGE PUMP TYPE OR BAILER: PP

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= liters + (0.0097 liters/foot X 11.81 feet) + 0.4 liters = 1.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17.1	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17.1	PURGING INITIATED AT: 1446	PURGING ENDED AT: 1458	TOTAL VOLUME PURGED (Liters): 2.3

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
/	1449	.5	.5	.2	7.98	5.89	25.01	0.677	.79	8.16	47.2
/	1452	.6	1.1	.2	7.98	5.89	24.76	0.677	1.06	8.26	55.3
/	1455	.6	1.7	.2	7.98	5.87	24.65	0.673	1.04	8.13	58.8
/	1458	.6	2.3	.2	7.98	5.84	24.45	0.680	1.05	8.05	58.8
/											
/											
/											
/											

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Eddie Jordan / Arcadis	SAMPLER(S) SIGNATURES: Eddie Jordan	SAMPLING INITIATED AT: 1459	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 17.1	SAMPLE PUMP FLOW RATE (L per minute): .2	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 ml	HCL	8260 (VOC)
2	1000ml	NONE	8270 (SVOC)
1			

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW-F7	SAMPLE ID: MWF7(1103)		DATE: 11/3/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 6.21	PURGE PUMP TYPE OR BAILER: PP ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= liters + (0.0097 liters/foot X 11.21 feet) + 0.4 liters = .05 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.21	PURGING INITIATED AT: 1239	PURGING ENDED AT: 1251	TOTAL VOLUME PURGED (Liters): 2.3

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or ~~µS/cm~~ mS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
/	1242	.5	.5	.2	6.45	4.45	24.17	0.228	1.79	1.02	187.0
/	1245	.6	1.1	.2	6.45	4.45	24.22	0.228	1.68	0.59	190.5
/	1248	.6	1.7	.2	6.45	4.46	24.16	0.229	1.62	0.58	191.8
/	1251	.6	2.3	.2	6.45	4.50	24.11	0.233	1.47	0.63	192.0
/											
/											
/											
/											
/											
/											

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Eddie Jordan / Antea Group	SAMPLER(S) SIGNATURES: Eddie Jordan	SAMPLING INITIATED AT: 1253	SAMPLING ENDED AT: 1308
PUMP OR TUBING DEPTH IN WELL (feet): 11.21	SAMPLE PUMP FLOW RATE (L per minute): .2	TUBING MATERIAL CODE: HDPE/~~PTFE~~	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
	1L Amber	NONE	8260C
		NONE	8260B

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW-F3R	SAMPLE ID: MW-F3R (110314)		DATE: 11/3/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 7.61	PURGE PUMP TYPE OR BAILER: PP

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= liters + (0.0097 liters/foot X 12.61 feet) + 0.4 liters = 0.5 ers

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17.1	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17.1	PURGING INITIATED AT: 1404	PURGING ENDED AT: 1419	TOTAL VOLUME PURGED (Liters): 2.9

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
/	1407	.5	.5	.2	7.64	6.80	24.00	0.654	1.38	1.59	63.9
/	1410	.6	1.1	.2	7.66	6.82	24.14	0.653	0.68	.23	25.6
/	1413	.6	1.7	.2	7.66	6.83	24.12	0.655	0.52	1.49	40.3
/	1416	.6	2.3	.2	7.66	6.84	24.09	0.655	0.47	2.13	33.2
/	1419	.6	2.9	.2	7.66	6.86	23.95	0.655	0.41	1.30	34.2
/											
/											
/											

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Eddie Jordan / Antea Group	SAMPLER(S) SIGNATURES: Eddie Jordan	SAMPLING INITIATED AT: 1420	SAMPLING ENDED AT: 1431
PUMP OR TUBING DEPTH IN WELL (feet): 12.61	SAMPLE PUMP FLOW RATE (L per minute): 1.2	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
2	2 1L Amber	NONE	8082A 1262, 1265, 1668B

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Savannah		SITE LOCATION: Savannah, Ga.
WELL NO: ~~MW-3B~~ MW F-5	SAMPLE ID: ~~MW-3B~~ (11032014) MW F-5	DATE: 11/3/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~15~~ 10 feet to ~~26~~ 20 feet	STATIC DEPTH TO WATER (feet): 6.76	PURGE PUMP TYPE OR BAILER: PP ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
~~= 0.4~~ liters + (0.0097 liters/foot X ~~18.7~~ 20 feet) + ~~0.4~~ 0.3 liters = ~~1.0~~ 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~18.7~~ 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~18.7~~ 15	PURGING INITIATED AT: 14:21	PURGING ENDED AT: 14:33	TOTAL VOLUME PURGED (Liters): ~~[illegible]~~ 2.4

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
~~/~~	14:24	0.6	0.6	0.2	6.82	7.30	23.64	0.852	0.89	4.30	58.2
~~/~~	14:27	0.6	1.2	0.2	6.80	7.00	23.74	0.878	0.74	2.02	20.2
~~/~~	14:30	0.6	1.8	0.2	6.79	7.02	23.51	0.849	0.69	1.99	21.0
/	14:33	0.6	2.4	0.2	6.77	7.01	23.54	0.833	0.66	2.20	29.6
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TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Alex Harrison / Antea Group	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 14:33	SAMPLING ENDED AT: 14:40
PUMP OR TUBING DEPTH IN WELL (feet): ~~18.7~~ 15	SAMPLE PUMP FLOW RATE (L per minute): 0.2	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 mL	HCL	8260
2	1L	none	8270D-LL

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: ~~MW-3GR~~ MWD-30	SAMPLE ID: ~~MW-3GR~~ (11042014) MWD-30		DATE: 11/4/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~39~~ feet to ~~49~~ feet	STATIC DEPTH TO WATER (feet): 9.56	PURGE PUMP TYPE OR BAILER: PP ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= ~~0.4~~ liters + (0.0097 liters/foot X ~~44~~ 90 feet) + ~~0.4~~ 0.3 liters = ~~1.2~~ 0.80 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~44~~ 45	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~44~~ 45	PURGING INITIATED AT: 0733	PURGING ENDED AT: 0743	TOTAL VOLUME PURGED (Liters): 2.00

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
—	0737	0.80	0.80	0.20	9.50	7.57	23.90	0.454	2.49	1.80	16.4
—	0740	0.60	1.40	0.20	9.58	7.65	24.14	0.454	2.45	1.76	12.0
—	0743	0.60	2.00	0.20	9.60	7.64	24.20	0.454	2.27	0.97	11.3
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TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Alex Harrison / Antea Group	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 0743	SAMPLING ENDED AT: 0800
PUMP OR TUBING DEPTH IN WELL (feet): ____	SAMPLE PUMP FLOW RATE (L per minute):	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 mL	HCL	8260
2	1 L	none	8270D-LL

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: ~~MW-3A~~ MW-29	SAMPLE ID: ~~MW-3A~~ (11032014) MW-29		DATE: 11/3/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.5~~ 10 feet to ~~13.5~~ 20 feet	STATIC DEPTH TO WATER (feet): 5.73	PURGE PUMP TYPE OR BAILER: PP ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= ~~0.1~~ liters + (~~0.0054~~ 0.0097 liters/foot X ~~8.2~~ 15 feet) + ~~0.4~~ 0.3 liters = ~~0.6~~ 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~8.2~~ 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~8.2~~ 15	PURGING INITIATED AT: 13:28	PURGING ENDED AT: 13:40	TOTAL VOLUME PURGED (Liters): 2.4

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
/	13:31	0.6	0.6	0.20	5.76	4.69	24.07	0.358	~~139.0~~ 1.96	2.75	139.0
/	13:34	0.6	1.2	0.20	5.90	4.56	23.70	0.357	1.89	0.50	156.6
/	13:37	0.6	1.8	0.20	5.80	4.54	23.71	0.357	1.60	0.48	162.8
/	13:40	0.6	2.4	0.20	5.79	4.46	23.73	0.358	1.65	0.51	164.7
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TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Alex Harrison / Antea Group	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 13:40	SAMPLING ENDED AT: 13:47
PUMP OR TUBING DEPTH IN WELL (feet): ~~8.2~~ 15	SAMPLE PUMP FLOW RATE (L per minute): ~~0.5~~ 0.2	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) Filtration Equipment Type: ____ FILTER SIZE: ____ µm		DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 mL	HCL	8260
2	1L	none	8270D-LL

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW-27	SAMPLE ID: MW-27 (110314)		DATE: 11/3/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~58~~ 10 feet to ~~68~~ 20 feet	STATIC DEPTH TO WATER (feet): 3.05	PURGE PUMP TYPE OR BAILER: PP ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= ~~0.9~~ / liters + (0.0097 liters/foot X ~~58.8~~ 15 feet) + ~~0.5~~ 0.3 liters = ~~1.9~~ 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~59.6~~ 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~59.6~~ 12	PURGING INITIATED AT: 12:21	PURGING ENDED AT: 12:31	TOTAL VOLUME PURGED (Liters): ~~5.0~~ 2.4

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
~~1~~	12:22	0.~~8~~	0.~~8~~	0.~~8~~	3.07	4.72	24.15	0.273	2.00	2.04	128.8
~~1~~	12:25	0.6 ~~1.62~~	1.2 ~~2.0~~	0.5	3.06	4.69	24.28	0.275	1.81	2.27	135.6
~~1~~	12:28	0.6 ~~1.5~~	1.8 ~~3.5~~	0.5	3.04	4.71	24.31	0.277	1.57	2.16	140.1
~~1~~	12:31	0.6 ~~1.5~~	2.4 ~~5.0~~	0.5	3.05	4.72	24.34	0.278	1.53	2.20	~~[illegible]~~ 141.3
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TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Alex Harrison / Anton	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 12:31	SAMPLING ENDED AT: 12:36
PUMP OR TUBING DEPTH IN WELL (feet): ~~59.6~~ 12	SAMPLE PUMP FLOW RATE (L per minute): ~~0.8~~ 0.2	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y (N) Filtration Equipment Type: FILTER SIZE: ____ µm	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
3	40 ml	HCL	8260
~~2~~	~~250 ml~~ 1L	~~HNO3~~	~~8270~~ ~~6010 RCRA 8 Metals (total)~~
2	~~250 ml~~ 1L	none	~~8270~~ 6010 ~~RCRA 8 Metals (dissolved)~~

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Savannah	SITE LOCATION: Savannah, Ga.	
WELL NO: ~~MW-4A~~ MW-F8	SAMPLE ID: ~~MW-4A~~ (1104 2014) MW-F8	DATE: 11/4/14

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 ~~2.5~~ feet to 20 ~~12.5~~ feet	STATIC DEPTH TO WATER (feet): 6.50	PURGE PUMP TYPE OR BAILER: PP ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= ~~0.1~~ liters + (0.0097 ~~0.0054~~ liters/foot X 20 ~~11~~ feet) + 0.3 ~~0.4~~ liters = 0.50 ~~0.6~~ liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15 ~~11~~	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15 ~~11~~	PURGING INITIATED AT: 8:37	PURGING ENDED AT: 8:45	TOTAL VOLUME PURGED (Liters): 1.50

PUMP SETTING / PSI	TIME	VOLUME PURGED (liters)	CUMUL. VOLUME PURGED (liters)	PURGE RATE (L/min)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
~~1~~	0839	0.50	0.50	0.25	6.49	5.95	23.55	0.289	1.05	5.00	-42.1
~~1~~	0842	0.50	1.00	0.25	6.55	5.88	23.72	0.287	0.93	3.50	-37.3
~~1~~	0845	0.50	1.50	0.25	6.57	5.87	23.73	0.285	0.79	3.37	-35.3
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TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Alex Harrison / Andy Graf	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 0845	SAMPLING ENDED AT: 0852
PUMP OR TUBING DEPTH IN WELL (feet): ~~11~~ 15	SAMPLE PUMP FLOW RATE (L per minute): 0.5	TUBING MATERIAL CODE: HDPE / PTFE	
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N) Filtration Equipment Type: ____ FILTER SIZE: ____ µm	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION		SAMPLE PRESERVATION	INTENDED ANALYSIS AND/OR METHOD
# CONTAINERS	VOLUME	PRESERVATIVE USED	
~~3~~	~~40 ml~~	~~HCL~~	~~8260~~
~~1~~	~~250 ml~~	~~HNO3~~	~~6010 RCRA 8 Metals (total)~~
~~1~~	~~250 ml~~	~~none~~	~~6010 RCRA 8 Metals (dissolved)~~
2	1 L	none	Asbestos

REMARKS:

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

Turbidity:	<10 NTU or ± 10%	ORP:	± 10 mV
Temp.:	± 0.5°	Dissolved Oxygen:	± 0.3 mg/L
pH:	± 0.1 units		
Specific Conductance:	± 3%		
Drawdown:	0.33 ft or less		

Appendix C

Laboratory Analytical Reports - see CD

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: 680-106875-1
Client Project/Site: Hercules Savannah
Revision: 1

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
1/22/2015 4:31:57 PM

Kathryn Smith, Project Manager II
(912)354-7858
kathy.smith@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

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
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
*	RPD of the LCS and LCSD exceeds the control limits
H	Sample was prepped or analyzed beyond the specified holding time
F1	MS and/or MSD Recovery exceeds the control limits
E	Result exceeded calibration range.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Dioxin

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-106875-1	Trip Blank (110314)	Water	11/03/14 11:00	11/03/14 16:50
680-106875-2	DUP-01 (110314)	Water	11/03/14 00:00	11/03/14 16:50
680-106875-3	MW-F21 (110314)	Water	11/03/14 14:59	11/03/14 16:50
680-106875-4	MW-F3R (110314)	Water	11/03/14 14:20	11/03/14 16:50
680-106875-5	MW-F7 (110314)	Water	11/03/14 12:53	11/03/14 16:50
680-106875-6	MW-27 (110314)	Water	11/03/14 12:36	11/03/14 16:50
680-106875-7	MW-29 (110314)	Water	11/03/14 13:47	11/03/14 16:50
680-106875-8	MW-F5 (110314)	Water	11/03/14 14:40	11/03/14 16:50

Job ID: 680-106875-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: ARCADIS U.S., Inc.
Project: Hercules Savannah
Report Number: 680-106875-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 11/03/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples Trip Blank (110314) (680-106875-1), DUP-01 (110314) (680-106875-2), MW-F21 (110314) (680-106875-3), MW-F7 (110314) (680-106875-5), MW-27 (110314) (680-106875-6), MW-29 (110314) (680-106875-7) and MW-F5 (110314) (680-106875-8) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/13/2014 and 11/14/2014.

1,2-Dibromo-3-Chloropropane recovered high for LCSD 680-358382/6. Vinyl acetate exceeded the RPD limit for LCSD 680-358664/5.

Sample DUP-01 (110314) (680-106875-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples MW-F21 (110314) (680-106875-3), MW-F7 (110314) (680-106875-5), MW-27 (110314) (680-106875-6), MW-29 (110314) (680-106875-7) and MW-F5 (110314) (680-106875-8) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/05/2014, 11/06/2014 and 11/12/2014 and analyzed on 11/09/2014, 11/10/2014 and 11/18/2014.

Hexachlorocyclopentadiene recovered low for LCS 680-357009/11-A. 1,4-Naphthoquinone, Famphur and p-Phenylene diamine recovered low for LCS 680-357009/13-A. Aramite, Total and Isosafrole recovered high. For LCSD 680-357009/12-A, 3,3'-Dichlorobenzidine, 3,3'-Dimethylbenzidine, 3-Nitroaniline, 4-Chloroaniline, 4-Nitroaniline, Aniline and Pyridine recovered low. Benzo[g,h,i]perylene, Dibenz(a,h)anthracene and Indeno[1,2,3-cd]pyrene recovered high. Also, Several analytes exceeded the RPD limit. For LCSD 680-357009/14-A, 1,4-Naphthoquinone and Famphur recovered low. Aramite, Total and Isosafrole recovered high. Samples MW-F21 (110314) (680-106875-3), MW-F7 (110314) (680-106875-5), MW-27 (110314) (680-106875-6), MW-29 (110314) (680-106875-7) were rextracted outside of holding time in batch 680-358270. Both sets of data have been reported.

3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline and Bis(2-chloroethoxy)methane recovered low for LCS 680-357225/12-A. 2-Methylnaphthalene and Hexachlorocyclopentadiene recovered low for LCS 680-358270/12-A.

1,4-Naphthoquinone and Famphur recovered low for LCS 680-357225/15-A. Aramite, Total and Isosafrole recovered high.

2-Methylnaphthalene and Hexachlorocyclopentadiene recovered low for LCS 680-358270/12-A. 1,4-Naphthoquinone, Famphur and Hexachlorophene recovered low for LCS 680-358270/15-A. Aramite, Total and Isosafrole recovered high. Also, Famphur, Hexachlorophene and Methapyrilene exceeded the RPD limit. For LCSD 680-358270/16-A, 1,4-Naphthoquinone, 4-Aminobiphenyl, Famphur and Hexachlorophene recovered low. Aramite, Total and Isosafrole recovered high. Also, 2-Naphthylamine, 4-Aminobiphenyl, Hexachloropropene and p-Phenylene diamine exceeded the RPD limit.

Several analytes recovered low for the MS of sample MW-F5 (110314)MS (680-106875-8) in batch 680-357718. Aramite, Total recovered high for the MS and 2-Picoline and alpha,alpha-Dimethyl phenethylamine exceeded the RPD limit.

Job ID: 680-106875-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

Sample MW-F21 (110314) (680-106875-3)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly and surrogates were diluted out.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PESTICIDES AND PCBS

Sample MW-F3R (110314) (680-106875-4) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 11/06/2014 and analyzed on 11/07/2014.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CHLORINATED BIPHENYL CONGENERS

Sample MW-F3R (110314) (680-106875-4) was analyzed for chlorinated biphenyl congeners in accordance with EPA method 1668C. The samples were prepared on 11/11/2014 and analyzed on 11/20/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: Trip Blank (110314)

Lab Sample ID: 680-106875-1

Date Collected: 11/03/14 11:00

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/13/14 15:09	1
Acetonitrile	40	U	40		ug/L			11/13/14 15:09	1
Acrolein	20	U	20		ug/L			11/13/14 15:09	1
Acrylonitrile	20	U	20		ug/L			11/13/14 15:09	1
Allyl chloride	1.0	U	1.0		ug/L			11/13/14 15:09	1
Benzene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
Bromoform	1.0	U	1.0		ug/L			11/13/14 15:09	1
Bromomethane	5.0	U	5.0		ug/L			11/13/14 15:09	1
2-Butanone	10	U	10		ug/L			11/13/14 15:09	1
Carbon disulfide	2.0	U	2.0		ug/L			11/13/14 15:09	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/13/14 15:09	1
Chlorobenzene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Chloroethane	5.0	U	5.0		ug/L			11/13/14 15:09	1
Chloroform	1.0	U	1.0		ug/L			11/13/14 15:09	1
Chloromethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
Chloroprene	1.0	U	1.0		ug/L			11/13/14 15:09	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/13/14 15:09	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
Dibromomethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,4-Dioxane	100	U	100		ug/L			11/13/14 15:09	1
Ethylbenzene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/13/14 15:09	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/13/14 15:09	1
2-Hexanone	10	U	10		ug/L			11/13/14 15:09	1
Iodomethane	10	U	10		ug/L			11/13/14 15:09	1
Isobutanol	50	U	50		ug/L			11/13/14 15:09	1
Methacrylonitrile	20	U	20		ug/L			11/13/14 15:09	1
Methylene Chloride	5.0	U	5.0		ug/L			11/13/14 15:09	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/13/14 15:09	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/13/14 15:09	1
Naphthalene	5.0	U	5.0		ug/L			11/13/14 15:09	1
Pentachloroethane	5.0	U	5.0		ug/L			11/13/14 15:09	1
Propionitrile	20	U	20		ug/L			11/13/14 15:09	1
Styrene	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Toluene	1.0	U	1.0		ug/L			11/13/14 15:09	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: Trip Blank (110314)

Lab Sample ID: 680-106875-1

Date Collected: 11/03/14 11:00

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/13/14 15:09	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 15:09	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/13/14 15:09	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
Trichloroethene	1.0	U	1.0		ug/L			11/13/14 15:09	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/13/14 15:09	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/13/14 15:09	1
Vinyl acetate	2.0	U	2.0		ug/L			11/13/14 15:09	1
Vinyl chloride	1.0	U	1.0		ug/L			11/13/14 15:09	1
Xylenes, Total	2.0	U	2.0		ug/L			11/13/14 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*11/13/14 15:09*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*11/13/14 15:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/13/14 15:09*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*11/13/14 15:09*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: DUP-01 (110314)

Lab Sample ID: 680-106875-2

Date Collected: 11/03/14 00:00

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**20**		10		ug/L			11/13/14 02:08	1
Acetonitrile	40	U	40		ug/L			11/13/14 02:08	1
Acrolein	20	U	20		ug/L			11/13/14 02:08	1
Acrylonitrile	20	U	20		ug/L			11/13/14 02:08	1
Allyl chloride	1.0	U	1.0		ug/L			11/13/14 02:08	1
Benzene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
Bromoform	1.0	U	1.0		ug/L			11/13/14 02:08	1
Bromomethane	5.0	U	5.0		ug/L			11/13/14 02:08	1
2-Butanone	10	U	10		ug/L			11/13/14 02:08	1
Carbon disulfide	2.0	U	2.0		ug/L			11/13/14 02:08	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/13/14 02:08	1
Chlorobenzene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Chloroethane	5.0	U	5.0		ug/L			11/13/14 02:08	1
Chloroform	1.0	U	1.0		ug/L			11/13/14 02:08	1
Chloromethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
Chloroprene	1.0	U	1.0		ug/L			11/13/14 02:08	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,2-Dibromo-3-Chloropropane	5.0	U *	5.0		ug/L			11/13/14 02:08	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
Dibromomethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,4-Dioxane	100	U	100		ug/L			11/13/14 02:08	1
Ethylbenzene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/13/14 02:08	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/13/14 02:08	1
2-Hexanone	10	U	10		ug/L			11/13/14 02:08	1
Iodomethane	10	U	10		ug/L			11/13/14 02:08	1
Isobutanol	50	U	50		ug/L			11/13/14 02:08	1
Methacrylonitrile	20	U	20		ug/L			11/13/14 02:08	1
Methylene Chloride	5.0	U	5.0		ug/L			11/13/14 02:08	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/13/14 02:08	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/13/14 02:08	1
Naphthalene	**150**		25		ug/L			11/14/14 15:07	5
Pentachloroethane	5.0	U	5.0		ug/L			11/13/14 02:08	1
Propionitrile	20	U	20		ug/L			11/13/14 02:08	1
Styrene	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Toluene	1.0	U	1.0		ug/L			11/13/14 02:08	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: DUP-01 (110314)

Lab Sample ID: 680-106875-2

Date Collected: 11/03/14 00:00

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/13/14 02:08	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 02:08	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/13/14 02:08	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
Trichloroethene	1.0	U	1.0		ug/L			11/13/14 02:08	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/13/14 02:08	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/13/14 02:08	1
Vinyl acetate	2.0	U	2.0		ug/L			11/13/14 02:08	1
Vinyl chloride	1.0	U	1.0		ug/L			11/13/14 02:08	1
Xylenes, Total	2.0	U	2.0		ug/L			11/13/14 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*11/13/14 02:08*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*11/14/14 15:07*	*5*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/13/14 02:08*	*1*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*11/14/14 15:07*	*5*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/13/14 02:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*11/14/14 15:07*	*5*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/13/14 02:08*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/14/14 15:07*	*5*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F21 (110314)

Lab Sample ID: 680-106875-3

Date Collected: 11/03/14 14:59

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**18**		10		ug/L			11/14/14 15:27	1
Acetonitrile	40	U	40		ug/L			11/14/14 15:27	1
Acrolein	20	U	20		ug/L			11/14/14 15:27	1
Acrylonitrile	20	U	20		ug/L			11/14/14 15:27	1
Allyl chloride	1.0	U	1.0		ug/L			11/14/14 15:27	1
Benzene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
Bromoform	1.0	U	1.0		ug/L			11/14/14 15:27	1
Bromomethane	5.0	U	5.0		ug/L			11/14/14 15:27	1
2-Butanone	10	U	10		ug/L			11/14/14 15:27	1
Carbon disulfide	2.0	U	2.0		ug/L			11/14/14 15:27	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/14/14 15:27	1
Chlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Chloroethane	5.0	U	5.0		ug/L			11/14/14 15:27	1
Chloroform	1.0	U	1.0		ug/L			11/14/14 15:27	1
Chloromethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
Chloroprene	1.0	U	1.0		ug/L			11/14/14 15:27	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/14/14 15:27	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
Dibromomethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,4-Dioxane	100	U	100		ug/L			11/14/14 15:27	1
Ethylbenzene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/14/14 15:27	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/14/14 15:27	1
2-Hexanone	10	U	10		ug/L			11/14/14 15:27	1
Iodomethane	10	U	10		ug/L			11/14/14 15:27	1
Isobutanol	50	U	50		ug/L			11/14/14 15:27	1
Methacrylonitrile	20	U	20		ug/L			11/14/14 15:27	1
Methylene Chloride	5.0	U	5.0		ug/L			11/14/14 15:27	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/14/14 15:27	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/14/14 15:27	1
Naphthalene	**130**		5.0		ug/L			11/14/14 15:27	1
Pentachloroethane	5.0	U	5.0		ug/L			11/14/14 15:27	1
Propionitrile	20	U	20		ug/L			11/14/14 15:27	1
Styrene	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Toluene	1.0	U	1.0		ug/L			11/14/14 15:27	1

Client Sample ID: MW-F21 (110314)

Lab Sample ID: 680-106875-3

Date Collected: 11/03/14 14:59

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/14/14 15:27	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 15:27	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/14/14 15:27	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
Trichloroethene	1.0	U	1.0		ug/L			11/14/14 15:27	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/14/14 15:27	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/14/14 15:27	1
Vinyl acetate	2.0	U *	2.0		ug/L			11/14/14 15:27	1
Vinyl chloride	1.0	U	1.0		ug/L			11/14/14 15:27	1
Xylenes, Total	2.0	U	2.0		ug/L			11/14/14 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*11/14/14 15:27*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*11/14/14 15:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/14/14 15:27*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/14/14 15:27*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,2,4,5-Tetrachlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,2,4-Trichlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,2-Dichlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,3,5-Trinitrobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,3-Dichlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,3-Dinitrobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,4-Dichlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,4-Dioxane	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
1,4-Naphthoquinone	100	U * ^	100		ug/L		11/05/14 16:49	11/10/14 22:00	10
1-Naphthylamine	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,3,4,6-Tetrachlorophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,4,5-Trichlorophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,4,6-Trichlorophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,4-Dichlorophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,4-Dimethylphenol	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,4-Dinitrophenol	100	U	100		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,4-Dinitrotoluene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,6-Dichlorophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2,6-Dinitrotoluene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Acetylaminofluorene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Chloronaphthalene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Chlorophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Methylnaphthalene	**9.0**		2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Methylphenol	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Naphthylamine	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Nitroaniline	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Nitrophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
2-Picoline	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10

Client Sample ID: MW-F21 (110314)

Lab Sample ID: 680-106875-3

Date Collected: 11/03/14 14:59

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Toluidine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
3 & 4 Methylphenol	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
3,3'-Dichlorobenzidine	210	U *	210		ug/L		11/05/14 16:49	11/10/14 22:00	10
3,3'-Dimethylbenzidine	210	U *	210		ug/L		11/05/14 16:49	11/10/14 22:00	10
3-Methylcholanthrene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
3-Nitroaniline	52	U *	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
4,6-Dinitro-2-methylphenol	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Aminobiphenyl	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Bromophenyl phenyl ether	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Chloro-3-methylphenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Chloroaniline	42	U *	42		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Chlorophenyl phenyl ether	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Nitroaniline	52	U *	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Nitrophenol	84	U	84		ug/L		11/05/14 16:49	11/10/14 22:00	10
4-Nitroquinoline-1-oxide	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
7,12-Dimethylbenz(a)anthracene	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Acenaphthene	**3.4**		2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Acenaphthylene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Acetophenone	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
alpha,alpha-Dimethyl phenethylamine	100	U	100		ug/L		11/05/14 16:49	11/10/14 22:00	10
Aniline	21	U *	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Anthracene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Aramite, Total	21	U *	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Benzo[a]anthracene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Benzo[a]pyrene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Benzo[b]fluoranthene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Benzo[g,h,i]perylene	2.1	U *	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Benzo[k]fluoranthene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Benzyl alcohol	10	U *	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
bis (2-chloroisopropyl) ether	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Bis(2-chloroethoxy)methane	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Bis(2-chloroethyl)ether	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Bis(2-ethylhexyl) phthalate	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
Butyl benzyl phthalate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Chrysene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Diallate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Dibenz(a,h)anthracene	2.1	U *	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Dibenzofuran	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Diethyl phthalate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Dimethoate	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Dimethyl phthalate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Di-n-butyl phthalate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Di-n-octyl phthalate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Dinoseb	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Disulfoton	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Ethyl methanesulfonate	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Ethyl Parathion	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Famphur	10	U *	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Fluoranthene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10

Client Sample ID: MW-F21 (110314)

Date Collected: 11/03/14 14:59
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-3

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Hexachlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Hexachlorobutadiene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Hexachlorocyclopentadiene	21	U *	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Hexachloroethane	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Hexachlorophene	5200	U *	5200		ug/L		11/05/14 16:49	11/10/14 22:00	10
Hexachloropropene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Indeno[1,2,3-cd]pyrene	2.1	U *	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Isophorone	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Isosafrole	10	U * ^	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Methapyrilene	2100	U *	2100		ug/L		11/05/14 16:49	11/10/14 22:00	10
Methyl methanesulfonate	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
Methyl parathion	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Naphthalene	**140**		2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Nitrobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitro-o-toluidine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosodiethylamine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosodimethylamine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosodi-n-butylamine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosodi-n-propylamine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosodiphenylamine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosomethylethylamine	21	U	21		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosomorpholine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosopiperidine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
N-Nitrosopyrrolidine	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
o,o',o''-Triethylphosphorothioate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
p-Dimethylamino azobenzene	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
Pentachlorobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Pentachloronitrobenzene	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Pentachlorophenol	52	U	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
Phenacetin	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Phenanthrene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Phenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Phorate	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
p-Phenylene diamine	2100	U *	2100		ug/L		11/05/14 16:49	11/10/14 22:00	10
Pronamide	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Pyrene	2.1	U	2.1		ug/L		11/05/14 16:49	11/10/14 22:00	10
Pyridine	52	U *	52		ug/L		11/05/14 16:49	11/10/14 22:00	10
Safrole, Total	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Sulfotepp	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10
Thionazin	10	U	10		ug/L		11/05/14 16:49	11/10/14 22:00	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*0*	*D*	*27 - 130*	*11/05/14 16:49*	*11/10/14 22:00*	*10*
Nitrobenzene-d5 (Surr)	*0*	*D*	*32 - 130*	*11/05/14 16:49*	*11/10/14 22:00*	*10*
Terphenyl-d14 (Surr)	*0*	*D*	*36 - 130*	*11/05/14 16:49*	*11/10/14 22:00*	*10*
2,4,6-Tribromophenol (Surr)	*0*	*D*	*30 - 130*	*11/05/14 16:49*	*11/10/14 22:00*	*10*
2-Fluorophenol (Surr)	*0*	*D*	*25 - 130*	*11/05/14 16:49*	*11/10/14 22:00*	*10*
2-Fluorobiphenyl	*0*	*D*	*34 - 130*	*11/05/14 16:49*	*11/10/14 22:00*	*10*

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F21 (110314)
Date Collected: 11/03/14 14:59
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,2,4,5-Tetrachlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,2,4-Trichlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,2-Dichlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,3,5-Trinitrobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,3-Dichlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,3-Dinitrobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,4-Dichlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,4-Dioxane	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
1,4-Naphthoquinone	100	U H *	100		ug/L		11/12/14 16:29	11/18/14 14:43	10
1-Naphthylamine	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,3,4,6-Tetrachlorophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,4,5-Trichlorophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,4,6-Trichlorophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,4-Dichlorophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,4-Dimethylphenol	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,4-Dinitrophenol	100	U H	100		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,4-Dinitrotoluene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,6-Dichlorophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2,6-Dinitrotoluene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Acetylaminofluorene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Chloronaphthalene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Chlorophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Methylnaphthalene	**9.7**	**H ***	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Methylphenol	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Naphthylamine	52	U H *	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Nitroaniline	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Nitrophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Picoline	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
2-Toluidine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
3 & 4 Methylphenol	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
3,3'-Dichlorobenzidine	210	U H	210		ug/L		11/12/14 16:29	11/18/14 14:43	10
3,3'-Dimethylbenzidine	210	U H	210		ug/L		11/12/14 16:29	11/18/14 14:43	10
3-Methylcholanthrene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
3-Nitroaniline	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
4,6-Dinitro-2-methylphenol	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Aminobiphenyl	52	U H *	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Bromophenyl phenyl ether	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Chloro-3-methylphenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Chloroaniline	42	U H	42		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Chlorophenyl phenyl ether	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Nitroaniline	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Nitrophenol	84	U H	84		ug/L		11/12/14 16:29	11/18/14 14:43	10
4-Nitroquinoline-1-oxide	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
7,12-Dimethylbenz(a)anthracene	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Acenaphthene	**3.3**	**H**	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Acenaphthylene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Acetophenone	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
alpha,alpha-Dimethyl phenethylamine	100	U H	100		ug/L		11/12/14 16:29	11/18/14 14:43	10

Client Sample ID: MW-F21 (110314)
Date Collected: 11/03/14 14:59
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Anthracene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Aramite, Total	21	U * H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Benzo[a]anthracene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Benzo[a]pyrene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Benzo[b]fluoranthene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Benzo[g,h,i]perylene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Benzo[k]fluoranthene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Benzyl alcohol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
bis (2-chloroisopropyl) ether	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Bis(2-chloroethoxy)methane	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Bis(2-chloroethyl)ether	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Bis(2-ethylhexyl) phthalate	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
Butyl benzyl phthalate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Chrysene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Diallate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Dibenz(a,h)anthracene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Dibenzofuran	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Diethyl phthalate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Dimethoate	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Dimethyl phthalate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Di-n-butyl phthalate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Di-n-octyl phthalate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Dinoseb	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Disulfoton	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Ethyl methanesulfonate	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Ethyl Parathion	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Famphur	10	U H *	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Fluoranthene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Fluorene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Hexachlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Hexachlorobutadiene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Hexachlorocyclopentadiene	21	U H *	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Hexachloroethane	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Hexachlorophene	5200	U H *	5200		ug/L		11/12/14 16:29	11/18/14 14:43	10
Hexachloropropene	10	U H *	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Indeno[1,2,3-cd]pyrene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Isophorone	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Isosafrole	10	U * H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Methapyrilene	2100	U H	2100		ug/L		11/12/14 16:29	11/18/14 14:43	10
Methyl methanesulfonate	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
Methyl parathion	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Naphthalene	**120**	**H**	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Nitrobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitro-o-toluidine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosodiethylamine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosodimethylamine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosodi-n-butylamine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosodi-n-propylamine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10

Client Sample ID: MW-F21 (110314)

Lab Sample ID: 680-106875-3

Date Collected: 11/03/14 14:59

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosomethylethylamine	21	U H	21		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosomorpholine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosopiperidine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
N-Nitrosopyrrolidine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
o,o',o''-Triethylphosphorothioate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
p-Dimethylamino azobenzene	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
Pentachlorobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Pentachloronitrobenzene	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Pentachlorophenol	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
Phenacetin	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Phenanthrene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Phenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Phorate	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
p-Phenylene diamine	2100	U H *	2100		ug/L		11/12/14 16:29	11/18/14 14:43	10
Pronamide	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Pyrene	2.1	U H	2.1		ug/L		11/12/14 16:29	11/18/14 14:43	10
Pyridine	52	U H	52		ug/L		11/12/14 16:29	11/18/14 14:43	10
Safrole, Total	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Sulfotepp	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10
Thionazin	10	U H	10		ug/L		11/12/14 16:29	11/18/14 14:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*0*	*D*	*27 - 130*	*11/12/14 16:29*	*11/18/14 14:43*	*10*
Nitrobenzene-d5 (Surr)	*0*	*D*	*32 - 130*	*11/12/14 16:29*	*11/18/14 14:43*	*10*
Terphenyl-d14 (Surr)	*0*	*D*	*36 - 130*	*11/12/14 16:29*	*11/18/14 14:43*	*10*
2,4,6-Tribromophenol (Surr)	*0*	*D*	*30 - 130*	*11/12/14 16:29*	*11/18/14 14:43*	*10*
2-Fluorophenol (Surr)	*0*	*D*	*25 - 130*	*11/12/14 16:29*	*11/18/14 14:43*	*10*
2-Fluorobiphenyl	*0*	*D*	*34 - 130*	*11/12/14 16:29*	*11/18/14 14:43*	*10*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F3R (110314)

Lab Sample ID: 680-106875-4

Date Collected: 11/03/14 14:20
Matrix: Water
Date Received: 11/03/14 16:50

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1221	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1232	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1242	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1248	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1254	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1260	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1262	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1
PCB-1268	0.96	U	0.96		ug/L		11/06/14 16:44	11/07/14 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*		*14 - 130*	*11/06/14 16:44*	*11/07/14 14:03*	*1*
Tetrachloro-m-xylene	*53*		*40 - 130*	*11/06/14 16:44*	*11/07/14 14:03*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-10	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-100	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-101	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-102	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-103	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-104	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-105	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-106	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-107	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-108	1200	U	1200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-109	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-11	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-110	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-111	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-112	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-113	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-114	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-115	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-116	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-117	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-118	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-119	1200	U	1200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-12	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-120	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-121	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-122	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-123	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-124	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-125	1200	U	1200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-126	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-127	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-128	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-129	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1

Client Sample ID: MW-F3R (110314)

Lab Sample ID: 680-106875-4

Date Collected: 11/03/14 14:20

Matrix: Water

Date Received: 11/03/14 16:50

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-13	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-130	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-131	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-132	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-133	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-134	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-135	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-136	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-137	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-138	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-139	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-14	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-140	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-141	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-142	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-143	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-144	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-145	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-146	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-147	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-148	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-149	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-15	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-150	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-151	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-152	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-153	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-154	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-155	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-156	40	U	40		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-157	40	U	40		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-158	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-159	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-16	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-160	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-161	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-162	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-163	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-164	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-165	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-166	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-167	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-168	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-169	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-17	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-170	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-171	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-172	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-173	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1

Client Sample ID: MW-F3R (110314)
Date Collected: 11/03/14 14:20
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-4
Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-174	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-175	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-176	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-177	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-178	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-179	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-18	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-180	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-181	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-182	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-183	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-184	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-185	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-186	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-187	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-188	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-189	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-19	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-190	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-191	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-192	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-193	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-194	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-195	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-196	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-197	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-198	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-199	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-2	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-20	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-200	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-201	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-202	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-203	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-204	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-205	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-206	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-207	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-208	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-209	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-21	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-22	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-23	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-24	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-25	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-26	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-27	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-28	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-29	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1

Client Sample ID: MW-F3R (110314)
Date Collected: 11/03/14 14:20
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-4
Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-3	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-30	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-31	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-32	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-33	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-34	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-35	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-36	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-37	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-38	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-39	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-4	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-40	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-41	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-42	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-43	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-44	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-45	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-46	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-47	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-48	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-49	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-5	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-50	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-51	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-52	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-53	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-54	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-55	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-56	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-57	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-58	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-59	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-6	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-60	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-61	810	U	810		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-62	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-63	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-64	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-65	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-66	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-67	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-68	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-69	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-7	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-70	810	U	810		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-71	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-72	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-73	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1

Client Sample ID: MW-F3R (110314)
Date Collected: 11/03/14 14:20
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-4
Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-74	810	U	810		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-75	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-76	810	U	810		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-77	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-78	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-79	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-8	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-80	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-81	20	U	20		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-82	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-83	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-84	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-85	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-86	1200	U	1200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-87	1200	U	1200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-88	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-89	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-9	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-90	600	U	600		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-91	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-92	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-93	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-94	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-95	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-96	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-97	1200	U	1200		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-98	400	U	400		pg/L		11/11/14 08:05	11/20/14 00:18	1
PCB-99	200	U	200		pg/L		11/11/14 08:05	11/20/14 00:18	1
Polychlorinated biphenyls, Total	2000	U	2000		pg/L		11/11/14 08:05	11/20/14 00:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*68*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-105L	*81*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-114L	*81*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-118L	*82*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-123L	*80*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-126L	*77*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-155L	*75*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-156L	*94*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-157L	*94*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-15L	*75*		*5 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-167L	*91*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-169L	*88*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-188L	*74*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-189L	*81*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-19L	*74*		*5 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-1L	*53*		*5 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-202L	*82*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-205L	*84*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*
PCB-206L	*82*		*10 - 145*	*11/11/14 08:05*	*11/20/14 00:18*	*1*

Client Sample ID: MW-F3R (110314)
Date Collected: 11/03/14 14:20
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-4
Matrix: Water

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-208L	87		10 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-209L	78		10 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-37L	77		5 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-3L	64		5 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-4L	67		5 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-54L	64		5 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-77L	78		10 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-81L	80		10 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-156L/157L	94		10 - 145	11/11/14 08:05	11/20/14 00:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	92		10 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-178L	99		10 - 145	11/11/14 08:05	11/20/14 00:18	1
PCB-28L	92		5 - 145	11/11/14 08:05	11/20/14 00:18	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F7 (110314)

Lab Sample ID: 680-106875-5

Date Collected: 11/03/14 12:53
Matrix: Water
Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/14/14 15:47	1
Acetonitrile	40	U	40		ug/L			11/14/14 15:47	1
Acrolein	20	U	20		ug/L			11/14/14 15:47	1
Acrylonitrile	20	U	20		ug/L			11/14/14 15:47	1
Allyl chloride	1.0	U	1.0		ug/L			11/14/14 15:47	1
Benzene	1.0	U	1.0		ug/L			11/14/14 15:47	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
Bromoform	1.0	U	1.0		ug/L			11/14/14 15:47	1
Bromomethane	5.0	U	5.0		ug/L			11/14/14 15:47	1
2-Butanone	10	U	10		ug/L			11/14/14 15:47	1
Carbon disulfide	2.0	U	2.0		ug/L			11/14/14 15:47	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/14/14 15:47	1
Chlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:47	1
Chloroethane	5.0	U	5.0		ug/L			11/14/14 15:47	1
Chloroform	1.0	U	1.0		ug/L			11/14/14 15:47	1
Chloromethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
Chloroprene	1.0	U	1.0		ug/L			11/14/14 15:47	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 15:47	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/14/14 15:47	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
Dibromomethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 15:47	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,4-Dioxane	100	U	100		ug/L			11/14/14 15:47	1
Ethylbenzene	1.0	U	1.0		ug/L			11/14/14 15:47	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/14/14 15:47	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/14/14 15:47	1
2-Hexanone	10	U	10		ug/L			11/14/14 15:47	1
Iodomethane	10	U	10		ug/L			11/14/14 15:47	1
Isobutanol	50	U	50		ug/L			11/14/14 15:47	1
Methacrylonitrile	20	U	20		ug/L			11/14/14 15:47	1
Methylene Chloride	5.0	U	5.0		ug/L			11/14/14 15:47	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/14/14 15:47	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/14/14 15:47	1
Naphthalene	**5.3**		5.0		ug/L			11/14/14 15:47	1
Pentachloroethane	5.0	U	5.0		ug/L			11/14/14 15:47	1
Propionitrile	20	U	20		ug/L			11/14/14 15:47	1
Styrene	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
Tetrachloroethene	**2.0**		1.0		ug/L			11/14/14 15:47	1
Toluene	1.0	U	1.0		ug/L			11/14/14 15:47	1

Client Sample ID: MW-F7 (110314)

Lab Sample ID: 680-106875-5

Date Collected: 11/03/14 12:53

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/14/14 15:47	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 15:47	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/14/14 15:47	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
Trichloroethene	1.0	U	1.0		ug/L			11/14/14 15:47	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/14/14 15:47	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/14/14 15:47	1
Vinyl acetate	2.0	U *	2.0		ug/L			11/14/14 15:47	1
Vinyl chloride	1.0	U	1.0		ug/L			11/14/14 15:47	1
Xylenes, Total	2.0	U	2.0		ug/L			11/14/14 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*11/14/14 15:47*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*11/14/14 15:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*11/14/14 15:47*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/14/14 15:47*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,2,4,5-Tetrachlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,2,4-Trichlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,3,5-Trinitrobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,3-Dinitrobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,4-Dioxane	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
1,4-Naphthoquinone	12	U *	12		ug/L		11/05/14 16:49	11/09/14 20:41	1
1-Naphthylamine	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,3,4,6-Tetrachlorophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,4,5-Trichlorophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,4,6-Trichlorophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,4-Dichlorophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,4-Dimethylphenol	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,4-Dinitrophenol	12	U	12		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,4-Dinitrotoluene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,6-Dichlorophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2,6-Dinitrotoluene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Acetylaminofluorene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Chloronaphthalene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Chlorophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Methylnaphthalene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Methylphenol	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Naphthylamine	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Nitroaniline	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Nitrophenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
2-Picoline	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1

Client Sample ID: MW-F7 (110314)
Date Collected: 11/03/14 12:53
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Toluidine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
3 & 4 Methylphenol	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
3,3'-Dichlorobenzidine	25	U *	25		ug/L		11/05/14 16:49	11/09/14 20:41	1
3,3'-Dimethylbenzidine	25	U *	25		ug/L		11/05/14 16:49	11/09/14 20:41	1
3-Methylcholanthrene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
3-Nitroaniline	6.1	U *	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
4,6-Dinitro-2-methylphenol	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Aminobiphenyl	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Bromophenyl phenyl ether	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Chloro-3-methylphenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Chloroaniline	4.9	U *	4.9		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Chlorophenyl phenyl ether	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Nitroaniline	6.1	U *	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Nitrophenol	9.8	U	9.8		ug/L		11/05/14 16:49	11/09/14 20:41	1
4-Nitroquinoline-1-oxide	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
7,12-Dimethylbenz(a)anthracene	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Acenaphthene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Acenaphthylene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Acetophenone	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
alpha,alpha-Dimethyl phenethylamine	12	U	12		ug/L		11/05/14 16:49	11/09/14 20:41	1
Aniline	2.5	U *	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Anthracene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Aramite, Total	2.5	U *	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Benzo[a]anthracene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Benzo[a]pyrene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Benzo[b]fluoranthene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Benzo[g,h,i]perylene	0.25	U *	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Benzo[k]fluoranthene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Benzyl alcohol	1.2	U *	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
bis (2-chloroisopropyl) ether	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Bis(2-chloroethoxy)methane	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Bis(2-chloroethyl)ether	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Bis(2-ethylhexyl) phthalate	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
Butyl benzyl phthalate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Chrysene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Diallate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Dibenz(a,h)anthracene	0.25	U *	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Dibenzofuran	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Diethyl phthalate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Dimethoate	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Dimethyl phthalate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Di-n-butyl phthalate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Di-n-octyl phthalate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Dinoseb	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Disulfoton	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Ethyl methanesulfonate	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Ethyl Parathion	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Famphur	1.2	U *	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Fluoranthene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1

Client Sample ID: MW-F7 (110314)

Lab Sample ID: 680-106875-5

Date Collected: 11/03/14 12:53

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Hexachlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Hexachlorobutadiene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Hexachlorocyclopentadiene	2.5	U *	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Hexachloroethane	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Hexachlorophene	610	U *	610		ug/L		11/05/14 16:49	11/09/14 20:41	1
Hexachloropropene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Indeno[1,2,3-cd]pyrene	0.25	U *	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Isophorone	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Isosafrole	1.2	U *	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Methapyrilene	250	U *	250		ug/L		11/05/14 16:49	11/09/14 20:41	1
Methyl methanesulfonate	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
Methyl parathion	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Naphthalene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Nitrobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitro-o-toluidine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosodiethylamine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosodimethylamine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosodi-n-butylamine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosodi-n-propylamine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosodiphenylamine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosomethylethylamine	2.5	U	2.5		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosomorpholine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosopiperidine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
N-Nitrosopyrrolidine	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
o,o',o''-Triethylphosphorothioate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
p-Dimethylamino azobenzene	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
Pentachlorobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Pentachloronitrobenzene	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Pentachlorophenol	6.1	U	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
Phenacetin	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Phenanthrene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Phenol	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Phorate	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
p-Phenylene diamine	250	U *	250		ug/L		11/05/14 16:49	11/09/14 20:41	1
Pronamide	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Pyrene	0.25	U	0.25		ug/L		11/05/14 16:49	11/09/14 20:41	1
Pyridine	6.1	U *	6.1		ug/L		11/05/14 16:49	11/09/14 20:41	1
Safrole, Total	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Sulfotepp	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1
Thionazin	1.2	U	1.2		ug/L		11/05/14 16:49	11/09/14 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*81*		*27 - 130*	*11/05/14 16:49*	*11/09/14 20:41*	*1*
Nitrobenzene-d5 (Surr)	*79*		*32 - 130*	*11/05/14 16:49*	*11/09/14 20:41*	*1*
Terphenyl-d14 (Surr)	*98*		*36 - 130*	*11/05/14 16:49*	*11/09/14 20:41*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*30 - 130*	*11/05/14 16:49*	*11/09/14 20:41*	*1*
2-Fluorophenol (Surr)	*73*		*25 - 130*	*11/05/14 16:49*	*11/09/14 20:41*	*1*
2-Fluorobiphenyl	*88*		*34 - 130*	*11/05/14 16:49*	*11/09/14 20:41*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F7 (110314)
Date Collected: 11/03/14 12:53
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,2,4,5-Tetrachlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,2,4-Trichlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,2-Dichlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,3,5-Trinitrobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,3-Dichlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,3-Dinitrobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,4-Dichlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,4-Dioxane	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
1,4-Naphthoquinone	10	U H *	10		ug/L		11/12/14 16:29	11/18/14 15:10	1
1-Naphthylamine	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,3,4,6-Tetrachlorophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,4,5-Trichlorophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,4,6-Trichlorophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,4-Dichlorophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,4-Dimethylphenol	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,4-Dinitrophenol	10	U H	10		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,4-Dinitrotoluene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,6-Dichlorophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2,6-Dinitrotoluene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Acetylaminofluorene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Chloronaphthalene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Chlorophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Methylnaphthalene	0.20	U H *	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Methylphenol	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Naphthylamine	5.1	U H *	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Nitroaniline	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Nitrophenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Picoline	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
2-Toluidine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
3 & 4 Methylphenol	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
3,3'-Dichlorobenzidine	20	U H	20		ug/L		11/12/14 16:29	11/18/14 15:10	1
3,3'-Dimethylbenzidine	20	U H	20		ug/L		11/12/14 16:29	11/18/14 15:10	1
3-Methylcholanthrene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
3-Nitroaniline	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
4,6-Dinitro-2-methylphenol	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Aminobiphenyl	5.1	U H *	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Bromophenyl phenyl ether	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Chloro-3-methylphenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Chloroaniline	4.1	U H	4.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Chlorophenyl phenyl ether	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Nitroaniline	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Nitrophenol	8.1	U H	8.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
4-Nitroquinoline-1-oxide	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
7,12-Dimethylbenz(a)anthracene	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Acenaphthene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Acenaphthylene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Acetophenone	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
alpha,alpha-Dimethyl phenethylamine	10	U H	10		ug/L		11/12/14 16:29	11/18/14 15:10	1

Client Sample ID: MW-F7 (110314)
Date Collected: 11/03/14 12:53
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Anthracene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Aramite, Total	2.0	U * H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Benzo[a]anthracene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Benzo[a]pyrene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Benzo[b]fluoranthene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Benzo[g,h,i]perylene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Benzo[k]fluoranthene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Benzyl alcohol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
bis (2-chloroisopropyl) ether	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Bis(2-chloroethoxy)methane	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Bis(2-chloroethyl)ether	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Bis(2-ethylhexyl) phthalate	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
Butyl benzyl phthalate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Chrysene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Diallate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Dibenz(a,h)anthracene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Dibenzofuran	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Diethyl phthalate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Dimethoate	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Dimethyl phthalate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Di-n-butyl phthalate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Di-n-octyl phthalate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Dinoseb	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Disulfoton	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Ethyl methanesulfonate	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Ethyl Parathion	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Famphur	1.0	U H *	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Fluoranthene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Fluorene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Hexachlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Hexachlorobutadiene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Hexachlorocyclopentadiene	2.0	U H *	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Hexachloroethane	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Hexachlorophene	510	U H *	510		ug/L		11/12/14 16:29	11/18/14 15:10	1
Hexachloropropene	1.0	U H *	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Indeno[1,2,3-cd]pyrene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Isophorone	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Isosafrole	1.0	U * H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Methapyrilene	200	U H	200		ug/L		11/12/14 16:29	11/18/14 15:10	1
Methyl methanesulfonate	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Methyl parathion	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Naphthalene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Nitrobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitro-o-toluidine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosodiethylamine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosodimethylamine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosodi-n-butylamine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosodi-n-propylamine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F7 (110314)
Date Collected: 11/03/14 12:53
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosomethylethylamine	2.0	U H	2.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosomorpholine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosopiperidine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
N-Nitrosopyrrolidine	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
o,o',o''-Triethylphosphorothioate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
p-Dimethylamino azobenzene	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
Pentachlorobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Pentachloronitrobenzene	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Pentachlorophenol	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
Phenacetin	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Phenanthrene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Phenol	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Phorate	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
p-Phenylene diamine	200	U H *	200		ug/L		11/12/14 16:29	11/18/14 15:10	1
Pronamide	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Pyrene	0.20	U H	0.20		ug/L		11/12/14 16:29	11/18/14 15:10	1
Pyridine	5.1	U H	5.1		ug/L		11/12/14 16:29	11/18/14 15:10	1
Safrole, Total	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Sulfotepp	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1
Thionazin	1.0	U H	1.0		ug/L		11/12/14 16:29	11/18/14 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*64*		*27 - 130*	*11/12/14 16:29*	*11/18/14 15:10*	*1*
Nitrobenzene-d5 (Surr)	*75*		*32 - 130*	*11/12/14 16:29*	*11/18/14 15:10*	*1*
Terphenyl-d14 (Surr)	*79*		*36 - 130*	*11/12/14 16:29*	*11/18/14 15:10*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*30 - 130*	*11/12/14 16:29*	*11/18/14 15:10*	*1*
2-Fluorophenol (Surr)	*66*		*25 - 130*	*11/12/14 16:29*	*11/18/14 15:10*	*1*
2-Fluorobiphenyl	*72*		*34 - 130*	*11/12/14 16:29*	*11/18/14 15:10*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-27 (110314)

Lab Sample ID: 680-106875-6

Date Collected: 11/03/14 12:36
Matrix: Water
Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/13/14 03:19	1
Acetonitrile	40	U	40		ug/L			11/13/14 03:19	1
Acrolein	20	U	20		ug/L			11/13/14 03:19	1
Acrylonitrile	20	U	20		ug/L			11/13/14 03:19	1
Allyl chloride	1.0	U	1.0		ug/L			11/13/14 03:19	1
Benzene	1.0	U	1.0		ug/L			11/13/14 03:19	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
Bromoform	1.0	U	1.0		ug/L			11/13/14 03:19	1
Bromomethane	5.0	U	5.0		ug/L			11/13/14 03:19	1
2-Butanone	10	U	10		ug/L			11/13/14 03:19	1
Carbon disulfide	2.0	U	2.0		ug/L			11/13/14 03:19	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/13/14 03:19	1
Chlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:19	1
Chloroethane	5.0	U	5.0		ug/L			11/13/14 03:19	1
Chloroform	1.0	U	1.0		ug/L			11/13/14 03:19	1
Chloromethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
Chloroprene	1.0	U	1.0		ug/L			11/13/14 03:19	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 03:19	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,2-Dibromo-3-Chloropropane	5.0	U *	5.0		ug/L			11/13/14 03:19	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
Dibromomethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:19	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,4-Dioxane	100	U	100		ug/L			11/13/14 03:19	1
Ethylbenzene	1.0	U	1.0		ug/L			11/13/14 03:19	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/13/14 03:19	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/13/14 03:19	1
2-Hexanone	10	U	10		ug/L			11/13/14 03:19	1
Iodomethane	10	U	10		ug/L			11/13/14 03:19	1
Isobutanol	50	U	50		ug/L			11/13/14 03:19	1
Methacrylonitrile	20	U	20		ug/L			11/13/14 03:19	1
Methylene Chloride	5.0	U	5.0		ug/L			11/13/14 03:19	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/13/14 03:19	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/13/14 03:19	1
Naphthalene	5.0	U	5.0		ug/L			11/13/14 03:19	1
Pentachloroethane	5.0	U	5.0		ug/L			11/13/14 03:19	1
Propionitrile	20	U	20		ug/L			11/13/14 03:19	1
Styrene	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
Tetrachloroethene	**1.7**		1.0		ug/L			11/13/14 03:19	1
Toluene	1.0	U	1.0		ug/L			11/13/14 03:19	1

Client Sample ID: MW-27 (110314)

Lab Sample ID: 680-106875-6

Date Collected: 11/03/14 12:36

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/13/14 03:19	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 03:19	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/13/14 03:19	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
Trichloroethene	1.0	U	1.0		ug/L			11/13/14 03:19	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/13/14 03:19	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/13/14 03:19	1
Vinyl acetate	2.0	U	2.0		ug/L			11/13/14 03:19	1
Vinyl chloride	1.0	U	1.0		ug/L			11/13/14 03:19	1
Xylenes, Total	2.0	U	2.0		ug/L			11/13/14 03:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*11/13/14 03:19*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/13/14 03:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*11/13/14 03:19*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/13/14 03:19*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,4-Dioxane	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
1,4-Naphthoquinone	10	U *	10		ug/L		11/05/14 16:49	11/09/14 21:08	1
1-Naphthylamine	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,4-Dimethylphenol	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,4-Dinitrophenol	10	U	10		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Methylnaphthalene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Methylphenol	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Naphthylamine	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
2-Picoline	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1

Client Sample ID: MW-27 (110314)
Date Collected: 11/03/14 12:36
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Toluidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
3 & 4 Methylphenol	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
3,3'-Dichlorobenzidine	21	U *	21		ug/L		11/05/14 16:49	11/09/14 21:08	1
3,3'-Dimethylbenzidine	21	U *	21		ug/L		11/05/14 16:49	11/09/14 21:08	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
3-Nitroaniline	5.2	U *	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
4,6-Dinitro-2-methylphenol	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Aminobiphenyl	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Chloroaniline	4.1	U *	4.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Nitroaniline	5.2	U *	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Nitrophenol	8.3	U	8.3		ug/L		11/05/14 16:49	11/09/14 21:08	1
4-Nitroquinoline-1-oxide	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
7,12-Dimethylbenz(a)anthracene	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Acenaphthene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Acenaphthylene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Acetophenone	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/05/14 16:49	11/09/14 21:08	1
Aniline	2.1	U *	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Anthracene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Aramite, Total	2.1	U *	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Benzo[a]anthracene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Benzo[a]pyrene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Benzo[b]fluoranthene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Benzo[g,h,i]perylene	0.21	U *	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Benzo[k]fluoranthene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Benzyl alcohol	1.0	U *	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Bis(2-ethylhexyl) phthalate	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Chrysene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Diallate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Dibenz(a,h)anthracene	0.21	U *	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Dibenzofuran	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Dimethoate	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Dinoseb	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Disulfoton	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Ethyl methanesulfonate	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Ethyl Parathion	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Famphur	1.0	U *	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Fluoranthene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1

Client Sample ID: MW-27 (110314)

Lab Sample ID: 680-106875-6

Date Collected: 11/03/14 12:36

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Hexachlorocyclopentadiene	2.1	U *	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Hexachloroethane	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Hexachlorophene	520	U *	520		ug/L		11/05/14 16:49	11/09/14 21:08	1
Hexachloropropene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Indeno[1,2,3-cd]pyrene	0.21	U *	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Isophorone	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Isosafrole	1.0	U *	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Methapyrilene	210	U *	210		ug/L		11/05/14 16:49	11/09/14 21:08	1
Methyl methanesulfonate	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
Methyl parathion	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Naphthalene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Nitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosomethylethylamine	2.1	U	2.1		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
p-Dimethylamino azobenzene	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Pentachlorophenol	5.2	U	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
Phenacetin	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Phenanthrene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Phenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Phorate	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
p-Phenylene diamine	210	U *	210		ug/L		11/05/14 16:49	11/09/14 21:08	1
Pronamide	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Pyrene	0.21	U	0.21		ug/L		11/05/14 16:49	11/09/14 21:08	1
Pyridine	5.2	U *	5.2		ug/L		11/05/14 16:49	11/09/14 21:08	1
Safrole, Total	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Sulfotepp	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1
Thionazin	1.0	U	1.0		ug/L		11/05/14 16:49	11/09/14 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*93*		*27 - 130*	*11/05/14 16:49*	*11/09/14 21:08*	*1*
Nitrobenzene-d5 (Surr)	*90*		*32 - 130*	*11/05/14 16:49*	*11/09/14 21:08*	*1*
Terphenyl-d14 (Surr)	*99*		*36 - 130*	*11/05/14 16:49*	*11/09/14 21:08*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*30 - 130*	*11/05/14 16:49*	*11/09/14 21:08*	*1*
2-Fluorophenol (Surr)	*85*		*25 - 130*	*11/05/14 16:49*	*11/09/14 21:08*	*1*
2-Fluorobiphenyl	*102*		*34 - 130*	*11/05/14 16:49*	*11/09/14 21:08*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-27 (110314)

Date Collected: 11/03/14 12:36
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-6

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,2,4,5-Tetrachlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,2,4-Trichlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,2-Dichlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,3,5-Trinitrobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,3-Dichlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,3-Dinitrobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,4-Dichlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,4-Dioxane	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
1,4-Naphthoquinone	12	U H *	12		ug/L		11/12/14 16:29	11/18/14 15:37	1
1-Naphthylamine	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,3,4,6-Tetrachlorophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,4,5-Trichlorophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,4,6-Trichlorophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,4-Dichlorophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,4-Dimethylphenol	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,4-Dinitrophenol	12	U H	12		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,4-Dinitrotoluene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,6-Dichlorophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2,6-Dinitrotoluene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Acetylaminofluorene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Chloronaphthalene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Chlorophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Methylnaphthalene	0.23	U H *	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Methylphenol	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Naphthylamine	5.8	U H *	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Nitroaniline	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Nitrophenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Picoline	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
2-Toluidine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
3 & 4 Methylphenol	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
3,3'-Dichlorobenzidine	23	U H	23		ug/L		11/12/14 16:29	11/18/14 15:37	1
3,3'-Dimethylbenzidine	23	U H	23		ug/L		11/12/14 16:29	11/18/14 15:37	1
3-Methylcholanthrene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
3-Nitroaniline	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
4,6-Dinitro-2-methylphenol	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Aminobiphenyl	5.8	U H *	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Bromophenyl phenyl ether	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Chloro-3-methylphenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Chloroaniline	4.6	U H	4.6		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Chlorophenyl phenyl ether	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Nitroaniline	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Nitrophenol	9.3	U H	9.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
4-Nitroquinoline-1-oxide	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
7,12-Dimethylbenz(a)anthracene	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Acenaphthene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Acenaphthylene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Acetophenone	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
alpha,alpha-Dimethyl phenethylamine	12	U H	12		ug/L		11/12/14 16:29	11/18/14 15:37	1

Client Sample ID: MW-27 (110314)
Date Collected: 11/03/14 12:36
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Anthracene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Aramite, Total	2.3	U * H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Benzo[a]anthracene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Benzo[a]pyrene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Benzo[b]fluoranthene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Benzo[g,h,i]perylene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Benzo[k]fluoranthene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Benzyl alcohol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
bis (2-chloroisopropyl) ether	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Bis(2-chloroethoxy)methane	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Bis(2-chloroethyl)ether	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Bis(2-ethylhexyl) phthalate	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
Butyl benzyl phthalate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Chrysene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Diallate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Dibenz(a,h)anthracene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Dibenzofuran	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Diethyl phthalate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Dimethoate	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Dimethyl phthalate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Di-n-butyl phthalate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Di-n-octyl phthalate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Dinoseb	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Disulfoton	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Ethyl methanesulfonate	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Ethyl Parathion	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Famphur	1.2	U H *	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Fluoranthene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Fluorene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Hexachlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Hexachlorobutadiene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Hexachlorocyclopentadiene	2.3	U H *	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Hexachloroethane	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Hexachlorophene	580	U H *	580		ug/L		11/12/14 16:29	11/18/14 15:37	1
Hexachloropropene	1.2	U H *	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Indeno[1,2,3-cd]pyrene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Isophorone	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Isosafrole	1.2	U * H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Methapyrilene	230	U H	230		ug/L		11/12/14 16:29	11/18/14 15:37	1
Methyl methanesulfonate	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
Methyl parathion	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Naphthalene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Nitrobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitro-o-toluidine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosodiethylamine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosodimethylamine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosodi-n-butylamine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosodi-n-propylamine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1

Client Sample ID: MW-27 (110314)
Date Collected: 11/03/14 12:36
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosomethylethylamine	2.3	U H	2.3		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosomorpholine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosopiperidine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
N-Nitrosopyrrolidine	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
o,o',o''-Triethylphosphorothioate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
p-Dimethylamino azobenzene	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
Pentachlorobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Pentachloronitrobenzene	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Pentachlorophenol	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
Phenacetin	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Phenanthrene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Phenol	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Phorate	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
p-Phenylene diamine	230	U H *	230		ug/L		11/12/14 16:29	11/18/14 15:37	1
Pronamide	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Pyrene	0.23	U H	0.23		ug/L		11/12/14 16:29	11/18/14 15:37	1
Pyridine	5.8	U H	5.8		ug/L		11/12/14 16:29	11/18/14 15:37	1
Safrole, Total	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Sulfotepp	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1
Thionazin	1.2	U H	1.2		ug/L		11/12/14 16:29	11/18/14 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*75*		*27 - 130*	*11/12/14 16:29*	*11/18/14 15:37*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 130*	*11/12/14 16:29*	*11/18/14 15:37*	*1*
Terphenyl-d14 (Surr)	*89*		*36 - 130*	*11/12/14 16:29*	*11/18/14 15:37*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*30 - 130*	*11/12/14 16:29*	*11/18/14 15:37*	*1*
2-Fluorophenol (Surr)	*73*		*25 - 130*	*11/12/14 16:29*	*11/18/14 15:37*	*1*
2-Fluorobiphenyl	*75*		*34 - 130*	*11/12/14 16:29*	*11/18/14 15:37*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-29 (110314)

Lab Sample ID: 680-106875-7

Date Collected: 11/03/14 13:47
Matrix: Water
Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/13/14 03:43	1
Acetonitrile	40	U	40		ug/L			11/13/14 03:43	1
Acrolein	20	U	20		ug/L			11/13/14 03:43	1
Acrylonitrile	20	U	20		ug/L			11/13/14 03:43	1
Allyl chloride	1.0	U	1.0		ug/L			11/13/14 03:43	1
Benzene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
Bromoform	1.0	U	1.0		ug/L			11/13/14 03:43	1
Bromomethane	5.0	U	5.0		ug/L			11/13/14 03:43	1
2-Butanone	10	U	10		ug/L			11/13/14 03:43	1
Carbon disulfide	2.0	U	2.0		ug/L			11/13/14 03:43	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/13/14 03:43	1
Chlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Chloroethane	5.0	U	5.0		ug/L			11/13/14 03:43	1
Chloroform	1.0	U	1.0		ug/L			11/13/14 03:43	1
Chloromethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
Chloroprene	1.0	U	1.0		ug/L			11/13/14 03:43	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,2-Dibromo-3-Chloropropane	5.0	U *	5.0		ug/L			11/13/14 03:43	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
Dibromomethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,4-Dioxane	100	U	100		ug/L			11/13/14 03:43	1
Ethylbenzene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/13/14 03:43	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/13/14 03:43	1
2-Hexanone	10	U	10		ug/L			11/13/14 03:43	1
Iodomethane	10	U	10		ug/L			11/13/14 03:43	1
Isobutanol	50	U	50		ug/L			11/13/14 03:43	1
Methacrylonitrile	20	U	20		ug/L			11/13/14 03:43	1
Methylene Chloride	5.0	U	5.0		ug/L			11/13/14 03:43	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/13/14 03:43	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/13/14 03:43	1
Naphthalene	5.0	U	5.0		ug/L			11/13/14 03:43	1
Pentachloroethane	5.0	U	5.0		ug/L			11/13/14 03:43	1
Propionitrile	20	U	20		ug/L			11/13/14 03:43	1
Styrene	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Toluene	1.0	U	1.0		ug/L			11/13/14 03:43	1

Client Sample ID: MW-29 (110314)

Lab Sample ID: 680-106875-7

Date Collected: 11/03/14 13:47

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/13/14 03:43	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 03:43	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/13/14 03:43	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
Trichloroethene	1.0	U	1.0		ug/L			11/13/14 03:43	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/13/14 03:43	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/13/14 03:43	1
Vinyl acetate	2.0	U	2.0		ug/L			11/13/14 03:43	1
Vinyl chloride	1.0	U	1.0		ug/L			11/13/14 03:43	1
Xylenes, Total	2.0	U	2.0		ug/L			11/13/14 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*11/13/14 03:43*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/13/14 03:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/13/14 03:43*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/13/14 03:43*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,2,4,5-Tetrachlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,2,4-Trichlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,2-Dichlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,3,5-Trinitrobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,3-Dichlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,3-Dinitrobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,4-Dichlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,4-Dioxane	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
1,4-Naphthoquinone	9.6	U *	9.6		ug/L		11/05/14 16:49	11/09/14 21:35	1
1-Naphthylamine	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,3,4,6-Tetrachlorophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,4,5-Trichlorophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,4,6-Trichlorophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,4-Dichlorophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,4-Dimethylphenol	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,4-Dinitrophenol	9.6	U	9.6		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,4-Dinitrotoluene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,6-Dichlorophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2,6-Dinitrotoluene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Acetylaminofluorene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Chloronaphthalene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Chlorophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Methylnaphthalene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Methylphenol	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Naphthylamine	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Nitroaniline	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Nitrophenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
2-Picoline	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1

Client Sample ID: MW-29 (110314)
Date Collected: 11/03/14 13:47
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-7
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Toluidine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
3 & 4 Methylphenol	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
3,3'-Dichlorobenzidine	19	U *	19		ug/L		11/05/14 16:49	11/09/14 21:35	1
3,3'-Dimethylbenzidine	19	U *	19		ug/L		11/05/14 16:49	11/09/14 21:35	1
3-Methylcholanthrene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
3-Nitroaniline	4.8	U *	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
4,6-Dinitro-2-methylphenol	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Aminobiphenyl	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Bromophenyl phenyl ether	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Chloro-3-methylphenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Chloroaniline	3.8	U *	3.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Chlorophenyl phenyl ether	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Nitroaniline	4.8	U *	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Nitrophenol	7.6	U	7.6		ug/L		11/05/14 16:49	11/09/14 21:35	1
4-Nitroquinoline-1-oxide	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
7,12-Dimethylbenz(a)anthracene	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Acenaphthene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Acenaphthylene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Acetophenone	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
alpha,alpha-Dimethyl phenethylamine	9.6	U	9.6		ug/L		11/05/14 16:49	11/09/14 21:35	1
Aniline	1.9	U *	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Anthracene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Aramite, Total	1.9	U *	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Benzo[a]anthracene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Benzo[a]pyrene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Benzo[b]fluoranthene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Benzo[g,h,i]perylene	0.19	U *	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Benzo[k]fluoranthene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Benzyl alcohol	0.96	U *	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
bis (2-chloroisopropyl) ether	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Bis(2-chloroethoxy)methane	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Bis(2-chloroethyl)ether	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Bis(2-ethylhexyl) phthalate	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
Butyl benzyl phthalate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Chrysene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Diallate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Dibenz(a,h)anthracene	0.19	U *	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Dibenzofuran	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Diethyl phthalate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Dimethoate	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Dimethyl phthalate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Di-n-butyl phthalate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Di-n-octyl phthalate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Dinoseb	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Disulfoton	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Ethyl methanesulfonate	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Ethyl Parathion	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Famphur	0.96	U *	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Fluoranthene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1

Client Sample ID: MW-29 (110314)

Lab Sample ID: 680-106875-7

Date Collected: 11/03/14 13:47

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Hexachlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Hexachlorobutadiene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Hexachlorocyclopentadiene	1.9	U *	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Hexachloroethane	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Hexachlorophene	480	U *	480		ug/L		11/05/14 16:49	11/09/14 21:35	1
Hexachloropropene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Indeno[1,2,3-cd]pyrene	0.19	U *	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Isophorone	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Isosafrole	0.96	U *	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Methapyrilene	190	U *	190		ug/L		11/05/14 16:49	11/09/14 21:35	1
Methyl methanesulfonate	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
Methyl parathion	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Naphthalene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Nitrobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitro-o-toluidine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosodiethylamine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosodimethylamine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosodi-n-butylamine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosodi-n-propylamine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosodiphenylamine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosomethylethylamine	1.9	U	1.9		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosomorpholine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosopiperidine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
N-Nitrosopyrrolidine	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
o,o',o''-Triethylphosphorothioate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
p-Dimethylamino azobenzene	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
Pentachlorobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Pentachloronitrobenzene	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Pentachlorophenol	4.8	U	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
Phenacetin	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Phenanthrene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Phenol	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Phorate	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
p-Phenylene diamine	190	U *	190		ug/L		11/05/14 16:49	11/09/14 21:35	1
Pronamide	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Pyrene	0.19	U	0.19		ug/L		11/05/14 16:49	11/09/14 21:35	1
Pyridine	4.8	U *	4.8		ug/L		11/05/14 16:49	11/09/14 21:35	1
Safrole, Total	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Sulfotepp	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1
Thionazin	0.96	U	0.96		ug/L		11/05/14 16:49	11/09/14 21:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*79*		*27 - 130*	*11/05/14 16:49*	*11/09/14 21:35*	*1*
Nitrobenzene-d5 (Surr)	*89*		*32 - 130*	*11/05/14 16:49*	*11/09/14 21:35*	*1*
Terphenyl-d14 (Surr)	*103*		*36 - 130*	*11/05/14 16:49*	*11/09/14 21:35*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*30 - 130*	*11/05/14 16:49*	*11/09/14 21:35*	*1*
2-Fluorophenol (Surr)	*76*		*25 - 130*	*11/05/14 16:49*	*11/09/14 21:35*	*1*
2-Fluorobiphenyl	*99*		*34 - 130*	*11/05/14 16:49*	*11/09/14 21:35*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-29 (110314)

Date Collected: 11/03/14 13:47
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-7

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,2,4,5-Tetrachlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,2,4-Trichlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,2-Dichlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,3,5-Trinitrobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,3-Dichlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,3-Dinitrobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,4-Dichlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,4-Dioxane	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
1,4-Naphthoquinone	11	U H *	11		ug/L		11/12/14 16:29	11/18/14 16:05	1
1-Naphthylamine	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,3,4,6-Tetrachlorophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,4,5-Trichlorophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,4,6-Trichlorophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,4-Dichlorophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,4-Dimethylphenol	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,4-Dinitrophenol	11	U H	11		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,4-Dinitrotoluene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,6-Dichlorophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2,6-Dinitrotoluene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Acetylaminofluorene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Chloronaphthalene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Chlorophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Methylnaphthalene	0.22	U H *	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Methylphenol	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Naphthylamine	5.5	U H *	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Nitroaniline	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Nitrophenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Picoline	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
2-Toluidine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
3 & 4 Methylphenol	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
3,3'-Dichlorobenzidine	22	U H	22		ug/L		11/12/14 16:29	11/18/14 16:05	1
3,3'-Dimethylbenzidine	22	U H	22		ug/L		11/12/14 16:29	11/18/14 16:05	1
3-Methylcholanthrene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
3-Nitroaniline	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
4,6-Dinitro-2-methylphenol	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Aminobiphenyl	5.5	U H *	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Bromophenyl phenyl ether	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Chloro-3-methylphenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Chloroaniline	4.4	U H	4.4		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Chlorophenyl phenyl ether	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Nitroaniline	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Nitrophenol	8.9	U H	8.9		ug/L		11/12/14 16:29	11/18/14 16:05	1
4-Nitroquinoline-1-oxide	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
7,12-Dimethylbenz(a)anthracene	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Acenaphthene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Acenaphthylene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Acetophenone	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
alpha,alpha-Dimethyl phenethylamine	11	U H	11		ug/L		11/12/14 16:29	11/18/14 16:05	1

Client Sample ID: MW-29 (110314)

Lab Sample ID: 680-106875-7

Date Collected: 11/03/14 13:47

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Anthracene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Aramite, Total	2.2	U * H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Benzo[a]anthracene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Benzo[a]pyrene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Benzo[b]fluoranthene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Benzo[g,h,i]perylene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Benzo[k]fluoranthene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Benzyl alcohol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
bis (2-chloroisopropyl) ether	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Bis(2-chloroethoxy)methane	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Bis(2-chloroethyl)ether	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Bis(2-ethylhexyl) phthalate	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
Butyl benzyl phthalate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Chrysene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Diallate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Dibenz(a,h)anthracene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Dibenzofuran	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Diethyl phthalate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Dimethoate	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Dimethyl phthalate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Di-n-butyl phthalate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Di-n-octyl phthalate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Dinoseb	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Disulfoton	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Ethyl methanesulfonate	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Ethyl Parathion	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Famphur	1.1	U H *	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Fluoranthene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Fluorene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Hexachlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Hexachlorobutadiene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Hexachlorocyclopentadiene	2.2	U H *	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Hexachloroethane	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Hexachlorophene	550	U H *	550		ug/L		11/12/14 16:29	11/18/14 16:05	1
Hexachloropropene	1.1	U H *	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Indeno[1,2,3-cd]pyrene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Isophorone	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Isosafrole	1.1	U * H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Methapyrilene	220	U H	220		ug/L		11/12/14 16:29	11/18/14 16:05	1
Methyl methanesulfonate	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
Methyl parathion	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Naphthalene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Nitrobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitro-o-toluidine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosodiethylamine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosodimethylamine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosodi-n-butylamine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosodi-n-propylamine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-29 (110314)
Date Collected: 11/03/14 13:47
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-7
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosomethylethylamine	2.2	U H	2.2		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosomorpholine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosopiperidine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
N-Nitrosopyrrolidine	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
o,o',o''-Triethylphosphorothioate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
p-Dimethylamino azobenzene	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
Pentachlorobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Pentachloronitrobenzene	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Pentachlorophenol	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
Phenacetin	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Phenanthrene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Phenol	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Phorate	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
p-Phenylene diamine	220	U H *	220		ug/L		11/12/14 16:29	11/18/14 16:05	1
Pronamide	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Pyrene	0.22	U H	0.22		ug/L		11/12/14 16:29	11/18/14 16:05	1
Pyridine	5.5	U H	5.5		ug/L		11/12/14 16:29	11/18/14 16:05	1
Safrole, Total	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Sulfotepp	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1
Thionazin	1.1	U H	1.1		ug/L		11/12/14 16:29	11/18/14 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*73*		*27 - 130*	*11/12/14 16:29*	*11/18/14 16:05*	*1*
Nitrobenzene-d5 (Surr)	*76*		*32 - 130*	*11/12/14 16:29*	*11/18/14 16:05*	*1*
Terphenyl-d14 (Surr)	*87*		*36 - 130*	*11/12/14 16:29*	*11/18/14 16:05*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*30 - 130*	*11/12/14 16:29*	*11/18/14 16:05*	*1*
2-Fluorophenol (Surr)	*73*		*25 - 130*	*11/12/14 16:29*	*11/18/14 16:05*	*1*
2-Fluorobiphenyl	*74*		*34 - 130*	*11/12/14 16:29*	*11/18/14 16:05*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-F5 (110314)

Lab Sample ID: 680-106875-8

Date Collected: 11/03/14 14:40
Matrix: Water
Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/13/14 04:07	1
Acetonitrile	40	U	40		ug/L			11/13/14 04:07	1
Acrolein	20	U	20		ug/L			11/13/14 04:07	1
Acrylonitrile	20	U	20		ug/L			11/13/14 04:07	1
Allyl chloride	1.0	U	1.0		ug/L			11/13/14 04:07	1
Benzene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
Bromoform	1.0	U	1.0		ug/L			11/13/14 04:07	1
Bromomethane	5.0	U	5.0		ug/L			11/13/14 04:07	1
2-Butanone	10	U	10		ug/L			11/13/14 04:07	1
Carbon disulfide	2.0	U	2.0		ug/L			11/13/14 04:07	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/13/14 04:07	1
Chlorobenzene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Chloroethane	5.0	U	5.0		ug/L			11/13/14 04:07	1
Chloroform	1.0	U	1.0		ug/L			11/13/14 04:07	1
Chloromethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
Chloroprene	1.0	U	1.0		ug/L			11/13/14 04:07	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,2-Dibromo-3-Chloropropane	5.0	U *	5.0		ug/L			11/13/14 04:07	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
Dibromomethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,4-Dioxane	100	U	100		ug/L			11/13/14 04:07	1
Ethylbenzene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/13/14 04:07	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/13/14 04:07	1
2-Hexanone	10	U	10		ug/L			11/13/14 04:07	1
Iodomethane	10	U	10		ug/L			11/13/14 04:07	1
Isobutanol	50	U	50		ug/L			11/13/14 04:07	1
Methacrylonitrile	20	U	20		ug/L			11/13/14 04:07	1
Methylene Chloride	5.0	U	5.0		ug/L			11/13/14 04:07	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/13/14 04:07	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/13/14 04:07	1
Naphthalene	5.0	U	5.0		ug/L			11/13/14 04:07	1
Pentachloroethane	5.0	U	5.0		ug/L			11/13/14 04:07	1
Propionitrile	20	U	20		ug/L			11/13/14 04:07	1
Styrene	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Toluene	1.0	U	1.0		ug/L			11/13/14 04:07	1

Client Sample ID: MW-F5 (110314)

Lab Sample ID: 680-106875-8

Date Collected: 11/03/14 14:40

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/13/14 04:07	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 04:07	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/13/14 04:07	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
Trichloroethene	1.0	U	1.0		ug/L			11/13/14 04:07	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/13/14 04:07	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/13/14 04:07	1
Vinyl acetate	2.0	U	2.0		ug/L			11/13/14 04:07	1
Vinyl chloride	1.0	U	1.0		ug/L			11/13/14 04:07	1
Xylenes, Total	2.0	U	2.0		ug/L			11/13/14 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*11/13/14 04:07*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/13/14 04:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/13/14 04:07*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/13/14 04:07*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,2,4,5-Tetrachlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,2,4-Trichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,2-Dichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,3,5-Trinitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,3-Dichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,3-Dinitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,4-Dichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
1,4-Naphthoquinone	9.9	U *	9.9		ug/L		11/06/14 16:44	11/09/14 23:25	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,3,4,6-Tetrachlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,4,5-Trichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,4,6-Trichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,4-Dichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,4-Dinitrophenol	9.9	U	9.9		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,4-Dinitrotoluene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,6-Dichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2,6-Dinitrotoluene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Acetylaminofluorene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Chloronaphthalene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Chlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Nitroaniline	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Nitrophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
2-Picoline	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1

Client Sample ID: MW-F5 (110314)
Date Collected: 11/03/14 14:40
Date Received: 11/03/14 16:50

Lab Sample ID: 680-106875-8
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Toluidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
3,3'-Dichlorobenzidine	20	U *	20		ug/L		11/06/14 16:44	11/09/14 23:25	1
3,3'-Dimethylbenzidine	20	U *	20		ug/L		11/06/14 16:44	11/09/14 23:25	1
3-Methylcholanthrene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
3-Nitroaniline	5.0	U *	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Bromophenyl phenyl ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Chloro-3-methylphenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Chloroaniline	4.0	U *	4.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Chlorophenyl phenyl ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Nitroaniline	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Nitrophenol	8.0	U	8.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
7,12-Dimethylbenz(a)anthracene	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Acenaphthene	**12**		0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Acenaphthylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Acetophenone	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
alpha,alpha-Dimethyl phenethylamine	9.9	U	9.9		ug/L		11/06/14 16:44	11/09/14 23:25	1
Aniline	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Aramite, Total	2.0	U *	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Benzyl alcohol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
bis (2-chloroisopropyl) ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Bis(2-chloroethoxy)methane	0.99	U *	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Bis(2-chloroethyl)ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Butyl benzyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Chrysene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Diallate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Dibenzofuran	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Diethyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Dimethoate	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Dimethyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Di-n-butyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Di-n-octyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Dinoseb	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Disulfoton	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Famphur	0.99	U *	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1

Client Sample ID: MW-F5 (110314)

Lab Sample ID: 680-106875-8

Date Collected: 11/03/14 14:40

Matrix: Water

Date Received: 11/03/14 16:50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Hexachlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Hexachlorobutadiene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Hexachloroethane	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Hexachlorophene	500	U	500		ug/L		11/06/14 16:44	11/09/14 23:25	1
Hexachloropropene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Isophorone	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Isosafrole	0.99	U *	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Methapyrilene	200	U	200		ug/L		11/06/14 16:44	11/09/14 23:25	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Methyl parathion	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Naphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Nitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitro-o-toluidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosodiethylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosodimethylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosodi-n-butylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosodi-n-propylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosodiphenylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosomorpholine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosopiperidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
N-Nitrosopyrrolidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
o,o',o''-Triethylphosphorothioate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Pentachlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Pentachloronitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Phenacetin	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Phenanthrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Phenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Phorate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
p-Phenylene diamine	200	U	200		ug/L		11/06/14 16:44	11/09/14 23:25	1
Pronamide	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 23:25	1
Pyridine	5.0	U	5.0		ug/L		11/06/14 16:44	11/09/14 23:25	1
Safrole, Total	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Sulfotepp	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1
Thionazin	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*75*		*27 - 130*	*11/06/14 16:44*	*11/09/14 23:25*	*1*
Nitrobenzene-d5 (Surr)	*78*		*32 - 130*	*11/06/14 16:44*	*11/09/14 23:25*	*1*
Terphenyl-d14 (Surr)	*86*		*36 - 130*	*11/06/14 16:44*	*11/09/14 23:25*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*30 - 130*	*11/06/14 16:44*	*11/09/14 23:25*	*1*
2-Fluorophenol (Surr)	*68*		*25 - 130*	*11/06/14 16:44*	*11/09/14 23:25*	*1*
2-Fluorobiphenyl	*90*		*34 - 130*	*11/06/14 16:44*	*11/09/14 23:25*	*1*

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L	PCB-156L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-106875-4	MW-F3R (110314)	68	81	81	82	80	77	75	94
MB 320-57664/1-A	Method Blank	58	81	80	83	79	77	65	96

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-157L	PCB-15L	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-19L	PCB-1L
Lab Sample ID	Client Sample ID	(10-145)	(5-145)	(10-145)	(10-145)	(10-145)	(10-145)	(5-145)	(5-145)
680-106875-4	MW-F3R (110314)	94	75	91	88	74	81	74	53
MB 320-57664/1-A	Method Blank	96	71	93	90	67	81	71	54

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-202L	PCB-205L	PCB-206L	PCB-208L	PCB-209L	PCB-37L	PCB-3L	PCB-4L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(5-145)	(5-145)	(5-145)
680-106875-4	MW-F3R (110314)	82	84	82	87	78	77	64	67
MB 320-57664/1-A	Method Blank	80	88	88	88	83	69	64	66

		Percent Isotope Dilution Recovery (Acceptance Limits)			
		PCB-54L	PCB-77L	PCB-81L	CB-156L/15
Lab Sample ID	Client Sample ID	(5-145)	(10-145)	(10-145)	(10-145)
680-106875-4	MW-F3R (110314)	64	78	80	94
MB 320-57664/1-A	Method Blank	60	79	80	96

Surrogate Legend

PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L = PCB-156L
PCB-157L = PCB-157L
PCB-15L = PCB-15L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-19L = PCB-19L
PCB-1L = PCB-1L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L
PCB-37L = PCB-37L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-156L/157L = PCB-156L/157L

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L	PCB-156L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-57664/2-A	Lab Control Sample	59	76	77	78	77	74	69	94

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-157L	PCB-15L	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-19L	PCB-1L
Lab Sample ID	**Client Sample ID**	(40-145)	(15-145)	(40-145)	(40-145)	(40-145)	(40-145)	(15-145)	(15-145)
LCS 320-57664/2-A	Lab Control Sample	94	62	92	93	65	79	58	42

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-202L	PCB-205L	PCB-206L	PCB-208L	PCB-209L	PCB-37L	PCB-3L	PCB-4L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(15-145)	(15-145)	(15-145)
LCS 320-57664/2-A	Lab Control Sample	75	83	84	85	79	66	52	52

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-54L	PCB-77L	PCB-81L	CB-156L/15				
Lab Sample ID	**Client Sample ID**	(15-145)	(40-145)	(40-145)	(40-145)				
LCS 320-57664/2-A	Lab Control Sample	56	76	76	94				

Surrogate Legend

PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L = PCB-156L
PCB-157L = PCB-157L
PCB-15L = PCB-15L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-19L = PCB-19L
PCB-1L = PCB-1L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L
PCB-37L = PCB-37L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-156L/157L = PCB-156L/157L

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-358382/10
Matrix: Water
Analysis Batch: 358382

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/12/14 21:00	1
Acetonitrile	40	U	40		ug/L			11/12/14 21:00	1
Acrolein	20	U	20		ug/L			11/12/14 21:00	1
Acrylonitrile	20	U	20		ug/L			11/12/14 21:00	1
Allyl chloride	1.0	U	1.0		ug/L			11/12/14 21:00	1
Benzene	1.0	U	1.0		ug/L			11/12/14 21:00	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
Bromoform	1.0	U	1.0		ug/L			11/12/14 21:00	1
Bromomethane	5.0	U	5.0		ug/L			11/12/14 21:00	1
2-Butanone	10	U	10		ug/L			11/12/14 21:00	1
Carbon disulfide	2.0	U	2.0		ug/L			11/12/14 21:00	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/12/14 21:00	1
Chlorobenzene	1.0	U	1.0		ug/L			11/12/14 21:00	1
Chloroethane	5.0	U	5.0		ug/L			11/12/14 21:00	1
Chloroform	1.0	U	1.0		ug/L			11/12/14 21:00	1
Chloromethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
Chloroprene	1.0	U	1.0		ug/L			11/12/14 21:00	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/12/14 21:00	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/12/14 21:00	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
Dibromomethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/12/14 21:00	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,4-Dioxane	100	U	100		ug/L			11/12/14 21:00	1
Ethylbenzene	1.0	U	1.0		ug/L			11/12/14 21:00	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/12/14 21:00	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/12/14 21:00	1
2-Hexanone	10	U	10		ug/L			11/12/14 21:00	1
Iodomethane	10	U	10		ug/L			11/12/14 21:00	1
Isobutanol	50	U	50		ug/L			11/12/14 21:00	1
Methacrylonitrile	20	U	20		ug/L			11/12/14 21:00	1
Methylene Chloride	5.0	U	5.0		ug/L			11/12/14 21:00	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/12/14 21:00	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/12/14 21:00	1
Naphthalene	5.0	U	5.0		ug/L			11/12/14 21:00	1
Pentachloroethane	5.0	U	5.0		ug/L			11/12/14 21:00	1
Propionitrile	20	U	20		ug/L			11/12/14 21:00	1
Styrene	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/12/14 21:00	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-358382/10
Matrix: Water
Analysis Batch: 358382

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1.0	U	1.0		ug/L			11/12/14 21:00	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/12/14 21:00	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/12/14 21:00	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/12/14 21:00	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
Trichloroethene	1.0	U	1.0		ug/L			11/12/14 21:00	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/12/14 21:00	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/12/14 21:00	1
Vinyl acetate	2.0	U	2.0		ug/L			11/12/14 21:00	1
Vinyl chloride	1.0	U	1.0		ug/L			11/12/14 21:00	1
Xylenes, Total	2.0	U	2.0		ug/L			11/12/14 21:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*11/12/14 21:00*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*11/12/14 21:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*11/12/14 21:00*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/12/14 21:00*	*1*

Lab Sample ID: LCS 680-358382/5
Matrix: Water
Analysis Batch: 358382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	234		ug/L		93	39 - 162
Acrolein	1000	961		ug/L		96	50 - 150
Acrylonitrile	500	458		ug/L		92	50 - 150
Allyl chloride	50.0	44.3		ug/L		89	50 - 150
Benzene	50.0	44.9		ug/L		90	74 - 123
Bromodichloromethane	50.0	45.8		ug/L		92	72 - 129
Bromoform	50.0	43.0		ug/L		86	60 - 134
Bromomethane	50.0	53.7		ug/L		107	10 - 171
2-Butanone	250	230		ug/L		92	55 - 142
Carbon disulfide	50.0	42.3		ug/L		85	63 - 142
Carbon tetrachloride	50.0	47.3		ug/L		95	70 - 131
Chlorobenzene	50.0	45.1		ug/L		90	79 - 120
Chloroethane	50.0	51.3		ug/L		103	47 - 148
Chloroform	50.0	42.8		ug/L		86	76 - 128
Chloromethane	50.0	51.8		ug/L		104	47 - 151
cis-1,3-Dichloropropene	50.0	50.6		ug/L		101	73 - 128
Dibromochloromethane	50.0	49.2		ug/L		98	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	55.1		ug/L		110	57 - 126
1,2-Dibromoethane	50.0	48.5		ug/L		97	75 - 127
Dibromomethane	50.0	46.6		ug/L		93	75 - 122
1,2-Dichlorobenzene	50.0	45.0		ug/L		90	77 - 124
1,3-Dichlorobenzene	50.0	45.1		ug/L		90	79 - 123
1,4-Dichlorobenzene	50.0	44.6		ug/L		89	76 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-358382/5
Matrix: Water
Analysis Batch: 358382

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	47.2		ug/L		94	41 - 165
1,1-Dichloroethane	50.0	43.7		ug/L		87	69 - 132
1,2-Dichloroethane	50.0	45.6		ug/L		91	75 - 120
1,1-Dichloroethene	50.0	42.6		ug/L		85	73 - 134
1,2-Dichloropropane	50.0	46.2		ug/L		92	71 - 126
1,4-Dioxane	1000	1010		ug/L		101	43 - 190
Ethylbenzene	50.0	46.3		ug/L		93	78 - 125
Ethyl methacrylate	50.0	50.7		ug/L		101	50 - 150
Hexachlorobutadiene	50.0	46.2		ug/L		92	62 - 145
2-Hexanone	250	242		ug/L		97	52 - 149
Iodomethane	50.0	47.8		ug/L		96	50 - 150
Isobutanol	1250	1170		ug/L		93	50 - 150
Methylene Chloride	50.0	40.6		ug/L		81	79 - 124
4-Methyl-2-pentanone	250	248		ug/L		99	51 - 143
Naphthalene	50.0	53.3		ug/L		107	56 - 136
Styrene	50.0	48.2		ug/L		96	75 - 129
1,1,1,2-Tetrachloroethane	50.0	48.8		ug/L		98	68 - 132
1,1,2,2-Tetrachloroethane	50.0	49.8		ug/L		100	71 - 127
Tetrachloroethene	50.0	42.9		ug/L		86	77 - 128
Toluene	50.0	44.1		ug/L		88	77 - 125
trans-1,4-Dichloro-2-butene	50.0	50.0		ug/L		100	50 - 150
trans-1,2-Dichloroethene	50.0	43.5		ug/L		87	78 - 130
trans-1,3-Dichloropropene	50.0	51.1		ug/L		102	72 - 127
1,2,4-Trichlorobenzene	50.0	46.1		ug/L		92	67 - 134
1,1,1-Trichloroethane	50.0	44.1		ug/L		88	76 - 126
1,1,2-Trichloroethane	50.0	47.5		ug/L		95	69 - 127
Trichloroethene	50.0	45.4		ug/L		91	80 - 120
Trichlorofluoromethane	50.0	42.9		ug/L		86	66 - 144
1,2,3-Trichloropropane	50.0	50.0		ug/L		100	74 - 126
Vinyl acetate	100	71.1		ug/L		71	10 - 200
Vinyl chloride	50.0	43.4		ug/L		87	58 - 141
Xylenes, Total	100	93.6		ug/L		94	80 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
Dibromofluoromethane (Surr)	*91*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*

Lab Sample ID: LCSD 680-358382/6
Matrix: Water
Analysis Batch: 358382

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	250	277		ug/L		111	39 - 162	17	50
Acrolein	1000	1040		ug/L		104	50 - 150	8	50
Acrylonitrile	500	534		ug/L		107	50 - 150	15	50
Allyl chloride	50.0	55.0		ug/L		110	50 - 150	21	50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-358382/6
Matrix: Water
Analysis Batch: 358382

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
Benzene	50.0	51.3		ug/L		103	74 - 123	13	30
Bromodichloromethane	50.0	52.5		ug/L		105	72 - 129	14	30
Bromoform	50.0	51.0		ug/L		102	60 - 134	17	30
Bromomethane	50.0	68.9		ug/L		138	10 - 171	25	50
2-Butanone	250	292		ug/L		117	55 - 142	24	30
Carbon disulfide	50.0	46.7		ug/L		93	63 - 142	10	30
Carbon tetrachloride	50.0	54.3		ug/L		109	70 - 131	14	30
Chlorobenzene	50.0	51.8		ug/L		104	79 - 120	14	30
Chloroethane	50.0	58.9		ug/L		118	47 - 148	14	40
Chloroform	50.0	49.9		ug/L		100	76 - 128	15	30
Chloromethane	50.0	58.8		ug/L		118	47 - 151	13	30
cis-1,3-Dichloropropene	50.0	58.9		ug/L		118	73 - 128	15	30
Dibromochloromethane	50.0	58.5		ug/L		117	63 - 134	17	50
1,2-Dibromo-3-Chloropropane	50.0	68.4	*	ug/L		137	57 - 126	22	50
1,2-Dibromoethane	50.0	55.8		ug/L		112	75 - 127	14	30
Dibromomethane	50.0	52.3		ug/L		105	75 - 122	12	30
1,2-Dichlorobenzene	50.0	52.8		ug/L		106	77 - 124	16	30
1,3-Dichlorobenzene	50.0	52.1		ug/L		104	79 - 123	14	30
1,4-Dichlorobenzene	50.0	51.5		ug/L		103	76 - 124	14	30
Dichlorodifluoromethane	50.0	51.7		ug/L		103	41 - 165	9	50
1,1-Dichloroethane	50.0	49.1		ug/L		98	69 - 132	12	30
1,2-Dichloroethane	50.0	52.7		ug/L		105	75 - 120	14	30
1,1-Dichloroethene	50.0	47.8		ug/L		96	73 - 134	12	30
1,2-Dichloropropane	50.0	53.1		ug/L		106	71 - 126	14	30
1,4-Dioxane	1000	1230		ug/L		123	43 - 190	20	50
Ethylbenzene	50.0	53.5		ug/L		107	78 - 125	14	30
Ethyl methacrylate	50.0	59.6		ug/L		119	50 - 150	16	50
Hexachlorobutadiene	50.0	51.9		ug/L		104	62 - 145	12	30
2-Hexanone	250	283		ug/L		113	52 - 149	15	30
Iodomethane	50.0	59.9		ug/L		120	50 - 150	22	50
Isobutanol	1250	1420		ug/L		113	50 - 150	19	50
Methylene Chloride	50.0	49.3		ug/L		99	79 - 124	19	30
4-Methyl-2-pentanone	250	293		ug/L		117	51 - 143	17	30
Naphthalene	50.0	63.8		ug/L		128	56 - 136	18	30
Styrene	50.0	55.7		ug/L		111	75 - 129	14	30
1,1,1,2-Tetrachloroethane	50.0	57.7		ug/L		115	68 - 132	17	30
1,1,2,2-Tetrachloroethane	50.0	58.4		ug/L		117	71 - 127	16	30
Tetrachloroethene	50.0	48.8		ug/L		98	77 - 128	13	30
Toluene	50.0	49.7		ug/L		99	77 - 125	12	30
trans-1,4-Dichloro-2-butene	50.0	60.9		ug/L		122	50 - 150	20	50
trans-1,2-Dichloroethene	50.0	50.5		ug/L		101	78 - 130	15	30
trans-1,3-Dichloropropene	50.0	60.6		ug/L		121	72 - 127	17	50
1,2,4-Trichlorobenzene	50.0	56.0		ug/L		112	67 - 134	19	30
1,1,1-Trichloroethane	50.0	50.4		ug/L		101	76 - 126	13	30
1,1,2-Trichloroethane	50.0	54.3		ug/L		109	69 - 127	13	30
Trichloroethene	50.0	52.6		ug/L		105	80 - 120	15	30
Trichlorofluoromethane	50.0	44.7		ug/L		89	66 - 144	4	30
1,2,3-Trichloropropane	50.0	53.7		ug/L		107	74 - 126	7	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-358382/6
Matrix: Water
Analysis Batch: 358382

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
Vinyl acetate			100	89.0		ug/L		89	10 - 200	22	30
Vinyl chloride			50.0	50.5		ug/L		101	58 - 141	15	30
Xylenes, Total			100	107		ug/L		107	80 - 124	14	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 680-358434/10
Matrix: Water
Analysis Batch: 358434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/13/14 13:10	1
Acetonitrile	40	U	40		ug/L			11/13/14 13:10	1
Acrolein	20	U	20		ug/L			11/13/14 13:10	1
Acrylonitrile	20	U	20		ug/L			11/13/14 13:10	1
Allyl chloride	1.0	U	1.0		ug/L			11/13/14 13:10	1
Benzene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
Bromoform	1.0	U	1.0		ug/L			11/13/14 13:10	1
Bromomethane	5.0	U	5.0		ug/L			11/13/14 13:10	1
2-Butanone	10	U	10		ug/L			11/13/14 13:10	1
Carbon disulfide	2.0	U	2.0		ug/L			11/13/14 13:10	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/13/14 13:10	1
Chlorobenzene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Chloroethane	5.0	U	5.0		ug/L			11/13/14 13:10	1
Chloroform	1.0	U	1.0		ug/L			11/13/14 13:10	1
Chloromethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
Chloroprene	1.0	U	1.0		ug/L			11/13/14 13:10	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/13/14 13:10	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
Dibromomethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,4-Dioxane	100	U	100		ug/L			11/13/14 13:10	1
Ethylbenzene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/13/14 13:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-358434/10
Matrix: Water
Analysis Batch: 358434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/13/14 13:10	1
2-Hexanone	10	U	10		ug/L			11/13/14 13:10	1
Iodomethane	10	U	10		ug/L			11/13/14 13:10	1
Isobutanol	50	U	50		ug/L			11/13/14 13:10	1
Methacrylonitrile	20	U	20		ug/L			11/13/14 13:10	1
Methylene Chloride	5.0	U	5.0		ug/L			11/13/14 13:10	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/13/14 13:10	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/13/14 13:10	1
Naphthalene	5.0	U	5.0		ug/L			11/13/14 13:10	1
Pentachloroethane	5.0	U	5.0		ug/L			11/13/14 13:10	1
Propionitrile	20	U	20		ug/L			11/13/14 13:10	1
Styrene	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Toluene	1.0	U	1.0		ug/L			11/13/14 13:10	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/13/14 13:10	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/13/14 13:10	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/13/14 13:10	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
Trichloroethene	1.0	U	1.0		ug/L			11/13/14 13:10	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/13/14 13:10	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/13/14 13:10	1
Vinyl acetate	2.0	U	2.0		ug/L			11/13/14 13:10	1
Vinyl chloride	1.0	U	1.0		ug/L			11/13/14 13:10	1
Xylenes, Total	2.0	U	2.0		ug/L			11/13/14 13:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*11/13/14 13:10*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*11/13/14 13:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*11/13/14 13:10*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/13/14 13:10*	*1*

Lab Sample ID: LCS 680-358434/5
Matrix: Water
Analysis Batch: 358434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	264		ug/L		106	39 - 162
Acrolein	1000	1080		ug/L		108	50 - 150
Acrylonitrile	500	523		ug/L		105	50 - 150
Allyl chloride	50.0	48.4		ug/L		97	50 - 150
Benzene	50.0	51.3		ug/L		103	74 - 123
Bromodichloromethane	50.0	54.2		ug/L		108	72 - 129
Bromoform	50.0	49.4		ug/L		99	60 - 134
Bromomethane	50.0	68.1		ug/L		136	10 - 171

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-358434/5
Matrix: Water
Analysis Batch: 358434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone	250	272		ug/L		109	55 - 142
Carbon disulfide	50.0	45.7		ug/L		91	63 - 142
Carbon tetrachloride	50.0	52.0		ug/L		104	70 - 131
Chlorobenzene	50.0	51.2		ug/L		102	79 - 120
Chloroethane	50.0	57.6		ug/L		115	47 - 148
Chloroform	50.0	51.7		ug/L		103	76 - 128
Chloromethane	50.0	55.2		ug/L		110	47 - 151
cis-1,3-Dichloropropene	50.0	59.3		ug/L		119	73 - 128
Dibromochloromethane	50.0	59.0		ug/L		118	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	60.0		ug/L		120	57 - 126
1,2-Dibromoethane	50.0	55.2		ug/L		110	75 - 127
Dibromomethane	50.0	54.4		ug/L		109	75 - 122
1,2-Dichlorobenzene	50.0	50.5		ug/L		101	77 - 124
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	79 - 123
1,4-Dichlorobenzene	50.0	49.8		ug/L		100	76 - 124
Dichlorodifluoromethane	50.0	45.7		ug/L		91	41 - 165
1,1-Dichloroethane	50.0	49.5		ug/L		99	69 - 132
1,2-Dichloroethane	50.0	52.8		ug/L		106	75 - 120
1,1-Dichloroethene	50.0	46.8		ug/L		94	73 - 134
1,2-Dichloropropane	50.0	54.0		ug/L		108	71 - 126
1,4-Dioxane	1000	1120		ug/L		112	43 - 190
Ethylbenzene	50.0	51.5		ug/L		103	78 - 125
Ethyl methacrylate	50.0	57.8		ug/L		116	50 - 150
Hexachlorobutadiene	50.0	50.7		ug/L		101	62 - 145
2-Hexanone	250	279		ug/L		112	52 - 149
Iodomethane	50.0	58.2		ug/L		116	50 - 150
Isobutanol	1250	1380		ug/L		110	50 - 150
Methylene Chloride	50.0	48.7		ug/L		97	79 - 124
4-Methyl-2-pentanone	250	291		ug/L		117	51 - 143
Naphthalene	50.0	59.7		ug/L		119	56 - 136
Styrene	50.0	55.1		ug/L		110	75 - 129
1,1,1,2-Tetrachloroethane	50.0	56.6		ug/L		113	68 - 132
1,1,2,2-Tetrachloroethane	50.0	56.8		ug/L		114	71 - 127
Tetrachloroethene	50.0	48.7		ug/L		97	77 - 128
Toluene	50.0	50.7		ug/L		101	77 - 125
trans-1,4-Dichloro-2-butene	50.0	59.4		ug/L		119	50 - 150
trans-1,2-Dichloroethene	50.0	49.7		ug/L		99	78 - 130
trans-1,3-Dichloropropene	50.0	60.5		ug/L		121	72 - 127
1,2,4-Trichlorobenzene	50.0	52.6		ug/L		105	67 - 134
1,1,1-Trichloroethane	50.0	50.6		ug/L		101	76 - 126
1,1,2-Trichloroethane	50.0	53.7		ug/L		107	69 - 127
Trichloroethene	50.0	50.6		ug/L		101	80 - 120
Trichlorofluoromethane	50.0	46.2		ug/L		92	66 - 144
1,2,3-Trichloropropane	50.0	51.9		ug/L		104	74 - 126
Vinyl acetate	100	82.9		ug/L		83	10 - 200
Vinyl chloride	50.0	45.7		ug/L		91	58 - 141
Xylenes, Total	100	107		ug/L		107	80 - 124

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-358434/5
Matrix: Water
Analysis Batch: 358434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 680-358434/6
Matrix: Water
Analysis Batch: 358434

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	250	254		ug/L		102	39 - 162	4	50
Acrolein	1000	1020		ug/L		102	50 - 150	5	50
Acrylonitrile	500	465		ug/L		93	50 - 150	12	50
Allyl chloride	50.0	41.8		ug/L		84	50 - 150	15	50
Benzene	50.0	48.1		ug/L		96	74 - 123	6	30
Bromodichloromethane	50.0	49.9		ug/L		100	72 - 129	8	30
Bromoform	50.0	45.7		ug/L		91	60 - 134	8	30
Bromomethane	50.0	58.4		ug/L		117	10 - 171	15	50
2-Butanone	250	261		ug/L		105	55 - 142	4	30
Carbon disulfide	50.0	42.3		ug/L		85	63 - 142	8	30
Carbon tetrachloride	50.0	48.6		ug/L		97	70 - 131	7	30
Chlorobenzene	50.0	49.2		ug/L		98	79 - 120	4	30
Chloroethane	50.0	56.8		ug/L		114	47 - 148	1	40
Chloroform	50.0	45.8		ug/L		92	76 - 128	12	30
Chloromethane	50.0	53.1		ug/L		106	47 - 151	4	30
cis-1,3-Dichloropropene	50.0	56.0		ug/L		112	73 - 128	6	30
Dibromochloromethane	50.0	54.1		ug/L		108	63 - 134	9	50
1,2-Dibromo-3-Chloropropane	50.0	58.8		ug/L		118	57 - 126	2	50
1,2-Dibromoethane	50.0	51.2		ug/L		102	75 - 127	8	30
Dibromomethane	50.0	49.1		ug/L		98	75 - 122	10	30
1,2-Dichlorobenzene	50.0	48.3		ug/L		97	77 - 124	4	30
1,3-Dichlorobenzene	50.0	48.3		ug/L		97	79 - 123	4	30
1,4-Dichlorobenzene	50.0	47.7		ug/L		95	76 - 124	4	30
Dichlorodifluoromethane	50.0	41.7		ug/L		83	41 - 165	9	50
1,1-Dichloroethane	50.0	45.7		ug/L		91	69 - 132	8	30
1,2-Dichloroethane	50.0	47.2		ug/L		94	75 - 120	11	30
1,1-Dichloroethene	50.0	42.4		ug/L		85	73 - 134	10	30
1,2-Dichloropropane	50.0	50.0		ug/L		100	71 - 126	8	30
1,4-Dioxane	1000	1120		ug/L		112	43 - 190	0	50
Ethylbenzene	50.0	49.8		ug/L		100	78 - 125	3	30
Ethyl methacrylate	50.0	54.1		ug/L		108	50 - 150	7	50
Hexachlorobutadiene	50.0	48.6		ug/L		97	62 - 145	4	30
2-Hexanone	250	260		ug/L		104	52 - 149	7	30
Iodomethane	50.0	55.5		ug/L		111	50 - 150	5	50
Isobutanol	1250	1330		ug/L		106	50 - 150	4	50
Methylene Chloride	50.0	47.4		ug/L		95	79 - 124	3	30
4-Methyl-2-pentanone	250	268		ug/L		107	51 - 143	8	30
Naphthalene	50.0	59.0		ug/L		118	56 - 136	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-358434/6
Matrix: Water
Analysis Batch: 358434

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	52.2		ug/L		104	75 - 129	5	30
1,1,1,2-Tetrachloroethane	50.0	54.2		ug/L		108	68 - 132	4	30
1,1,2,2-Tetrachloroethane	50.0	54.1		ug/L		108	71 - 127	5	30
Tetrachloroethene	50.0	45.8		ug/L		92	77 - 128	6	30
Toluene	50.0	46.2		ug/L		92	77 - 125	9	30
trans-1,4-Dichloro-2-butene	50.0	55.8		ug/L		112	50 - 150	6	50
trans-1,2-Dichloroethene	50.0	45.7		ug/L		91	78 - 130	8	30
trans-1,3-Dichloropropene	50.0	55.5		ug/L		111	72 - 127	9	50
1,2,4-Trichlorobenzene	50.0	51.3		ug/L		103	67 - 134	3	30
1,1,1-Trichloroethane	50.0	44.9		ug/L		90	76 - 126	12	30
1,1,2-Trichloroethane	50.0	52.0		ug/L		104	69 - 127	3	30
Trichloroethene	50.0	48.8		ug/L		98	80 - 120	4	30
Trichlorofluoromethane	50.0	41.6		ug/L		83	66 - 144	11	30
1,2,3-Trichloropropane	50.0	54.0		ug/L		108	74 - 126	4	30
Vinyl acetate	100	82.1		ug/L		82	10 - 200	1	30
Vinyl chloride	50.0	43.7		ug/L		87	58 - 141	4	30
Xylenes, Total	100	101		ug/L		101	80 - 124	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 680-358664/9
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/14/14 11:24	1
Acetonitrile	40	U	40		ug/L			11/14/14 11:24	1
Acrolein	20	U	20		ug/L			11/14/14 11:24	1
Acrylonitrile	20	U	20		ug/L			11/14/14 11:24	1
Allyl chloride	1.0	U	1.0		ug/L			11/14/14 11:24	1
Benzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Bromoform	1.0	U	1.0		ug/L			11/14/14 11:24	1
Bromomethane	5.0	U	5.0		ug/L			11/14/14 11:24	1
2-Butanone	10	U	10		ug/L			11/14/14 11:24	1
Carbon disulfide	2.0	U	2.0		ug/L			11/14/14 11:24	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chloroethane	5.0	U	5.0		ug/L			11/14/14 11:24	1
Chloroform	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chloromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chloroprene	1.0	U	1.0		ug/L			11/14/14 11:24	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-358664/9
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/14/14 11:24	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Dibromomethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,4-Dioxane	100	U	100		ug/L			11/14/14 11:24	1
Ethylbenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/14/14 11:24	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/14/14 11:24	1
2-Hexanone	10	U	10		ug/L			11/14/14 11:24	1
Iodomethane	10	U	10		ug/L			11/14/14 11:24	1
Isobutanol	50	U	50		ug/L			11/14/14 11:24	1
Methacrylonitrile	20	U	20		ug/L			11/14/14 11:24	1
Methylene Chloride	5.0	U	5.0		ug/L			11/14/14 11:24	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/14/14 11:24	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/14/14 11:24	1
Naphthalene	5.0	U	5.0		ug/L			11/14/14 11:24	1
Pentachloroethane	5.0	U	5.0		ug/L			11/14/14 11:24	1
Propionitrile	20	U	20		ug/L			11/14/14 11:24	1
Styrene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Toluene	1.0	U	1.0		ug/L			11/14/14 11:24	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/14/14 11:24	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/14/14 11:24	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Trichloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Vinyl acetate	2.0	U	2.0		ug/L			11/14/14 11:24	1
Vinyl chloride	1.0	U	1.0		ug/L			11/14/14 11:24	1
Xylenes, Total	2.0	U	2.0		ug/L			11/14/14 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/14/14 11:24*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*		*11/14/14 11:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*11/14/14 11:24*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/14/14 11:24*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-358664/4
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	248		ug/L		99	39 - 162
Acrolein	1000	800		ug/L		80	50 - 150
Acrylonitrile	500	520		ug/L		104	50 - 150
Allyl chloride	50.0	51.0		ug/L		102	50 - 150
Benzene	50.0	48.6		ug/L		97	74 - 123
Bromodichloromethane	50.0	56.2		ug/L		112	72 - 129
Bromoform	50.0	55.4		ug/L		111	60 - 134
Bromomethane	50.0	50.9		ug/L		102	10 - 171
2-Butanone	250	247		ug/L		99	55 - 142
Carbon disulfide	50.0	54.0		ug/L		108	63 - 142
Carbon tetrachloride	50.0	55.9		ug/L		112	70 - 131
Chlorobenzene	50.0	48.6		ug/L		97	79 - 120
Chloroethane	50.0	58.1		ug/L		116	47 - 148
Chloroform	50.0	52.9		ug/L		106	76 - 128
Chloromethane	50.0	56.5		ug/L		113	47 - 151
cis-1,3-Dichloropropene	50.0	53.9		ug/L		108	73 - 128
Dibromochloromethane	50.0	58.4		ug/L		117	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	55.2		ug/L		110	57 - 126
1,2-Dibromoethane	50.0	50.9		ug/L		102	75 - 127
Dibromomethane	50.0	53.0		ug/L		106	75 - 122
1,2-Dichlorobenzene	50.0	50.8		ug/L		102	77 - 124
1,3-Dichlorobenzene	50.0	49.7		ug/L		99	79 - 123
1,4-Dichlorobenzene	50.0	48.8		ug/L		98	76 - 124
Dichlorodifluoromethane	50.0	53.5		ug/L		107	41 - 165
1,1-Dichloroethane	50.0	54.0		ug/L		108	69 - 132
1,2-Dichloroethane	50.0	52.6		ug/L		105	75 - 120
1,1-Dichloroethene	50.0	52.0		ug/L		104	73 - 134
1,2-Dichloropropane	50.0	48.3		ug/L		97	71 - 126
1,4-Dioxane	1000	1270		ug/L		127	43 - 190
Ethylbenzene	50.0	50.7		ug/L		101	78 - 125
Ethyl methacrylate	50.0	51.9		ug/L		104	50 - 150
Hexachlorobutadiene	50.0	55.0		ug/L		110	62 - 145
2-Hexanone	250	257		ug/L		103	52 - 149
Iodomethane	50.0	42.9		ug/L		86	50 - 150
Isobutanol	1250	1390		ug/L		111	50 - 150
Methylene Chloride	50.0	49.3		ug/L		99	79 - 124
4-Methyl-2-pentanone	250	254		ug/L		101	51 - 143
Naphthalene	50.0	52.1		ug/L		104	56 - 136
Styrene	50.0	52.8		ug/L		106	75 - 129
1,1,1,2-Tetrachloroethane	50.0	57.0		ug/L		114	68 - 132
1,1,2,2-Tetrachloroethane	50.0	53.3		ug/L		107	71 - 127
Tetrachloroethene	50.0	50.1		ug/L		100	77 - 128
Toluene	50.0	47.8		ug/L		96	77 - 125
trans-1,4-Dichloro-2-butene	50.0	57.5		ug/L		115	50 - 150
trans-1,2-Dichloroethene	50.0	54.5		ug/L		109	78 - 130
trans-1,3-Dichloropropene	50.0	54.2		ug/L		108	72 - 127
1,2,4-Trichlorobenzene	50.0	53.7		ug/L		107	67 - 134
1,1,1-Trichloroethane	50.0	53.9		ug/L		108	76 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-358664/4
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	50.0	48.9		ug/L		98	69 - 127
Trichloroethene	50.0	51.4		ug/L		103	80 - 120
Trichlorofluoromethane	50.0	64.2		ug/L		128	66 - 144
1,2,3-Trichloropropane	50.0	55.9		ug/L		112	74 - 126
Vinyl acetate	100	104		ug/L		104	10 - 200
Vinyl chloride	50.0	54.6		ug/L		109	58 - 141
Xylenes, Total	100	104		ug/L		104	80 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 680-358664/5
Matrix: Water
Analysis Batch: 358664

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	250	230		ug/L		92	39 - 162	7	50
Acrolein	1000	686		ug/L		69	50 - 150	15	50
Acrylonitrile	500	544		ug/L		109	50 - 150	4	50
Allyl chloride	50.0	58.5		ug/L		117	50 - 150	14	50
Benzene	50.0	48.6		ug/L		97	74 - 123	0	30
Bromodichloromethane	50.0	57.7		ug/L		115	72 - 129	3	30
Bromoform	50.0	55.5		ug/L		111	60 - 134	0	30
Bromomethane	50.0	56.8		ug/L		114	10 - 171	11	50
2-Butanone	250	255		ug/L		102	55 - 142	3	30
Carbon disulfide	50.0	58.2		ug/L		116	63 - 142	7	30
Carbon tetrachloride	50.0	57.2		ug/L		114	70 - 131	2	30
Chlorobenzene	50.0	48.1		ug/L		96	79 - 120	1	30
Chloroethane	50.0	60.4		ug/L		121	47 - 148	4	40
Chloroform	50.0	54.8		ug/L		110	76 - 128	4	30
Chloromethane	50.0	60.5		ug/L		121	47 - 151	7	30
cis-1,3-Dichloropropene	50.0	52.4		ug/L		105	73 - 128	3	30
Dibromochloromethane	50.0	59.7		ug/L		119	63 - 134	2	50
1,2-Dibromo-3-Chloropropane	50.0	53.5		ug/L		107	57 - 126	3	50
1,2-Dibromoethane	50.0	51.0		ug/L		102	75 - 127	0	30
Dibromomethane	50.0	52.8		ug/L		106	75 - 122	0	30
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	77 - 124	2	30
1,3-Dichlorobenzene	50.0	48.7		ug/L		97	79 - 123	2	30
1,4-Dichlorobenzene	50.0	48.5		ug/L		97	76 - 124	1	30
Dichlorodifluoromethane	50.0	69.3		ug/L		139	41 - 165	26	50
1,1-Dichloroethane	50.0	55.1		ug/L		110	69 - 132	2	30
1,2-Dichloroethane	50.0	53.6		ug/L		107	75 - 120	2	30
1,1-Dichloroethene	50.0	49.9		ug/L		100	73 - 134	4	30
1,2-Dichloropropane	50.0	47.8		ug/L		96	71 - 126	1	30
1,4-Dioxane	1000	1250		ug/L		125	43 - 190	2	50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-358664/5
Matrix: Water
Analysis Batch: 358664

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
Ethylbenzene	50.0	51.0		ug/L		102	78 - 125	1	30
Ethyl methacrylate	50.0	51.2		ug/L		102	50 - 150	1	50
Hexachlorobutadiene	50.0	52.7		ug/L		105	62 - 145	4	30
2-Hexanone	250	264		ug/L		105	52 - 149	3	30
Iodomethane	50.0	45.8		ug/L		92	50 - 150	7	50
Isobutanol	1250	1370		ug/L		109	50 - 150	2	50
Methylene Chloride	50.0	51.9		ug/L		104	79 - 124	5	30
4-Methyl-2-pentanone	250	253		ug/L		101	51 - 143	0	30
Naphthalene	50.0	52.0		ug/L		104	56 - 136	0	30
Styrene	50.0	54.9		ug/L		110	75 - 129	4	30
1,1,1,2-Tetrachloroethane	50.0	56.7		ug/L		113	68 - 132	1	30
1,1,2,2-Tetrachloroethane	50.0	53.7		ug/L		107	71 - 127	1	30
Tetrachloroethene	50.0	49.3		ug/L		99	77 - 128	1	30
Toluene	50.0	46.8		ug/L		94	77 - 125	2	30
trans-1,4-Dichloro-2-butene	50.0	57.6		ug/L		115	50 - 150	0	50
trans-1,2-Dichloroethene	50.0	57.3		ug/L		115	78 - 130	5	30
trans-1,3-Dichloropropene	50.0	50.1		ug/L		100	72 - 127	8	50
1,2,4-Trichlorobenzene	50.0	54.3		ug/L		109	67 - 134	1	30
1,1,1-Trichloroethane	50.0	55.8		ug/L		112	76 - 126	3	30
1,1,2-Trichloroethane	50.0	49.8		ug/L		100	69 - 127	2	30
Trichloroethene	50.0	50.6		ug/L		101	80 - 120	1	30
Trichlorofluoromethane	50.0	66.6		ug/L		133	66 - 144	4	30
1,2,3-Trichloropropane	50.0	55.3		ug/L		111	74 - 126	1	30
Vinyl acetate	100	74.0	*	ug/L		74	10 - 200	34	30
Vinyl chloride	50.0	55.4		ug/L		111	58 - 141	2	30
Xylenes, Total	100	104		ug/L		104	80 - 124	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-357009/10-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357009/10-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
1,4-Naphthoquinone	10	U ^	10		ug/L		11/05/14 16:49	11/10/14 19:11	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,4-Dinitrophenol	10	U	10		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Methylphenol	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Picoline	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
2-Toluidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/05/14 16:49	11/10/14 19:11	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/05/14 16:49	11/10/14 19:11	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Chloroaniline	4.0	U	4.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Nitroaniline	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Nitrophenol	8.0	U	8.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
7,12-Dimethylbenz(a)anthracene	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Acenaphthene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Acenaphthylene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Acetophenone	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/05/14 16:49	11/10/14 19:11	1
Aniline	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Anthracene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Aramite, Total	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357009/10-A | **Client Sample ID: Method Blank**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 357829 | **Prep Batch: 357009**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Chrysene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Diallate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Dibenzofuran	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Dimethoate	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Dinoseb	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Disulfoton	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Famphur	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Fluoranthene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Fluorene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Hexachloroethane	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Hexachlorophene	500	U	500		ug/L		11/05/14 16:49	11/10/14 19:11	1
Hexachloropropene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Isophorone	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Isosafrole	1.0	U ^	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Methapyrilene	200	U	200		ug/L		11/05/14 16:49	11/10/14 19:11	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Methyl parathion	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Naphthalene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Nitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357009/10-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357009**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Phenacetin	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Phenanthrene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Phenol	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Phorate	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
p-Phenylene diamine	200	U	200		ug/L		11/05/14 16:49	11/10/14 19:11	1
Pronamide	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Pyrene	0.20	U	0.20		ug/L		11/05/14 16:49	11/10/14 19:11	1
Pyridine	5.0	U	5.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Safrole, Total	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Sulfotepp	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1
Thionazin	1.0	U	1.0		ug/L		11/05/14 16:49	11/10/14 19:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*103*		*27 - 130*	*11/05/14 16:49*	*11/10/14 19:11*	*1*
Nitrobenzene-d5 (Surr)	*93*		*32 - 130*	*11/05/14 16:49*	*11/10/14 19:11*	*1*
Terphenyl-d14 (Surr)	*111*		*36 - 130*	*11/05/14 16:49*	*11/10/14 19:11*	*1*
2,4,6-Tribromophenol (Surr)	*117*		*30 - 130*	*11/05/14 16:49*	*11/10/14 19:11*	*1*
2-Fluorophenol (Surr)	*105*		*25 - 130*	*11/05/14 16:49*	*11/10/14 19:11*	*1*
2-Fluorobiphenyl	*101*		*34 - 130*	*11/05/14 16:49*	*11/10/14 19:11*	*1*

Lab Sample ID: LCS 680-357009/11-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357718 — **Prep Batch: 357009**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	10.0	9.00		ug/L		90	50 - 130
1,2,4,5-Tetrachlorobenzene	10.0	7.71		ug/L		77	10 - 130
1,2,4-Trichlorobenzene	10.0	7.69		ug/L		77	39 - 130
1,2-Dichlorobenzene	10.0	7.21		ug/L		72	36 - 130
1,3-Dichlorobenzene	10.0	6.96		ug/L		70	31 - 130
1,3-Dinitrobenzene	10.0	9.52		ug/L		95	10 - 130
1,4-Dichlorobenzene	10.0	7.18		ug/L		72	34 - 130
1,4-Dioxane	10.0	5.93		ug/L		59	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	9.22		ug/L		92	10 - 130
2,4,5-Trichlorophenol	10.0	9.23		ug/L		92	61 - 130
2,4,6-Trichlorophenol	10.0	9.42		ug/L		94	61 - 130
2,4-Dichlorophenol	10.0	10.1		ug/L		101	58 - 130
2,4-Dimethylphenol	10.0	7.62		ug/L		76	41 - 130
2,4-Dinitrophenol	20.0	21.1		ug/L		106	10 - 200
2,4-Dinitrotoluene	10.0	9.85		ug/L		99	57 - 130
2,6-Dinitrotoluene	10.0	9.38		ug/L		94	53 - 130
2-Chloronaphthalene	10.0	8.58		ug/L		86	48 - 130
2-Chlorophenol	10.0	8.80		ug/L		88	45 - 130
2-Methylnaphthalene	10.0	8.56		ug/L		86	51 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357009/11-A
Matrix: Water
Analysis Batch: 357718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylphenol	10.0	9.60		ug/L		96	49 - 130
2-Nitroaniline	10.0	8.25		ug/L		82	48 - 130
2-Nitrophenol	10.0	9.94		ug/L		99	49 - 130
3 & 4 Methylphenol	10.0	10.4		ug/L		104	55 - 130
3,3'-Dichlorobenzidine	30.0	22.2	E	ug/L		74	10 - 158
3,3'-Dimethylbenzidine	20.0	5.0	U	ug/L		23	10 - 130
3-Nitroaniline	10.0	6.39		ug/L		64	18 - 147
4,6-Dinitro-2-methylphenol	20.0	22.6		ug/L		113	10 - 182
4-Bromophenyl phenyl ether	10.0	10.2		ug/L		102	44 - 130
4-Chloro-3-methylphenol	10.0	9.06		ug/L		91	54 - 130
4-Chloroaniline	10.0	4.51		ug/L		45	17 - 130
4-Chlorophenyl phenyl ether	10.0	9.98		ug/L		100	52 - 130
4-Nitroaniline	10.0	10.2		ug/L		102	31 - 147
4-Nitrophenol	20.0	16.8		ug/L		84	36 - 132
Acenaphthene	10.0	9.07		ug/L		91	42 - 130
Acenaphthylene	10.0	8.78		ug/L		88	45 - 130
Acetophenone	10.0	9.98		ug/L		100	45 - 130
Aniline	10.0	7.98		ug/L		80	10 - 130
Anthracene	10.0	10.4		ug/L		104	58 - 130
Benzo[a]anthracene	10.0	9.42		ug/L		94	42 - 143
Benzo[a]pyrene	10.0	10.2		ug/L		102	45 - 151
Benzo[b]fluoranthene	10.0	11.3		ug/L		113	41 - 140
Benzo[g,h,i]perylene	10.0	7.85		ug/L		78	27 - 134
Benzo[k]fluoranthene	10.0	11.5		ug/L		115	45 - 140
Benzyl alcohol	10.0	9.72		ug/L		97	34 - 130
bis (2-chloroisopropyl) ether	10.0	7.45		ug/L		75	39 - 130
Bis(2-chloroethoxy)methane	10.0	9.29		ug/L		93	47 - 130
Bis(2-chloroethyl)ether	10.0	8.76		ug/L		88	36 - 130
Bis(2-ethylhexyl) phthalate	10.0	10.8		ug/L		108	10 - 158
Butyl benzyl phthalate	10.0	10.5		ug/L		105	60 - 130
Chrysene	10.0	10.4		ug/L		104	40 - 142
Dibenz(a,h)anthracene	10.0	9.00		ug/L		90	38 - 130
Dibenzofuran	10.0	9.16		ug/L		92	56 - 130
Diethyl phthalate	10.0	10.8		ug/L		108	60 - 130
Dimethyl phthalate	10.0	9.18		ug/L		92	58 - 130
Di-n-butyl phthalate	10.0	11.5		ug/L		115	59 - 130
Di-n-octyl phthalate	10.0	10.3		ug/L		103	19 - 130
Fluoranthene	10.0	11.3		ug/L		113	46 - 136
Fluorene	10.0	10.2		ug/L		102	48 - 130
Hexachlorobenzene	10.0	10.4		ug/L		104	49 - 130
Hexachlorobutadiene	10.0	6.85		ug/L		69	36 - 130
Hexachlorocyclopentadiene	10.0	1.14	J *	ug/L		11	16 - 130
Hexachloroethane	10.0	6.39		ug/L		64	32 - 130
Indeno[1,2,3-cd]pyrene	10.0	7.88		ug/L		79	12 - 130
Isophorone	10.0	8.20		ug/L		82	45 - 130
Naphthalene	10.0	9.03		ug/L		90	35 - 130
Nitrobenzene	10.0	8.98		ug/L		90	45 - 130
N-Nitrosodimethylamine	10.0	7.13		ug/L		71	29 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357009/11-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357718 — **Prep Batch: 357009**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodi-n-propylamine	10.0	8.56		ug/L		86	42 - 130
N-Nitrosodiphenylamine	10.0	10.1		ug/L		101	38 - 130
Pentachlorophenol	20.0	19.1		ug/L		95	12 - 156
Phenanthrene	10.0	10.6		ug/L		106	45 - 134
Phenol	10.0	9.04		ug/L		90	44 - 130
Pyrene	10.0	9.32		ug/L		93	47 - 143
Pyridine	10.0	5.64		ug/L		56	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*91*		*27 - 130*
Nitrobenzene-d5 (Surr)	*88*		*32 - 130*
Terphenyl-d14 (Surr)	*96*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*96*		*30 - 130*
2-Fluorophenol (Surr)	*86*		*25 - 130*
2-Fluorobiphenyl	*91*		*34 - 130*

Lab Sample ID: LCS 680-357009/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357009**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	6.25		ug/L		62	10 - 130
1,3,5-Trinitrobenzene	10.0	7.91		ug/L		79	10 - 130
1,3-Dinitrobenzene	10.0	8.93		ug/L		89	10 - 130
1,4-Naphthoquinone	10.0	5.0	U ^ *	ug/L		4	10 - 130
1-Naphthylamine	10.0	2.29	J	ug/L		23	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	9.46		ug/L		95	10 - 130
2,6-Dichlorophenol	10.0	9.28		ug/L		93	10 - 130
2-Acetylaminofluorene	10.0	9.62		ug/L		96	10 - 130
2-Naphthylamine	10.0	1.73	J	ug/L		17	10 - 130
2-Picoline	10.0	8.35		ug/L		83	10 - 130
2-Toluidine	10.0	4.73		ug/L		47	10 - 130
3,3'-Dimethylbenzidine	25.0	5.0	U	ug/L		16	10 - 130
3-Methylcholanthrene	10.0	5.71		ug/L		57	10 - 130
4-Aminobiphenyl	10.0	1.35	J	ug/L		14	10 - 130
4-Nitroquinoline-1-oxide	10.0	1.94	J	ug/L		19	10 - 130
7,12-Dimethylbenz(a)anthracene	10.0	8.86		ug/L		89	10 - 130
alpha,alpha-Dimethyl phenethylamine	100	37.9	E	ug/L		38	10 - 130
Aramite, Total	10.0	24.0	*	ug/L		240	10 - 130
Diallate	10.0	10.3		ug/L		103	10 - 130
Dimethoate	10.0	7.64		ug/L		76	10 - 130
Dinoseb	10.0	9.58		ug/L		96	10 - 130
Disulfoton	10.0	10.3		ug/L		103	10 - 130
Ethyl methanesulfonate	10.0	6.75		ug/L		67	10 - 130
Ethyl Parathion	10.0	10.2		ug/L		102	10 - 130
Famphur	10.0	0.180	J *	ug/L		2	10 - 130
Hexachlorophene	50.0	25	U	ug/L		10	10 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357009/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357009**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachloropropene	10.0	3.47		ug/L		35	10 - 130
Isosafrole	10.0	24.1	^ *	ug/L		241	10 - 130
Methapyrilene	50.0	5.80	J	ug/L		12	10 - 130
Methyl methanesulfonate	10.0	3.15		ug/L		32	10 - 130
Methyl parathion	10.0	8.25		ug/L		82	10 - 130
N-Nitro-o-toluidine	10.0	6.69		ug/L		67	10 - 130
N-Nitrosodiethylamine	10.0	8.72		ug/L		87	10 - 130
N-Nitrosodi-n-butylamine	10.0	8.97		ug/L		90	10 - 130
N-Nitrosomethylethylamine	10.0	8.81		ug/L		88	10 - 130
N-Nitrosomorpholine	10.0	8.44		ug/L		84	10 - 130
N-Nitrosopiperidine	10.0	9.18		ug/L		92	10 - 130
N-Nitrosopyrrolidine	10.0	9.05		ug/L		90	10 - 130
o,o',o''-Triethylphosphorothioate	10.0	10.1		ug/L		101	10 - 130
p-Dimethylamino azobenzene	10.0	7.10		ug/L		71	10 - 130
Pentachlorobenzene	10.0	8.47		ug/L		85	10 - 130
Pentachloronitrobenzene	10.0	10.1		ug/L		101	10 - 130
Phenacetin	10.0	10.1		ug/L		101	10 - 130
Phorate	10.0	9.90		ug/L		99	10 - 130
p-Phenylene diamine	50.0	16	U *	ug/L		8	10 - 130
Pronamide	10.0	9.35		ug/L		93	10 - 130
Safrole, Total	10.0	9.32		ug/L		93	10 - 130
Sulfotepp	10.0	10.0		ug/L		100	10 - 130
Thionazin	10.0	10.5		ug/L		105	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*85*		*27 - 130*
Nitrobenzene-d5 (Surr)	*89*		*32 - 130*
Terphenyl-d14 (Surr)	*101*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*108*		*30 - 130*
2-Fluorophenol (Surr)	*85*		*25 - 130*
2-Fluorobiphenyl	*92*		*34 - 130*

Lab Sample ID: LCSD 680-357009/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357009**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	10.0	8.93		ug/L		89	50 - 130	1	50
1,2,4,5-Tetrachlorobenzene	10.0	8.24		ug/L		82	10 - 130	7	50
1,2,4-Trichlorobenzene	10.0	8.16		ug/L		82	39 - 130	6	50
1,2-Dichlorobenzene	10.0	7.46		ug/L		75	36 - 130	3	50
1,3-Dichlorobenzene	10.0	7.26		ug/L		73	31 - 130	4	50
1,3-Dinitrobenzene	10.0	9.48		ug/L		95	10 - 130	0	50
1,4-Dichlorobenzene	10.0	7.43		ug/L		74	34 - 130	3	50
1,4-Dioxane	10.0	6.64		ug/L		66	10 - 130	11	50
2,3,4,6-Tetrachlorophenol	10.0	10.2		ug/L		102	10 - 130	10	50
2,4,5-Trichlorophenol	10.0	10.0		ug/L		100	61 - 130	8	50
2,4,6-Trichlorophenol	10.0	10.9		ug/L		109	61 - 130	15	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 680-357009/12-A | **Client Sample ID: Lab Control Sample Dup**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 357829 | **Prep Batch: 357009**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dichlorophenol	10.0	9.76		ug/L		98	58 - 130	4	50
2,4-Dimethylphenol	10.0	9.91		ug/L		99	41 - 130	26	50
2,4-Dinitrophenol	20.0	21.7		ug/L		109	10 - 200	3	50
2,4-Dinitrotoluene	10.0	9.81		ug/L		98	57 - 130	0	50
2,6-Dinitrotoluene	10.0	9.33		ug/L		93	53 - 130	1	50
2-Chloronaphthalene	10.0	9.01		ug/L		90	48 - 130	5	50
2-Chlorophenol	10.0	10.1		ug/L		101	45 - 130	13	50
2-Methylnaphthalene	10.0	7.73		ug/L		77	51 - 130	10	50
2-Methylphenol	10.0	9.94		ug/L		99	49 - 130	4	50
2-Nitroaniline	10.0	4.97		ug/L		50	48 - 130	50	50
2-Nitrophenol	10.0	10.2		ug/L		102	49 - 130	3	50
3 & 4 Methylphenol	10.0	10.3		ug/L		103	55 - 130	1	50
3,3'-Dichlorobenzidine	30.0	2.0	U *	ug/L		0	10 - 158	200	50
3,3'-Dimethylbenzidine	20.0	5.0	U *	ug/L		0	10 - 130	200	50
3-Nitroaniline	10.0	0.560	J *	ug/L		6	18 - 147	168	50
4,6-Dinitro-2-methylphenol	20.0	18.6		ug/L		93	10 - 182	19	50
4-Bromophenyl phenyl ether	10.0	10.9		ug/L		109	44 - 130	7	50
4-Chloro-3-methylphenol	10.0	8.34		ug/L		83	54 - 130	8	50
4-Chloroaniline	10.0	2.0	U *	ug/L		10	17 - 130	127	50
4-Chlorophenyl phenyl ether	10.0	9.24		ug/L		92	52 - 130	8	50
4-Nitroaniline	10.0	1.66	J *	ug/L		17	31 - 147	144	50
4-Nitrophenol	20.0	17.3		ug/L		87	36 - 132	3	50
Acenaphthene	10.0	9.44		ug/L		94	42 - 130	4	50
Acenaphthylene	10.0	8.61		ug/L		86	45 - 130	2	50
Acetophenone	10.0	9.99		ug/L		100	45 - 130	0	50
Aniline	10.0	0.97	U *	ug/L		4	10 - 130	183	50
Anthracene	10.0	10.3		ug/L		103	58 - 130	2	50
Benzo[a]anthracene	10.0	10.6		ug/L		106	42 - 143	12	50
Benzo[a]pyrene	10.0	9.44		ug/L		94	45 - 151	8	50
Benzo[b]fluoranthene	10.0	10.2		ug/L		102	41 - 140	10	50
Benzo[g,h,i]perylene	10.0	14.2	*	ug/L		142	27 - 134	58	50
Benzo[k]fluoranthene	10.0	10.4		ug/L		104	45 - 140	10	50
Benzyl alcohol	10.0	3.65	*	ug/L		36	34 - 130	91	50
bis (2-chloroisopropyl) ether	10.0	8.42		ug/L		84	39 - 130	12	50
Bis(2-chloroethoxy)methane	10.0	5.67		ug/L		57	47 - 130	48	50
Bis(2-chloroethyl)ether	10.0	9.20		ug/L		92	36 - 130	5	50
Bis(2-ethylhexyl) phthalate	10.0	9.05		ug/L		90	10 - 158	18	50
Butyl benzyl phthalate	10.0	9.83		ug/L		98	60 - 130	7	50
Chrysene	10.0	10.4		ug/L		104	40 - 142	0	50
Dibenz(a,h)anthracene	10.0	13.7	*	ug/L		137	38 - 130	41	50
Dibenzofuran	10.0	9.78		ug/L		98	56 - 130	6	50
Diethyl phthalate	10.0	10.2		ug/L		102	60 - 130	5	50
Dimethyl phthalate	10.0	10.4		ug/L		104	58 - 130	12	50
Di-n-butyl phthalate	10.0	8.79		ug/L		88	59 - 130	27	50
Di-n-octyl phthalate	10.0	9.73		ug/L		97	19 - 130	6	50
Fluoranthene	10.0	9.92		ug/L		99	46 - 136	13	50
Fluorene	10.0	10.2		ug/L		102	48 - 130	1	50
Hexachlorobenzene	10.0	10.2		ug/L		102	49 - 130	2	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 680-357009/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357009**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobutadiene	10.0	7.70		ug/L		77	36 - 130	12	50
Hexachlorocyclopentadiene	10.0	1.62	J	ug/L		16	16 - 130	35	50
Hexachloroethane	10.0	7.05		ug/L		71	32 - 130	10	50
Indeno[1,2,3-cd]pyrene	10.0	13.9	*	ug/L		139	12 - 130	55	50
Isophorone	10.0	9.10		ug/L		91	45 - 130	10	50
Naphthalene	10.0	8.65		ug/L		87	35 - 130	4	50
Nitrobenzene	10.0	9.31		ug/L		93	45 - 130	4	50
N-Nitrosodimethylamine	10.0	8.86		ug/L		89	29 - 130	22	50
N-Nitrosodi-n-propylamine	10.0	9.97		ug/L		100	42 - 130	15	50
N-Nitrosodiphenylamine	10.0	7.01		ug/L		70	38 - 130	36	50
Pentachlorophenol	20.0	21.1		ug/L		105	12 - 156	10	50
Phenanthrene	10.0	10.6		ug/L		106	45 - 134	0	50
Phenol	10.0	9.22		ug/L		92	44 - 130	2	50
Pyrene	10.0	9.98		ug/L		100	47 - 143	7	50
Pyridine	10.0	0.73	U *	ug/L		0	10 - 130	200	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*90*		*27 - 130*
Nitrobenzene-d5 (Surr)	*94*		*32 - 130*
Terphenyl-d14 (Surr)	*90*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*105*		*30 - 130*
2-Fluorophenol (Surr)	*88*		*25 - 130*
2-Fluorobiphenyl	*91*		*34 - 130*

Lab Sample ID: LCSD 680-357009/14-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357009**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	10.0	7.34		ug/L		73	10 - 130	16	50
1,3,5-Trinitrobenzene	10.0	8.97		ug/L		90	10 - 130	13	50
1,3-Dinitrobenzene	10.0	9.13		ug/L		91	10 - 130	2	50
1,4-Naphthoquinone	10.0	5.0	U * ^	ug/L		6	10 - 130	32	50
1-Naphthylamine	10.0	2.59	J	ug/L		26	10 - 130	12	50
2,3,4,6-Tetrachlorophenol	10.0	9.40		ug/L		94	10 - 130	1	50
2,6-Dichlorophenol	10.0	9.28		ug/L		93	10 - 130	0	50
2-Acetylaminofluorene	10.0	9.71		ug/L		97	10 - 130	1	50
2-Naphthylamine	10.0	1.91	J	ug/L		19	10 - 130	10	50
2-Picoline	10.0	7.75		ug/L		78	10 - 130	7	50
2-Toluidine	10.0	4.70		ug/L		47	10 - 130	1	50
3,3'-Dimethylbenzidine	25.0	6.40	J	ug/L		26	10 - 130	44	50
3-Methylcholanthrene	10.0	7.04		ug/L		70	10 - 130	21	50
4-Aminobiphenyl	10.0	1.00	J	ug/L		10	10 - 130	30	50
4-Nitroquinoline-1-oxide	10.0	3.16		ug/L		32	10 - 130	48	50
7,12-Dimethylbenz(a)anthracene	10.0	10.0		ug/L		100	10 - 130	12	50
alpha,alpha-Dimethyl phenethylamine	100	43.7	E	ug/L		44	10 - 130	14	50
Aramite, Total	10.0	23.9	*	ug/L		239	10 - 130	1	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 680-357009/14-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 357009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diallate	10.0	9.30		ug/L		93	10 - 130	11	50
Dimethoate	10.0	6.12		ug/L		61	10 - 130	22	50
Dinoseb	10.0	10.1		ug/L		101	10 - 130	5	50
Disulfoton	10.0	9.96		ug/L		100	10 - 130	4	50
Ethyl methanesulfonate	10.0	7.30		ug/L		73	10 - 130	8	50
Ethyl Parathion	10.0	9.76		ug/L		98	10 - 130	5	50
Famphur	10.0	0.16	U *	ug/L		0.9	10 - 130	69	50
Hexachlorophene	50.0	25	U *	ug/L		36	10 - 130	110	50
Hexachloropropene	10.0	3.88		ug/L		39	10 - 130	11	50
Isosafrole	10.0	24.1	* ^	ug/L		241	10 - 130	0	50
Methapyrilene	50.0	21.6	J E *	ug/L		43	10 - 130	115	50
Methyl methanesulfonate	10.0	3.22		ug/L		32	10 - 130	2	50
Methyl parathion	10.0	7.21		ug/L		72	10 - 130	13	50
N-Nitro-o-toluidine	10.0	8.21		ug/L		82	10 - 130	20	50
N-Nitrosodiethylamine	10.0	9.96		ug/L		100	10 - 130	13	50
N-Nitrosodi-n-butylamine	10.0	9.05		ug/L		91	10 - 130	1	50
N-Nitrosomethylethylamine	10.0	9.36		ug/L		94	10 - 130	6	50
N-Nitrosomorpholine	10.0	7.97		ug/L		80	10 - 130	6	50
N-Nitrosopiperidine	10.0	9.25		ug/L		93	10 - 130	1	50
N-Nitrosopyrrolidine	10.0	8.38		ug/L		84	10 - 130	8	50
o,o',o''-Triethylphosphorothioate	10.0	9.30		ug/L		93	10 - 130	8	50
p-Dimethylamino azobenzene	10.0	8.90		ug/L		89	10 - 130	23	50
Pentachlorobenzene	10.0	8.86		ug/L		89	10 - 130	5	50
Pentachloronitrobenzene	10.0	10.9		ug/L		109	10 - 130	8	50
Phenacetin	10.0	10.6		ug/L		106	10 - 130	6	50
Phorate	10.0	9.87		ug/L		99	10 - 130	0	50
p-Phenylene diamine	50.0	16	U	ug/L		12	10 - 130	32	50
Pronamide	10.0	10.2		ug/L		102	10 - 130	9	50
Safrole, Total	10.0	9.11		ug/L		91	10 - 130	2	50
Sulfotepp	10.0	9.61		ug/L		96	10 - 130	4	50
Thionazin	10.0	10.4		ug/L		104	10 - 130	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*80*		*27 - 130*
Nitrobenzene-d5 (Surr)	*86*		*32 - 130*
Terphenyl-d14 (Surr)	*94*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*110*		*30 - 130*
2-Fluorophenol (Surr)	*89*		*25 - 130*
2-Fluorobiphenyl	*92*		*34 - 130*

Lab Sample ID: MB 680-357225/11-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357225/11-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,4-Naphthoquinone	10	U ^	10		ug/L		11/06/14 16:44	11/10/14 19:39	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dinitrophenol	10	U	10		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Picoline	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Toluidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/06/14 16:44	11/10/14 19:39	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/06/14 16:44	11/10/14 19:39	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Chloroaniline	4.0	U	4.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Nitroaniline	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Nitrophenol	8.0	U	8.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
7,12-Dimethylbenz(a)anthracene	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Acenaphthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Acenaphthylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Acetophenone	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/06/14 16:44	11/10/14 19:39	1
Aniline	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357225/11-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aramite, Total	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Chrysene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Diallate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dibenzofuran	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dimethoate	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dinoseb	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Disulfoton	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Famphur	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Fluorene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachloroethane	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorophene	500	U	500		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachloropropene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Isophorone	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Isosafrole	1.0	U ^	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Methapyrilene	200	U	200		ug/L		11/06/14 16:44	11/10/14 19:39	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Methyl parathion	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Naphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Nitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357225/11-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357225**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phenacetin	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phenanthrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phorate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
p-Phenylene diamine	200	U	200		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pronamide	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pyridine	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Safrole, Total	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Sulfotepp	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Thionazin	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*70*		*27 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
Nitrobenzene-d5 (Surr)	*86*		*32 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
Terphenyl-d14 (Surr)	*90*		*36 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
2,4,6-Tribromophenol (Surr)	*107*		*30 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
2-Fluorophenol (Surr)	*80*		*25 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
2-Fluorobiphenyl	*94*		*34 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*

Lab Sample ID: LCS 680-357225/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357718 — **Prep Batch: 357225**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	10.0	10.2		ug/L		102	50 - 130
1,2,4,5-Tetrachlorobenzene	10.0	9.44		ug/L		94	10 - 130
1,2,4-Trichlorobenzene	10.0	9.37		ug/L		94	39 - 130
1,2-Dichlorobenzene	10.0	8.66		ug/L		87	36 - 130
1,3-Dichlorobenzene	10.0	8.34		ug/L		83	31 - 130
1,3-Dinitrobenzene	10.0	10.1		ug/L		101	10 - 130
1,4-Dichlorobenzene	10.0	8.70		ug/L		87	34 - 130
1,4-Dioxane	10.0	5.83		ug/L		58	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	9.43		ug/L		94	10 - 130
2,4,5-Trichlorophenol	10.0	9.78		ug/L		98	61 - 130
2,4,6-Trichlorophenol	10.0	10.2		ug/L		102	61 - 130
2,4-Dichlorophenol	10.0	10.2		ug/L		102	58 - 130
2,4-Dimethylphenol	10.0	9.75		ug/L		97	41 - 130
2,4-Dinitrophenol	20.0	20.3		ug/L		102	10 - 200

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357225/12-A
Matrix: Water
Analysis Batch: 357718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	10.0	10.2		ug/L		102	57 - 130
2,6-Dinitrotoluene	10.0	9.99		ug/L		100	53 - 130
2-Chloronaphthalene	10.0	9.86		ug/L		99	48 - 130
2-Chlorophenol	10.0	8.53		ug/L		85	45 - 130
2-Methylnaphthalene	10.0	9.79		ug/L		98	51 - 130
2-Methylphenol	10.0	9.61		ug/L		96	49 - 130
2-Nitroaniline	10.0	7.61		ug/L		76	48 - 130
2-Nitrophenol	10.0	10.1		ug/L		101	49 - 130
3 & 4 Methylphenol	10.0	9.68		ug/L		97	55 - 130
3,3'-Dichlorobenzidine	30.0	2.0	U *	ug/L		0.5	10 - 158
3-Nitroaniline	10.0	1.00	J *	ug/L		10	18 - 147
4,6-Dinitro-2-methylphenol	20.0	21.3		ug/L		106	10 - 182
4-Bromophenyl phenyl ether	10.0	10.9		ug/L		109	44 - 130
4-Chloro-3-methylphenol	10.0	9.77		ug/L		98	54 - 130
4-Chloroaniline	10.0	2.0	U *	ug/L		2	17 - 130
4-Chlorophenyl phenyl ether	10.0	11.1		ug/L		111	52 - 130
4-Nitroaniline	10.0	5.72		ug/L		57	31 - 147
4-Nitrophenol	20.0	15.6		ug/L		78	36 - 132
Acenaphthene	10.0	9.79		ug/L		98	42 - 130
Acenaphthylene	10.0	4.50		ug/L		45	45 - 130
Acetophenone	10.0	10.3		ug/L		103	45 - 130
Aniline	10.0	1.74	J	ug/L		17	10 - 130
Anthracene	10.0	10.1		ug/L		101	58 - 130
Benzo[a]anthracene	10.0	9.75		ug/L		98	42 - 143
Benzo[a]pyrene	10.0	8.03		ug/L		80	45 - 151
Benzo[b]fluoranthene	10.0	12.1		ug/L		121	41 - 140
Benzo[g,h,i]perylene	10.0	5.18		ug/L		52	27 - 134
Benzo[k]fluoranthene	10.0	12.1		ug/L		121	45 - 140
Benzyl alcohol	10.0	5.67		ug/L		57	34 - 130
bis (2-chloroisopropyl) ether	10.0	7.65		ug/L		77	39 - 130
Bis(2-chloroethoxy)methane	10.0	1.49	*	ug/L		15	47 - 130
Bis(2-chloroethyl)ether	10.0	8.69		ug/L		87	36 - 130
Bis(2-ethylhexyl) phthalate	10.0	9.52		ug/L		95	10 - 158
Butyl benzyl phthalate	10.0	8.48		ug/L		85	60 - 130
Chrysene	10.0	10.2		ug/L		102	40 - 142
Dibenz(a,h)anthracene	10.0	6.97		ug/L		70	38 - 130
Dibenzofuran	10.0	10.8		ug/L		108	56 - 130
Diethyl phthalate	10.0	10.3		ug/L		103	60 - 130
Dimethyl phthalate	10.0	9.54		ug/L		95	58 - 130
Di-n-butyl phthalate	10.0	10.7		ug/L		107	59 - 130
Di-n-octyl phthalate	10.0	9.57		ug/L		96	19 - 130
Fluoranthene	10.0	10.6		ug/L		106	46 - 136
Fluorene	10.0	11.2		ug/L		112	48 - 130
Hexachlorobenzene	10.0	10.9		ug/L		109	49 - 130
Hexachlorobutadiene	10.0	9.00		ug/L		90	36 - 130
Hexachlorocyclopentadiene	10.0	2.70		ug/L		27	16 - 130
Hexachloroethane	10.0	7.78		ug/L		78	32 - 130
Indeno[1,2,3-cd]pyrene	10.0	5.75		ug/L		58	12 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357225/12-A
Matrix: Water
Analysis Batch: 357718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isophorone	10.0	8.42		ug/L		84	45 - 130
Naphthalene	10.0	9.97		ug/L		100	35 - 130
Nitrobenzene	10.0	9.24		ug/L		92	45 - 130
N-Nitrosodimethylamine	10.0	6.65		ug/L		66	29 - 130
N-Nitrosodi-n-propylamine	10.0	8.89		ug/L		89	42 - 130
N-Nitrosodiphenylamine	10.0	6.77		ug/L		68	38 - 130
Pentachlorophenol	20.0	18.9		ug/L		94	12 - 156
Phenanthrene	10.0	10.7		ug/L		107	45 - 134
Phenol	10.0	8.08		ug/L		81	44 - 130
Pyrene	10.0	8.79		ug/L		88	47 - 143
Pyridine	10.0	4.74	J	ug/L		47	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*74*		*27 - 130*
Nitrobenzene-d5 (Surr)	*93*		*32 - 130*
Terphenyl-d14 (Surr)	*103*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*105*		*30 - 130*
2-Fluorophenol (Surr)	*82*		*25 - 130*
2-Fluorobiphenyl	*100*		*34 - 130*

Lab Sample ID: LCS 680-357225/15-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	8.68		ug/L		87	10 - 130
1,3,5-Trinitrobenzene	10.0	6.46		ug/L		65	10 - 130
1,3-Dinitrobenzene	10.0	9.73		ug/L		97	10 - 130
1,4-Naphthoquinone	10.0	5.0	U ^ *	ug/L		3	10 - 130
1-Naphthylamine	10.0	2.89	J	ug/L		29	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	10.4		ug/L		104	10 - 130
2,6-Dichlorophenol	10.0	9.83		ug/L		98	10 - 130
2-Acetylaminofluorene	10.0	9.94		ug/L		99	10 - 130
2-Naphthylamine	10.0	1.92	J	ug/L		19	10 - 130
2-Picoline	10.0	9.19		ug/L		92	10 - 130
2-Toluidine	10.0	6.07		ug/L		61	10 - 130
3,3'-Dimethylbenzidine	25.0	13.6	J	ug/L		54	10 - 130
3-Methylcholanthrene	10.0	8.56		ug/L		86	10 - 130
4-Aminobiphenyl	10.0	1.42	J	ug/L		14	10 - 130
4-Nitroquinoline-1-oxide	10.0	3.11		ug/L		31	10 - 130
7,12-Dimethylbenz(a)anthracene	10.0	10.7		ug/L		107	10 - 130
alpha,alpha-Dimethyl phenethylamine	100	47.0	E	ug/L		47	10 - 130
Aramite, Total	10.0	24.9	*	ug/L		249	10 - 130
Diallate	10.0	10.0		ug/L		100	10 - 130
Dimethoate	10.0	4.65		ug/L		46	10 - 130
Dinoseb	10.0	10.8		ug/L		108	10 - 130
Disulfoton	10.0	10.1		ug/L		101	10 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357225/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357225**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethyl methanesulfonate	10.0	7.06		ug/L		71	10 - 130
Ethyl Parathion	10.0	9.97		ug/L		100	10 - 130
Famphur	10.0	0.16	U *	ug/L		0.5	10 - 130
Hexachlorophene	50.0	25	U	ug/L		16	10 - 130
Hexachloropropene	10.0	4.67		ug/L		47	10 - 130
Isosafrole	10.0	26.6	^ *	ug/L		266	10 - 130
Methapyrilene	50.0	30.3	J E	ug/L		61	10 - 130
Methyl methanesulfonate	10.0	3.31		ug/L		33	10 - 130
Methyl parathion	10.0	5.74		ug/L		57	10 - 130
N-Nitro-o-toluidine	10.0	8.08		ug/L		81	10 - 130
N-Nitrosodiethylamine	10.0	9.89		ug/L		99	10 - 130
N-Nitrosodi-n-butylamine	10.0	9.50		ug/L		95	10 - 130
N-Nitrosomethylethylamine	10.0	9.29		ug/L		93	10 - 130
N-Nitrosomorpholine	10.0	8.66		ug/L		87	10 - 130
N-Nitrosopiperidine	10.0	9.58		ug/L		96	10 - 130
N-Nitrosopyrrolidine	10.0	9.47		ug/L		95	10 - 130
o,o',o''-Triethylphosphorothioate	10.0	8.49		ug/L		85	10 - 130
p-Dimethylamino azobenzene	10.0	9.50		ug/L		95	10 - 130
Pentachlorobenzene	10.0	9.15		ug/L		92	10 - 130
Pentachloronitrobenzene	10.0	11.1		ug/L		111	10 - 130
Phenacetin	10.0	10.4		ug/L		104	10 - 130
Phorate	10.0	9.95		ug/L		99	10 - 130
p-Phenylene diamine	50.0	23.5	J E	ug/L		47	10 - 130
Pronamide	10.0	10.5		ug/L		105	10 - 130
Safrole, Total	10.0	9.69		ug/L		97	10 - 130
Sulfotepp	10.0	9.49		ug/L		95	10 - 130
Thionazin	10.0	10.9		ug/L		109	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*82*		*27 - 130*
Nitrobenzene-d5 (Surr)	*80*		*32 - 130*
Terphenyl-d14 (Surr)	*101*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*111*		*30 - 130*
2-Fluorophenol (Surr)	*87*		*25 - 130*
2-Fluorobiphenyl	*89*		*34 - 130*

Lab Sample ID: 680-106875-8 MS — **Client Sample ID: MW-F5 (110314)**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357718 — **Prep Batch: 357225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	0.99	U	10.2	7.25		ug/L		71	10 - 130
1,3,5-Trinitrobenzene	0.99	U	10.2	6.67		ug/L		65	10 - 130
1,3-Dinitrobenzene	0.99	U	10.2	9.15		ug/L		89	10 - 130
1,4-Naphthoquinone	9.9	U *	10.2	10	U	ug/L		89	10 - 130
1-Naphthylamine	5.0	U	10.2	5.1	U F1	ug/L		0	10 - 130
2,3,4,6-Tetrachlorophenol	0.99	U	10.2	6.72		ug/L		66	10 - 130
2,6-Dichlorophenol	0.99	U	10.2	9.23		ug/L		90	10 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106875-8 MS
Matrix: Water
Analysis Batch: 357718

Client Sample ID: MW-F5 (110314)
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Acetylaminofluorene	0.99	U	10.2	9.01		ug/L		88	10 - 130
2-Naphthylamine	5.0	U	10.2	5.1	U F1	ug/L		0	10 - 130
2-Picoline	2.0	U	10.2	4.93		ug/L		48	10 - 130
2-Toluidine	0.99	U	10.2	3.06		ug/L		30	10 - 130
3,3'-Dimethylbenzidine	20	U *	25.6	20	U F1	ug/L		0	10 - 130
3-Methylcholanthrene	0.99	U	10.2	3.32		ug/L		32	10 - 130
4-Aminobiphenyl	5.0	U	10.2	5.1	U F1	ug/L		0	10 - 130
4-Nitroquinoline-1-oxide	2.0	U	10.2	2.0	U	ug/L		14	10 - 130
7,12-Dimethylbenz(a)anthracene	2.0	U	10.2	8.01		ug/L		78	10 - 130
alpha,alpha-Dimethyl phenethylamine	9.9	U	102	29.6	E	ug/L		29	10 - 130
Aramite, Total	2.0	U *	10.2	14.6	F1	ug/L		142	10 - 130
Diallate	0.99	U	10.2	10.2		ug/L		100	10 - 130
Dimethoate	2.0	U	10.2	7.26		ug/L		71	10 - 130
Dinoseb	2.0	U	10.2	9.10		ug/L		89	10 - 130
Disulfoton	0.99	U	10.2	9.55		ug/L		93	10 - 130
Ethyl methanesulfonate	2.0	U	10.2	7.34		ug/L		72	10 - 130
Ethyl Parathion	2.0	U	10.2	11.1		ug/L		109	10 - 130
Famphur	0.99	U *	10.2	4.89		ug/L		48	10 - 130
Hexachlorophene	500	U	51.2	510	U F1	ug/L		0	10 - 130
Hexachloropropene	0.99	U	10.2	1.75		ug/L		17	10 - 130
Isosafrole	0.99	U *	10.2	10.6		ug/L		104	10 - 130
Methapyrilene	200	U	51.2	200	U F1	ug/L		0	10 - 130
Methyl methanesulfonate	2.0	U	10.2	2.77		ug/L		27	10 - 130
Methyl parathion	0.99	U	10.2	8.74		ug/L		85	10 - 130
N-Nitro-o-toluidine	0.99	U	10.2	6.95		ug/L		68	10 - 130
N-Nitrosodiethylamine	0.99	U	10.2	8.70		ug/L		85	10 - 130
N-Nitrosodi-n-butylamine	0.99	U	10.2	8.63		ug/L		84	10 - 130
N-Nitrosomethylethylamine	2.0	U	10.2	7.82		ug/L		76	10 - 130
N-Nitrosomorpholine	0.99	U	10.2	8.94		ug/L		87	10 - 130
N-Nitrosopiperidine	0.99	U	10.2	8.36		ug/L		82	10 - 130
N-Nitrosopyrrolidine	0.99	U	10.2	8.57		ug/L		84	10 - 130
o,o',o''-Triethylphosphorothioate	0.99	U	10.2	10.0		ug/L		98	10 - 130
p-Dimethylamino azobenzene	5.0	U	10.2	7.09		ug/L		69	10 - 130
Pentachlorobenzene	0.99	U	10.2	10.2		ug/L		99	10 - 130
Pentachloronitrobenzene	0.99	U	10.2	11.6		ug/L		113	10 - 130
Phenacetin	0.99	U	10.2	11.0		ug/L		108	10 - 130
Phorate	0.99	U	10.2	10.7		ug/L		104	10 - 130
p-Phenylene diamine	200	U	51.2	200	U F1	ug/L		0	10 - 130
Pronamide	0.99	U	10.2	9.14		ug/L		89	10 - 130
Safrole, Total	0.99	U	10.2	9.45		ug/L		92	10 - 130
Sulfotepp	0.99	U	10.2	10.9		ug/L		106	10 - 130
Thionazin	0.99	U	10.2	11.2		ug/L		109	10 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Phenol-d5 (Surr)	*70*		*27 - 130*
Nitrobenzene-d5 (Surr)	*74*		*32 - 130*
Terphenyl-d14 (Surr)	*80*		*36 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106875-8 MS
Matrix: Water
Analysis Batch: 357718

Client Sample ID: MW-F5 (110314)
Prep Type: Total/NA
Prep Batch: 357225

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	74		30 - 130
2-Fluorophenol (Surr)	63		25 - 130
2-Fluorobiphenyl	85		34 - 130

Lab Sample ID: 680-106875-8 MSD
Matrix: Water
Analysis Batch: 357718

Client Sample ID: MW-F5 (110314)
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	0.99	U	12.3	7.45		ug/L		61	10 - 130	3	50
1,3,5-Trinitrobenzene	0.99	U	12.3	6.95		ug/L		57	10 - 130	4	50
1,3-Dinitrobenzene	0.99	U	12.3	10.3		ug/L		84	10 - 130	12	50
1,4-Naphthoquinone	9.9	U *	12.3	12	U	ug/L		74	10 - 130	0	50
1-Naphthylamine	5.0	U	12.3	6.1	U F1	ug/L		0	10 - 130	NC	50
2,3,4,6-Tetrachlorophenol	0.99	U	12.3	7.06		ug/L		58	10 - 130	5	50
2,6-Dichlorophenol	0.99	U	12.3	9.05		ug/L		74	10 - 130	2	50
2-Acetylaminofluorene	0.99	U	12.3	10.3		ug/L		84	10 - 130	13	50
2-Naphthylamine	5.0	U	12.3	6.1	U F1	ug/L		0	10 - 130	NC	50
2-Picoline	2.0	U	12.3	8.81	F2	ug/L		72	10 - 130	56	50
2-Toluidine	0.99	U	12.3	4.75		ug/L		39	10 - 130	43	50
3,3'-Dimethylbenzidine	20	U *	30.6	25	U F1	ug/L		0	10 - 130	NC	50
3-Methylcholanthrene	0.99	U	12.3	3.85		ug/L		31	10 - 130	15	50
4-Aminobiphenyl	5.0	U	12.3	6.1	U F1	ug/L		0	10 - 130	NC	50
4-Nitroquinoline-1-oxide	2.0	U	12.3	2.5	U	ug/L		12	10 - 130	6	50
7,12-Dimethylbenz(a)anthracene	2.0	U	12.3	10.2		ug/L		83	10 - 130	24	50
alpha,alpha-Dimethyl phenethylamine	9.9	U	123	60.3	E F2	ug/L		49	10 - 130	68	50
Aramite, Total	2.0	U *	12.3	15.6		ug/L		127	10 - 130	7	50
Diallate	0.99	U	12.3	11.5		ug/L		93	10 - 130	12	50
Dimethoate	2.0	U	12.3	6.88		ug/L		56	10 - 130	5	50
Dinoseb	2.0	U	12.3	9.75		ug/L		80	10 - 130	7	50
Disulfoton	0.99	U	12.3	10.1		ug/L		83	10 - 130	6	50
Ethyl methanesulfonate	2.0	U	12.3	7.99		ug/L		65	10 - 130	9	50
Ethyl Parathion	2.0	U	12.3	12.0		ug/L		97	10 - 130	7	50
Famphur	0.99	U *	12.3	3.43		ug/L		28	10 - 130	35	50
Hexachlorophene	500	U	61.3	610	U F1	ug/L		0	10 - 130	NC	50
Hexachloropropene	0.99	U	12.3	2.03		ug/L		17	10 - 130	15	50
Isosafrole	0.99	U *	12.3	11.9		ug/L		97	10 - 130	11	50
Methapyrilene	200	U	61.3	250	U	ug/L		21	10 - 130	NC	50
Methyl methanesulfonate	2.0	U	12.3	2.94		ug/L		24	10 - 130	6	50
Methyl parathion	0.99	U	12.3	8.64		ug/L		71	10 - 130	1	50
N-Nitro-o-toluidine	0.99	U	12.3	8.71		ug/L		71	10 - 130	23	50
N-Nitrosodiethylamine	0.99	U	12.3	9.62		ug/L		78	10 - 130	10	50
N-Nitrosodi-n-butylamine	0.99	U	12.3	9.91		ug/L		81	10 - 130	14	50
N-Nitrosomethylethylamine	2.0	U	12.3	8.84		ug/L		72	10 - 130	12	50
N-Nitrosomorpholine	0.99	U	12.3	10.1		ug/L		83	10 - 130	12	50
N-Nitrosopiperidine	0.99	U	12.3	9.54		ug/L		78	10 - 130	13	50
N-Nitrosopyrrolidine	0.99	U	12.3	9.83		ug/L		80	10 - 130	14	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106875-8 MSD — **Client Sample ID: MW-F5 (110314)**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357718 — **Prep Batch: 357225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o,o',o''-Triethylphosphorothioate	0.99	U	12.3	11.1		ug/L		91	10 - 130	10	50
p-Dimethylamino azobenzene	5.0	U	12.3	8.70		ug/L		71	10 - 130	20	50
Pentachlorobenzene	0.99	U	12.3	10.8		ug/L		88	10 - 130	6	50
Pentachloronitrobenzene	0.99	U	12.3	12.8		ug/L		104	10 - 130	10	50
Phenacetin	0.99	U	12.3	12.2		ug/L		100	10 - 130	10	50
Phorate	0.99	U	12.3	10.7		ug/L		87	10 - 130	0	50
p-Phenylene diamine	200	U	61.3	250	U F1	ug/L		0	10 - 130	NC	50
Pronamide	0.99	U	12.3	10.6		ug/L		86	10 - 130	14	50
Safrole, Total	0.99	U	12.3	10.6		ug/L		87	10 - 130	12	50
Sulfotepp	0.99	U	12.3	11.6		ug/L		94	10 - 130	6	50
Thionazin	0.99	U	12.3	11.8		ug/L		96	10 - 130	5	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*65*		*27 - 130*
Nitrobenzene-d5 (Surr)	*72*		*32 - 130*
Terphenyl-d14 (Surr)	*81*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*66*		*30 - 130*
2-Fluorophenol (Surr)	*60*		*25 - 130*
2-Fluorobiphenyl	*83*		*34 - 130*

Lab Sample ID: MB 680-358270/11-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358804 — **Prep Batch: 358270**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
1,4-Naphthoquinone	10	U	10		ug/L		11/12/14 16:29	11/14/14 21:19	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,4-Dinitrophenol	10	U	10		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-358270/11-A | **Client Sample ID: Method Blank**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 358804 | **Prep Batch: 358270**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Methylphenol	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Picoline	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
2-Toluidine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/12/14 16:29	11/14/14 21:19	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/12/14 16:29	11/14/14 21:19	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Chloroaniline	4.0	U	4.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Nitroaniline	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Nitrophenol	8.0	U	8.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
7,12-Dimethylbenz(a)anthracene	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Acenaphthene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Acenaphthylene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Acetophenone	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/12/14 16:29	11/14/14 21:19	1
Aniline	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Anthracene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Aramite, Total	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Chrysene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Diallate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Dibenzofuran	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Dimethoate	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-358270/11-A
Matrix: Water
Analysis Batch: 358804

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 358270

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Dinoseb	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Disulfoton	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Famphur	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Fluoranthene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Fluorene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Hexachloroethane	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Hexachlorophene	500	U	500		ug/L		11/12/14 16:29	11/14/14 21:19	1
Hexachloropropene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Isophorone	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Isosafrole	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Methapyrilene	200	U	200		ug/L		11/12/14 16:29	11/14/14 21:19	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Methyl parathion	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Naphthalene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Nitrobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Phenacetin	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Phenanthrene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Phenol	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Phorate	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
p-Phenylene diamine	200	U	200		ug/L		11/12/14 16:29	11/14/14 21:19	1
Pronamide	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Pyrene	0.20	U	0.20		ug/L		11/12/14 16:29	11/14/14 21:19	1
Pyridine	5.0	U	5.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Safrole, Total	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Sulfotepp	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1
Thionazin	1.0	U	1.0		ug/L		11/12/14 16:29	11/14/14 21:19	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-358270/11-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358804 — **Prep Batch: 358270**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	74		27 - 130	11/12/14 16:29	11/14/14 21:19	1
Nitrobenzene-d5 (Surr)	80		32 - 130	11/12/14 16:29	11/14/14 21:19	1
Terphenyl-d14 (Surr)	92		36 - 130	11/12/14 16:29	11/14/14 21:19	1
2,4,6-Tribromophenol (Surr)	84		30 - 130	11/12/14 16:29	11/14/14 21:19	1
2-Fluorophenol (Surr)	75		25 - 130	11/12/14 16:29	11/14/14 21:19	1
2-Fluorobiphenyl	72		34 - 130	11/12/14 16:29	11/14/14 21:19	1

Lab Sample ID: LCS 680-358270/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358804 — **Prep Batch: 358270**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	10.0	6.39		ug/L		64	50 - 130
1,2,4,5-Tetrachlorobenzene	10.0	5.66		ug/L		57	10 - 130
1,2,4-Trichlorobenzene	10.0	5.52		ug/L		55	39 - 130
1,2-Dichlorobenzene	10.0	5.35		ug/L		54	36 - 130
1,3-Dichlorobenzene	10.0	5.04		ug/L		50	31 - 130
1,3-Dinitrobenzene	10.0	7.60		ug/L		76	10 - 130
1,4-Dichlorobenzene	10.0	5.33		ug/L		53	34 - 130
1,4-Dioxane	10.0	4.21		ug/L		42	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	7.52		ug/L		75	10 - 130
2,4,5-Trichlorophenol	10.0	7.28		ug/L		73	61 - 130
2,4,6-Trichlorophenol	10.0	8.20		ug/L		82	61 - 130
2,4-Dichlorophenol	10.0	7.19		ug/L		72	58 - 130
2,4-Dimethylphenol	10.0	7.17		ug/L		72	41 - 130
2,4-Dinitrophenol	20.0	12.6		ug/L		63	10 - 200
2,4-Dinitrotoluene	10.0	7.36		ug/L		74	57 - 130
2,6-Dinitrotoluene	10.0	7.62		ug/L		76	53 - 130
2-Chloronaphthalene	10.0	6.32		ug/L		63	48 - 130
2-Chlorophenol	10.0	7.30		ug/L		73	45 - 130
2-Methylnaphthalene	10.0	4.97	*	ug/L		50	51 - 130
2-Methylphenol	10.0	7.08		ug/L		71	49 - 130
2-Nitroaniline	10.0	6.90		ug/L		69	48 - 130
2-Nitrophenol	10.0	7.79		ug/L		78	49 - 130
3 & 4 Methylphenol	10.0	7.20		ug/L		72	55 - 130
3,3'-Dichlorobenzidine	30.0	16.1	J	ug/L		54	10 - 158
3,3'-Dimethylbenzidine	20.0	5.0	U	ug/L		14	10 - 130
3-Nitroaniline	10.0	4.89	J	ug/L		49	18 - 147
4,6-Dinitro-2-methylphenol	20.0	13.0		ug/L		65	10 - 182
4-Bromophenyl phenyl ether	10.0	7.95		ug/L		80	44 - 130
4-Chloro-3-methylphenol	10.0	6.43		ug/L		64	54 - 130
4-Chloroaniline	10.0	2.89	J	ug/L		29	17 - 130
4-Chlorophenyl phenyl ether	10.0	7.50		ug/L		75	52 - 130
4-Nitroaniline	10.0	6.98		ug/L		70	31 - 147
4-Nitrophenol	20.0	12.3		ug/L		61	36 - 132
Acenaphthene	10.0	6.59		ug/L		66	42 - 130
Acenaphthylene	10.0	7.16		ug/L		72	45 - 130
Acetophenone	10.0	7.44		ug/L		74	45 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-358270/12-A
Matrix: Water
Analysis Batch: 358804

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	10.0	5.80		ug/L		58	10 - 130
Anthracene	10.0	7.97		ug/L		80	58 - 130
Benzo[a]anthracene	10.0	8.84		ug/L		88	42 - 143
Benzo[a]pyrene	10.0	8.61		ug/L		86	45 - 151
Benzo[b]fluoranthene	10.0	8.08		ug/L		81	41 - 140
Benzo[g,h,i]perylene	10.0	6.49		ug/L		65	27 - 134
Benzo[k]fluoranthene	10.0	9.70		ug/L		97	45 - 140
Benzyl alcohol	10.0	7.29		ug/L		73	34 - 130
bis (2-chloroisopropyl) ether	10.0	7.11		ug/L		71	39 - 130
Bis(2-chloroethoxy)methane	10.0	7.29		ug/L		73	47 - 130
Bis(2-chloroethyl)ether	10.0	7.55		ug/L		76	36 - 130
Bis(2-ethylhexyl) phthalate	10.0	8.05		ug/L		81	10 - 158
Butyl benzyl phthalate	10.0	8.03		ug/L		80	60 - 130
Chrysene	10.0	8.54		ug/L		85	40 - 142
Dibenz(a,h)anthracene	10.0	7.75		ug/L		78	38 - 130
Dibenzofuran	10.0	7.42		ug/L		74	56 - 130
Diethyl phthalate	10.0	7.56		ug/L		76	60 - 130
Dimethyl phthalate	10.0	7.88		ug/L		79	58 - 130
Di-n-butyl phthalate	10.0	6.58		ug/L		66	59 - 130
Di-n-octyl phthalate	10.0	7.24		ug/L		72	19 - 130
Fluoranthene	10.0	7.58		ug/L		76	46 - 136
Fluorene	10.0	7.44		ug/L		74	48 - 130
Hexachlorobenzene	10.0	7.72		ug/L		77	49 - 130
Hexachlorobutadiene	10.0	4.81		ug/L		48	36 - 130
Hexachlorocyclopentadiene	10.0	0.740	J *	ug/L		7	16 - 130
Hexachloroethane	10.0	4.67		ug/L		47	32 - 130
Indeno[1,2,3-cd]pyrene	10.0	7.21		ug/L		72	12 - 130
Isophorone	10.0	7.48		ug/L		75	45 - 130
Naphthalene	10.0	6.64		ug/L		66	35 - 130
Nitrobenzene	10.0	8.00		ug/L		80	45 - 130
N-Nitrosodimethylamine	10.0	8.26		ug/L		83	29 - 130
N-Nitrosodi-n-propylamine	10.0	7.53		ug/L		75	42 - 130
N-Nitrosodiphenylamine	10.0	8.35		ug/L		84	38 - 130
Pentachlorophenol	20.0	14.6		ug/L		73	12 - 156
Phenanthrene	10.0	7.82		ug/L		78	45 - 134
Phenol	10.0	6.72		ug/L		67	44 - 130
Pyrene	10.0	8.32		ug/L		83	47 - 143
Pyridine	10.0	5.58		ug/L		56	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*73*		*27 - 130*
Nitrobenzene-d5 (Surr)	*80*		*32 - 130*
Terphenyl-d14 (Surr)	*85*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*93*		*30 - 130*
2-Fluorophenol (Surr)	*73*		*25 - 130*
2-Fluorobiphenyl	*72*		*34 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-358270/15-A
Matrix: Water
Analysis Batch: 358804

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 358270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	7.12		ug/L		71	10 - 130
1,3,5-Trinitrobenzene	10.0	7.23		ug/L		72	10 - 130
1,3-Dinitrobenzene	10.0	8.74		ug/L		87	10 - 130
1,4-Naphthoquinone	10.0	5.0	U *	ug/L		4	10 - 130
1-Naphthylamine	10.0	2.45	J	ug/L		24	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	8.27		ug/L		83	10 - 130
2,6-Dichlorophenol	10.0	5.10		ug/L		51	10 - 130
2-Acetylaminofluorene	10.0	8.59		ug/L		86	10 - 130
2-Naphthylamine	10.0	1.75	J	ug/L		18	10 - 130
2-Picoline	10.0	8.30		ug/L		83	10 - 130
2-Toluidine	10.0	5.92		ug/L		59	10 - 130
3,3'-Dimethylbenzidine	25.0	8.86	J	ug/L		35	10 - 130
3-Methylcholanthrene	10.0	6.63		ug/L		66	10 - 130
4-Aminobiphenyl	10.0	1.32	J	ug/L		13	10 - 130
4-Nitroquinoline-1-oxide	10.0	2.16		ug/L		22	10 - 130
7,12-Dimethylbenz(a)anthracene	10.0	10.7		ug/L		107	10 - 130
alpha,alpha-Dimethyl phenethylamine	100	41.3	E	ug/L		41	10 - 130
Aramite, Total	10.0	21.0	*	ug/L		210	10 - 130
Diallate	10.0	11.8		ug/L		118	10 - 130
Dimethoate	10.0	6.94		ug/L		69	10 - 130
Dinoseb	10.0	8.99		ug/L		90	10 - 130
Disulfoton	10.0	11.9		ug/L		119	10 - 130
Ethyl methanesulfonate	10.0	6.79		ug/L		68	10 - 130
Ethyl Parathion	10.0	11.0		ug/L		110	10 - 130
Famphur	10.0	0.16	U *	ug/L		1	10 - 130
Hexachlorophene	50.0	25	U *	ug/L		1	10 - 130
Hexachloropropene	10.0	2.03		ug/L		20	10 - 130
Isosafrole	10.0	21.6	*	ug/L		216	10 - 130
Methapyrilene	50.0	24.6	J E	ug/L		49	10 - 130
Methyl methanesulfonate	10.0	2.87		ug/L		29	10 - 130
Methyl parathion	10.0	7.87		ug/L		79	10 - 130
N-Nitro-o-toluidine	10.0	7.12		ug/L		71	10 - 130
N-Nitrosodiethylamine	10.0	8.54		ug/L		85	10 - 130
N-Nitrosodi-n-butylamine	10.0	8.97		ug/L		90	10 - 130
N-Nitrosomethylethylamine	10.0	9.16		ug/L		92	10 - 130
N-Nitrosomorpholine	10.0	9.32		ug/L		93	10 - 130
N-Nitrosopiperidine	10.0	9.02		ug/L		90	10 - 130
N-Nitrosopyrrolidine	10.0	9.07		ug/L		91	10 - 130
o,o',o''-Triethylphosphorothioate	10.0	10.0		ug/L		100	10 - 130
p-Dimethylamino azobenzene	10.0	8.31		ug/L		83	10 - 130
Pentachlorobenzene	10.0	8.26		ug/L		83	10 - 130
Pentachloronitrobenzene	10.0	10.2		ug/L		102	10 - 130
Phenacetin	10.0	9.91		ug/L		99	10 - 130
Phorate	10.0	11.8		ug/L		118	10 - 130
p-Phenylene diamine	50.0	16.8	J	ug/L		34	10 - 130
Pronamide	10.0	9.46		ug/L		95	10 - 130
Safrole, Total	10.0	8.30		ug/L		83	10 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-358270/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358804 — **Prep Batch: 358270**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfotepp	10.0	11.3		ug/L		113	10 - 130
Thionazin	10.0	12.6		ug/L		126	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*72*		*27 - 130*
Nitrobenzene-d5 (Surr)	*84*		*32 - 130*
Terphenyl-d14 (Surr)	*94*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*96*		*30 - 130*
2-Fluorophenol (Surr)	*70*		*25 - 130*
2-Fluorobiphenyl	*82*		*34 - 130*

Lab Sample ID: LCSD 680-358270/16-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358804 — **Prep Batch: 358270**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4,5-Tetrachlorobenzene	10.0	8.55		ug/L		86	10 - 130	18	50
1,3,5-Trinitrobenzene	10.0	7.45		ug/L		75	10 - 130	3	50
1,3-Dinitrobenzene	10.0	8.57		ug/L		86	10 - 130	2	50
1,4-Naphthoquinone	10.0	5.0	U *	ug/L		3	10 - 130	18	50
1-Naphthylamine	10.0	1.86	J	ug/L		19	10 - 130	27	50
2,3,4,6-Tetrachlorophenol	10.0	8.53		ug/L		85	10 - 130	3	50
2,6-Dichlorophenol	10.0	5.38		ug/L		54	10 - 130	5	50
2-Acetylaminofluorene	10.0	8.91		ug/L		89	10 - 130	4	50
2-Naphthylamine	10.0	1.3	U *	ug/L		10	10 - 130	57	50
2-Picoline	10.0	7.54		ug/L		75	10 - 130	10	50
2-Toluidine	10.0	4.56		ug/L		46	10 - 130	26	50
3,3'-Dimethylbenzidine	25.0	7.24	J	ug/L		29	10 - 130	20	50
3-Methylcholanthrene	10.0	7.23		ug/L		72	10 - 130	9	50
4-Aminobiphenyl	10.0	0.588	J *	ug/L		6	10 - 130	77	50
4-Nitroquinoline-1-oxide	10.0	2.42		ug/L		24	10 - 130	12	50
7,12-Dimethylbenz(a)anthracene	10.0	11.1		ug/L		111	10 - 130	4	50
alpha,alpha-Dimethyl phenethylamine	100	45.6	E	ug/L		46	10 - 130	10	50
Aramite, Total	10.0	18.1	*	ug/L		181	10 - 130	15	50
Diallate	10.0	9.05		ug/L		90	10 - 130	27	50
Dimethoate	10.0	5.24		ug/L		52	10 - 130	28	50
Dinoseb	10.0	7.46		ug/L		75	10 - 130	19	50
Disulfoton	10.0	8.61		ug/L		86	10 - 130	32	50
Ethyl methanesulfonate	10.0	6.49		ug/L		65	10 - 130	4	50
Ethyl Parathion	10.0	9.14		ug/L		91	10 - 130	19	50
Famphur	10.0	0.16	U *	ug/L		0.7	10 - 130	36	50
Hexachlorophene	50.0	25	U *	ug/L		2	10 - 130	41	50
Hexachloropropene	10.0	3.59	*	ug/L		36	10 - 130	55	50
Isosafrole	10.0	21.6	*	ug/L		216	10 - 130	0	50
Methapyrilene	50.0	22.1	J E	ug/L		44	10 - 130	11	50
Methyl methanesulfonate	10.0	2.63		ug/L		26	10 - 130	9	50
Methyl parathion	10.0	6.67		ug/L		67	10 - 130	16	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 680-358270/16-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358804 — **Prep Batch: 358270**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitro-o-toluidine	10.0	6.69		ug/L		67	10 - 130	6	50
N-Nitrosodiethylamine	10.0	7.83		ug/L		78	10 - 130	9	50
N-Nitrosodi-n-butylamine	10.0	8.32		ug/L		83	10 - 130	8	50
N-Nitrosomethylethylamine	10.0	8.47		ug/L		85	10 - 130	8	50
N-Nitrosomorpholine	10.0	8.27		ug/L		83	10 - 130	12	50
N-Nitrosopiperidine	10.0	8.95		ug/L		90	10 - 130	1	50
N-Nitrosopyrrolidine	10.0	8.45		ug/L		85	10 - 130	7	50
o,o',o''-Triethylphosphorothioate	10.0	8.34		ug/L		83	10 - 130	18	50
p-Dimethylamino azobenzene	10.0	9.21		ug/L		92	10 - 130	10	50
Pentachlorobenzene	10.0	8.45		ug/L		85	10 - 130	2	50
Pentachloronitrobenzene	10.0	9.26		ug/L		93	10 - 130	10	50
Phenacetin	10.0	9.45		ug/L		94	10 - 130	5	50
Phorate	10.0	9.26		ug/L		93	10 - 130	24	50
p-Phenylene diamine	50.0	16	U *	ug/L		17	10 - 130	67	50
Pronamide	10.0	7.11		ug/L		71	10 - 130	28	50
Safrole, Total	10.0	7.95		ug/L		79	10 - 130	4	50
Sulfotepp	10.0	8.86		ug/L		89	10 - 130	25	50
Thionazin	10.0	8.93		ug/L		89	10 - 130	34	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*63*		*27 - 130*
Nitrobenzene-d5 (Surr)	*78*		*32 - 130*
Terphenyl-d14 (Surr)	*98*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*95*		*30 - 130*
2-Fluorophenol (Surr)	*68*		*25 - 130*
2-Fluorobiphenyl	*87*		*34 - 130*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-357267/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357466 — **Prep Batch: 357267**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1221	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1232	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1242	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1248	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1254	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1260	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1262	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1
PCB-1268	1.0	U	1.0		ug/L		11/06/14 16:44	11/07/14 13:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*74*		*14 - 130*	*11/06/14 16:44*	*11/07/14 13:16*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: MB 680-357267/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357466 — **Prep Batch: 357267**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		40 - 130	11/06/14 16:44	11/07/14 13:16	1

Lab Sample ID: LCS 680-357267/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357466 — **Prep Batch: 357267**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	7.45		ug/L		75	44 - 130
PCB-1260	10.0	6.22		ug/L		62	35 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	64		14 - 130
Tetrachloro-m-xylene	69		40 - 130

Lab Sample ID: LCSD 680-357267/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357466 — **Prep Batch: 357267**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	10.0	6.69		ug/L		67	44 - 130	11	30
PCB-1260	10.0	5.69		ug/L		57	35 - 130	9	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	58		14 - 130
Tetrachloro-m-xylene	64		40 - 130

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-57664/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58387 — **Prep Batch: 57664**

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-10	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-100	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-101	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-102	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-103	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-104	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-105	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-106	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-107	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-108	1200	U	1200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-109	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-11	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-57664/1-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57664

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-110	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-111	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-112	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-113	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-114	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-115	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-116	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-117	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-118	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-119	1200	U	1200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-12	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-120	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-121	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-122	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-123	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-124	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-125	1200	U	1200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-126	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-127	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-128	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-129	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-13	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-130	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-131	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-132	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-133	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-134	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-135	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-136	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-137	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-138	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-139	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-14	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-140	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-141	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-142	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-143	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-144	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-145	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-146	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-147	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-148	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-149	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-15	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-150	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-151	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-152	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-153	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-57664/1-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57664

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-154	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-155	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-156	40	U	40		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-157	40	U	40		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-158	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-159	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-16	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-160	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-161	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-162	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-163	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-164	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-165	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-166	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-167	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-168	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-169	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-17	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-170	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-171	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-172	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-173	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-174	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-175	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-176	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-177	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-178	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-179	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-18	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-180	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-181	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-182	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-183	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-184	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-185	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-186	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-187	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-188	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-189	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-19	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-190	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-191	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-192	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-193	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-194	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-195	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-196	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-197	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-57664/1-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57664

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-198	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-199	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-2	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-20	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-200	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-201	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-202	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-203	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-204	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-205	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-206	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-207	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-208	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-209	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-21	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-22	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-23	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-24	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-25	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-26	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-27	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-28	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-29	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-3	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-30	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-31	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-32	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-33	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-34	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-35	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-36	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-37	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-38	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-39	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-4	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-40	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-41	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-42	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-43	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-44	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-45	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-46	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-47	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-48	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-49	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-5	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-50	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-51	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-57664/1-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57664

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-52	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-53	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-54	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-55	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-56	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-57	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-58	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-59	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-6	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-60	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-61	800	U	800		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-62	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-63	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-64	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-65	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-66	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-67	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-68	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-69	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-7	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-70	800	U	800		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-71	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-72	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-73	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-74	800	U	800		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-75	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-76	800	U	800		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-77	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-78	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-79	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-8	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-80	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-81	20	U	20		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-82	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-83	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-84	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-85	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-86	1200	U	1200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-87	1200	U	1200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-88	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-89	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-9	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-90	600	U	600		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-91	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-92	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-93	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-94	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-95	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-57664/1-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57664

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-96	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-97	1200	U	1200		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-98	400	U	400		pg/L		11/11/14 08:05	11/19/14 21:48	1
PCB-99	200	U	200		pg/L		11/11/14 08:05	11/19/14 21:48	1
Polychlorinated biphenyls, Total	2000	U	2000		pg/L		11/11/14 08:05	11/19/14 21:48	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*58*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-105L	*81*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-114L	*80*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-118L	*83*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-123L	*79*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-126L	*77*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-155L	*65*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-156L	*96*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-157L	*96*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-15L	*71*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-167L	*93*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-169L	*90*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-188L	*67*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-189L	*81*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-19L	*71*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-1L	*54*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-202L	*80*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-205L	*88*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-206L	*88*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-208L	*88*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-209L	*83*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-37L	*69*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-3L	*64*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-4L	*66*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-54L	*60*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-77L	*79*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-81L	*80*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-156L/157L	*96*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-111L	*94*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-178L	*102*		*10 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*
PCB-28L	*94*		*5 - 145*	*11/11/14 08:05*	*11/19/14 21:48*	*1*

Lab Sample ID: LCS 320-57664/2-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	2000	2040		pg/L		102	60 - 135
PCB-104	2000	2220		pg/L		111	60 - 135

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-57664/2-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-105	2000	2160		pg/L		108	60 - 135
PCB-114	2000	2120		pg/L		106	60 - 135
PCB-118	2000	2170		pg/L		109	60 - 135
PCB-123	2000	2070		pg/L		104	60 - 135
PCB-126	2000	2110		pg/L		106	60 - 135
PCB-15	2000	2010		pg/L		100	60 - 135
PCB-155	2000	2300		pg/L		115	60 - 135
PCB-156	4000	4170		pg/L		104	60 - 135
PCB-157	4000	4170		pg/L		104	60 - 135
PCB-167	2000	2050		pg/L		102	60 - 135
PCB-169	2000	2110		pg/L		105	60 - 135
PCB-188	2000	2130		pg/L		107	60 - 135
PCB-189	2000	2160		pg/L		108	60 - 135
PCB-19	2000	2070		pg/L		104	60 - 135
PCB-202	2000	2100		pg/L		105	60 - 135
PCB-205	2000	2010		pg/L		100	60 - 135
PCB-206	2000	2030		pg/L		102	60 - 135
PCB-208	2000	2030		pg/L		101	60 - 135
PCB-209	2000	1920		pg/L		96	60 - 135
PCB-3	2000	2040		pg/L		102	60 - 135
PCB-37	2000	2140		pg/L		107	60 - 135
PCB-4	2000	1960		pg/L		98	60 - 135
PCB-54	2000	2190		pg/L		109	60 - 135
PCB-77	2000	2250		pg/L		112	60 - 135
PCB-81	2000	2000		pg/L		100	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-104L	*59*		*40 - 145*
PCB-105L	*76*		*40 - 145*
PCB-114L	*77*		*40 - 145*
PCB-118L	*78*		*40 - 145*
PCB-123L	*77*		*40 - 145*
PCB-126L	*74*		*40 - 145*
PCB-155L	*69*		*40 - 145*
PCB-156L	*94*		*40 - 145*
PCB-157L	*94*		*40 - 145*
PCB-15L	*62*		*15 - 145*
PCB-167L	*92*		*40 - 145*
PCB-169L	*93*		*40 - 145*
PCB-188L	*65*		*40 - 145*
PCB-189L	*79*		*40 - 145*
PCB-19L	*58*		*15 - 145*
PCB-1L	*42*		*15 - 145*
PCB-202L	*75*		*40 - 145*
PCB-205L	*83*		*40 - 145*
PCB-206L	*84*		*40 - 145*
PCB-208L	*85*		*40 - 145*
PCB-209L	*79*		*40 - 145*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-57664/2-A
Matrix: Water
Analysis Batch: 58387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57664

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-37L	66		15 - 145
PCB-3L	52		15 - 145
PCB-4L	52		15 - 145
PCB-54L	56		15 - 145
PCB-77L	76		40 - 145
PCB-81L	76		40 - 145
PCB-156L/157L	94		40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-111L	88		10 - 145
PCB-178L	99		10 - 145
PCB-28L	91		5 - 145

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

GC/MS VOA

Analysis Batch: 358382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-2	DUP-01 (110314)	Total/NA	Water	8260B	
680-106875-6	MW-27 (110314)	Total/NA	Water	8260B	
680-106875-7	MW-29 (110314)	Total/NA	Water	8260B	
680-106875-8	MW-F5 (110314)	Total/NA	Water	8260B	
LCS 680-358382/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-358382/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-358382/10	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 358434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-1	Trip Blank (110314)	Total/NA	Water	8260B	
LCS 680-358434/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-358434/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-358434/10	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 358664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-2	DUP-01 (110314)	Total/NA	Water	8260B	
680-106875-3	MW-F21 (110314)	Total/NA	Water	8260B	
680-106875-5	MW-F7 (110314)	Total/NA	Water	8260B	
LCS 680-358664/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-358664/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-358664/9	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 357009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-3	MW-F21 (110314)	Total/NA	Water	3520C	
680-106875-5	MW-F7 (110314)	Total/NA	Water	3520C	
680-106875-6	MW-27 (110314)	Total/NA	Water	3520C	
680-106875-7	MW-29 (110314)	Total/NA	Water	3520C	
LCS 680-357009/11-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-357009/13-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-357009/12-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 680-357009/14-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-357009/10-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 357225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-8	MW-F5 (110314)	Total/NA	Water	3520C	
680-106875-8 MS	MW-F5 (110314)	Total/NA	Water	3520C	
680-106875-8 MSD	MW-F5 (110314)	Total/NA	Water	3520C	
LCS 680-357225/12-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-357225/15-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-357225/11-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 357718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-5	MW-F7 (110314)	Total/NA	Water	8270D LL	357009

GC/MS Semi VOA (Continued)

Analysis Batch: 357718 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-6	MW-27 (110314)	Total/NA	Water	8270D LL	357009
680-106875-7	MW-29 (110314)	Total/NA	Water	8270D LL	357009
680-106875-8	MW-F5 (110314)	Total/NA	Water	8270D LL	357225
680-106875-8 MS	MW-F5 (110314)	Total/NA	Water	8270D LL	357225
680-106875-8 MSD	MW-F5 (110314)	Total/NA	Water	8270D LL	357225
LCS 680-357009/11-A	Lab Control Sample	Total/NA	Water	8270D LL	357009
LCS 680-357225/12-A	Lab Control Sample	Total/NA	Water	8270D LL	357225

Analysis Batch: 357829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-3	MW-F21 (110314)	Total/NA	Water	8270D LL	357009
LCS 680-357009/13-A	Lab Control Sample	Total/NA	Water	8270D LL	357009
LCS 680-357225/15-A	Lab Control Sample	Total/NA	Water	8270D LL	357225
LCSD 680-357009/12-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	357009
LCSD 680-357009/14-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	357009
MB 680-357009/10-A	Method Blank	Total/NA	Water	8270D LL	357009
MB 680-357225/11-A	Method Blank	Total/NA	Water	8270D LL	357225

Prep Batch: 358270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-3 - RE	MW-F21 (110314)	Total/NA	Water	3520C	
680-106875-5 - RE	MW-F7 (110314)	Total/NA	Water	3520C	
680-106875-6 - RE	MW-27 (110314)	Total/NA	Water	3520C	
680-106875-7 - RE	MW-29 (110314)	Total/NA	Water	3520C	
LCS 680-358270/12-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-358270/15-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-358270/16-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-358270/11-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 358804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-358270/12-A	Lab Control Sample	Total/NA	Water	8270D LL	358270
LCS 680-358270/15-A	Lab Control Sample	Total/NA	Water	8270D LL	358270
LCSD 680-358270/16-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	358270
MB 680-358270/11-A	Method Blank	Total/NA	Water	8270D LL	358270

Analysis Batch: 359237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-3 - RE	MW-F21 (110314)	Total/NA	Water	8270D LL	358270
680-106875-5 - RE	MW-F7 (110314)	Total/NA	Water	8270D LL	358270
680-106875-6 - RE	MW-27 (110314)	Total/NA	Water	8270D LL	358270
680-106875-7 - RE	MW-29 (110314)	Total/NA	Water	8270D LL	358270

GC Semi VOA

Prep Batch: 357267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-4	MW-F3R (110314)	Total/NA	Water	3520C	
LCS 680-357267/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-357267/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

GC Semi VOA (Continued)

Prep Batch: 357267 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-357267/2-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 357466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-4	MW-F3R (110314)	Total/NA	Water	8081B/8082A	357267
LCS 680-357267/3-A	Lab Control Sample	Total/NA	Water	8081B/8082A	357267
LCSD 680-357267/4-A	Lab Control Sample Dup	Total/NA	Water	8081B/8082A	357267
MB 680-357267/2-A	Method Blank	Total/NA	Water	8081B/8082A	357267

Specialty Organics

Prep Batch: 57664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-4	MW-F3R (110314)	Total/NA	Water	HRMS-Sep	
LCS 320-57664/2-A	Lab Control Sample	Total/NA	Water	HRMS-Sep	
MB 320-57664/1-A	Method Blank	Total/NA	Water	HRMS-Sep	

Analysis Batch: 58387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106875-4	MW-F3R (110314)	Total/NA	Water	1668C	57664
LCS 320-57664/2-A	Lab Control Sample	Total/NA	Water	1668C	57664
MB 320-57664/1-A	Method Blank	Total/NA	Water	1668C	57664

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: Trip Blank (110314)

Lab Sample ID: 680-106875-1
Matrix: Water
Date Collected: 11/03/14 11:00
Date Received: 11/03/14 16:50

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	358434	11/13/14 15:09	RWB	TAL SAV

Client Sample ID: DUP-01 (110314)

Lab Sample ID: 680-106875-2
Matrix: Water
Date Collected: 11/03/14 00:00
Date Received: 11/03/14 16:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	358664	11/14/14 15:07	MMT	TAL SAV
Total/NA	Analysis	8260B		1	5 mL	5 mL	358382	11/13/14 02:08	CAR	TAL SAV

Client Sample ID: MW-F21 (110314)

Lab Sample ID: 680-106875-3
Matrix: Water
Date Collected: 11/03/14 14:59
Date Received: 11/03/14 16:50

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	358664	11/14/14 15:27	MMT	TAL SAV
Total/NA	Prep	3520C			953.1 mL	1.0 mL	357009	11/05/14 16:49	RBS	TAL SAV
Total/NA	Analysis	8270D LL		10	953.1 mL	1.0 mL	357829	11/10/14 22:00	SMC	TAL SAV
Total/NA	Prep	3520C	RE		955.6 mL	1.0 mL	358270	11/12/14 16:29	RBS	TAL SAV
Total/NA	Analysis	8270D LL	RE	10	955.6 mL	1.0 mL	359237	11/18/14 14:43	SMC	TAL SAV

Client Sample ID: MW-F3R (110314)

Lab Sample ID: 680-106875-4
Matrix: Water
Date Collected: 11/03/14 14:20
Date Received: 11/03/14 16:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			520.8 mL	5.0 mL	357267	11/06/14 16:44	RBS	TAL SAV
Total/NA	Analysis	8081B/8082A		1	520.8 mL	5.0 mL	357466	11/07/14 14:03	JCK	TAL SAV
Total/NA	Prep	HRMS-Sep			993.7 mL	20.0 uL	57664	11/11/14 08:05	BDH	TAL SAC
Total/NA	Analysis	1668C		1	993.7 mL	20.0 uL	58387	11/20/14 00:18	KSS	TAL SAC

Client Sample ID: MW-F7 (110314)

Lab Sample ID: 680-106875-5
Matrix: Water
Date Collected: 11/03/14 12:53
Date Received: 11/03/14 16:50

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	358664	11/14/14 15:47	MMT	TAL SAV
Total/NA	Prep	3520C			815.4 mL	1.0 mL	357009	11/05/14 16:49	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	815.4 mL	1.0 mL	357718	11/09/14 20:41	SMC	TAL SAV
Total/NA	Prep	3520C	RE		985.2 mL	1.0 mL	358270	11/12/14 16:29	RBS	TAL SAV
Total/NA	Analysis	8270D LL	RE	1	985.2 mL	1.0 mL	359237	11/18/14 15:10	SMC	TAL SAV

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Client Sample ID: MW-27 (110314)

Lab Sample ID: 680-106875-6

Date Collected: 11/03/14 12:36

Matrix: Water

Date Received: 11/03/14 16:50

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	358382	11/13/14 03:19	CAR	TAL SAV
Total/NA	Prep	3520C			966.8 mL	1.0 mL	357009	11/05/14 16:49	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	966.8 mL	1.0 mL	357718	11/09/14 21:08	SMC	TAL SAV
Total/NA	Prep	3520C	RE		862.3 mL	1.0 mL	358270	11/12/14 16:29	RBS	TAL SAV
Total/NA	Analysis	8270D LL	RE	1	862.3 mL	1.0 mL	359237	11/18/14 15:37	SMC	TAL SAV

Client Sample ID: MW-29 (110314)

Lab Sample ID: 680-106875-7

Date Collected: 11/03/14 13:47

Matrix: Water

Date Received: 11/03/14 16:50

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	358382	11/13/14 03:43	CAR	TAL SAV
Total/NA	Prep	3520C			1046.6 mL	1.0 mL	357009	11/05/14 16:49	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	1046.6 mL	1.0 mL	357718	11/09/14 21:35	SMC	TAL SAV
Total/NA	Prep	3520C	RE		902.4 mL	1.0 mL	358270	11/12/14 16:29	RBS	TAL SAV
Total/NA	Analysis	8270D LL	RE	1	902.4 mL	1.0 mL	359237	11/18/14 16:05	SMC	TAL SAV

Client Sample ID: MW-F5 (110314)

Lab Sample ID: 680-106875-8

Date Collected: 11/03/14 14:40

Matrix: Water

Date Received: 11/03/14 16:50

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	358382	11/13/14 04:07	CAR	TAL SAV
Total/NA	Prep	3520C			503.1 mL	0.5 mL	357225	11/06/14 16:44	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	503.1 mL	0.5 mL	357718	11/09/14 23:25	SMC	TAL SAV

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 90428

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: Hercules Savannah	PROJECT NO.	PROJECT LOCATION (STATE): GA
TAL (LAB) PROJECT MANAGER: Kathryn Smith	P.O. NUMBER: N/A	CONTRACT NO.: N/A
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770 428 9009	CLIENT FAX: 770 428 4001
CLIENT NAME:	CLIENT E-MAIL: david.wilderman@arcadis-us.com	
CLIENT ADDRESS:		
COMPANY CONTRACTING THIS WORK (if applicable): Antea Group		

PAGE ___ OF ___

STANDARD REPORT DELIVERY ◯

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8260B (HCL)	8270C (None)	8082A, 1262, 1268 (16651B)	REMARKS
11/3/14	1100	Trip Blank (110314)						2			
11/3/14	0000	DUP-01 (110314)	G	✓				3			
11/3/14	1459	MW-F21 (110314)	G	✓				3	2		
11/3/14	1420	MW-F3R (110314)	G	✓						2	
11/3/14	1253	MW-F7 (110314)	G	✓				3	2		
11/3/14	1236	MW-27 (110314)	G	✓				3	2		
11/3/14	1347	MW-29 (110314)	G	✓				3	2		
11/3/14	1440	MW-F5 (110314)	G	✓				3	2		

REQUIRED ANALYSIS — PRESERVATIVE

NUMBER OF CONTAINERS SUBMITTED

680-106875 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Edward Zjack	11/3/14	1600						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
L. E.	11-3-14	1600						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	11/03/14 ~~1645~~	1600	YES ◯ NO ◯		680-106875	5.8°C

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-106875-1

Login Number: 106875

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-106875-1

Login Number: 106875
List Number: 2
Creator: Yang, Nhia X

List Source: TestAmerica Sacramento
List Creation: 11/05/14 10:25 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106875-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-15
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-15
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-15
Kentucky (UST)	State Program	4	18	06-30-15
Kentucky (WW)	State Program	4	90084	12-31-15
Louisiana	NELAP	6	30690	06-30-15
Louisiana (DW)	NELAP	6	LA150014	12-31-15
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-15
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14 *
South Carolina	State Program	4	98001	06-30-15
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14 *
West Virginia DEP	State Program	3	094	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

* Certification renewal pending - certification considered valid.

Laboratory: TestAmerica Sacramento (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-16
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14 *
Wyoming	State Program	8	8TMS-Q	01-29-15

* Certification renewal pending - certification considered valid.

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: 680-106914-1
Client Project/Site: Hercules Savannah

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
11/18/2014 11:59:41 AM

Kathryn Smith, Project Manager II
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LINKS

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	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
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC 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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL SAV
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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-106914-1	MWD-30 (110414)	Water	11/04/14 08:00	11/04/14 13:13
680-106914-2	MW-F8 (110414)	Water	11/04/14 08:52	11/04/14 13:13
680-106914-3	TRIP BLANK 1	Water	11/04/14 00:00	11/04/14 13:13

Job ID: 680-106914-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: ARCADIS U.S., Inc.
Project: Hercules Savannah
Report Number: 680-106914-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 11/04/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples MWD-30 (110414) (680-106914-1) and TRIP BLANK 1 (680-106914-3) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/14/2014.

Vinyl acetate exceeded the RPD limit for LCSD 680-358664/5.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Sample MWD-30 (110414) (680-106914-1) was analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/06/2014 and analyzed on 11/09/2014.

3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline and Bis(2-chloroethoxy)methane recovered low for LCS 680-357225/12-A. 1,4-Naphthoquinone and Famphur recovered low for LCS 680-357225/15-A. Aramite, Total and Isosafrole recovered high.

The following analytes have been identified, in the reference method and/or via historical data, to be poor and/or erratic performers: 1,4-Napthaquinone and Isosafrole. These analytes may have a %D>60% if the average %D of all the analytes in the initial calibration verification (ICV) is 30%.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Client Sample ID: MWD-30 (110414)

Lab Sample ID: 680-106914-1

Date Collected: 11/04/14 08:00

Matrix: Water

Date Received: 11/04/14 13:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/14/14 14:27	1
Acetonitrile	40	U	40		ug/L			11/14/14 14:27	1
Acrolein	20	U	20		ug/L			11/14/14 14:27	1
Acrylonitrile	20	U	20		ug/L			11/14/14 14:27	1
Benzene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
Bromoform	1.0	U	1.0		ug/L			11/14/14 14:27	1
Bromomethane	5.0	U	5.0		ug/L			11/14/14 14:27	1
2-Butanone	10	U	10		ug/L			11/14/14 14:27	1
Carbon disulfide	2.0	U	2.0		ug/L			11/14/14 14:27	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/14/14 14:27	1
Chlorobenzene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Chloroprene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Chloroethane	5.0	U	5.0		ug/L			11/14/14 14:27	1
Chloroform	1.0	U	1.0		ug/L			11/14/14 14:27	1
Chloromethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
Allyl chloride	1.0	U	1.0		ug/L			11/14/14 14:27	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/14/14 14:27	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
Dibromomethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 14:27	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/14/14 14:27	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/14/14 14:27	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 14:27	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Ethylbenzene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/14/14 14:27	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/14/14 14:27	1
2-Hexanone	10	U	10		ug/L			11/14/14 14:27	1
Iodomethane	10	U	10		ug/L			11/14/14 14:27	1
Isobutanol	50	U	50		ug/L			11/14/14 14:27	1
Methacrylonitrile	20	U	20		ug/L			11/14/14 14:27	1
Methylene Chloride	5.0	U	5.0		ug/L			11/14/14 14:27	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/14/14 14:27	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/14/14 14:27	1
Naphthalene	5.0	U	5.0		ug/L			11/14/14 14:27	1
Pentachloroethane	5.0	U	5.0		ug/L			11/14/14 14:27	1
Propionitrile	20	U	20		ug/L			11/14/14 14:27	1
Styrene	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 14:27	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Client Sample ID: MWD-30 (110414)

Lab Sample ID: 680-106914-1

Date Collected: 11/04/14 08:00

Matrix: Water

Date Received: 11/04/14 13:13

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Toluene	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/14/14 14:27	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
Trichloroethene	1.0	U	1.0		ug/L			11/14/14 14:27	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/14/14 14:27	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/14/14 14:27	1
Vinyl acetate	2.0	U *	2.0		ug/L			11/14/14 14:27	1
Vinyl chloride	1.0	U	1.0		ug/L			11/14/14 14:27	1
Xylenes, Total	2.0	U	2.0		ug/L			11/14/14 14:27	1
1,4-Dioxane	100	U	100		ug/L			11/14/14 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/14/14 14:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*11/14/14 14:27*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*11/14/14 14:27*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*11/14/14 14:27*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,2,4,5-Tetrachlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,2,4-Trichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,2-Dichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,3,5-Trinitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,3-Dichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,3-Dinitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,4-Dichlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
1,4-Naphthoquinone	9.9	U	9.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
1-Naphthylamine	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,3,4,6-Tetrachlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,4,5-Trichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,4,6-Trichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,4-Dichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,4-Dinitrophenol	9.9	U	9.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,4-Dinitrotoluene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,6-Dichlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2,6-Dinitrotoluene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Acetylaminofluorene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Chloronaphthalene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Chlorophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Naphthylamine	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Nitroaniline	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Nitrophenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
2-Picoline	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1

Client Sample ID: MWD-30 (110414)

Lab Sample ID: 680-106914-1

Date Collected: 11/04/14 08:00

Matrix: Water

Date Received: 11/04/14 13:13

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Toluidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
3,3'-Dichlorobenzidine	20	U *	20		ug/L		11/06/14 16:44	11/09/14 22:58	1
3,3'-Dimethylbenzidine	20	U *	20		ug/L		11/06/14 16:44	11/09/14 22:58	1
3-Methylcholanthrene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
3-Nitroaniline	4.9	U *	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
4,6-Dinitro-2-methylphenol	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Aminobiphenyl	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Bromophenyl phenyl ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Chloro-3-methylphenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Chloroaniline	4.0	U *	4.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Chlorophenyl phenyl ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Nitroaniline	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Nitrophenol	7.9	U	7.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
7,12-Dimethylbenz(a)anthracene	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Acenaphthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Acenaphthylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Acetophenone	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
alpha,alpha-Dimethyl phenethylamine	9.9	U	9.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
Aniline	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Aramite, Total	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Benzyl alcohol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
bis (2-chloroisopropyl) ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Bis(2-chloroethoxy)methane	0.99	U *	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Bis(2-chloroethyl)ether	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Bis(2-ethylhexyl) phthalate	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
Butyl benzyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Chrysene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Diallate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Dibenzofuran	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Diethyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Dimethoate	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Dimethyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Di-n-butyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Di-n-octyl phthalate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Dinoseb	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Disulfoton	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Famphur	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1

Client Sample ID: MWD-30 (110414)

Lab Sample ID: 680-106914-1

Date Collected: 11/04/14 08:00

Matrix: Water

Date Received: 11/04/14 13:13

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Hexachlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Hexachlorobutadiene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Hexachloroethane	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Hexachlorophene	490	U	490		ug/L		11/06/14 16:44	11/09/14 22:58	1
Hexachloropropene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Isophorone	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Isosafrole	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Methapyrilene	200	U	200		ug/L		11/06/14 16:44	11/09/14 22:58	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
Methyl parathion	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Naphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Nitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitro-o-toluidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosodiethylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosodimethylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosodi-n-butylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosodi-n-propylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosodiphenylamine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosomorpholine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosopiperidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
N-Nitrosopyrrolidine	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
o,o',o''-Triethylphosphorothioate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
p-Dimethylamino azobenzene	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
Pentachlorobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Pentachloronitrobenzene	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Pentachlorophenol	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
Phenacetin	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Phenanthrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Phenol	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Phorate	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
p-Phenylene diamine	200	U	200		ug/L		11/06/14 16:44	11/09/14 22:58	1
Pronamide	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/09/14 22:58	1
Pyridine	4.9	U	4.9		ug/L		11/06/14 16:44	11/09/14 22:58	1
Safrole, Total	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Sulfotepp	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1
Thionazin	0.99	U	0.99		ug/L		11/06/14 16:44	11/09/14 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*86*		*27 - 130*	*11/06/14 16:44*	*11/09/14 22:58*	*1*
Nitrobenzene-d5 (Surr)	*82*		*32 - 130*	*11/06/14 16:44*	*11/09/14 22:58*	*1*
Terphenyl-d14 (Surr)	*105*		*36 - 130*	*11/06/14 16:44*	*11/09/14 22:58*	*1*
2,4,6-Tribromophenol (Surr)	*107*		*30 - 130*	*11/06/14 16:44*	*11/09/14 22:58*	*1*
2-Fluorophenol (Surr)	*76*		*25 - 130*	*11/06/14 16:44*	*11/09/14 22:58*	*1*
2-Fluorobiphenyl	*94*		*34 - 130*	*11/06/14 16:44*	*11/09/14 22:58*	*1*

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 680-106914-3

Date Collected: 11/04/14 00:00

Matrix: Water

Date Received: 11/04/14 13:13

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/14/14 12:25	1
Acetonitrile	40	U	40		ug/L			11/14/14 12:25	1
Acrolein	20	U	20		ug/L			11/14/14 12:25	1
Acrylonitrile	20	U	20		ug/L			11/14/14 12:25	1
Benzene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
Bromoform	1.0	U	1.0		ug/L			11/14/14 12:25	1
Bromomethane	5.0	U	5.0		ug/L			11/14/14 12:25	1
2-Butanone	10	U	10		ug/L			11/14/14 12:25	1
Carbon disulfide	2.0	U	2.0		ug/L			11/14/14 12:25	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/14/14 12:25	1
Chlorobenzene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Chloroprene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Chloroethane	5.0	U	5.0		ug/L			11/14/14 12:25	1
Chloroform	1.0	U	1.0		ug/L			11/14/14 12:25	1
Chloromethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
Allyl chloride	1.0	U	1.0		ug/L			11/14/14 12:25	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/14/14 12:25	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
Dibromomethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 12:25	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/14/14 12:25	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/14/14 12:25	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 12:25	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Ethylbenzene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/14/14 12:25	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/14/14 12:25	1
2-Hexanone	10	U	10		ug/L			11/14/14 12:25	1
Iodomethane	10	U	10		ug/L			11/14/14 12:25	1
Isobutanol	50	U	50		ug/L			11/14/14 12:25	1
Methacrylonitrile	20	U	20		ug/L			11/14/14 12:25	1
Methylene Chloride	5.0	U	5.0		ug/L			11/14/14 12:25	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/14/14 12:25	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/14/14 12:25	1
Naphthalene	5.0	U	5.0		ug/L			11/14/14 12:25	1
Pentachloroethane	5.0	U	5.0		ug/L			11/14/14 12:25	1
Propionitrile	20	U	20		ug/L			11/14/14 12:25	1
Styrene	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 12:25	1

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 680-106914-3

Date Collected: 11/04/14 00:00

Matrix: Water

Date Received: 11/04/14 13:13

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Toluene	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/14/14 12:25	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
Trichloroethene	1.0	U	1.0		ug/L			11/14/14 12:25	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/14/14 12:25	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/14/14 12:25	1
Vinyl acetate	2.0	U *	2.0		ug/L			11/14/14 12:25	1
Vinyl chloride	1.0	U	1.0		ug/L			11/14/14 12:25	1
Xylenes, Total	2.0	U	2.0		ug/L			11/14/14 12:25	1
1,4-Dioxane	100	U	100		ug/L			11/14/14 12:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/14/14 12:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*11/14/14 12:25*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*11/14/14 12:25*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*11/14/14 12:25*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-358664/9
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			11/14/14 11:24	1
Acetonitrile	40	U	40		ug/L			11/14/14 11:24	1
Acrolein	20	U	20		ug/L			11/14/14 11:24	1
Acrylonitrile	20	U	20		ug/L			11/14/14 11:24	1
Benzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Bromoform	1.0	U	1.0		ug/L			11/14/14 11:24	1
Bromomethane	5.0	U	5.0		ug/L			11/14/14 11:24	1
2-Butanone	10	U	10		ug/L			11/14/14 11:24	1
Carbon disulfide	2.0	U	2.0		ug/L			11/14/14 11:24	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chloroprene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chloroethane	5.0	U	5.0		ug/L			11/14/14 11:24	1
Chloroform	1.0	U	1.0		ug/L			11/14/14 11:24	1
Chloromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Allyl chloride	1.0	U	1.0		ug/L			11/14/14 11:24	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			11/14/14 11:24	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Dibromomethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/14/14 11:24	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/14/14 11:24	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 11:24	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Ethylbenzene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/14/14 11:24	1
Hexachlorobutadiene	5.0	U	5.0		ug/L			11/14/14 11:24	1
2-Hexanone	10	U	10		ug/L			11/14/14 11:24	1
Iodomethane	10	U	10		ug/L			11/14/14 11:24	1
Isobutanol	50	U	50		ug/L			11/14/14 11:24	1
Methacrylonitrile	20	U	20		ug/L			11/14/14 11:24	1
Methylene Chloride	5.0	U	5.0		ug/L			11/14/14 11:24	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/14/14 11:24	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/14/14 11:24	1
Naphthalene	5.0	U	5.0		ug/L			11/14/14 11:24	1
Pentachloroethane	5.0	U	5.0		ug/L			11/14/14 11:24	1
Propionitrile	20	U	20		ug/L			11/14/14 11:24	1
Styrene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-358664/9
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Toluene	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			11/14/14 11:24	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Trichloroethene	1.0	U	1.0		ug/L			11/14/14 11:24	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/14/14 11:24	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			11/14/14 11:24	1
Vinyl acetate	2.0	U	2.0		ug/L			11/14/14 11:24	1
Vinyl chloride	1.0	U	1.0		ug/L			11/14/14 11:24	1
Xylenes, Total	2.0	U	2.0		ug/L			11/14/14 11:24	1
1,4-Dioxane	100	U	100		ug/L			11/14/14 11:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/14/14 11:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*11/14/14 11:24*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*		*11/14/14 11:24*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*11/14/14 11:24*	*1*

Lab Sample ID: LCS 680-358664/4
Matrix: Water
Analysis Batch: 358664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	248		ug/L		99	39 - 162
Acrolein	1000	800		ug/L		80	50 - 150
Acrylonitrile	500	520		ug/L		104	50 - 150
Benzene	50.0	48.6		ug/L		97	74 - 123
Bromodichloromethane	50.0	56.2		ug/L		112	72 - 129
Bromoform	50.0	55.4		ug/L		111	60 - 134
Bromomethane	50.0	50.9		ug/L		102	10 - 171
2-Butanone	250	247		ug/L		99	55 - 142
Carbon disulfide	50.0	54.0		ug/L		108	63 - 142
Carbon tetrachloride	50.0	55.9		ug/L		112	70 - 131
Chlorobenzene	50.0	48.6		ug/L		97	79 - 120
Chloroethane	50.0	58.1		ug/L		116	47 - 148
Chloroform	50.0	52.9		ug/L		106	76 - 128
Chloromethane	50.0	56.5		ug/L		113	47 - 151
Allyl chloride	50.0	51.0		ug/L		102	50 - 150
Dibromochloromethane	50.0	58.4		ug/L		117	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	55.2		ug/L		110	57 - 126
1,2-Dibromoethane	50.0	50.9		ug/L		102	75 - 127
Dibromomethane	50.0	53.0		ug/L		106	75 - 122
1,2-Dichlorobenzene	50.0	50.8		ug/L		102	77 - 124
1,3-Dichlorobenzene	50.0	49.7		ug/L		99	79 - 123
1,4-Dichlorobenzene	50.0	48.8		ug/L		98	76 - 124
trans-1,4-Dichloro-2-butene	50.0	57.5		ug/L		115	50 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-358664/4
Matrix: Water
Analysis Batch: 358664

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	53.5		ug/L		107	41 - 165
1,1-Dichloroethane	50.0	54.0		ug/L		108	69 - 132
1,2-Dichloroethane	50.0	52.6		ug/L		105	75 - 120
trans-1,2-Dichloroethene	50.0	54.5		ug/L		109	78 - 130
1,1-Dichloroethene	50.0	52.0		ug/L		104	73 - 134
1,2-Dichloropropane	50.0	48.3		ug/L		97	71 - 126
cis-1,3-Dichloropropene	50.0	53.9		ug/L		108	73 - 128
trans-1,3-Dichloropropene	50.0	54.2		ug/L		108	72 - 127
Ethylbenzene	50.0	50.7		ug/L		101	78 - 125
Ethyl methacrylate	50.0	51.9		ug/L		104	50 - 150
Hexachlorobutadiene	50.0	55.0		ug/L		110	62 - 145
2-Hexanone	250	257		ug/L		103	52 - 149
Iodomethane	50.0	42.9		ug/L		86	50 - 150
Isobutanol	1250	1390		ug/L		111	50 - 150
Methylene Chloride	50.0	49.3		ug/L		99	79 - 124
4-Methyl-2-pentanone	250	254		ug/L		101	51 - 143
Naphthalene	50.0	52.1		ug/L		104	56 - 136
Styrene	50.0	52.8		ug/L		106	75 - 129
1,1,1,2-Tetrachloroethane	50.0	57.0		ug/L		114	68 - 132
1,1,2,2-Tetrachloroethane	50.0	53.3		ug/L		107	71 - 127
Tetrachloroethene	50.0	50.1		ug/L		100	77 - 128
Toluene	50.0	47.8		ug/L		96	77 - 125
1,2,4-Trichlorobenzene	50.0	53.7		ug/L		107	67 - 134
1,1,1-Trichloroethane	50.0	53.9		ug/L		108	76 - 126
1,1,2-Trichloroethane	50.0	48.9		ug/L		98	69 - 127
Trichloroethene	50.0	51.4		ug/L		103	80 - 120
Trichlorofluoromethane	50.0	64.2		ug/L		128	66 - 144
1,2,3-Trichloropropane	50.0	55.9		ug/L		112	74 - 126
Vinyl acetate	100	104		ug/L		104	10 - 200
Vinyl chloride	50.0	54.6		ug/L		109	58 - 141
Xylenes, Total	100	104		ug/L		104	80 - 124
1,4-Dioxane	1000	1270		ug/L		127	43 - 190

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 680-358664/5
Matrix: Water
Analysis Batch: 358664

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	250	230		ug/L		92	39 - 162	7	50
Acrolein	1000	686		ug/L		69	50 - 150	15	50
Acrylonitrile	500	544		ug/L		109	50 - 150	4	50
Benzene	50.0	48.6		ug/L		97	74 - 123	0	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-358664/5
Matrix: Water
Analysis Batch: 358664

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
Bromodichloromethane	50.0	57.7		ug/L		115	72 - 129	3	30
Bromoform	50.0	55.5		ug/L		111	60 - 134	0	30
Bromomethane	50.0	56.8		ug/L		114	10 - 171	11	50
2-Butanone	250	255		ug/L		102	55 - 142	3	30
Carbon disulfide	50.0	58.2		ug/L		116	63 - 142	7	30
Carbon tetrachloride	50.0	57.2		ug/L		114	70 - 131	2	30
Chlorobenzene	50.0	48.1		ug/L		96	79 - 120	1	30
Chloroethane	50.0	60.4		ug/L		121	47 - 148	4	40
Chloroform	50.0	54.8		ug/L		110	76 - 128	4	30
Chloromethane	50.0	60.5		ug/L		121	47 - 151	7	30
Allyl chloride	50.0	58.5		ug/L		117	50 - 150	14	50
Dibromochloromethane	50.0	59.7		ug/L		119	63 - 134	2	50
1,2-Dibromo-3-Chloropropane	50.0	53.5		ug/L		107	57 - 126	3	50
1,2-Dibromoethane	50.0	51.0		ug/L		102	75 - 127	0	30
Dibromomethane	50.0	52.8		ug/L		106	75 - 122	0	30
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	77 - 124	2	30
1,3-Dichlorobenzene	50.0	48.7		ug/L		97	79 - 123	2	30
1,4-Dichlorobenzene	50.0	48.5		ug/L		97	76 - 124	1	30
trans-1,4-Dichloro-2-butene	50.0	57.6		ug/L		115	50 - 150	0	50
Dichlorodifluoromethane	50.0	69.3		ug/L		139	41 - 165	26	50
1,1-Dichloroethane	50.0	55.1		ug/L		110	69 - 132	2	30
1,2-Dichloroethane	50.0	53.6		ug/L		107	75 - 120	2	30
trans-1,2-Dichloroethene	50.0	57.3		ug/L		115	78 - 130	5	30
1,1-Dichloroethene	50.0	49.9		ug/L		100	73 - 134	4	30
1,2-Dichloropropane	50.0	47.8		ug/L		96	71 - 126	1	30
cis-1,3-Dichloropropene	50.0	52.4		ug/L		105	73 - 128	3	30
trans-1,3-Dichloropropene	50.0	50.1		ug/L		100	72 - 127	8	50
Ethylbenzene	50.0	51.0		ug/L		102	78 - 125	1	30
Ethyl methacrylate	50.0	51.2		ug/L		102	50 - 150	1	50
Hexachlorobutadiene	50.0	52.7		ug/L		105	62 - 145	4	30
2-Hexanone	250	264		ug/L		105	52 - 149	3	30
Iodomethane	50.0	45.8		ug/L		92	50 - 150	7	50
Isobutanol	1250	1370		ug/L		109	50 - 150	2	50
Methylene Chloride	50.0	51.9		ug/L		104	79 - 124	5	30
4-Methyl-2-pentanone	250	253		ug/L		101	51 - 143	0	30
Naphthalene	50.0	52.0		ug/L		104	56 - 136	0	30
Styrene	50.0	54.9		ug/L		110	75 - 129	4	30
1,1,1,2-Tetrachloroethane	50.0	56.7		ug/L		113	68 - 132	1	30
1,1,2,2-Tetrachloroethane	50.0	53.7		ug/L		107	71 - 127	1	30
Tetrachloroethene	50.0	49.3		ug/L		99	77 - 128	1	30
Toluene	50.0	46.8		ug/L		94	77 - 125	2	30
1,2,4-Trichlorobenzene	50.0	54.3		ug/L		109	67 - 134	1	30
1,1,1-Trichloroethane	50.0	55.8		ug/L		112	76 - 126	3	30
1,1,2-Trichloroethane	50.0	49.8		ug/L		100	69 - 127	2	30
Trichloroethene	50.0	50.6		ug/L		101	80 - 120	1	30
Trichlorofluoromethane	50.0	66.6		ug/L		133	66 - 144	4	30
1,2,3-Trichloropropane	50.0	55.3		ug/L		111	74 - 126	1	30
Vinyl acetate	100	74.0	*	ug/L		74	10 - 200	34	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-358664/5
Matrix: Water
Analysis Batch: 358664

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
Vinyl chloride	50.0	55.4		ug/L		111	58 - 141	2	30
Xylenes, Total	100	104		ug/L		104	80 - 124	0	30
1,4-Dioxane	1000	1250		ug/L		125	43 - 190	2	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 680-357225/11-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
1,4-Naphthoquinone	10	U ^	10		ug/L		11/06/14 16:44	11/10/14 19:39	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dinitrophenol	10	U	10		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Picoline	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
2-Toluidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357225/11-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/06/14 16:44	11/10/14 19:39	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/06/14 16:44	11/10/14 19:39	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Chloroaniline	4.0	U	4.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Nitroaniline	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Nitrophenol	8.0	U	8.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
7,12-Dimethylbenz(a)anthracene	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Acenaphthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Acenaphthylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Acetophenone	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/06/14 16:44	11/10/14 19:39	1
Aniline	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Aramite, Total	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Bis(2-ethylhexyl) phthalate	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Chrysene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Diallate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dibenzofuran	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dimethoate	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Dinoseb	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Disulfoton	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Famphur	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Fluoranthene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Fluorene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 680-357225/11-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 357225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachloroethane	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachlorophene	500	U	500		ug/L		11/06/14 16:44	11/10/14 19:39	1
Hexachloropropene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Isophorone	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Isosafrole	1.0	U ^	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Methapyrilene	200	U	200		ug/L		11/06/14 16:44	11/10/14 19:39	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Methyl parathion	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Naphthalene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Nitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phenacetin	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phenanthrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phenol	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Phorate	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
p-Phenylene diamine	200	U	200		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pronamide	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pyrene	0.20	U	0.20		ug/L		11/06/14 16:44	11/10/14 19:39	1
Pyridine	5.0	U	5.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Safrole, Total	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Sulfotepp	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1
Thionazin	1.0	U	1.0		ug/L		11/06/14 16:44	11/10/14 19:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*70*		*27 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
Nitrobenzene-d5 (Surr)	*86*		*32 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
Terphenyl-d14 (Surr)	*90*		*36 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
2,4,6-Tribromophenol (Surr)	*107*		*30 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
2-Fluorophenol (Surr)	*80*		*25 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*
2-Fluorobiphenyl	*94*		*34 - 130*	*11/06/14 16:44*	*11/10/14 19:39*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357225/12-A
Matrix: Water
Analysis Batch: 357718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	9.44		ug/L		94	10 - 130
1,2,4-Trichlorobenzene	10.0	9.37		ug/L		94	39 - 130
1,2-Dichlorobenzene	10.0	8.66		ug/L		87	36 - 130
1,3-Dichlorobenzene	10.0	8.34		ug/L		83	31 - 130
1,3-Dinitrobenzene	10.0	10.1		ug/L		101	10 - 130
1,4-Dichlorobenzene	10.0	8.70		ug/L		87	34 - 130
1,4-Dioxane	10.0	5.83		ug/L		58	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	9.43		ug/L		94	10 - 130
2,4,5-Trichlorophenol	10.0	9.78		ug/L		98	61 - 130
2,4,6-Trichlorophenol	10.0	10.2		ug/L		102	61 - 130
2,4-Dichlorophenol	10.0	10.2		ug/L		102	58 - 130
2,4-Dimethylphenol	10.0	9.75		ug/L		97	41 - 130
2,4-Dinitrophenol	20.0	20.3		ug/L		102	10 - 200
2,4-Dinitrotoluene	10.0	10.2		ug/L		102	57 - 130
2,6-Dinitrotoluene	10.0	9.99		ug/L		100	53 - 130
2-Chloronaphthalene	10.0	9.86		ug/L		99	48 - 130
2-Chlorophenol	10.0	8.53		ug/L		85	45 - 130
2-Methylnaphthalene	10.0	9.79		ug/L		98	51 - 130
2-Methylphenol	10.0	9.61		ug/L		96	49 - 130
2-Nitroaniline	10.0	7.61		ug/L		76	48 - 130
2-Nitrophenol	10.0	10.1		ug/L		101	49 - 130
3 & 4 Methylphenol	10.0	9.68		ug/L		97	55 - 130
3,3'-Dichlorobenzidine	30.0	2.0	U *	ug/L		0.5	10 - 158
3-Nitroaniline	10.0	1.00	J *	ug/L		10	18 - 147
4,6-Dinitro-2-methylphenol	20.0	21.3		ug/L		106	10 - 182
4-Bromophenyl phenyl ether	10.0	10.9		ug/L		109	44 - 130
4-Chloro-3-methylphenol	10.0	9.77		ug/L		98	54 - 130
4-Chloroaniline	10.0	2.0	U *	ug/L		2	17 - 130
4-Chlorophenyl phenyl ether	10.0	11.1		ug/L		111	52 - 130
4-Nitroaniline	10.0	5.72		ug/L		57	31 - 147
4-Nitrophenol	20.0	15.6		ug/L		78	36 - 132
Acenaphthene	10.0	9.79		ug/L		98	42 - 130
Acenaphthylene	10.0	4.50		ug/L		45	45 - 130
Acetophenone	10.0	10.3		ug/L		103	45 - 130
Aniline	10.0	1.74	J	ug/L		17	10 - 130
Anthracene	10.0	10.1		ug/L		101	58 - 130
Benzo[a]anthracene	10.0	9.75		ug/L		98	42 - 143
Benzo[a]pyrene	10.0	8.03		ug/L		80	45 - 151
Benzo[b]fluoranthene	10.0	12.1		ug/L		121	41 - 140
Benzo[g,h,i]perylene	10.0	5.18		ug/L		52	27 - 134
Benzo[k]fluoranthene	10.0	12.1		ug/L		121	45 - 140
Benzyl alcohol	10.0	5.67		ug/L		57	34 - 130
bis (2-chloroisopropyl) ether	10.0	7.65		ug/L		77	39 - 130
Bis(2-chloroethoxy)methane	10.0	1.49	*	ug/L		15	47 - 130
Bis(2-chloroethyl)ether	10.0	8.69		ug/L		87	36 - 130
Bis(2-ethylhexyl) phthalate	10.0	9.52		ug/L		95	10 - 158
Butyl benzyl phthalate	10.0	8.48		ug/L		85	60 - 130
Chrysene	10.0	10.2		ug/L		102	40 - 142

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357225/12-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357718 — **Prep Batch: 357225**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	10.0	6.97		ug/L		70	38 - 130
Dibenzofuran	10.0	10.8		ug/L		108	56 - 130
Diethyl phthalate	10.0	10.3		ug/L		103	60 - 130
Dimethyl phthalate	10.0	9.54		ug/L		95	58 - 130
Di-n-butyl phthalate	10.0	10.7		ug/L		107	59 - 130
Di-n-octyl phthalate	10.0	9.57		ug/L		96	19 - 130
Fluoranthene	10.0	10.6		ug/L		106	46 - 136
Fluorene	10.0	11.2		ug/L		112	48 - 130
Hexachlorobenzene	10.0	10.9		ug/L		109	49 - 130
Hexachlorobutadiene	10.0	9.00		ug/L		90	36 - 130
Hexachlorocyclopentadiene	10.0	2.70		ug/L		27	16 - 130
Hexachloroethane	10.0	7.78		ug/L		78	32 - 130
Indeno[1,2,3-cd]pyrene	10.0	5.75		ug/L		58	12 - 130
Isophorone	10.0	8.42		ug/L		84	45 - 130
Naphthalene	10.0	9.97		ug/L		100	35 - 130
Nitrobenzene	10.0	9.24		ug/L		92	45 - 130
N-Nitrosodimethylamine	10.0	6.65		ug/L		66	29 - 130
N-Nitrosodi-n-propylamine	10.0	8.89		ug/L		89	42 - 130
N-Nitrosodiphenylamine	10.0	6.77		ug/L		68	38 - 130
Pentachlorophenol	20.0	18.9		ug/L		94	12 - 156
Phenanthrene	10.0	10.7		ug/L		107	45 - 134
Phenol	10.0	8.08		ug/L		81	44 - 130
Pyrene	10.0	8.79		ug/L		88	47 - 143
Pyridine	10.0	4.74	J	ug/L		47	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*74*		*27 - 130*
Nitrobenzene-d5 (Surr)	*93*		*32 - 130*
Terphenyl-d14 (Surr)	*103*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*105*		*30 - 130*
2-Fluorophenol (Surr)	*82*		*25 - 130*
2-Fluorobiphenyl	*100*		*34 - 130*

Lab Sample ID: LCS 680-357225/15-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357225**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	8.68		ug/L		87	10 - 130
1,3,5-Trinitrobenzene	10.0	6.46		ug/L		65	10 - 130
1,3-Dinitrobenzene	10.0	9.73		ug/L		97	10 - 130
1,4-Naphthoquinone	10.0	5.0	U ^ *	ug/L		3	10 - 130
1-Naphthylamine	10.0	2.89	J	ug/L		29	10 - 130
2,3,4,6-Tetrachlorophenol	10.0	10.4		ug/L		104	10 - 130
2,6-Dichlorophenol	10.0	9.83		ug/L		98	10 - 130
2-Acetylaminofluorene	10.0	9.94		ug/L		99	10 - 130
2-Naphthylamine	10.0	1.92	J	ug/L		19	10 - 130
2-Picoline	10.0	9.19		ug/L		92	10 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 680-357225/15-A
Matrix: Water
Analysis Batch: 357829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Toluidine	10.0	6.07		ug/L		61	10 - 130
3,3'-Dimethylbenzidine	25.0	13.6	J	ug/L		54	10 - 130
3-Methylcholanthrene	10.0	8.56		ug/L		86	10 - 130
4-Aminobiphenyl	10.0	1.42	J	ug/L		14	10 - 130
4-Nitroquinoline-1-oxide	10.0	3.11		ug/L		31	10 - 130
7,12-Dimethylbenz(a)anthracene	10.0	10.7		ug/L		107	10 - 130
alpha,alpha-Dimethyl phenethylamine	100	47.0	E	ug/L		47	10 - 130
Aramite, Total	10.0	24.9	*	ug/L		249	10 - 130
Diallate	10.0	10.0		ug/L		100	10 - 130
Dimethoate	10.0	4.65		ug/L		46	10 - 130
Dinoseb	10.0	10.8		ug/L		108	10 - 130
Disulfoton	10.0	10.1		ug/L		101	10 - 130
Ethyl methanesulfonate	10.0	7.06		ug/L		71	10 - 130
Ethyl Parathion	10.0	9.97		ug/L		100	10 - 130
Famphur	10.0	0.16	U *	ug/L		0.5	10 - 130
Hexachlorophene	50.0	25	U	ug/L		16	10 - 130
Hexachloropropene	10.0	4.67		ug/L		47	10 - 130
Isosafrole	10.0	26.6	^ *	ug/L		266	10 - 130
Methapyrilene	50.0	30.3	J E	ug/L		61	10 - 130
Methyl methanesulfonate	10.0	3.31		ug/L		33	10 - 130
Methyl parathion	10.0	5.74		ug/L		57	10 - 130
N-Nitro-o-toluidine	10.0	8.08		ug/L		81	10 - 130
N-Nitrosodiethylamine	10.0	9.89		ug/L		99	10 - 130
N-Nitrosodi-n-butylamine	10.0	9.50		ug/L		95	10 - 130
N-Nitrosomethylethylamine	10.0	9.29		ug/L		93	10 - 130
N-Nitrosomorpholine	10.0	8.66		ug/L		87	10 - 130
N-Nitrosopiperidine	10.0	9.58		ug/L		96	10 - 130
N-Nitrosopyrrolidine	10.0	9.47		ug/L		95	10 - 130
o,o',o''-Triethylphosphorothioate	10.0	8.49		ug/L		85	10 - 130
p-Dimethylamino azobenzene	10.0	9.50		ug/L		95	10 - 130
Pentachlorobenzene	10.0	9.15		ug/L		92	10 - 130
Pentachloronitrobenzene	10.0	11.1		ug/L		111	10 - 130
Phenacetin	10.0	10.4		ug/L		104	10 - 130
Phorate	10.0	9.95		ug/L		99	10 - 130
p-Phenylene diamine	50.0	23.5	J E	ug/L		47	10 - 130
Pronamide	10.0	10.5		ug/L		105	10 - 130
Safrole, Total	10.0	9.69		ug/L		97	10 - 130
Sulfotepp	10.0	9.49		ug/L		95	10 - 130
Thionazin	10.0	10.9		ug/L		109	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*82*		*27 - 130*
Nitrobenzene-d5 (Surr)	*80*		*32 - 130*
Terphenyl-d14 (Surr)	*101*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*111*		*30 - 130*
2-Fluorophenol (Surr)	*87*		*25 - 130*
2-Fluorobiphenyl	*89*		*34 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106914-1 MS
Matrix: Water
Analysis Batch: 357829

Client Sample ID: MWD-30 (110414)
Prep Type: Total/NA
Prep Batch: 357225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.99	U	10.0	6.72		ug/L		67	50 - 130
1,2,4,5-Tetrachlorobenzene	0.99	U	10.0	5.50		ug/L		55	10 - 130
1,2,4-Trichlorobenzene	0.99	U	10.0	5.94		ug/L		59	39 - 130
1,2-Dichlorobenzene	0.99	U	10.0	5.20		ug/L		52	36 - 130
1,3-Dichlorobenzene	0.99	U	10.0	5.16		ug/L		52	31 - 130
1,3-Dinitrobenzene	0.99	U	10.0	7.86		ug/L		79	10 - 130
1,4-Dichlorobenzene	0.99	U	10.0	5.00		ug/L		50	34 - 130
1,4-Dioxane	2.0	U	10.0	3.99		ug/L		40	10 - 130
2,3,4,6-Tetrachlorophenol	0.99	U	10.0	8.40		ug/L		84	10 - 130
2,4,5-Trichlorophenol	0.99	U	10.0	7.65		ug/L		77	61 - 130
2,4,6-Trichlorophenol	0.99	U	10.0	8.31		ug/L		83	61 - 130
2,4-Dichlorophenol	0.99	U	10.0	7.95		ug/L		80	58 - 130
2,4-Dimethylphenol	2.0	U	10.0	7.51		ug/L		75	41 - 130
2,4-Dinitrophenol	9.9	U	20.0	18.2		ug/L		91	10 - 200
2,4-Dinitrotoluene	0.99	U	10.0	9.20		ug/L		92	57 - 130
2,6-Dinitrotoluene	0.99	U	10.0	7.78		ug/L		78	53 - 130
2-Chloronaphthalene	0.99	U	10.0	6.01		ug/L		60	48 - 130
2-Chlorophenol	0.99	U	10.0	6.90		ug/L		69	45 - 130
2-Methylnaphthalene	0.20	U	10.0	5.97		ug/L		60	51 - 130
2-Methylphenol	2.0	U	10.0	6.51		ug/L		65	49 - 130
2-Nitroaniline	0.99	U	10.0	7.28		ug/L		73	48 - 130
2-Nitrophenol	0.99	U	10.0	7.97		ug/L		80	49 - 130
3 & 4 Methylphenol	2.0	U	10.0	7.44		ug/L		74	55 - 130
3,3'-Dichlorobenzidine	20	U *	30.0	20	U	ug/L		61	10 - 158
3-Nitroaniline	4.9	U *	10.0	6.92		ug/L		69	18 - 147
4,6-Dinitro-2-methylphenol	4.9	U	20.0	17.8		ug/L		89	10 - 182
4-Bromophenyl phenyl ether	0.99	U	10.0	7.92		ug/L		79	44 - 130
4-Chloro-3-methylphenol	0.99	U	10.0	7.36		ug/L		74	54 - 130
4-Chloroaniline	4.0	U *	10.0	5.21		ug/L		52	17 - 130
4-Chlorophenyl phenyl ether	0.99	U	10.0	8.05		ug/L		81	52 - 130
4-Nitroaniline	4.9	U	10.0	8.70		ug/L		87	31 - 147
4-Nitrophenol	7.9	U	20.0	17.4		ug/L		87	36 - 132
Acenaphthene	0.20	U	10.0	7.52		ug/L		75	42 - 130
Acenaphthylene	0.20	U	10.0	8.36		ug/L		84	45 - 130
Acetophenone	0.99	U	10.0	7.77		ug/L		78	45 - 130
Aniline	2.0	U	10.0	6.25		ug/L		62	10 - 130
Anthracene	0.20	U	10.0	9.55		ug/L		96	58 - 130
Benzo[a]anthracene	0.20	U	10.0	9.27		ug/L		93	42 - 143
Benzo[a]pyrene	0.20	U	10.0	8.26		ug/L		83	45 - 151
Benzo[b]fluoranthene	0.20	U	10.0	8.42		ug/L		84	41 - 140
Benzo[g,h,i]perylene	0.20	U	10.0	10.8		ug/L		108	27 - 134
Benzo[k]fluoranthene	0.20	U	10.0	8.36		ug/L		84	45 - 140
Benzyl alcohol	0.99	U	10.0	7.51		ug/L		75	34 - 130
bis (2-chloroisopropyl) ether	0.99	U	10.0	6.24		ug/L		62	39 - 130
Bis(2-chloroethoxy)methane	0.99	U *	10.0	7.15		ug/L		72	47 - 130
Bis(2-chloroethyl)ether	0.99	U	10.0	6.56		ug/L		66	36 - 130
Bis(2-ethylhexyl) phthalate	4.9	U	10.0	9.35		ug/L		94	10 - 158
Butyl benzyl phthalate	0.99	U	10.0	8.89		ug/L		88	60 - 130

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106914-1 MS — **Client Sample ID: MWD-30 (110414)**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	0.20	U	10.0	9.23		ug/L		91	40 - 142
Dibenz(a,h)anthracene	0.20	U	10.0	10.6		ug/L		107	38 - 130
Dibenzofuran	0.99	U	10.0	8.35		ug/L		84	56 - 130
Diethyl phthalate	0.99	U	10.0	8.81		ug/L		88	60 - 130
Dimethyl phthalate	0.99	U	10.0	7.91		ug/L		79	58 - 130
Di-n-butyl phthalate	0.99	U	10.0	8.41		ug/L		84	59 - 130
Di-n-octyl phthalate	0.99	U	10.0	8.39		ug/L		82	19 - 130
Fluoranthene	0.20	U	10.0	8.82		ug/L		88	46 - 136
Fluorene	0.20	U	10.0	9.04		ug/L		90	48 - 130
Hexachlorobenzene	0.99	U	10.0	8.46		ug/L		85	49 - 130
Hexachlorobutadiene	0.99	U	10.0	4.70		ug/L		47	36 - 130
Hexachlorocyclopentadiene	2.0	U	10.0	2.0	U	ug/L		17	16 - 130
Hexachloroethane	0.99	U	10.0	4.51		ug/L		45	32 - 130
Indeno[1,2,3-cd]pyrene	0.20	U	10.0	11.1		ug/L		111	12 - 130
Isophorone	0.99	U	10.0	6.74		ug/L		67	45 - 130
Naphthalene	0.20	U	10.0	6.62		ug/L		66	35 - 130
Nitrobenzene	0.99	U	10.0	7.06		ug/L		71	45 - 130
N-Nitrosodimethylamine	0.99	U	10.0	8.76		ug/L		88	29 - 130
N-Nitrosodi-n-propylamine	0.99	U	10.0	7.29		ug/L		73	42 - 130
N-Nitrosodiphenylamine	0.99	U	10.0	9.40		ug/L		94	38 - 130
Pentachlorophenol	4.9	U	20.0	18.9		ug/L		94	12 - 156
Phenanthrene	0.20	U	10.0	9.06		ug/L		91	45 - 134
Phenol	0.99	U	10.0	5.18		ug/L		52	44 - 130
Pyrene	0.20	U	10.0	8.47		ug/L		85	47 - 143
Pyridine	4.9	U	10.0	7.32		ug/L		73	10 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Phenol-d5 (Surr)	*47*		*27 - 130*
Nitrobenzene-d5 (Surr)	*65*		*32 - 130*
Terphenyl-d14 (Surr)	*75*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*84*		*30 - 130*
2-Fluorophenol (Surr)	*44*		*25 - 130*
2-Fluorobiphenyl	*62*		*34 - 130*

Lab Sample ID: 680-106914-1 MSD — **Client Sample ID: MWD-30 (110414)**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	0.99	U	9.10	7.73		ug/L		85	50 - 130	14	50
1,2,4,5-Tetrachlorobenzene	0.99	U	9.10	6.25		ug/L		69	10 - 130	13	50
1,2,4-Trichlorobenzene	0.99	U	9.10	5.85		ug/L		64	39 - 130	2	50
1,2-Dichlorobenzene	0.99	U	9.10	5.43		ug/L		60	36 - 130	4	50
1,3-Dichlorobenzene	0.99	U	9.10	5.34		ug/L		59	31 - 130	3	50
1,3-Dinitrobenzene	0.99	U	9.10	9.32		ug/L		102	10 - 130	17	50
1,4-Dichlorobenzene	0.99	U	9.10	5.38		ug/L		59	34 - 130	7	50
1,4-Dioxane	2.0	U	9.10	5.11		ug/L		56	10 - 130	25	50
2,3,4,6-Tetrachlorophenol	0.99	U	9.10	8.58		ug/L		94	10 - 130	2	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106914-1 MSD — **Client Sample ID: MWD-30 (110414)**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357829 — **Prep Batch: 357225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-Trichlorophenol	0.99	U	9.10	8.68		ug/L		95	61 - 130	13	50
2,4,6-Trichlorophenol	0.99	U	9.10	9.36		ug/L		103	61 - 130	12	50
2,4-Dichlorophenol	0.99	U	9.10	8.18		ug/L		90	58 - 130	3	50
2,4-Dimethylphenol	2.0	U	9.10	7.94		ug/L		87	41 - 130	6	50
2,4-Dinitrophenol	9.9	U	18.2	18.9		ug/L		104	10 - 200	4	50
2,4-Dinitrotoluene	0.99	U	9.10	8.62		ug/L		95	57 - 130	7	50
2,6-Dinitrotoluene	0.99	U	9.10	8.74		ug/L		96	53 - 130	12	50
2-Chloronaphthalene	0.99	U	9.10	7.62		ug/L		84	48 - 130	24	50
2-Chlorophenol	0.99	U	9.10	7.64		ug/L		84	45 - 130	10	50
2-Methylnaphthalene	0.20	U	9.10	6.53		ug/L		72	51 - 130	9	50
2-Methylphenol	2.0	U	9.10	7.78		ug/L		86	49 - 130	18	50
2-Nitroaniline	0.99	U	9.10	9.09		ug/L		100	48 - 130	22	50
2-Nitrophenol	0.99	U	9.10	7.96		ug/L		88	49 - 130	0	50
3 & 4 Methylphenol	2.0	U	9.10	8.30		ug/L		91	55 - 130	11	50
3,3'-Dichlorobenzidine	20	U *	27.3	20.1	E	ug/L		74	10 - 158	10	50
3-Nitroaniline	4.9	U *	9.10	6.36		ug/L		70	18 - 147	8	50
4,6-Dinitro-2-methylphenol	4.9	U	18.2	19.8		ug/L		109	10 - 182	10	50
4-Bromophenyl phenyl ether	0.99	U	9.10	9.40		ug/L		103	44 - 130	17	50
4-Chloro-3-methylphenol	0.99	U	9.10	8.63		ug/L		95	54 - 130	16	50
4-Chloroaniline	4.0	U *	9.10	5.55		ug/L		61	17 - 130	6	50
4-Chlorophenyl phenyl ether	0.99	U	9.10	8.19		ug/L		90	52 - 130	2	50
4-Nitroaniline	4.9	U	9.10	8.34		ug/L		92	31 - 147	4	50
4-Nitrophenol	7.9	U	18.2	17.7		ug/L		97	36 - 132	2	50
Acenaphthene	0.20	U	9.10	8.19		ug/L		90	42 - 130	8	50
Acenaphthylene	0.20	U	9.10	8.50		ug/L		93	45 - 130	2	50
Acetophenone	0.99	U	9.10	7.96		ug/L		88	45 - 130	2	50
Aniline	2.0	U	9.10	6.50		ug/L		71	10 - 130	4	50
Anthracene	0.20	U	9.10	10.1		ug/L		111	58 - 130	5	50
Benzo[a]anthracene	0.20	U	9.10	9.20		ug/L		101	42 - 143	1	50
Benzo[a]pyrene	0.20	U	9.10	8.05		ug/L		88	45 - 151	3	50
Benzo[b]fluoranthene	0.20	U	9.10	7.80		ug/L		86	41 - 140	8	50
Benzo[g,h,i]perylene	0.20	U	9.10	10.5		ug/L		116	27 - 134	3	50
Benzo[k]fluoranthene	0.20	U	9.10	8.10		ug/L		89	45 - 140	3	50
Benzyl alcohol	0.99	U	9.10	7.72		ug/L		85	34 - 130	3	50
bis (2-chloroisopropyl) ether	0.99	U	9.10	6.81		ug/L		75	39 - 130	9	50
Bis(2-chloroethoxy)methane	0.99	U *	9.10	8.07		ug/L		89	47 - 130	12	50
Bis(2-chloroethyl)ether	0.99	U	9.10	7.57		ug/L		83	36 - 130	14	50
Bis(2-ethylhexyl) phthalate	4.9	U	9.10	10.0		ug/L		110	10 - 158	7	50
Butyl benzyl phthalate	0.99	U	9.10	9.04		ug/L		98	60 - 130	2	50
Chrysene	0.20	U	9.10	8.60		ug/L		93	40 - 142	7	50
Dibenz(a,h)anthracene	0.20	U	9.10	10.5		ug/L		115	38 - 130	2	50
Dibenzofuran	0.99	U	9.10	7.83		ug/L		86	56 - 130	6	50
Diethyl phthalate	0.99	U	9.10	8.85		ug/L		97	60 - 130	0	50
Dimethyl phthalate	0.99	U	9.10	8.84		ug/L		97	58 - 130	11	50
Di-n-butyl phthalate	0.99	U	9.10	9.27		ug/L		102	59 - 130	10	50
Di-n-octyl phthalate	0.99	U	9.10	8.38		ug/L		90	19 - 130	0	50
Fluoranthene	0.20	U	9.10	9.47		ug/L		104	46 - 136	7	50
Fluorene	0.20	U	9.10	8.62		ug/L		95	48 - 130	5	50

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 680-106914-1 MSD | **Client Sample ID: MWD-30 (110414)**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 357829 | **Prep Batch: 357225**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobenzene	0.99	U	9.10	8.64		ug/L		95	49 - 130	2	50
Hexachlorobutadiene	0.99	U	9.10	5.04		ug/L		55	36 - 130	7	50
Hexachlorocyclopentadiene	2.0	U	9.10	2.11		ug/L		23	16 - 130	21	50
Hexachloroethane	0.99	U	9.10	4.81		ug/L		53	32 - 130	6	50
Indeno[1,2,3-cd]pyrene	0.20	U	9.10	10.7		ug/L		118	12 - 130	4	50
Isophorone	0.99	U	9.10	8.15		ug/L		90	45 - 130	19	50
Naphthalene	0.20	U	9.10	6.57		ug/L		72	35 - 130	1	50
Nitrobenzene	0.99	U	9.10	8.40		ug/L		92	45 - 130	17	50
N-Nitrosodimethylamine	0.99	U	9.10	8.35		ug/L		92	29 - 130	5	50
N-Nitrosodi-n-propylamine	0.99	U	9.10	7.55		ug/L		83	42 - 130	4	50
N-Nitrosodiphenylamine	0.99	U	9.10	10.5		ug/L		115	38 - 130	11	50
Pentachlorophenol	4.9	U	18.2	19.5		ug/L		107	12 - 156	3	50
Phenanthrene	0.20	U	9.10	9.84		ug/L		108	45 - 134	8	50
Phenol	0.99	U	9.10	7.70		ug/L		85	44 - 130	39	50
Pyrene	0.20	U	9.10	8.85		ug/L		97	47 - 143	4	50
Pyridine	4.9	U	9.10	6.40		ug/L		70	10 - 130	13	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*79*		*27 - 130*
Nitrobenzene-d5 (Surr)	*87*		*32 - 130*
Terphenyl-d14 (Surr)	*83*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*98*		*30 - 130*
2-Fluorophenol (Surr)	*74*		*25 - 130*
2-Fluorobiphenyl	*81*		*34 - 130*

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

GC/MS VOA

Analysis Batch: 358664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106914-1	MWD-30 (110414)	Total/NA	Water	8260B	
680-106914-3	TRIP BLANK 1	Total/NA	Water	8260B	
LCS 680-358664/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-358664/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-358664/9	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 357225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106914-1	MWD-30 (110414)	Total/NA	Water	3520C	
680-106914-1 MS	MWD-30 (110414)	Total/NA	Water	3520C	
680-106914-1 MSD	MWD-30 (110414)	Total/NA	Water	3520C	
LCS 680-357225/12-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-357225/15-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-357225/11-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 357718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106914-1	MWD-30 (110414)	Total/NA	Water	8270D LL	357225
LCS 680-357225/12-A	Lab Control Sample	Total/NA	Water	8270D LL	357225

Analysis Batch: 357829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106914-1 MS	MWD-30 (110414)	Total/NA	Water	8270D LL	357225
680-106914-1 MSD	MWD-30 (110414)	Total/NA	Water	8270D LL	357225
LCS 680-357225/15-A	Lab Control Sample	Total/NA	Water	8270D LL	357225
MB 680-357225/11-A	Method Blank	Total/NA	Water	8270D LL	357225

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Client Sample ID: MWD-30 (110414)

Lab Sample ID: 680-106914-1

Date Collected: 11/04/14 08:00

Matrix: Water

Date Received: 11/04/14 13:13

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	358664	11/14/14 14:27	MMT	TAL SAV
Total/NA	Prep	3520C			506.1 mL	0.5 mL	357225	11/06/14 16:44	RBS	TAL SAV
Total/NA	Analysis	8270D LL		1	506.1 mL	0.5 mL	357718	11/09/14 22:58	SMC	TAL SAV

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 680-106914-3

Date Collected: 11/04/14 00:00

Matrix: Water

Date Received: 11/04/14 13:13

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	358664	11/14/14 12:25	MMT	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

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID:	041432895
Customer ID:	STLS77
Customer PO:	68001205
Project ID:	

Attn: Kathy Smith
TestAmerica Laboratories, Inc.
5102 LaRoche Avenue
Savannah, GA 31404

Phone:	(912) 354-7858
Fax:	(912) 352-0165
Collected:	11/04/2014
Received:	11/05/2014
Analyzed:	11/11/2014

Proj: Hercules Savannah / 68001205 / 680-365192.1 / 680.106914-1

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 (mm²)	Area Analyzed (mm²)	ASBESTOS: Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
							MFL (million fibers per liter)		
MW-F8 (11042014)(680-1 041432895-0001	11/5/2014 11:45 AM	3	1298	0.2640	None Detected	ND	1.60	<1.60	0.00 - 6.00

Due to excessive particulate the analytical sensitivity of 0.2 MFL as required by the method was not reached.

Analyst(s)
Debbie Little (1)

Stephen Siegel, CIH, Laboratory Manager
or Other Approved Signatory

Any questions please contact Steve Siegel.

Initial report from: 11/11/2014 23:24:22

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, PA ID# 68-00367

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

041432895

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

11/18/2014

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Smith, Kathryn E	Carrier Tracking No(s):	COC No: 680-365192 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kathy.smith@testamericainc.com		Page: Page 1 of 1
Company: EMSL Analytical, Inc				Job #: 680-106914-1
Address: 200 Rt 130 North, ,	Due Date Requested: 11/14/2014			
City: Cinnaminson	TAT Requested (days):			
State, Zip: NJ, 08077				
Phone: 800-220-3675(Tel)	PO #:			
Email:	WO #:			
Project Name: Hercules Savannah	Project #: 68001205			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	SUB (Asbestos)/ Asbestos	Total Number of containers	Special Instructions/Note:
			Preservation Code:					
MW-F8 (11042014) (680-106914-2)	11/4/14	08 52 Eastern		Water		X	2	

Possible Hazard Identification
Unconfirmed

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
[signature]	11/4/14 15:36	TA	[signature] FX	11/5/14 9:30	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks	0.3 C

OrderID: 041432895

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Shipping Order Form

S680-59992

041432895

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

11/18/2014

Shipping Order ID: 59992 **Ship Via: FedEx Std Overnight** **Due On: 11/5/2014 11:59:00PM**

Ship To Information

Project Manager:
Company Name: *EMSL Analytical, Inc.*
Attention: *Attn: Shipping/Receiving*
Address 1: *200 Rt 130 North*
Address 2:
Address 3:
City: *City: Cinnaminson*
State: *NJ*
Zip: *08077*
Phone #: *800-220-3675*
Project Ref:

Notes to Bottle/Shipping Department

☒ Rebill Freight ☐ Labels on Coolers

Page 30 of 33

Shipping Assets

Assets	Quantity	Description	Filled
			☐

Please notify us immediately if an error is found in shipment

Serial Number 89600

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)
Hercules Savannah	68001205	

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Kathryn Smith	N/A	

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
David Wilderman	770-478-9009	770-428-9044

CLIENT NAME	CLIENT E-MAIL
	david.wilderman@arcadis.com

CLIENT ADDRESS

COMPANY CONTRACTING THIS WORK (if applicable): Antea Group

PAGE 1 OF 1

STANDARD REPORT DELIVERY ☒

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS / NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8260B (HCL)	8270C (None)	ASBESTOS (None)	REMARKS
11/4/14	8:00	MWD-30 (11042014)	G	X				3	2		
11/4/14	8:52	MW-F8 (11042014)	G	X						2	
11/4/14	—	TRIP BLANK 1		X				2			

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Alex Harrison / [illegible]	11/4/14	13:10						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[illegible]	11/4/14	13:13						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABO
[illegible]	11/04/14	1313	YES ○ NO ○		680 106914	

680-106914 Chain of Custody

3.2°

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-106914-1

Login Number: 106914

List Source: TestAmerica Savannah

List Number: 1

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106914-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14 *
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-15
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-15
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14 *
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

* Certification renewal pending - certification considered valid.

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: 680-104549-2
Client Project/Site: Hercules Savannah

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
12/30/2014 2:25:13 PM

Kathryn Smith, Project Manager II
(912)354-7858
kathy.smith@testamericainc.com

LINKS

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Qualifiers

Dioxin

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
E	Result exceeded calibration range.
*	Isotope Dilution analyte exceeds 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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-104549-19	SB-129 (0-1)	Solid	08/21/14 14:10	08/22/14 15:20
680-104549-20	SB-129 (1-3)	Solid	08/21/14 14:30	08/22/14 15:20
680-104549-21	SB-131 (0-1)	Solid	08/21/14 12:05	08/22/14 15:20
680-104549-22	SB-130 (0-1)	Solid	08/21/14 15:25	08/22/14 15:20
680-104549-23	SB-132 (0-1)	Solid	08/21/14 16:20	08/22/14 15:20

Job ID: 680-104549-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: ARCADIS U.S., Inc.
Project: Hercules Savannah

Report Number: 680-104549-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 08/22/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.6º C, 4.2º C, 4.8º C and 4.8º C.

CHLORINATED BIPHENYL CONGENERS

Samples SB-129 (0-1) (680-104549-19), SB-129 (1-3) (680-104549-20), SB-131 (0-1) (680-104549-21), SB-130 (0-1) (680-104549-22) and SB-132 (0-1) (680-104549-23) were analyzed for chlorinated biphenyl congeners in accordance with epa method 1668C. The samples were prepared on 12/09/2014 and analyzed on 12/24/2014.

The Isotope Dilution Analyte (IDA) recovery of 13C-PCB 104 and 13C-PCB 155 associated with the following samples is below the method recommended limit: (LCS 320-60235/2-A). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-130 (0-1) (680-104549-22), SB-131 (0-1) (680-104549-21), SB-132 (0-1) (680-104549-23) . The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-130 (0-1) (680-104549-22), SB-131 (0-1) (680-104549-21), SB-132 (0-1) (680-104549-23). These analytes have been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-129 (0-1)

Date Collected: 08/21/14 14:10
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-19
Matrix: Solid
Percent Solids: 90.0

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-2	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-3	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-4	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-5	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-6	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-7	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-8	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-9	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-10	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-11	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-12/13	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-14	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-15	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-16	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-17	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-18/30	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-19	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-20/28	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-21/33	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-22	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-23	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-24	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-25	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-26/29	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-27	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-31	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-32	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-34	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-35	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-36	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-37	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-38	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-39	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-40/71	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-41	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-42	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-43	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-44/47/65	65	U	65		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-45	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-46	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-48	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-49/69	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-50/53	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-51	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-52	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-54	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-55	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-56	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1

Client Sample ID: SB-129 (0-1)
Date Collected: 08/21/14 14:10
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-19
Matrix: Solid
Percent Solids: 90.0

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-58	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-59/62/75	65	U	65		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-60	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-61/70/74/76	87	U	87		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-63	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-64	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-66	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-67	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-68	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-72	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-73	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-77	2.2	U	2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-78	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-79	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-80	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-81	2.2	U	2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-82	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-83	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-84	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-85/116/117	65	U	65		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-86/87/97/108/119/125	130	U	130		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-88/91	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-89	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-90/101/113	65	U	65		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-92	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-93/100	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-107/124	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-94	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-95	**33**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-96	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-98/102	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-99	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-103	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-104	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-105	**19**		2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-106	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-110/115	**120**		43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-109	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-111	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-112	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-114	2.2	U	2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-118	**46**		2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-120	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-121	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-122	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-123	2.2	U	2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-126	**3.7**		2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-127	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1

Client Sample ID: SB-129 (0-1)
Date Collected: 08/21/14 14:10
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-19
Matrix: Solid
Percent Solids: 90.0

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	**61**		43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-129/138/163	**290**		65		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-130	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-131	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-132	**50**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-133	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-134/143	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-135/151	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-136	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-137	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-139/140	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-141	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-142	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-144	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-145	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-146	**35**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-147/149	**100**		43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-148	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-150	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-152	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-153/168	**100**		43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-154	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-155	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-156/157	**24**		4.3		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-158	**26**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-159	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-160	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-161	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-162	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-164	**28**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-165	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-167	**11**		2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-169	2.2	U	2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-170	**130**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-171/173	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-172	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-174	**100**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-175	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-176	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-177	**63**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-178	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-179	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-180/193	**250**		43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-181	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-182	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-183	**26**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-184	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-185	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-186	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1

Client Sample ID: SB-129 (0-1)
Date Collected: 08/21/14 14:10
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-19
Matrix: Solid
Percent Solids: 90.0

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**84**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-188	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-189	**2.9**	**q**	2.2		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-190	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-191	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-192	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-194	**61**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-195	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-196	**24**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-197	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-198/199	**73**		43		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-200	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-201	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-202	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-203	**42**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-204	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-205	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-206	**87**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-207	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-208	**37**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1
PCB-209	**100**		22		pg/g	☼	12/09/14 11:39	12/24/14 05:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*27*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-3L	*34*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-4L	*32*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-15L	*50*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-19L	*40*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-37L	*67*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-54L	*39*		*5 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-77L	*82*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-81L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-104L	*50*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-105L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-114L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-118L	*79*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-123L	*82*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-126L	*87*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-155L	*61*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-156L/157L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-167L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-169L	*79*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-188L	*74*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-189L	*79*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-202L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-205L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-206L	*74*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-208L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*
PCB-209L	*65*		*10 - 145*	*12/09/14 11:39*	*12/24/14 05:42*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-129 (0-1)
Date Collected: 08/21/14 14:10
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-19
Matrix: Solid
Percent Solids: 90.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	60		5 - 145	12/09/14 11:39	12/24/14 05:42	1
PCB-111L	83		10 - 145	12/09/14 11:39	12/24/14 05:42	1
PCB-178L	79		10 - 145	12/09/14 11:39	12/24/14 05:42	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-129 (1-3)

Date Collected: 08/21/14 14:30
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-20

Matrix: Solid
Percent Solids: 92.6

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-2	**39**		21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-3	**31**		21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-4	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-5	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-6	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-7	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-8	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-9	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-10	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-11	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-12/13	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-14	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-15	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-16	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-17	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-18/30	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-19	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-20/28	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-21/33	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-22	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-23	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-24	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-25	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-26/29	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-27	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-31	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-32	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-34	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-35	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-36	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-37	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-38	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-39	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-40/71	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-41	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-42	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-43	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-44/47/65	64	U	64		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-45	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-46	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-48	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-49/69	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-50/53	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-51	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-52	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-54	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-55	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-56	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-129 (1-3)
Date Collected: 08/21/14 14:30
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-20
Matrix: Solid
Percent Solids: 92.6

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-58	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-59/62/75	64	U	64		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-60	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-61/70/74/76	85	U	85		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-63	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-64	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-66	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-67	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-68	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-72	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-73	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-77	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-78	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-79	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-80	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-81	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-82	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-83	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-84	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-85/116/117	64	U	64		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-86/87/97/108/119/125	130	U	130		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-88/91	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-89	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-90/101/113	64	U	64		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-92	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-93/100	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-107/124	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-94	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-95	**31**		21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-96	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-98/102	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-99	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-103	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-104	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-105	**10**		2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-106	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-110/115	**60**		42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-109	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-111	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-112	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-114	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-118	**29**		2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-120	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-121	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-122	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-123	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-126	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-127	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1

Client Sample ID: SB-129 (1-3)
Date Collected: 08/21/14 14:30
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-20
Matrix: Solid
Percent Solids: 92.6

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-129/138/163	**99**		64		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-130	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-131	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-132	**24**		21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-133	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-134/143	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-135/151	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-136	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-137	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-139/140	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-141	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-142	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-144	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-145	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-146	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-147/149	**46**		42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-148	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-150	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-152	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-153/168	**47**		42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-154	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-155	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-156/157	**12**		4.2		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-158	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-159	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-160	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-161	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-162	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-164	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-165	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-167	**4.3**		2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-169	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-170	**22**		21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-171/173	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-172	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-174	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-175	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-176	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-177	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-178	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-179	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-180/193	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-181	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-182	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-183	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-184	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-185	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-186	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1

Client Sample ID: SB-129 (1-3)
Date Collected: 08/21/14 14:30
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-20
Matrix: Solid
Percent Solids: 92.6

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-188	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-189	2.1	U	2.1		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-190	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-191	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-192	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-194	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-195	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-196	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-197	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-198/199	42	U	42		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-200	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-201	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-202	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-203	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-204	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-205	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-206	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-207	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-208	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1
PCB-209	21	U	21		pg/g	☼	12/09/14 11:39	12/24/14 06:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*30*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-3L	*35*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-4L	*34*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-15L	*47*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-19L	*42*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-37L	*65*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-54L	*43*		*5 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-77L	*79*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-81L	*78*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-104L	*50*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-105L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-114L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-118L	*79*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-123L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-126L	*86*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-155L	*63*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-156L/157L	*87*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-167L	*88*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-169L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-188L	*74*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-189L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-202L	*84*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-205L	*87*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-206L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-208L	*88*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*
PCB-209L	*72*		*10 - 145*	*12/09/14 11:39*	*12/24/14 06:57*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-129 (1-3)

Date Collected: 08/21/14 14:30
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-20

Matrix: Solid
Percent Solids: 92.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	58		5 - 145	12/09/14 11:39	12/24/14 06:57	1
PCB-111L	82		10 - 145	12/09/14 11:39	12/24/14 06:57	1
PCB-178L	82		10 - 145	12/09/14 11:39	12/24/14 06:57	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-131 (0-1)

Date Collected: 08/21/14 12:05
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-21
Matrix: Solid
Percent Solids: 87.7

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-2	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-3	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-4	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-5	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-6	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-7	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-8	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-9	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-10	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-11	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-12/13	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-14	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-15	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-16	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-17	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-18/30	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-19	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-20/28	**59**		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-21/33	**100**		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-22	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-23	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-24	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-25	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-26/29	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-27	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-31	**84**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-32	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-34	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-35	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-36	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-37	**29**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-38	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-39	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-40/71	**270**		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-41	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-42	**110**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-43	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-44/47/65	**1500**		68		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-45	**41**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-46	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-48	**61**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-49/69	**700**		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-50/53	**81**		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-51	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-52	**4200**	**E**	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-54	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-55	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-56	**440**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1

Client Sample ID: SB-131 (0-1)

Date Collected: 08/21/14 12:05
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-21

Matrix: Solid
Percent Solids: 87.7

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-58	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-59/62/75	68	U	68		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-60	**180**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-61/70/74/76	**4000**		90		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-63	**36**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-64	**490**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-66	**1200**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-67	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-68	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-72	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-73	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-77	**130**	**G**	15		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-78	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-79	**200**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-80	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-81	15	U G	15		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-82	**1300**	**G**	160		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-83	**320**	**G**	170		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-84	**2700**	**G E**	160		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-85/116/117	**1800**	**G**	110		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-86/87/97/108/119/125	**7400**		140		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-88/91	**1300**	**G**	130		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-89	150	U G	150		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-90/101/113	**10000**	**G E**	120		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-92	**2000**	**G**	140		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-93/100	130	U G	130		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-107/124	**470**	**G**	100		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-94	140	U G	140		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-95	**7800**	**G E**	140		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-96	**42**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-98/102	**170**	**G**	120		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-99	**4600**	**G E**	120		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-103	120	U G	120		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-104	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-105	**4300**	**G E**	100		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-106	110	U G	110		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-110/115	**15000**	**G E**	99		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-109	**720**	**G**	99		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-111	92	U G	92		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-112	96	U G	96		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-114	**200**	**G**	110		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-118	**10000**	**G E**	94		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-120	97	U G	97		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-121	94	U G	94		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-122	**160**	**G**	110		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-123	**170**	**G**	110		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-126	**160**	**G**	120		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-127	110	U G	110		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1

Client Sample ID: SB-131 (0-1)

Date Collected: 08/21/14 12:05
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-21

Matrix: Solid
Percent Solids: 87.7

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	2500		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-129/138/163	14000	E	68		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-130	900	G	37		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-131	180	G	36		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-132	4200	G E	33		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-133	120	G	33		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-134/143	680		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-135/151	2500		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-136	1100		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-137	790	G	30		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-139/140	220		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-141	2100	G	33		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-142	33	U G	33		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-144	420	G	30		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-145	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-146	1300	G	30		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-147/149	7200	E	45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-148	30	U G	30		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-150	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-152	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-153/168	7700	E	45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-154	65	G	26		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-155	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-156/157	1900	G	15		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-158	1500		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-159	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-160	26	U G	26		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-161	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-162	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-164	840	G	24		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-165	27	U G	27		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-167	590	G	11		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-169	14	U G	14		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-170	1800		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-171/173	540		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-172	260		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-174	1500		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-175	56		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-176	150		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-177	810		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-178	200		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-179	430		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-180/193	2900		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-181	30		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-182	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-183	680		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-184	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-185	130		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-186	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-131 (0-1)

Date Collected: 08/21/14 12:05
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-21

Matrix: Solid
Percent Solids: 87.7

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**1200**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-188	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-189	**73**		2.3		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-190	**320**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-191	**72**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-192	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-194	**400**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-195	**130**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-196	**210**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-197	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-198/199	**400**		45		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-200	**60**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-201	**50**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-202	**67**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-203	**250**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-204	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-205	**24**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-206	**110**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-207	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-208	**24**		23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1
PCB-209	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 08:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*30*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-3L	*36*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-4L	*34*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-15L	*48*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-19L	*43*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-37L	*67*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-54L	*41*		*5 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-77L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-81L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-104L	*53*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-105L	*88*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-114L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-118L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-123L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-126L	*92*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-155L	*61*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-156L/157L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-167L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-169L	*83*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-188L	*76*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-189L	*86*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-202L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-205L	*89*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-206L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-208L	*89*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*
PCB-209L	*69*		*10 - 145*	*12/09/14 11:39*	*12/24/14 08:12*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-131 (0-1)
Date Collected: 08/21/14 12:05
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-21
Matrix: Solid
Percent Solids: 87.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	58		5 - 145	12/09/14 11:39	12/24/14 08:12	1
PCB-111L	86		10 - 145	12/09/14 11:39	12/24/14 08:12	1
PCB-178L	81		10 - 145	12/09/14 11:39	12/24/14 08:12	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-130 (0-1)

Date Collected: 08/21/14 15:25
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-22

Matrix: Solid
Percent Solids: 91.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-2	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-3	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-4	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-5	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-6	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-7	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-8	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-9	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-10	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-11	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-12/13	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-14	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-15	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-16	**53**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-17	**44**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-18/30	**110**		43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-19	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-20/28	**44**		43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-21/33	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-22	**58**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-23	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-24	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-25	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-26/29	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-27	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-31	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-32	**30**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-34	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-35	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-36	**39**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-37	37	U G	37		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-38	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-39	**94**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-40/71	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-41	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-42	**120**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-43	**23**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-44/47/65	**1600**		65		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-45	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-46	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-48	**82**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-49/69	**810**		43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-50/53	43	U	43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-51	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-52	**5200**	**E**	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-54	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-55	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-56	**420**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1

Client Sample ID: SB-130 (0-1)

Date Collected: 08/21/14 15:25
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-22

Matrix: Solid
Percent Solids: 91.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-58	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-59/62/75	65	U	65		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-60	**160**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-61/70/74/76	**2800**		86		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-63	**30**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-64	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-66	**1100**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-67	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-68	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-72	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-73	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-77	**270**	**G**	19		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-78	**84**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-79	**260**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-80	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-81	**55**	**G**	25		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-82	**1500**	**G**	220		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-83	**650**	**G**	250		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-84	**2600**	**G E**	220		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-85/116/117	**2600**	**G**	160		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-86/87/97/108/119/125	**11000**	**G**	160		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-88/91	**1700**	**G**	190		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-89	210	U G	210		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-90/101/113	**15000**	**G E**	170		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-92	**1900**	**G**	200		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-93/100	190	U G	190		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-107/124	**710**	**G**	150		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-94	200	U G	200		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-95	**5500**	**G E**	200		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-96	**67**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-98/102	170	U G	170		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-99	**6600**	**G E**	170		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-103	180	U G	180		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-104	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-105	**6200**	**G E**	150		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-106	160	U G	160		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-110/115	**26000**	**G E**	140		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-109	**1200**	**G**	140		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-111	130	U G	130		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-112	140	U G	140		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-114	**220**	**G**	150		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-118	**15000**	**G E**	140		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-120	140	U G	140		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-121	130	U G	130		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-122	160	U G	160		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-123	**200**	**G**	140		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-126	**340**	**G**	190		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-127	150	U G	150		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1

Client Sample ID: SB-130 (0-1)

Date Collected: 08/21/14 15:25
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-22

Matrix: Solid
Percent Solids: 91.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	5900	G E	65		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-129/138/163	30000	G E	68		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-130	2100	G	86		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-131	430	G	84		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-132	9300	G E	78		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-133	310	G	77		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-134/143	1500	G	80		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-135/151	5900	G E	73		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-136	2500	G E	54		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-137	1800	G	69		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-139/140	540	G	69		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-141	4200	G E	76		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-142	76	U G	76		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-144	280	G	71		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-145	52	U G	52		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-146	3200	G E	69		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-147/149	16000	G E	71		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-148	70	U G	70		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-150	48	U G	48		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-152	51	U G	51		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-153/168	16000	G E	58		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-154	130	G	62		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-155	48	U G	48		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-156/157	4000	G	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-158	3300	G E	51		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-159	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-160	61	U G	61		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-161	54	U G	54		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-162	24		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-164	2000	G	57		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-165	63	U G	63		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-167	1300	G	16		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-169	22	U G	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-170	4000	E	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-171/173	1300		43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-172	630		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-174	3700	E	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-175	150		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-176	380		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-177	2100		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-178	520		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-179	1100		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-180/193	6800	E	43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-181	75		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-182	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-183	1600		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-184	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-185	370		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-186	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1

Client Sample ID: SB-130 (0-1)

Date Collected: 08/21/14 15:25
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-22

Matrix: Solid
Percent Solids: 91.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**3000**	**E**	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-188	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-189	**160**		2.2		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-190	**720**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-191	**160**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-192	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-194	**750**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-195	**300**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-196	**520**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-197	**33**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-198/199	**1100**		43		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-200	**160**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-201	**140**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-202	**160**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-203	**640**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-204	22	U	22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-205	**47**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-206	**310**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-207	**39**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-208	**76**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1
PCB-209	**96**		22		pg/g	☼	12/09/14 11:39	12/24/14 09:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*24*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-3L	*49*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-4L	*41*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-15L	*68*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-19L	*57*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-37L	*22*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-54L	*55*		*5 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-77L	*96*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-81L	*92*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-104L	*67*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-105L	*99*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-114L	*95*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-118L	*94*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-123L	*98*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-126L	*104*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-155L	*73*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-156L/157L	*87*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-167L	*86*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-169L	*79*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-188L	*121*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-189L	*96*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-202L	*127*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-205L	*70*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-206L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-208L	*119*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*
PCB-209L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 09:28*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-130 (0-1)
Date Collected: 08/21/14 15:25
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-22
Matrix: Solid
Percent Solids: 91.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	15		5 - 145	12/09/14 11:39	12/24/14 09:28	1
PCB-111L	97		10 - 145	12/09/14 11:39	12/24/14 09:28	1
PCB-178L	84		10 - 145	12/09/14 11:39	12/24/14 09:28	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-132 (0-1)

Date Collected: 08/21/14 16:20
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-23
Matrix: Solid
Percent Solids: 86.4

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-2	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-3	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-4	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-5	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-6	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-7	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-8	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-9	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-10	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-11	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-12/13	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-14	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-15	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-16	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-17	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-18/30	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-19	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-20/28	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-21/33	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-22	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-23	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-24	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-25	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-26/29	45	U	45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-27	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-31	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-32	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-34	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-35	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-36	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-37	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-38	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-39	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-40/71	**150**		45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-41	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-42	**48**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-43	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-44/47/65	**750**		68		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-45	**23**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-46	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-48	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-49/69	**270**		45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-50/53	**63**		45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-51	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-52	**3100**	**E**	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-54	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-55	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-56	**200**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1

Client Sample ID: SB-132 (0-1)

Date Collected: 08/21/14 16:20
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-23

Matrix: Solid
Percent Solids: 86.4

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-58	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-59/62/75	68	U	68		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-60	**64**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-61/70/74/76	**1700**		90		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-63	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-64	**380**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-66	**470**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-67	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-68	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-72	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-73	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-77	**76**	**G q**	8.1		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-78	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-79	**160**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-80	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-81	7.7	U G	7.7		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-82	**1400**	**G**	150		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-83	**470**	**G**	170		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-84	**3100**	**G E**	160		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-85/116/117	**1900**	**G**	110		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-86/87/97/108/119/125	**7000**		140		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-88/91	**1400**	**G**	130		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-89	150	U G	150		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-90/101/113	**9700**	**G E**	120		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-92	**2200**	**G**	140		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-93/100	130	U G	130		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-107/124	**410**	**G**	100		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-94	140	U G	140		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-95	**8000**	**G E**	140		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-96	**36**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-98/102	**180**	**G**	120		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-99	**4400**	**G E**	120		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-103	120	U G	120		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-104	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-105	**4000**	**G E**	100		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-106	110	U G	110		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-110/115	**19000**	**G E**	98		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-109	**800**	**G**	98		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-111	92	U G	92		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-112	95	U G	95		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-114	**140**	**G**	110		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-118	**9300**	**G E**	96		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-120	96	U G	96		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-121	93	U G	93		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-122	110	U G	110		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-123	**110**	**G q**	100		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-126	**180**	**G**	130		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-127	110	U G	110		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1

Client Sample ID: SB-132 (0-1)
Date Collected: 08/21/14 16:20
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-23
Matrix: Solid
Percent Solids: 86.4

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	4100	G	71		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-129/138/163	22000	G E	75		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-130	1400	G	95		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-131	290	G	92		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-132	6200	G E	86		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-133	200	G	85		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-134/143	1000	G	88		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-135/151	3500	G	81		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-136	1500	G	60		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-137	1200	G	76		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-139/140	350	G	76		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-141	2900	G E	83		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-142	83	U G	83		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-144	560	G	78		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-145	58	U G	58		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-146	2100	G	76		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-147/149	10000	G E	78		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-148	77	U G	77		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-150	53	U G	53		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-152	56	U G	56		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-153/168	12000	G E	63		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-154	100	G	68		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-155	51	U G	51		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-156/157	3500	G	17		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-158	2400	G E	56		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-159	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-160	67	U G	67		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-161	60	U G	60		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-162	33		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-164	1400	G	63		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-165	69	U G	69		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-167	1000	G	12		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-169	17	U G	17		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-170	3200	E	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-171/173	920		45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-172	450		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-174	2300	E	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-175	88		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-176	200		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-177	1400		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-178	320		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-179	600		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-180/193	4800	E	45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-181	58		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-182	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-183	1000		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-184	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-185	220		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-186	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1

Client Sample ID: SB-132 (0-1)

Date Collected: 08/21/14 16:20
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-23

Matrix: Solid
Percent Solids: 86.4

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**1900**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-188	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-189	**160**		2.3		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-190	**580**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-191	**130**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-192	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-194	**650**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-195	**230**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-196	**360**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-197	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-198/199	**790**		45		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-200	**100**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-201	**87**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-202	**130**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-203	**500**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-204	23	U	23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-205	**44**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-206	**400**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-207	**46**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-208	**100**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1
PCB-209	**130**		23		pg/g	☼	12/09/14 11:39	12/24/14 10:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*29*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-3L	*38*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-4L	*34*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-15L	*59*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-19L	*45*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-37L	*84*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-54L	*45*		*5 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-77L	*94*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-81L	*97*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-104L	*63*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-105L	*98*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-114L	*92*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-118L	*92*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-123L	*97*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-126L	*96*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-155L	*75*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-156L/157L	*87*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-167L	*90*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-169L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-188L	*102*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-189L	*94*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-202L	*107*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-205L	*88*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-206L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-208L	*103*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*
PCB-209L	*66*		*10 - 145*	*12/09/14 11:39*	*12/24/14 10:45*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-132 (0-1)
Date Collected: 08/21/14 16:20
Date Received: 08/22/14 15:20

Lab Sample ID: 680-104549-23
Matrix: Solid
Percent Solids: 86.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	82		5 - 145	12/09/14 11:39	12/24/14 10:45	1
PCB-111L	101		10 - 145	12/09/14 11:39	12/24/14 10:45	1
PCB-178L	90		10 - 145	12/09/14 11:39	12/24/14 10:45	1

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-1L	PCB-3L	PCB-4L	PCB-15L	PCB-19L	PCB-37L	PCB-54L	PCB-77L
Lab Sample ID	Client Sample ID	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(10-145)
680-104549-19	SB-129 (0-1)	27	34	32	50	40	67	39	82
680-104549-20	SB-129 (1-3)	30	35	34	47	42	65	43	79
680-104549-21	SB-131 (0-1)	30	36	34	48	43	67	41	80
680-104549-22	SB-130 (0-1)	24	49	41	68	57	22	55	96
680-104549-23	SB-132 (0-1)	29	38	34	59	45	84	45	94
MB 320-60235/1-A	Method Blank	28	33	32	44	42	56	44	61

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-81L	PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-104549-19	SB-129 (0-1)	83	50	83	80	79	82	87	61
680-104549-20	SB-129 (1-3)	78	50	81	80	79	81	86	63
680-104549-21	SB-131 (0-1)	81	53	88	81	83	83	92	61
680-104549-22	SB-130 (0-1)	92	67	99	95	94	98	104	73
680-104549-23	SB-132 (0-1)	97	63	98	92	92	97	96	75
MB 320-60235/1-A	Method Blank	64	51	73	68	68	71	73	54

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		CB-156L/15	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-202L	PCB-205L	PCB-206L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-104549-19	SB-129 (0-1)	80	81	79	74	79	80	80	74
680-104549-20	SB-129 (1-3)	87	88	83	74	83	84	87	85
680-104549-21	SB-131 (0-1)	85	85	83	76	86	85	89	85
680-104549-22	SB-130 (0-1)	87	86	79	121	96	127	70	81
680-104549-23	SB-132 (0-1)	87	90	80	102	94	107	88	81
MB 320-60235/1-A	Method Blank	75	74	73	67	83	80	86	87

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PCB-208L	PCB-209L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)
680-104549-19	SB-129 (0-1)	83	65
680-104549-20	SB-129 (1-3)	88	72
680-104549-21	SB-131 (0-1)	89	69
680-104549-22	SB-130 (0-1)	119	85
680-104549-23	SB-132 (0-1)	103	66
MB 320-60235/1-A	Method Blank	79	61

Surrogate Legend

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L

PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-1L	PCB-3L	PCB-4L	PCB-15L	PCB-19L	PCB-37L	PCB-54L	PCB-77L
Lab Sample ID	**Client Sample ID**	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	23	25	25	31	31	39	31	47

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-81L	PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	47	37 *	55	51	51	51	59	39 *

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		CB-156L/15	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-202L	PCB-205L	PCB-206L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	64	64	65	48	67	59	70	64

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PCB-208L	PCB-209L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	58	46

Surrogate Legend

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-2	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-3	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-4	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-5	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-6	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-7	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-8	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-9	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-10	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-11	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-12/13	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-14	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-15	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-16	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-17	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-18/30	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-19	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-20/28	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-21/33	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-22	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-23	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-24	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-25	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-26/29	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-27	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-31	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-32	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-34	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-35	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-36	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-37	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-38	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-39	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-40/71	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-41	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-42	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-43	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-44/47/65	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-45	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-46	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-48	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-49/69	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-50/53	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-51	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-52	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-54	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-55	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-57	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-58	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-59/62/75	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-60	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-61/70/74/76	80	U	80		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-63	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-64	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-66	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-67	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-68	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-72	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-73	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-77	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-78	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-79	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-80	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-81	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-82	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-83	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-84	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-85/116/117	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-86/87/97/108/119/125	120	U	120		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-88/91	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-89	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-90/101/113	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-92	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-93/100	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-107/124	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-94	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-95	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-96	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-98/102	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-99	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-103	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-104	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-105	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-106	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-110/115	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-109	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-111	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-112	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-114	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-118	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-120	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-121	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-122	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-123	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-127	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-128/166	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-129/138/163	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-130	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-131	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-132	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-133	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-134/143	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-135/151	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-136	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-137	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-139/140	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-141	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-142	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-144	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-145	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-146	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-147/149	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-148	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-150	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-152	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-153/168	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-154	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-155	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-156/157	4.0	U	4.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-158	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-159	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-160	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-161	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-162	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-164	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-165	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-167	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-169	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-170	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-171/173	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-172	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-174	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-175	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-176	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-177	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-178	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-179	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-180/193	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-181	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-182	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-183	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-185	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-186	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-187	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-188	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-189	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-190	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-191	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-192	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-194	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-195	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-196	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-197	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-198/199	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-200	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-201	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-202	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-203	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-204	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-205	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-206	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-207	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-208	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-209	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*28*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-3L	*33*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-4L	*32*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-15L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-19L	*42*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-37L	*56*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-54L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-77L	*61*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-81L	*64*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-104L	*51*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-105L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-114L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-118L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-123L	*71*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-126L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-155L	*54*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-156L/157L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-167L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-169L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-188L	*67*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-189L	*83*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-202L	*80*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-205L	86		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-206L	87		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-208L	79		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-209L	61		10 - 145	12/09/14 11:39	12/23/14 14:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	57		5 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-111L	71		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-178L	72		10 - 145	12/09/14 11:39	12/23/14 14:18	1

Lab Sample ID: LCS 320-60235/2-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	200	197		pg/g		98	60 - 135
PCB-3	200	198		pg/g		99	60 - 135
PCB-4	200	194		pg/g		97	60 - 135
PCB-15	200	201		pg/g		101	60 - 135
PCB-19	200	189		pg/g		94	60 - 135
PCB-37	200	194		pg/g		97	60 - 135
PCB-54	200	208		pg/g		104	60 - 135
PCB-77	200	204		pg/g		102	60 - 135
PCB-81	200	192		pg/g		96	60 - 135
PCB-104	200	191		pg/g		95	60 - 135
PCB-105	200	188		pg/g		94	60 - 135
PCB-114	200	196		pg/g		98	60 - 135
PCB-118	200	198		pg/g		99	60 - 135
PCB-123	200	197		pg/g		98	60 - 135
PCB-126	200	203		pg/g		101	60 - 135
PCB-155	200	196		pg/g		98	60 - 135
PCB-156/157	400	397		pg/g		99	60 - 135
PCB-167	200	192		pg/g		96	60 - 135
PCB-169	200	200		pg/g		100	60 - 135
PCB-188	200	199		pg/g		99	60 - 135
PCB-189	200	198		pg/g		99	60 - 135
PCB-202	200	197		pg/g		98	60 - 135
PCB-205	200	197		pg/g		99	60 - 135
PCB-206	200	195		pg/g		97	60 - 135
PCB-208	200	193		pg/g		96	60 - 135
PCB-209	200	193		pg/g		97	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	23		15 - 145
PCB-3L	25		15 - 145
PCB-4L	25		15 - 145
PCB-15L	31		15 - 145
PCB-19L	31		15 - 145

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-60235/2-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60235

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-37L	39		15 - 145
PCB-54L	31		15 - 145
PCB-77L	47		40 - 145
PCB-81L	47		40 - 145
PCB-104L	37	*	40 - 145
PCB-105L	55		40 - 145
PCB-114L	51		40 - 145
PCB-118L	51		40 - 145
PCB-123L	51		40 - 145
PCB-126L	59		40 - 145
PCB-155L	39	*	40 - 145
PCB-156L/157L	64		40 - 145
PCB-167L	64		40 - 145
PCB-169L	65		40 - 145
PCB-188L	48		40 - 145
PCB-189L	67		40 - 145
PCB-202L	59		40 - 145
PCB-205L	70		40 - 145
PCB-206L	64		40 - 145
PCB-208L	58		40 - 145
PCB-209L	46		40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	44		5 - 145
PCB-111L	61		10 - 145
PCB-178L	69		10 - 145

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Specialty Organics

Prep Batch: 60235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104549-19	SB-129 (0-1)	Total/NA	Solid	HRMS-Sox	
680-104549-20	SB-129 (1-3)	Total/NA	Solid	HRMS-Sox	
680-104549-21	SB-131 (0-1)	Total/NA	Solid	HRMS-Sox	
680-104549-22	SB-130 (0-1)	Total/NA	Solid	HRMS-Sox	
680-104549-23	SB-132 (0-1)	Total/NA	Solid	HRMS-Sox	
LCS 320-60235/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
MB 320-60235/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 61438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-60235/2-A	Lab Control Sample	Total/NA	Solid	1668C	60235
MB 320-60235/1-A	Method Blank	Total/NA	Solid	1668C	60235

Analysis Batch: 61439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104549-19	SB-129 (0-1)	Total/NA	Solid	1668C	60235
680-104549-20	SB-129 (1-3)	Total/NA	Solid	1668C	60235
680-104549-21	SB-131 (0-1)	Total/NA	Solid	1668C	60235
680-104549-22	SB-130 (0-1)	Total/NA	Solid	1668C	60235
680-104549-23	SB-132 (0-1)	Total/NA	Solid	1668C	60235

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Client Sample ID: SB-129 (0-1)

Lab Sample ID: 680-104549-19

Date Collected: 08/21/14 14:10
Matrix: Solid
Date Received: 08/22/14 15:20
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.24 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.24 g	20 uL	61439	12/24/14 05:42	KSS	TAL SAC

Client Sample ID: SB-129 (1-3)

Lab Sample ID: 680-104549-20

Date Collected: 08/21/14 14:30
Matrix: Solid
Date Received: 08/22/14 15:20
Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.20 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.20 g	20 uL	61439	12/24/14 06:57	KSS	TAL SAC

Client Sample ID: SB-131 (0-1)

Lab Sample ID: 680-104549-21

Date Collected: 08/21/14 12:05
Matrix: Solid
Date Received: 08/22/14 15:20
Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.13 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.13 g	20 uL	61439	12/24/14 08:12	KSS	TAL SAC

Client Sample ID: SB-130 (0-1)

Lab Sample ID: 680-104549-22

Date Collected: 08/21/14 15:25
Matrix: Solid
Date Received: 08/22/14 15:20
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.13 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.13 g	20 uL	61439	12/24/14 09:28	KSS	TAL SAC

Client Sample ID: SB-132 (0-1)

Lab Sample ID: 680-104549-23

Date Collected: 08/21/14 16:20
Matrix: Solid
Date Received: 08/22/14 15:20
Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.25 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.25 g	20 uL	61439	12/24/14 10:45	KSS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-104549-2

Login Number: 104549

List Source: TestAmerica Savannah

List Number: 1

Creator: Barnett, Eddie T

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-104549-2

Login Number: 104549
List Number: 2
Creator: Edwards, Stephanie N

List Source: TestAmerica Sacramento
List Creation: 08/26/14 10:27 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-104549-2

Login Number: 104549
List Number: 3
Creator: Yang, Nhia X

List Source: TestAmerica Sacramento
List Creation: 12/05/14 01:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14 *
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14 *
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14 *
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-15
Louisiana (DW)	NELAP	6	LA140023	12-31-14 *
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-14 *
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14 *
South Carolina	State Program	4	98001	06-30-15
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14 *
West Virginia DEP	State Program	3	094	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

* Certification renewal pending - certification considered valid.

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104549-2

Laboratory: TestAmerica Sacramento (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-14 *
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

* Certification renewal pending - certification considered valid.

TestAmerica

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ANALYTICAL REPORT

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TestAmerica Job ID: 680-104496-2
Client Project/Site: Hercules Savannah

For:
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Attn: Chris Miller

Kathryn Smith

Authorized for release by:
1/20/2015 8:26:47 AM

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LINKS

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Qualifiers

Dioxin

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
E	Result exceeded calibration range.
*	Isotope Dilution analyte exceeds 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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-104496-11	SB-122 (0-1)	Solid	08/20/14 14:30	08/21/14 12:42
680-104496-16	SB-128 (0-1)	Solid	08/21/14 10:30	08/21/14 12:42
680-104496-17	SB-126 (0-1)	Solid	08/21/14 10:55	08/21/14 12:42

Job ID: 680-104496-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: ARCADIS U.S., Inc.
Project: Hercules Savannah

Report Number: 680-104496-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 08/21/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 5.8º C, 5.8º C and 6.0º C.

CHLORINATED BIPHENYL CONGENERS

Samples SB-122 (0-1) (680-104496-11), SB-128 (0-1) (680-104496-16) and SB-126 (0-1) (680-104496-17) were analyzed for chlorinated biphenyl congeners in accordance with epa method 1668C. The samples were prepared on 01/07/2015 and 12/09/2014 and analyzed on 01/16/2015, 12/23/2014 and 12/24/2014.

Sample SB-126 (0-1) (680-104496-17)[10X] required dilution prior to analysis, due to the nature of the sample matrix. The reporting limits have been adjusted accordingly.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-128 (0-1) (680-104496-16) and SB-126 (0-1) (680-104496-17). These analytes have been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-122 (0-1)

Date Collected: 08/20/14 14:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-11
Matrix: Solid
Percent Solids: 83.1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-2	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-3	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-4	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-5	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-6	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-7	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-8	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-9	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-10	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-11	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-12/13	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-14	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-15	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-16	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-17	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-18/30	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-19	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-20/28	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-21/33	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-22	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-23	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-24	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-25	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-26/29	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-27	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-31	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-32	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-34	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-35	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-36	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-37	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-38	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-39	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-40/71	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-41	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-42	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-43	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-44/47/65	**150**		70		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-45	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-46	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-48	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-49/69	**82**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-50/53	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-51	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-52	**550**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-54	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-55	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-56	**44**	**q**	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1

Client Sample ID: SB-122 (0-1)

Date Collected: 08/20/14 14:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-11

Matrix: Solid
Percent Solids: 83.1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-58	**25**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-59/62/75	70	U	70		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-60	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-61/70/74/76	**560**		93		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-63	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-64	**52**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-66	**150**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-67	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-68	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-72	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-73	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-77	**45**	**G**	3.5		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-78	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-79	**24**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-80	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-81	3.4	U G	3.4		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-82	**140**	**G**	31		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-83	34	U G	34		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-84	**340**	**G**	31		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-85/116/117	**330**		70		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-86/87/97/108/119/125	**1000**		140		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-88/91	**160**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-89	29	U G	29		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-90/101/113	**1500**		70		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-92	**290**	**G**	28		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-93/100	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-107/124	**79**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-94	28	U G	28		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-95	**1000**	**G**	27		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-96	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-98/102	47	U	47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-99	**740**	**G**	24		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-103	25	U G	25		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-104	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-105	**830**	**G**	21		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-106	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-110/115	**1900**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-109	**130**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-111	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-112	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-114	**29**	**G**	22		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-115	**1900**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-118	**2100**	**G**	19		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-120	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-121	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-122	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-123	**41**	**G**	21		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-126	29	U G	29		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-122 (0-1)

Date Collected: 08/20/14 14:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-11

Matrix: Solid
Percent Solids: 83.1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-127	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-128/166	**710**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-129/138/163	**3800**		70		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-130	**210**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-131	**31**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-132	**690**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-133	**30**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-134/143	**110**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-135/151	**440**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-136	**180**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-137	**230**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-139/140	**49**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-141	**400**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-142	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-144	**66**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-145	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-146	**340**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-147/149	**1200**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-148	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-150	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-152	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-153/168	**2100**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-154	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-155	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-156/157	**460**		4.7		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-158	**360**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-159	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-160	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-161	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-162	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-164	**180**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-165	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-167	**150**	**G**	3.3		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-169	5.5	U G	5.5		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-170	**350**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-171/173	**120**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-172	**54**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-174	**300**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-175	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-176	**26**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-177	**190**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-178	**52**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-179	**87**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-180/193	**570**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-181	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-182	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-183	**160**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-184	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-185	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1

Client Sample ID: SB-122 (0-1)

Date Collected: 08/20/14 14:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-11

Matrix: Solid
Percent Solids: 83.1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-186	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-187	**300**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-188	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-189	**13**	**q**	2.3		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-190	**57**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-191	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-192	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-194	**61**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-195	**23**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-196	**35**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-197	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-198/199	**84**		47		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-200	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-201	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-202	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-203	**49**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-204	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-205	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-206	**44**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-207	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-208	23	U	23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1
PCB-209	**28**		23		pg/g	☼	01/07/15 16:31	01/16/15 22:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*15*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-3L	*28*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-4L	*29*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-15L	*53*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-19L	*41*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-37L	*67*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-54L	*39*		*5 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-77L	*68*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-81L	*67*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-104L	*49*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-105L	*75*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-114L	*72*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-118L	*72*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-123L	*72*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-126L	*74*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-155L	*67*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-156L/157L	*75*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-167L	*80*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-169L	*60*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-188L	*106*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-189L	*84*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-202L	*122*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-205L	*78*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-206L	*75*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-208L	*101*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*
PCB-209L	*71*		*10 - 145*	*01/07/15 16:31*	*01/16/15 22:01*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-122 (0-1)
Date Collected: 08/20/14 14:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-11
Matrix: Solid
Percent Solids: 83.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	56		5 - 145	01/07/15 16:31	01/16/15 22:01	1
PCB-111L	70		10 - 145	01/07/15 16:31	01/16/15 22:01	1
PCB-178L	77		10 - 145	01/07/15 16:31	01/16/15 22:01	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-128 (0-1)

Date Collected: 08/21/14 10:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-16

Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**4300**	**E**	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-2	**3500**	**E**	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-3	**770**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-4	**33**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-5	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-6	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-7	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-8	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-9	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-10	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-11	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-12/13	46	U	46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-14	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-15	**23**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-16	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-17	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-18/30	46	U	46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-19	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-20/28	**71**		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-21/33	46	U	46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-22	**23**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-23	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-24	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-25	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-26/29	46	U	46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-27	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-31	**150**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-32	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-34	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-35	**23**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-36	**26**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-37	**120**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-38	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-39	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-40/71	**340**		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-41	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-42	**150**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-43	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-44/47/65	**2400**		69		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-45	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-46	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-48	**79**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-49/69	**1200**		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-50/53	**98**		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-51	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-52	**7100**	**E**	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-54	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-55	25	U G	25		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-56	**740**	**G**	30		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1

Client Sample ID: SB-128 (0-1)

Date Collected: 08/21/14 10:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-16

Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	28	U G	28		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-58	**180**	**G**	27		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-59/62/75	69	U	69		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-60	**270**	**G q**	27		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-61/70/74/76	**7900**		92		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-63	26	U G	26		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-64	**650**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-66	**2200**	**G**	31		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-67	25	U G	25		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-68	25	U G	25		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-72	26	U G	26		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-73	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-77	**1600**	**G**	34		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-78	**55**	**G**	31		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-79	**230**	**G**	29		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-80	25	U G	25		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-81	33	U G	33		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-82	**1900**	**G**	190		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-83	**770**	**G**	210		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-84	**3700**	**G E**	190		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-85/116/117	**2800**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-86/87/97/108/119/125	**10000**		140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-88/91	**1700**	**G**	160		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-89	180	U G	180		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-90/101/113	**14000**	**G E**	140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-92	**2400**	**G E**	170		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-93/100	160	U G	160		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-107/124	**630**	**G**	130		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-94	170	U G	170		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-95	**8100**	**G E**	170		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-96	**53**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-98/102	150	U G	150		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-99	**6600**	**G E**	150		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-103	150	U G	150		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-104	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-105	**8600**	**G E**	140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-106	130	U G	130		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-110/115	**18000**	**G E**	120		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-109	**1200**	**G**	120		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-111	110	U G	110		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-112	120	U G	120		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-114	**350**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-118	**19000**	**G E**	130		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-120	120	U G	120		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-121	120	U G	120		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-122	**230**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-123	**220**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-126	**510**	**G**	180		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-127	130	U G	130		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1

Client Sample ID: SB-128 (0-1)

Date Collected: 08/21/14 10:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-16

Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	4500	G	70		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-129/138/163	24000	G E	74		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-130	1500	G	94		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-131	270	G	91		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-132	6100	G E	84		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-133	230	G	84		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-134/143	920	G	87		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-135/151	3600	G	79		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-136	1800	G	59		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-137	1400	G	75		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-139/140	420	G	75		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-141	2700	G E	82		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-142	82	U G	82		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-144	550	G	77		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-145	57	U G	57		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-146	2500	G E	75		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-147/149	11000	G E	77		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-148	76	U G	76		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-150	52	U G	52		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-152	55	U G	55		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-153/168	13000	G E	62		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-154	67	U G	67		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-155	40	U G	40		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-156/157	3700	G	18		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-158	2400	G E	55		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-159	51		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-160	66	U G	66		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-161	59	U G	59		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-162	120		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-164	1300	G	62		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-165	68	U G	68		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-167	1200	G	12		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-169	18	U G	18		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-170	2600	E	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-171/173	790		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-172	350		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-174	1800		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-175	77		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-176	170		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-177	1100		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-178	260		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-179	510		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-180/193	3800		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-181	53		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-182	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-183	880		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-184	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-185	150		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-186	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1

Client Sample ID: SB-128 (0-1)
Date Collected: 08/21/14 10:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-16
Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**1400**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-188	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-189	**120**		2.3		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-190	**410**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-191	**83**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-192	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-194	**410**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-195	**140**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-196	**210**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-197	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-198/199	**460**		46		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-200	**53**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-201	**50**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-202	**64**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-203	**260**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-204	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-205	**26**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-206	**170**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-207	23	U	23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-208	**42**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1
PCB-209	**79**		23		pg/g	☼	12/09/14 11:39	12/23/14 21:49	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*27*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-3L	*42*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-4L	*40*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-15L	*67*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-19L	*51*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-37L	*73*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-54L	*54*		*5 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-77L	*71*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-81L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-104L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-105L	*76*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-114L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-118L	*72*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-123L	*78*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-126L	*71*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-155L	*93*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-156L/157L	*72*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-167L	*76*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-169L	*65*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-188L	*114*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-189L	*87*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-202L	*107*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-205L	*76*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-206L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-208L	*100*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*
PCB-209L	*62*		*10 - 145*	*12/09/14 11:39*	*12/23/14 21:49*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-128 (0-1)
Date Collected: 08/21/14 10:30
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-16
Matrix: Solid
Percent Solids: 86.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	72		5 - 145	12/09/14 11:39	12/23/14 21:49	1
PCB-111L	85		10 - 145	12/09/14 11:39	12/23/14 21:49	1
PCB-178L	80		10 - 145	12/09/14 11:39	12/23/14 21:49	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-126 (0-1)

Lab Sample ID: 680-104496-17

Date Collected: 08/21/14 10:55
Matrix: Solid
Date Received: 08/21/14 12:42
Percent Solids: 86.3

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**2500**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-2	**880**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-3	**260**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-4	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-5	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-6	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-7	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-8	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-9	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-10	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-11	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-12/13	450	U	450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-14	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-15	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-16	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-17	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-18/30	450	U	450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-19	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-20/28	450	U	450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-21/33	450	U	450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-22	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-23	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-24	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-25	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-26/29	450	U	450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-27	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-31	**500**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-32	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-34	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-35	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-36	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-37	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-38	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-39	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-40/71	**1200**		450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-41	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-42	**420**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-43	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-44/47/65	**7500**		680		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-45	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-46	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-48	**250**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-49/69	**3200**		450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-50/53	450	U	450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-51	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-52	**24000**	**E**	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-54	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-55	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-56	**2000**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10

Client Sample ID: SB-126 (0-1)

Date Collected: 08/21/14 10:55
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-17

Matrix: Solid
Percent Solids: 86.3

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-58	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-59/62/75	680	U	680		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-60	**650**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-61/70/74/76	**20000**		910		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-63	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-64	**2300**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-66	**5000**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-67	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-68	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-72	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-73	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-77	**2600**	**G**	130		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-78	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-79	**1100**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-80	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-81	120	U G	120		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-82	**8600**	**G**	1600		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-83	**4000**	**G**	1800		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-84	**22000**	**G**	1600		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-85/116/117	**11000**	**G**	1200		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-86/87/97/108/119/125	**49000**		1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-88/91	**11000**	**G**	1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-89	1500	U G	1500		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-90/101/113	**69000**	**G E**	1200		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-92	**14000**	**G**	1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-93/100	1400	U G	1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-107/124	**3000**	**G**	1100		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-94	1400	U G	1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-95	**63000**	**G E**	1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-96	**330**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-98/102	**1300**	**G**	1200		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-99	**27000**	**G E**	1300		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-103	1300	U G	1300		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-104	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-105	**28000**	**G E**	1100		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-106	1100	U G	1100		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-110/115	**130000**	**G E**	1000		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-109	**5100**	**G**	1000		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-111	960	U G	960		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-112	990	U G	990		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-114	**1400**	**G**	1200		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-118	**71000**	**G E**	1000		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-120	1000	U G	1000		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-121	970	U G	970		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-122	1200	U G	1200		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-123	1100	U G	1100		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-126	**2200**	**G**	1400		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-127	1100	U G	1100		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10

Client Sample ID: SB-126 (0-1)

Date Collected: 08/21/14 10:55
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-17

Matrix: Solid
Percent Solids: 86.3

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	35000	G	670		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-129/138/163	160000	G E	710		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-130	13000	G	890		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-131	2400	G	860		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-132	57000	G E	810		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-133	1900	G	800		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-134/143	8900	G	830		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-135/151	33000	G	760		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-136	14000	G	560		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-137	7700	G	720		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-139/140	3100	G	720		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-141	20000	G	780		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-142	780	U G	780		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-144	5100	G	730		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-145	540	U G	540		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-146	19000	G	720		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-147/149	94000	G E	730		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-148	720	U G	720		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-150	500	U G	500		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-152	530	U G	530		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-153/168	70000	G E	600		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-154	950	G	640		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-155	510	U G	510		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-156/157	21000	G	120		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-158	18000	G	520		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-159	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-160	630	U G	630		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-161	560	U G	560		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-162	380		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-164	14000	G	590		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-165	650	U G	650		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-167	7100	G	84		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-169	110	U G	110		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-170	26000	E	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-171/173	7400		450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-172	3700		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-174	18000		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-175	760		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-176	1700		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-177	10000		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-178	2500		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-179	4600		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-180/193	36000		450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-181	470		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-182	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-183	8400		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-184	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-185	1600		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-186	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10

Client Sample ID: SB-126 (0-1)

Date Collected: 08/21/14 10:55
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-17

Matrix: Solid
Percent Solids: 86.3

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**14000**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-188	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-189	**1100**		23		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-190	**3900**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-191	**1000**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-192	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-194	**6500**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-195	**1900**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-196	**3400**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-197	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-198/199	**6900**		450		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-200	**890**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-201	**740**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-202	**1100**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-203	**4500**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-204	230	U	230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-205	**390**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-206	**3700**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-207	**370**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-208	**770**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10
PCB-209	**310**		230		pg/g	☼	12/09/14 11:39	12/24/14 12:00	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*39*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-3L	*53*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-4L	*49*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-15L	*82*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-19L	*33*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-37L	*77*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-54L	*64*		*5 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-77L	*90*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-81L	*94*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-104L	*62*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-105L	*87*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-114L	*77*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-118L	*80*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-123L	*81*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-126L	*85*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-155L	*61*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-156L/157L	*75*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-167L	*76*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-169L	*74*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-188L	*74*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-189L	*89*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-202L	*78*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-205L	*76*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-206L	*72*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-208L	*71*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*
PCB-209L	*49*		*10 - 145*	*12/09/14 11:39*	*12/24/14 12:00*	*10*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-126 (0-1)
Date Collected: 08/21/14 10:55
Date Received: 08/21/14 12:42

Lab Sample ID: 680-104496-17
Matrix: Solid
Percent Solids: 86.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	82		5 - 145	12/09/14 11:39	12/24/14 12:00	10
PCB-111L	88		10 - 145	12/09/14 11:39	12/24/14 12:00	10
PCB-178L	75		10 - 145	12/09/14 11:39	12/24/14 12:00	10

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-1L	PCB-3L	PCB-4L	PCB-15L	PCB-19L	PCB-37L	PCB-54L	PCB-77L
Lab Sample ID	Client Sample ID	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(10-145)
680-104496-11	SB-122 (0-1)	15	28	29	53	41	67	39	68
680-104496-16	SB-128 (0-1)	27	42	40	67	51	73	54	71
680-104496-17	SB-126 (0-1)	39	53	49	82	33	77	64	90
MB 320-60235/1-A	Method Blank	28	33	32	44	42	56	44	61
MB 320-62466/1-A	Method Blank	33	40	39	54	48	45	36	55

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-81L	PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-104496-11	SB-122 (0-1)	67	49	75	72	72	72	74	67
680-104496-16	SB-128 (0-1)	74	75	76	74	72	78	71	93
680-104496-17	SB-126 (0-1)	94	62	87	77	80	81	85	61
MB 320-60235/1-A	Method Blank	64	51	73	68	68	71	73	54
MB 320-62466/1-A	Method Blank	55	43	64	61	61	62	64	51

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		CB-156L/15	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-202L	PCB-205L	PCB-206L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-104496-11	SB-122 (0-1)	75	80	60	106	84	122	78	75
680-104496-16	SB-128 (0-1)	72	76	65	114	87	107	76	74
680-104496-17	SB-126 (0-1)	75	76	74	74	89	78	76	72
MB 320-60235/1-A	Method Blank	75	74	73	67	83	80	86	87
MB 320-62466/1-A	Method Blank	73	73	69	54	67	63	71	68

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PCB-208L	PCB-209L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)
680-104496-11	SB-122 (0-1)	101	71
680-104496-16	SB-128 (0-1)	100	62
680-104496-17	SB-126 (0-1)	71	49
MB 320-60235/1-A	Method Blank	79	61
MB 320-62466/1-A	Method Blank	76	63

Surrogate Legend

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L

PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-1L	PCB-3L	PCB-4L	PCB-15L	PCB-19L	PCB-37L	PCB-54L	PCB-77L
Lab Sample ID	**Client Sample ID**	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	23	25	25	31	31	39	31	47
LCS 320-62466/2-A	Lab Control Sample	32	35	35	42	37	44	33	53
LCSD 320-62466/3-A	Lab Control Sample Dup	34	38	39	45	51	51	37	56

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-81L	PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	47	37 *	55	51	51	51	59	39 *
LCS 320-62466/2-A	Lab Control Sample	52	36 *	61	57	57	57	64	44
LCSD 320-62466/3-A	Lab Control Sample Dup	56	40	63	58	59	58	65	47

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		CB-156L/15	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-202L	PCB-205L	PCB-206L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	64	64	65	48	67	59	70	64
LCS 320-62466/2-A	Lab Control Sample	76	74	76	45	70	59	74	73
LCSD 320-62466/3-A	Lab Control Sample Dup	76	75	77	50	76	62	80	80

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PCB-208L	PCB-209L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	58	46
LCS 320-62466/2-A	Lab Control Sample	78	69
LCSD 320-62466/3-A	Lab Control Sample Dup	84	75

Surrogate Legend

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-2	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-3	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-4	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-5	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-6	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-7	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-8	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-9	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-10	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-11	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-12/13	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-14	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-15	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-16	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-17	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-18/30	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-19	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-20/28	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-21/33	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-22	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-23	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-24	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-25	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-26/29	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-27	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-31	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-32	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-34	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-35	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-36	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-37	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-38	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-39	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-40/71	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-41	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-42	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-43	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-44/47/65	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-45	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-46	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-48	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-49/69	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-50/53	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-51	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-52	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-54	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-55	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-57	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-58	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-59/62/75	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-60	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-61/70/74/76	80	U	80		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-63	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-64	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-66	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-67	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-68	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-72	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-73	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-77	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-78	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-79	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-80	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-81	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-82	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-83	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-84	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-85/116/117	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-86/87/97/108/119/125	120	U	120		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-88/91	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-89	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-90/101/113	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-92	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-93/100	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-107/124	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-94	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-95	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-96	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-98/102	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-99	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-103	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-104	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-105	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-106	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-110/115	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-109	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-111	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-112	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-114	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-118	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-120	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-121	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-122	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-123	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-127	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-128/166	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-129/138/163	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-130	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-131	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-132	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-133	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-134/143	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-135/151	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-136	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-137	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-139/140	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-141	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-142	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-144	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-145	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-146	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-147/149	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-148	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-150	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-152	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-153/168	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-154	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-155	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-156/157	4.0	U	4.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-158	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-159	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-160	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-161	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-162	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-164	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-165	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-167	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-169	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-170	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-171/173	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-172	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-174	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-175	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-176	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-177	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-178	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-179	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-180/193	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-181	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-182	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-183	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-185	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-186	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-187	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-188	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-189	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-190	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-191	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-192	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-194	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-195	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-196	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-197	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-198/199	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-200	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-201	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-202	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-203	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-204	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-205	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-206	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-207	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-208	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-209	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*28*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-3L	*33*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-4L	*32*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-15L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-19L	*42*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-37L	*56*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-54L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-77L	*61*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-81L	*64*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-104L	*51*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-105L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-114L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-118L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-123L	*71*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-126L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-155L	*54*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-156L/157L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-167L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-169L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-188L	*67*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-189L	*83*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-202L	*80*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-205L	86		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-206L	87		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-208L	79		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-209L	61		10 - 145	12/09/14 11:39	12/23/14 14:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	57		5 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-111L	71		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-178L	72		10 - 145	12/09/14 11:39	12/23/14 14:18	1

Lab Sample ID: LCS 320-60235/2-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	200	197		pg/g		98	60 - 135
PCB-3	200	198		pg/g		99	60 - 135
PCB-4	200	194		pg/g		97	60 - 135
PCB-15	200	201		pg/g		101	60 - 135
PCB-19	200	189		pg/g		94	60 - 135
PCB-37	200	194		pg/g		97	60 - 135
PCB-54	200	208		pg/g		104	60 - 135
PCB-77	200	204		pg/g		102	60 - 135
PCB-81	200	192		pg/g		96	60 - 135
PCB-104	200	191		pg/g		95	60 - 135
PCB-105	200	188		pg/g		94	60 - 135
PCB-114	200	196		pg/g		98	60 - 135
PCB-118	200	198		pg/g		99	60 - 135
PCB-123	200	197		pg/g		98	60 - 135
PCB-126	200	203		pg/g		101	60 - 135
PCB-155	200	196		pg/g		98	60 - 135
PCB-156/157	400	397		pg/g		99	60 - 135
PCB-167	200	192		pg/g		96	60 - 135
PCB-169	200	200		pg/g		100	60 - 135
PCB-188	200	199		pg/g		99	60 - 135
PCB-189	200	198		pg/g		99	60 - 135
PCB-202	200	197		pg/g		98	60 - 135
PCB-205	200	197		pg/g		99	60 - 135
PCB-206	200	195		pg/g		97	60 - 135
PCB-208	200	193		pg/g		96	60 - 135
PCB-209	200	193		pg/g		97	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	23		15 - 145
PCB-3L	25		15 - 145
PCB-4L	25		15 - 145
PCB-15L	31		15 - 145
PCB-19L	31		15 - 145

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-60235/2-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60235

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-37L	*39*		*15 - 145*
PCB-54L	*31*		*15 - 145*
PCB-77L	*47*		*40 - 145*
PCB-81L	*47*		*40 - 145*
PCB-104L	*37*	*	*40 - 145*
PCB-105L	*55*		*40 - 145*
PCB-114L	*51*		*40 - 145*
PCB-118L	*51*		*40 - 145*
PCB-123L	*51*		*40 - 145*
PCB-126L	*59*		*40 - 145*
PCB-155L	*39*	*	*40 - 145*
PCB-156L/157L	*64*		*40 - 145*
PCB-167L	*64*		*40 - 145*
PCB-169L	*65*		*40 - 145*
PCB-188L	*48*		*40 - 145*
PCB-189L	*67*		*40 - 145*
PCB-202L	*59*		*40 - 145*
PCB-205L	*70*		*40 - 145*
PCB-206L	*64*		*40 - 145*
PCB-208L	*58*		*40 - 145*
PCB-209L	*46*		*40 - 145*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-28L	*44*		*5 - 145*
PCB-111L	*61*		*10 - 145*
PCB-178L	*69*		*10 - 145*

Lab Sample ID: MB 320-62466/1-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62466

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-2	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-3	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-4	40	U G	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-5	32	U G	32		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-6	32	U G	32		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-7	31	U G	31		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-8	30	U G	30		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-9	34	U G	34		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-10	22	U G	22		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-11	35	U G	35		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-12/13	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-14	29	U G	29		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-15	34	U G	34		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-16	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-17	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-62466/1-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62466

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-18/30	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-19	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-20/28	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-21/33	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-22	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-23	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-24	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-25	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-26/29	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-27	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-31	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-32	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-34	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-35	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-36	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-37	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-38	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-39	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-40/71	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-41	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-42	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-43	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-44/47/65	60	U	60		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-45	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-46	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-48	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-49/69	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-50/53	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-51	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-52	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-54	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-55	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-56	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-57	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-58	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-59/62/75	60	U	60		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-60	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-61/70/74/76	80	U	80		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-63	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-64	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-66	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-67	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-68	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-72	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-73	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-77	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-78	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-79	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-62466/1-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62466

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-80	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-81	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-82	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-83	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-84	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-85/116/117	60	U	60		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-86/87/97/108/119/125	120	U	120		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-88/91	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-89	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-90/101/113	60	U	60		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-92	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-93/100	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-107/124	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-94	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-95	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-96	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-98/102	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-99	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-103	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-104	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-105	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-106	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-110/115	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-109	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-111	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-112	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-114	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-115	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-118	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-120	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-121	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-122	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-123	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-126	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-127	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-128/166	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-129/138/163	60	U	60		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-130	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-131	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-132	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-133	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-134/143	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-135/151	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-136	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-137	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-139/140	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-141	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-142	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-62466/1-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62466

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-144	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-145	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-146	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-147/149	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-148	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-150	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-152	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-153/168	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-154	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-155	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-156/157	4.0	U	4.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-158	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-159	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-160	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-161	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-162	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-164	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-165	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-167	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-169	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-170	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-171/173	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-172	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-174	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-175	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-176	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-177	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-178	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-179	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-180/193	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-181	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-182	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-183	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-184	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-185	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-186	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-187	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-188	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-189	2.0	U	2.0		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-190	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-191	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-192	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-194	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-195	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-196	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-197	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-198/199	40	U	40		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-200	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-62466/1-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62466

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-201	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-202	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-203	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-204	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-205	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-206	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-207	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-208	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1
PCB-209	20	U	20		pg/g		01/07/15 16:31	01/16/15 17:01	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*33*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-3L	*40*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-4L	*39*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-15L	*54*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-19L	*48*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-37L	*45*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-54L	*36*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-77L	*55*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-81L	*55*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-104L	*43*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-105L	*64*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-114L	*61*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-118L	*61*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-123L	*62*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-126L	*64*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-155L	*51*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-156L/157L	*73*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-167L	*73*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-169L	*69*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-188L	*54*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-189L	*67*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-202L	*63*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-205L	*71*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-206L	*68*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-208L	*76*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-209L	*63*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*46*		*5 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-111L	*59*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*
PCB-178L	*65*		*10 - 145*	*01/07/15 16:31*	*01/16/15 17:01*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-62466/2-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 62466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	200	206		pg/g		103	60 - 135
PCB-3	200	209		pg/g		104	60 - 135
PCB-4	200	215		pg/g		107	60 - 135
PCB-15	200	212		pg/g		106	60 - 135
PCB-19	200	235		pg/g		117	60 - 135
PCB-37	200	180		pg/g		90	60 - 135
PCB-54	200	203		pg/g		101	60 - 135
PCB-77	200	206		pg/g		103	60 - 135
PCB-81	200	197		pg/g		99	60 - 135
PCB-104	200	220		pg/g		110	60 - 135
PCB-105	200	198		pg/g		99	60 - 135
PCB-114	200	196		pg/g		98	60 - 135
PCB-118	200	202		pg/g		101	60 - 135
PCB-123	200	199		pg/g		100	60 - 135
PCB-126	200	210		pg/g		105	60 - 135
PCB-155	200	214		pg/g		107	60 - 135
PCB-156/157	400	407		pg/g		102	60 - 135
PCB-167	200	201		pg/g		100	60 - 135
PCB-169	200	206		pg/g		103	60 - 135
PCB-188	200	214		pg/g		107	60 - 135
PCB-189	200	192		pg/g		96	60 - 135
PCB-202	200	201		pg/g		100	60 - 135
PCB-205	200	202		pg/g		101	60 - 135
PCB-206	200	195		pg/g		98	60 - 135
PCB-208	200	196		pg/g		98	60 - 135
PCB-209	200	195		pg/g		98	60 - 135

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-1L	*32*		*15 - 145*
PCB-3L	*35*		*15 - 145*
PCB-4L	*35*		*15 - 145*
PCB-15L	*42*		*15 - 145*
PCB-19L	*37*		*15 - 145*
PCB-37L	*44*		*15 - 145*
PCB-54L	*33*		*15 - 145*
PCB-77L	*53*		*40 - 145*
PCB-81L	*52*		*40 - 145*
PCB-104L	*36*	*	*40 - 145*
PCB-105L	*61*		*40 - 145*
PCB-114L	*57*		*40 - 145*
PCB-118L	*57*		*40 - 145*
PCB-123L	*57*		*40 - 145*
PCB-126L	*64*		*40 - 145*
PCB-155L	*44*		*40 - 145*
PCB-156L/157L	*76*		*40 - 145*
PCB-167L	*74*		*40 - 145*
PCB-169L	*76*		*40 - 145*
PCB-188L	*45*		*40 - 145*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-62466/2-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 62466

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-189L	*70*		*40 - 145*
PCB-202L	*59*		*40 - 145*
PCB-205L	*74*		*40 - 145*
PCB-206L	*73*		*40 - 145*
PCB-208L	*78*		*40 - 145*
PCB-209L	*69*		*40 - 145*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-28L	*43*		*5 - 145*
PCB-111L	*53*		*10 - 145*
PCB-178L	*61*		*10 - 145*

Lab Sample ID: LCSD 320-62466/3-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 62466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	200	205		pg/g		103	60 - 135	1	50
PCB-3	200	207		pg/g		104	60 - 135	1	50
PCB-4	200	200		pg/g		100	60 - 135	7	50
PCB-15	200	206		pg/g		103	60 - 135	3	50
PCB-19	200	185		pg/g		92	60 - 135	24	50
PCB-37	200	171		pg/g		86	60 - 135	5	50
PCB-54	200	203		pg/g		102	60 - 135	0	50
PCB-77	200	206		pg/g		103	60 - 135	0	50
PCB-81	200	194		pg/g		97	60 - 135	1	50
PCB-104	200	217		pg/g		109	60 - 135	1	50
PCB-105	200	197		pg/g		98	60 - 135	0	50
PCB-114	200	200		pg/g		100	60 - 135	2	50
PCB-118	200	203		pg/g		102	60 - 135	1	50
PCB-123	200	199		pg/g		99	60 - 135	0	50
PCB-126	200	205		pg/g		103	60 - 135	2	50
PCB-155	200	218		pg/g		109	60 - 135	2	50
PCB-156/157	400	414		pg/g		103	60 - 135	2	50
PCB-167	200	196		pg/g		98	60 - 135	2	50
PCB-169	200	208		pg/g		104	60 - 135	1	50
PCB-188	200	213		pg/g		107	60 - 135	0	50
PCB-189	200	191		pg/g		95	60 - 135	1	50
PCB-202	200	209		pg/g		105	60 - 135	4	50
PCB-205	200	204		pg/g		102	60 - 135	1	50
PCB-206	200	196		pg/g		98	60 - 135	1	50
PCB-208	200	198		pg/g		99	60 - 135	1	50
PCB-209	200	194		pg/g		97	60 - 135	1	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
PCB-1L	*34*		*15 - 145*
PCB-3L	*38*		*15 - 145*
PCB-4L	*39*		*15 - 145*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-62466/3-A
Matrix: Solid
Analysis Batch: 63203

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 62466

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-15L	45		15 - 145
PCB-19L	51		15 - 145
PCB-37L	51		15 - 145
PCB-54L	37		15 - 145
PCB-77L	56		40 - 145
PCB-81L	56		40 - 145
PCB-104L	40		40 - 145
PCB-105L	63		40 - 145
PCB-114L	58		40 - 145
PCB-118L	59		40 - 145
PCB-123L	58		40 - 145
PCB-126L	65		40 - 145
PCB-155L	47		40 - 145
PCB-156L/157L	76		40 - 145
PCB-167L	75		40 - 145
PCB-169L	77		40 - 145
PCB-188L	50		40 - 145
PCB-189L	76		40 - 145
PCB-202L	62		40 - 145
PCB-205L	80		40 - 145
PCB-206L	80		40 - 145
PCB-208L	84		40 - 145
PCB-209L	75		40 - 145

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	49		5 - 145
PCB-111L	54		10 - 145
PCB-178L	62		10 - 145

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Specialty Organics

Prep Batch: 60235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104496-16	SB-128 (0-1)	Total/NA	Solid	HRMS-Sox	
680-104496-17	SB-126 (0-1)	Total/NA	Solid	HRMS-Sox	
LCS 320-60235/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
MB 320-60235/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 61438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104496-16	SB-128 (0-1)	Total/NA	Solid	1668C	60235
LCS 320-60235/2-A	Lab Control Sample	Total/NA	Solid	1668C	60235
MB 320-60235/1-A	Method Blank	Total/NA	Solid	1668C	60235

Analysis Batch: 61439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104496-17	SB-126 (0-1)	Total/NA	Solid	1668C	60235

Prep Batch: 62466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104496-11	SB-122 (0-1)	Total/NA	Solid	HRMS-Sox	
LCS 320-62466/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
LCSD 320-62466/3-A	Lab Control Sample Dup	Total/NA	Solid	HRMS-Sox	
MB 320-62466/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 63203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104496-11	SB-122 (0-1)	Total/NA	Solid	1668C	62466
LCS 320-62466/2-A	Lab Control Sample	Total/NA	Solid	1668C	62466
LCSD 320-62466/3-A	Lab Control Sample Dup	Total/NA	Solid	1668C	62466
MB 320-62466/1-A	Method Blank	Total/NA	Solid	1668C	62466

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Client Sample ID: SB-122 (0-1)

Lab Sample ID: 680-104496-11

Date Collected: 08/20/14 14:30
Matrix: Solid
Date Received: 08/21/14 12:42
Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.35 g	20 uL	62466	01/07/15 16:31	STL	TAL SAC
Total/NA	Analysis	1668C		1	10.35 g	20 uL	63203	01/16/15 22:01	KSS	TAL SAC

Client Sample ID: SB-128 (0-1)

Lab Sample ID: 680-104496-16

Date Collected: 08/21/14 10:30
Matrix: Solid
Date Received: 08/21/14 12:42
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.04 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.04 g	20 uL	61438	12/23/14 21:49	KSS	TAL SAC

Client Sample ID: SB-126 (0-1)

Lab Sample ID: 680-104496-17

Date Collected: 08/21/14 10:55
Matrix: Solid
Date Received: 08/21/14 12:42
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.19 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		10	10.19 g	20 uL	61439	12/24/14 12:00	KSS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Serial Number 88756

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: HERCULES ASHLAND SOLVENTS JH
PROJECT NO.: 0H007000.GA60.00700
PROJECT LOCATION (STATE): GA
TAL (LAB) PROJECT MANAGER: KATHY SMITH
P.O. NUMBER:
CONTRACT NO.:
CLIENT (SITE) PM: D. WILDERMAN
CLIENT PHONE:
CLIENT FAX:
CLIENT NAME: ARCADIS
CLIENT E-MAIL: DAVID.WILDERMAN@ARCADIS-US.COM
CLIENT ADDRESS: 1000 COBB PL BLVD, KENNESAW, GA 30144
COMPANY CONTRACTING THIS WORK (if applicable):

PAGE 1 OF 2

STANDARD REPORT DELIVERY ●
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 3

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS / NUMBER OF CONTAINERS SUBMITTED

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8260B VOCs Acrolein	8270D SVOCs 1-1, biphenyl	8270D SVOCs Aniline	PCBs/Pest	Pest. 8081B	8290 Dioxin/Furans	9056 FLUORIDE	8260B Benzene only	8260B Appendix IX	8270 Appendix IX	REMARKS
8/20/14	1415	SB-141 (0-1)	G		X			X	X	X								
8/20/14	1510	SB-F12 (0-1) (2014)	G		X			X	X	X	X	X	X					
8/20/14	1555	SB-151 (0-1)	G		X				X									
8/20/14	—	DUP-02 (0-1)	G		X				X									
8/20/14	1645	SB-F3 (0-1) (2014)	G		X							X	X	X				
8/20/14	1730	SB-118 (0-1)	G		X										X			
8/21/14	0910	SB-119 (0-1)	G		X										X			
~~8/21/14~~	~~1000~~	~~SB-115 (0-1)~~	G		X						X					X	X	~~PCBs (Aroclors) + Congeners only~~
8/21/14	1040	SB-116 (0-1)	G		X						*X					X	X	*PCBs (Aroclors) + Congeners only
8/21/14	1130 *	SB-113 (0-1)	G		X											X	X	*Plus Formaldehyde 8315
8/21/14	—	TRIP BLANK (082114)														X		VOCs Analysis

RELINQUISHED BY: (SIGNATURE) John Hanna — DATE 8/21/14 — TIME
RELINQUISHED BY: (SIGNATURE)
RECEIVED BY: (SIGNATURE) — DATE — TIME
RECEIVED BY: (SIGNATURE)

680-104496 Chain of Custody

RELINQUISHED 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
[signature]	082214	1242	YES ○ NO ○		680-104496	6.0/5.8/5.8°C

TAL8240-680 (1008)

Serial Number 88754

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)	PAGE	OF
Ashland - Hercules	01400500.6060	GA	2	2
TAL (LAB) PROJECT MANAGER: KATHY SMITH	P.O. NUMBER	CONTRACT NO.		
CLIENT (SITE) PM: David Wildermann	CLIENT PHONE: (770) 428-9009	CLIENT FAX		
CLIENT NAME: ARCADIS	CLIENT E-MAIL: Christopher.miller@arcadis-us.com ~~David.W.t~~			
CLIENT ADDRESS: 1000 Cobb Place Blvd, Bldg 500-A, Kennesaw GA, 30144				
COMPANY CONTRACTING THIS WORK (if applicable)				

STANDARD REPORT DELIVERY ●
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 3

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOC's 8260B	SVOC's 8270D	PCB's	VOC's Acrolein	SVOC's 1,1 Biphenyl	SVOC's Aniline	Formaldehyde	REMARKS
								methods Dl 8260	None	NA	PRESERVATIVE				
								NUMBER OF CONTAINERS SUBMITTED							
8/20/14	1430	SB-122 (0-1)	G		X					✓					MS/MSD
8/20/14	1520	SB-110 (0-1)	G		X			✓	✓						
8/20/14	1545	SB-106 (0-1)	G		X			✓	✓						
8/20/14	1555	SB-109 (1-3)	G		X			✓	✓						
8/21/14	0925	SB-111 (0-1)	G		X			✓	✓		✓	✓	✓	✓	
8/21/14	1030	SB-128 (0-1)	G		X			✓	✓	✓		✓			
8/21/14	1055	SB-126 (0-1)	G		X			✓	✓	✓		✓			

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Marc Myers	8-21-14	1200	John Hanna	8/21/14				
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
John Hanna	8-21-14	1200						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
Chris Banda	08-21-14	1242	YES ○ NO ○		680-104496	

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-104496-2

Login Number: 104496

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-104496-2

Login Number: 104496
List Number: 4
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 08/22/14 01:53 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-104496-2

Login Number: 104496
List Number: 5
Creator: Yang, Nhia X

List Source: TestAmerica Sacramento
List Creation: 12/05/14 01:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104496-2

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-15
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-15
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-15
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-15
Louisiana (DW)	NELAP	6	LA150014	12-31-15
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-15
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14 *
South Carolina	State Program	4	98001	06-30-15
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14 *
West Virginia DEP	State Program	3	094	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

* Certification renewal pending - certification considered valid.

Laboratory: TestAmerica Sacramento (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-16
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14 *
Wyoming	State Program	8	8TMS-Q	01-29-15

* Certification renewal pending - certification considered valid.

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: 680-104447-2
Client Project/Site: Hercules Savannah

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Chris Miller

Authorized for release by:
12/29/2014 2:37:54 PM
Michele Kersey, Project Manager I
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Designee for

Kathryn Smith, Project Manager II
(912)354-7858
kathy.smith@testamericainc.com

LINKS

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Have a Question? Ask The Expert

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Qualifiers

Dioxin

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
E	Result exceeded calibration range.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
*	Isotope Dilution analyte exceeds 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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Method	Method Description	Protocol	Laboratory
1668C	Chlorinated Biphenyl Congeners (HRGC/HRMS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-104447-12	SB-123 (0-1)	Solid	08/19/14 15:35	08/20/14 12:45
680-104447-13	SB-123 (1-3)	Solid	08/19/14 15:45	08/20/14 12:45
680-104447-16	SB-124 (0-1)	Solid	08/19/14 17:40	08/20/14 12:45
680-104447-20	SB-117 (0-1)	Solid	08/20/14 11:45	08/20/14 12:45

Job ID: 680-104447-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah

Report Number: 680-104447-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 8/20/2014 12:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.2º C and 1.8º C.

CHLORINATED BIPHENYL CONGENERS

Samples SB-123 (0-1) (680-104447-12), SB-123 (1-3) (680-104447-13), SB-124 (0-1) (680-104447-16) and SB-117 (0-1) (680-104447-20) were analyzed for chlorinated biphenyl congeners in accordance with epa method 1668C. The samples were prepared on 12/09/2014 and analyzed on 12/23/2014.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SB-117 (0-1) (680-104447-20), SB-123 (0-1) (680-104447-12), SB-123 (1-3) (680-104447-13), SB-124 (0-1) (680-104447-16). These analytes have been qualified; however, the peaks did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): SB-117 (0-1) (680-104447-20), SB-123 (0-1) (680-104447-12), SB-123 (1-3) (680-104447-13), SB-124 (0-1) (680-104447-16) . The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The Isotope Dilution Analyte (IDA) recovery of 13C-PCB 104 and 13C-PCB 155 associated with the following samples is below the method recommended limit: (LCS 320-60235/2-A). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-123 (0-1)

Date Collected: 08/19/14 15:35
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-12
Matrix: Solid
Percent Solids: 80.9

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-2	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-3	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-4	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-5	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-6	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-7	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-8	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-9	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-10	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-11	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-12/13	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-14	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-15	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-16	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-17	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-18/30	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-19	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-20/28	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-21/33	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-22	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-23	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-24	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-25	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-26/29	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-27	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-31	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-32	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-34	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-35	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-36	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-37	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-38	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-39	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-40/71	**56**		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-41	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-42	**24**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-43	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-44/47/65	**340**		72		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-45	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-46	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-48	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-49/69	**180**		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-50/53	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-51	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-52	**1400**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-54	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-55	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-56	**130**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1

Client Sample ID: SB-123 (0-1)
Date Collected: 08/19/14 15:35
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-12
Matrix: Solid
Percent Solids: 80.9

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-58	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-59/62/75	72	U	72		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-60	**39**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-61/70/74/76	**1600**		95		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-63	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-64	**140**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-66	**400**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-67	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-68	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-72	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-73	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-77	**130**	**G**	11		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-78	**41**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-79	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-80	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-81	11	U G	11		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-82	**650**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-83	**200**	**q G**	160		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-84	**840**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-85/116/117	**1200**	**G**	100		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-86/87/97/108/119/125	**4000**		140		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-88/91	**370**	**G**	120		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-89	130	U G	130		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-90/101/113	**5900**	**G**	110		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-92	**1400**	**G**	130		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-93/100	120	U G	120		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-107/124	**640**	**G**	94		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-94	130	U G	130		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-95	**3400**	**E G**	120		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-96	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-98/102	110	U G	110		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-99	**2100**	**G**	110		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-103	110	U G	110		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-104	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-105	**2600**	**E G**	92		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-106	99	U G	99		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-110/115	**12000**	**E G**	90		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-109	**690**	**G**	89		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-111	84	U G	84		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-112	87	U G	87		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-114	100	U G	100		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-118	**9400**	**E G**	82		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-120	88	U G	88		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-121	85	U G	85		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-122	100	U G	100		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-123	**220**	**G**	95		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-126	120	U G	120		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-127	98	U G	98		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1

Client Sample ID: SB-123 (0-1)
Date Collected: 08/19/14 15:35
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-12
Matrix: Solid
Percent Solids: 80.9

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	3600		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-129/138/163	18000	E	72		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-130	1100	G	59		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-131	57	U G	57		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-132	4000	E G	53		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-133	150	G	53		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-134/143	530	G	55		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-135/151	2200	G	50		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-136	700	G	37		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-137	1000	G	47		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-139/140	180		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-141	2300	G	52		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-142	52	U G	52		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-144	260	G	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-145	36	U G	36		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-146	1600	G	47		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-147/149	5900	E	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-148	48	U G	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-150	33	U G	33		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-152	35	U G	35		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-153/168	9400	E	48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-154	42	U G	42		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-155	37	U G	37		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-156/157	2600	G	20		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-158	1900	G	34		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-159	60		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-160	41	U G	41		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-161	37	U G	37		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-162	98		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-164	1100	G	39		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-165	43	U G	43		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-167	850	G	15		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-169	21	U G	21		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-170	2400	E	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-171/173	680		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-172	360		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-174	1900		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-175	65		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-176	120		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-177	1000		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-178	260		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-179	500		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-180/193	4000		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-181	41		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-182	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-183	840		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-184	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-185	82		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-186	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1

Client Sample ID: SB-123 (0-1)

Date Collected: 08/19/14 15:35
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-12

Matrix: Solid
Percent Solids: 80.9

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**1600**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-188	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-189	**96**	**q**	2.4		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-190	**450**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-191	**97**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-192	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-194	**670**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-195	**210**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-196	**360**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-197	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-198/199	**750**		48		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-200	**100**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-201	**85**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-202	**130**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-203	**500**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-204	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-205	**39**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-206	**370**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-207	**44**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-208	**80**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1
PCB-209	**32**		24		pg/g	☼	12/09/14 11:39	12/23/14 16:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*27*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-3L	*32*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-4L	*31*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-15L	*40*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-19L	*39*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-37L	*51*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-54L	*40*		*5 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-77L	*61*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-81L	*61*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-104L	*45*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-105L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-114L	*67*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-118L	*72*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-123L	*70*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-126L	*77*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-155L	*49*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-156L/157L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-167L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-169L	*71*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-188L	*66*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-189L	*81*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-202L	*79*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-205L	*86*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-206L	*85*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-208L	*85*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*
PCB-209L	*72*		*10 - 145*	*12/09/14 11:39*	*12/23/14 16:48*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-123 (0-1)
Date Collected: 08/19/14 15:35
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-12
Matrix: Solid
Percent Solids: 80.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	50		5 - 145	12/09/14 11:39	12/23/14 16:48	1
PCB-111L	69		10 - 145	12/09/14 11:39	12/23/14 16:48	1
PCB-178L	70		10 - 145	12/09/14 11:39	12/23/14 16:48	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-123 (1-3)

Date Collected: 08/19/14 15:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-13

Matrix: Solid
Percent Solids: 83.2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-2	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-3	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-4	27	U G	27		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-5	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-6	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-7	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-8	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-9	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-10	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-11	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-12/13	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-14	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-15	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-16	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-17	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-18/30	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-19	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-20/28	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-21/33	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-22	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-23	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-24	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-25	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-26/29	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-27	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-31	**25**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-32	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-34	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-35	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-36	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-37	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-38	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-39	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-40/71	**56**		48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-41	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-42	**26**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-43	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-44/47/65	**380**		72		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-45	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-46	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-48	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-49/69	**200**		48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-50/53	48	U	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-51	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-52	**1500**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-54	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-55	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-56	**180**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-123 (1-3)
Date Collected: 08/19/14 15:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-13
Matrix: Solid
Percent Solids: 83.2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-58	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-59/62/75	72	U	72		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-60	**37**	**q**	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-61/70/74/76	**2000**		96		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-63	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-64	**120**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-66	**500**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-67	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-68	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-72	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-73	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-77	**130**	**G**	13		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-78	**43**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-79	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-80	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-81	12	U G	12		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-82	**950**	**G**	120		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-83	**280**	**G**	140		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-84	**910**	**G**	120		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-85/116/117	**1200**	**G**	89		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-86/87/97/108/119/125	**4600**		140		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-88/91	**350**	**G**	100		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-89	120	U G	120		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-90/101/113	**7200**	**G**	92		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-92	**1600**	**G**	110		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-93/100	110	U G	110		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-107/124	**640**	**G**	83		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-94	110	U G	110		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-95	**3300**	**E G**	110		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-96	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-98/102	96	U G	96		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-99	**2300**	**G**	96		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-103	99	U G	99		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-104	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-105	**3300**	**E G**	76		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-106	87	U G	87		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-110/115	**14000**	**E G**	79		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-109	**720**	**G**	78		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-111	73	U G	73		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-112	76	U G	76		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-114	85	U G	85		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-118	**11000**	**E G**	75		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-120	77	U G	77		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-121	75	U G	75		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-122	90	U G	90		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-123	**180**	**G**	82		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-126	100	U G	100		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-127	86	U G	86		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1

Client Sample ID: SB-123 (1-3)

Date Collected: 08/19/14 15:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-13

Matrix: Solid
Percent Solids: 83.2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	3500		48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-129/138/163	18000	E	72		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-130	1100	G	63		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-131	92	G	61		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-132	4100	E G	57		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-133	150	G	57		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-134/143	610	G	59		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-135/151	2400	G	54		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-136	650	G	40		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-137	1000	G	51		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-139/140	180	G	51		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-141	2500	E G	56		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-142	55	U G	55		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-144	270	G	52		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-145	38	U G	38		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-146	1700	G	51		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-147/149	5700	E G	52		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-148	51	U G	51		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-150	35	U G	35		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-152	37	U G	37		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-153/168	9700	E	48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-154	60	G	45		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-155	44	U G	44		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-156/157	2700	G	21		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-158	1900	G	37		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-159	50		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-160	44	U G	44		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-161	40	U G	40		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-162	95		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-164	1100	G	42		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-165	46	U G	46		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-167	890	G	15		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-169	20	U G	20		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-170	2300		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-171/173	650		48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-172	330		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-174	1800		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-175	64		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-176	120		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-177	950		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-178	250		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-179	460		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-180/193	3800		48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-181	42		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-182	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-183	800		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-184	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-185	100		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-186	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1

Client Sample ID: SB-123 (1-3)
Date Collected: 08/19/14 15:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-13
Matrix: Solid
Percent Solids: 83.2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**1400**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-188	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-189	**97**		2.4		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-190	**420**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-191	**93**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-192	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-194	**610**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-195	**180**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-196	**320**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-197	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-198/199	**630**		48		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-200	**86**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-201	**70**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-202	**120**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-203	**430**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-204	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-205	**36**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-206	**270**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-207	**32**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-208	**60**		24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1
PCB-209	24	U	24		pg/g	☼	12/09/14 11:39	12/23/14 18:03	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*26*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-3L	*29*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-4L	*28*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-15L	*38*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-19L	*33*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-37L	*51*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-54L	*36*		*5 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-77L	*62*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-81L	*62*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-104L	*40*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-105L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-114L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-118L	*69*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-123L	*69*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-126L	*77*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-155L	*47*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-156L/157L	*78*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-167L	*78*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-169L	*77*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-188L	*62*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-189L	*80*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-202L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-205L	*84*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-206L	*81*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-208L	*78*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*
PCB-209L	*62*		*10 - 145*	*12/09/14 11:39*	*12/23/14 18:03*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-123 (1-3)
Date Collected: 08/19/14 15:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-13
Matrix: Solid
Percent Solids: 83.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	46		5 - 145	12/09/14 11:39	12/23/14 18:03	1
PCB-111L	68		10 - 145	12/09/14 11:39	12/23/14 18:03	1
PCB-178L	75		10 - 145	12/09/14 11:39	12/23/14 18:03	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-124 (0-1)

Date Collected: 08/19/14 17:40
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-16

Matrix: Solid
Percent Solids: 77.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-2	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-3	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-4	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-5	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-6	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-7	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-8	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-9	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-10	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-11	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-12/13	51	U	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-14	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-15	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-16	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-17	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-18/30	51	U	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-19	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-20/28	51	U	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-21/33	51	U	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-22	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-23	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-24	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-25	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-26/29	51	U	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-27	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-31	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-32	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-34	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-35	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-36	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-37	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-38	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-39	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-40/71	**60**		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-41	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-42	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-43	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-44/47/65	**410**		76		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-45	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-46	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-48	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-49/69	**220**		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-50/53	51	U	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-51	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-52	**1500**		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-54	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-55	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-56	**150**		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1

Client Sample ID: SB-124 (0-1)
Date Collected: 08/19/14 17:40
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-16
Matrix: Solid
Percent Solids: 77.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-58	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-59/62/75	76	U	76		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-60	**51**		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-61/70/74/76	**1400**		100		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-63	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-64	**170**		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-66	**400**		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-67	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-68	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-72	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-73	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-77	**74**	**G**	9.0		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-78	**44**		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-79	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-80	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-81	8.7	U G	8.7		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-82	**590**	**G**	110		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-83	**180**	**G**	120		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-84	**1000**	**G**	110		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-85/116/117	**1400**	**G**	80		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-86/87/97/108/119/125	**3600**		150		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-88/91	**610**	**G**	95		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-89	110	U G	110		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-90/101/113	**5300**	**G**	83		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-92	**1200**	**G**	99		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-93/100	95	U G	95		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-107/124	**290**	**G**	75		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-94	100	U G	100		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-95	**3700**	**G E**	98		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-96	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-98/102	87	U G	87		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-99	**3200**	**G E**	87		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-103	89	U G	89		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-104	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-105	**3000**	**E G**	72		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-106	79	U G	79		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-110/115	**8900**	**G E**	71		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-109	**540**	**G**	71		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-111	66	U G	66		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-112	69	U G	69		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-114	**130**	**G**	78		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-118	**6900**	**E G**	69		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-120	70	U G	70		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-121	67	U G	67		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-122	81	U G	81		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-123	**90**	**G**	73		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-126	97	U G	97		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-127	78	U G	78		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1

Client Sample ID: SB-124 (0-1)
Date Collected: 08/19/14 17:40
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-16
Matrix: Solid
Percent Solids: 77.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	2300		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-129/138/163	12000	E	76		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-130	750	G	59		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-131	130	G	57		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-132	3000	G E	53		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-133	110	G	53		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-134/143	500	G	55		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-135/151	2000		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-136	770	G	37		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-137	670	G	47		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-139/140	210		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-141	1500	G	52		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-142	51	U G	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-144	310	G	48		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-145	36	U G	36		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-146	1200	G	47		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-147/149	5400	E	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-148	48	U G	48		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-150	33	U G	33		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-152	35	U G	35		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-153/168	6900	E	51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-154	69	G	42		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-155	34	U G	34		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-156/157	1800	G	19		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-158	1200	G	34		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-159	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-160	41	U G	41		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-161	37	U G	37		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-162	59		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-164	740	G	39		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-165	43	U G	43		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-167	560	G	14		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-169	18	U G	18		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-170	1400		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-171/173	410		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-172	200		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-174	1000		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-175	43		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-176	100		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-177	600		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-178	150		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-179	290		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-180/193	2100		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-181	27		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-182	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-183	500		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-184	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-185	69		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-186	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1

Client Sample ID: SB-124 (0-1)

Date Collected: 08/19/14 17:40
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-16

Matrix: Solid
Percent Solids: 77.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	890		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-188	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-189	61		2.5		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-190	240		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-191	52		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-192	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-194	300		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-195	94		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-196	150		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-197	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-198/199	310		51		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-200	41		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-201	36		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-202	59		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-203	210		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-204	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-205	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-206	160		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-207	25	U	25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-208	46		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1
PCB-209	90		25		pg/g	☼	12/09/14 11:39	12/23/14 19:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	27		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-3L	32		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-4L	32		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-15L	45		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-19L	35		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-37L	61		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-54L	41		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-77L	77		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-81L	79		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-104L	49		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-105L	85		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-114L	80		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-118L	80		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-123L	81		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-126L	86		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-155L	61		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-156L/157L	85		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-167L	83		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-169L	83		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-188L	75		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-189L	85		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-202L	82		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-205L	89		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-206L	86		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-208L	89		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-209L	75		10 - 145	12/09/14 11:39	12/23/14 19:18	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-124 (0-1)
Date Collected: 08/19/14 17:40
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-16
Matrix: Solid
Percent Solids: 77.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	54		5 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-111L	82		10 - 145	12/09/14 11:39	12/23/14 19:18	1
PCB-178L	81		10 - 145	12/09/14 11:39	12/23/14 19:18	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-117 (0-1)

Date Collected: 08/20/14 11:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-20

Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-2	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-3	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-4	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-5	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-6	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-7	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-8	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-9	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-10	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-11	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-12/13	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-14	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-15	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-16	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-17	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-18/30	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-19	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-20/28	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-21/33	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-22	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-23	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-24	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-25	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-26/29	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-27	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-31	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-32	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-34	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-35	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-36	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-37	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-38	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-39	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-40/71	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-41	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-42	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-43	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-44/47/65	**230**		66		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-45	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-46	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-48	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-49/69	**150**		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-50/53	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-51	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-52	**850**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-54	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-55	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-56	**66**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1

Client Sample ID: SB-117 (0-1)
Date Collected: 08/20/14 11:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-20
Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-57	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-58	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-59/62/75	66	U	66		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-60	**22**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-61/70/74/76	**620**		89		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-63	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-64	**52**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-66	**200**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-67	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-68	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-72	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-73	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-77	**66**	**G**	3.5		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-78	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-79	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-80	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-81	3.5	U G	3.5		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-82	**280**	**G**	54		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-83	59	U G q	59		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-84	**500**	**G**	54		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-85/116/117	**500**		66		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-86/87/97/108/119/125	**1700**		130		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-88/91	**270**	**G**	45		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-89	51	U G	51		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-90/101/113	**2700**		66		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-92	**510**	**G**	48		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-93/100	46	U G	46		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-107/124	**120**		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-94	48	U G	48		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-95	**1800**	**G**	47		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-96	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-98/102	44	U	44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-99	**1300**	**G**	42		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-103	43	U G	43		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-104	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-105	**1200**	**G**	34		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-106	38	U G	38		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-110/115	**3600**		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-109	**180**	**G**	34		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-111	32	U G	32		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-112	33	U G	33		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-114	**38**	**G**	37		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-118	**2900**	**G E**	33		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-120	34	U G	34		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-121	32	U G	32		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-122	39	U G	39		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-123	**44**	**G**	36		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-126	42	U G	42		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-127	37	U G	37		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1

Client Sample ID: SB-117 (0-1)
Date Collected: 08/20/14 11:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-20
Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-128/166	800		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-129/138/163	4300		66		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-130	280		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-131	38		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-132	1100		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-133	39		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-134/143	190		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-135/151	700		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-136	270		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-137	210		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-139/140	65		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-141	560		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-142	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-144	99		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-145	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-146	420		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-147/149	2000		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-148	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-150	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-152	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-153/168	2500		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-154	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-155	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-156/157	620	G	5.6		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-158	460		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-159	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-160	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-161	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-162	23		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-164	270		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-165	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-167	200	G	4.1		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-169	5.1	U G	5.1		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-170	530		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-171/173	160		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-172	82		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-174	460		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-175	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-176	37		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-177	240		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-178	70		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-179	130		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-180/193	870		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-181	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-182	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-183	210		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-184	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-185	37		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-186	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1

Client Sample ID: SB-117 (0-1)
Date Collected: 08/20/14 11:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-20
Matrix: Solid
Percent Solids: 86.8

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-187	**410**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-188	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-189	**22**		2.2		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-190	**100**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-191	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-192	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-194	**150**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-195	**46**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-196	**79**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-197	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-198/199	**190**		44		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-200	**24**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-201	**22**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-202	**45**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-203	**120**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-204	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-205	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-206	**75**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-207	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-208	**24**		22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1
PCB-209	22	U	22		pg/g	☼	12/09/14 11:39	12/23/14 20:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*29*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-3L	*34*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-4L	*34*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-15L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-19L	*39*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-37L	*57*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-54L	*39*		*5 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-77L	*66*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-81L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-104L	*46*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-105L	*76*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-114L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-118L	*72*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-123L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-126L	*83*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-155L	*53*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-156L/157L	*80*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-167L	*80*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-169L	*81*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-188L	*66*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-189L	*81*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-202L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-205L	*83*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-206L	*81*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-208L	*81*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*
PCB-209L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 20:33*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-117 (0-1)
Date Collected: 08/20/14 11:45
Date Received: 08/20/14 12:45

Lab Sample ID: 680-104447-20
Matrix: Solid
Percent Solids: 86.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	53		5 - 145	12/09/14 11:39	12/23/14 20:33	1
PCB-111L	73		10 - 145	12/09/14 11:39	12/23/14 20:33	1
PCB-178L	75		10 - 145	12/09/14 11:39	12/23/14 20:33	1

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-1L	PCB-3L	PCB-4L	PCB-15L	PCB-19L	PCB-37L	PCB-54L	PCB-77L
Lab Sample ID	Client Sample ID	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(5-145)	(10-145)
680-104447-12	SB-123 (0-1)	27	32	31	40	39	51	40	61
680-104447-13	SB-123 (1-3)	26	29	28	38	33	51	36	62
680-104447-16	SB-124 (0-1)	27	32	32	45	35	61	41	77
680-104447-20	SB-117 (0-1)	29	34	34	44	39	57	39	66
MB 320-60235/1-A	Method Blank	28	33	32	44	42	56	44	61

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-81L	PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-104447-12	SB-123 (0-1)	61	45	73	67	72	70	77	49
680-104447-13	SB-123 (1-3)	62	40	74	68	69	69	77	47
680-104447-16	SB-124 (0-1)	79	49	85	80	80	81	86	61
680-104447-20	SB-117 (0-1)	68	46	76	73	72	74	83	53
MB 320-60235/1-A	Method Blank	64	51	73	68	68	71	73	54

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		CB-156L/15	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-202L	PCB-205L	PCB-206L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)	(10-145)
680-104447-12	SB-123 (0-1)	75	73	71	66	81	79	86	85
680-104447-13	SB-123 (1-3)	78	78	77	62	80	75	84	81
680-104447-16	SB-124 (0-1)	85	83	83	75	85	82	89	86
680-104447-20	SB-117 (0-1)	80	80	81	66	81	75	83	81
MB 320-60235/1-A	Method Blank	75	74	73	67	83	80	86	87

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PCB-208L	PCB-209L
Lab Sample ID	Client Sample ID	(10-145)	(10-145)
680-104447-12	SB-123 (0-1)	85	72
680-104447-13	SB-123 (1-3)	78	62
680-104447-16	SB-124 (0-1)	89	75
680-104447-20	SB-117 (0-1)	81	68
MB 320-60235/1-A	Method Blank	79	61

Surrogate Legend

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L

PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L
PCB-209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-1L	PCB-3L	PCB-4L	PCB-15L	PCB-19L	PCB-37L	PCB-54L	PCB-77L
Lab Sample ID	**Client Sample ID**	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(15-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	23	25	25	31	31	39	31	47

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB-81L	PCB-104L	PCB-105L	PCB-114L	PCB-118L	PCB-123L	PCB-126L	PCB-155L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	47	37 *	55	51	51	51	59	39 *

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		CB-156L/15	PCB-167L	PCB-169L	PCB-188L	PCB-189L	PCB-202L	PCB-205L	PCB-206L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	64	64	65	48	67	59	70	64

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		PCB-208L	PCB-209L
Lab Sample ID	**Client Sample ID**	(40-145)	(40-145)
LCS 320-60235/2-A	Lab Control Sample	58	46

Surrogate Legend

PCB-1L = PCB-1L
PCB-3L = PCB-3L
PCB-4L = PCB-4L
PCB-15L = PCB-15L
PCB-19L = PCB-19L
PCB-37L = PCB-37L
PCB-54L = PCB-54L
PCB-77L = PCB-77L
PCB-81L = PCB-81L
PCB-104L = PCB-104L
PCB-105L = PCB-105L
PCB-114L = PCB-114L
PCB-118L = PCB-118L
PCB-123L = PCB-123L
PCB-126L = PCB-126L
PCB-155L = PCB-155L
PCB-156L/157L = PCB-156L/157L
PCB-167L = PCB-167L
PCB-169L = PCB-169L
PCB-188L = PCB-188L
PCB-189L = PCB-189L
PCB-202L = PCB-202L
PCB-205L = PCB-205L
PCB-206L = PCB-206L
PCB-208L = PCB-208L

Isotope Dilution Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

PCB-209L = PCB-209L

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-2	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-3	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-4	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-5	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-6	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-7	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-8	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-9	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-10	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-11	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-12/13	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-14	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-15	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-16	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-17	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-18/30	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-19	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-20/28	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-21/33	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-22	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-23	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-24	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-25	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-26/29	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-27	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-31	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-32	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-34	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-35	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-36	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-37	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-38	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-39	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-40/71	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-41	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-42	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-43	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-44/47/65	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-45	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-46	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-48	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-49/69	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-50/53	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-51	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-52	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-54	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-55	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-56	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-57	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-58	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-59/62/75	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-60	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-61/70/74/76	80	U	80		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-63	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-64	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-66	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-67	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-68	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-72	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-73	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-77	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-78	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-79	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-80	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-81	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-82	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-83	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-84	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-85/116/117	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-86/87/97/108/119/125	120	U	120		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-88/91	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-89	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-90/101/113	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-92	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-93/100	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-107/124	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-94	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-95	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-96	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-98/102	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-99	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-103	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-104	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-105	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-106	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-110/115	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-109	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-111	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-112	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-114	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-118	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-120	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-121	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-122	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-123	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-126	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-127	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-128/166	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-129/138/163	60	U	60		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-130	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-131	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-132	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-133	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-134/143	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-135/151	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-136	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-137	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-139/140	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-141	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-142	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-144	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-145	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-146	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-147/149	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-148	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-150	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-152	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-153/168	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-154	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-155	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-156/157	4.0	U	4.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-158	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-159	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-160	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-161	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-162	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-164	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-165	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-167	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-169	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-170	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-171/173	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-172	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-174	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-175	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-176	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-177	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-178	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-179	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-180/193	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-181	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-182	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-183	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-184	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-185	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-186	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-187	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-188	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-189	2.0	U	2.0		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-190	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-191	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-192	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-194	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-195	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-196	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-197	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-198/199	40	U	40		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-200	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-201	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-202	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-203	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-204	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-205	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-206	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-207	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-208	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1
PCB-209	20	U	20		pg/g		12/09/14 11:39	12/23/14 14:18	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*28*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-3L	*33*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-4L	*32*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-15L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-19L	*42*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-37L	*56*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-54L	*44*		*5 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-77L	*61*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-81L	*64*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-104L	*51*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-105L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-114L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-118L	*68*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-123L	*71*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-126L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-155L	*54*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-156L/157L	*75*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-167L	*74*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-169L	*73*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-188L	*67*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-189L	*83*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*
PCB-202L	*80*		*10 - 145*	*12/09/14 11:39*	*12/23/14 14:18*	*1*

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-60235/1-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60235

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-205L	86		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-206L	87		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-208L	79		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-209L	61		10 - 145	12/09/14 11:39	12/23/14 14:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	57		5 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-111L	71		10 - 145	12/09/14 11:39	12/23/14 14:18	1
PCB-178L	72		10 - 145	12/09/14 11:39	12/23/14 14:18	1

Lab Sample ID: LCS 320-60235/2-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	200	197		pg/g		98	60 - 135
PCB-3	200	198		pg/g		99	60 - 135
PCB-4	200	194		pg/g		97	60 - 135
PCB-15	200	201		pg/g		101	60 - 135
PCB-19	200	189		pg/g		94	60 - 135
PCB-37	200	194		pg/g		97	60 - 135
PCB-54	200	208		pg/g		104	60 - 135
PCB-77	200	204		pg/g		102	60 - 135
PCB-81	200	192		pg/g		96	60 - 135
PCB-104	200	191		pg/g		95	60 - 135
PCB-105	200	188		pg/g		94	60 - 135
PCB-114	200	196		pg/g		98	60 - 135
PCB-118	200	198		pg/g		99	60 - 135
PCB-123	200	197		pg/g		98	60 - 135
PCB-126	200	203		pg/g		101	60 - 135
PCB-155	200	196		pg/g		98	60 - 135
PCB-156/157	400	397		pg/g		99	60 - 135
PCB-167	200	192		pg/g		96	60 - 135
PCB-169	200	200		pg/g		100	60 - 135
PCB-188	200	199		pg/g		99	60 - 135
PCB-189	200	198		pg/g		99	60 - 135
PCB-202	200	197		pg/g		98	60 - 135
PCB-205	200	197		pg/g		99	60 - 135
PCB-206	200	195		pg/g		97	60 - 135
PCB-208	200	193		pg/g		96	60 - 135
PCB-209	200	193		pg/g		97	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	23		15 - 145
PCB-3L	25		15 - 145
PCB-4L	25		15 - 145
PCB-15L	31		15 - 145
PCB-19L	31		15 - 145

Method: 1668C - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-60235/2-A
Matrix: Solid
Analysis Batch: 61438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60235

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-37L	39		15 - 145
PCB-54L	31		15 - 145
PCB-77L	47		40 - 145
PCB-81L	47		40 - 145
PCB-104L	37	*	40 - 145
PCB-105L	55		40 - 145
PCB-114L	51		40 - 145
PCB-118L	51		40 - 145
PCB-123L	51		40 - 145
PCB-126L	59		40 - 145
PCB-155L	39	*	40 - 145
PCB-156L/157L	64		40 - 145
PCB-167L	64		40 - 145
PCB-169L	65		40 - 145
PCB-188L	48		40 - 145
PCB-189L	67		40 - 145
PCB-202L	59		40 - 145
PCB-205L	70		40 - 145
PCB-206L	64		40 - 145
PCB-208L	58		40 - 145
PCB-209L	46		40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	44		5 - 145
PCB-111L	61		10 - 145
PCB-178L	69		10 - 145

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Specialty Organics

Prep Batch: 60235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104447-12	SB-123 (0-1)	Total/NA	Solid	HRMS-Sox	
680-104447-13	SB-123 (1-3)	Total/NA	Solid	HRMS-Sox	
680-104447-16	SB-124 (0-1)	Total/NA	Solid	HRMS-Sox	
680-104447-20	SB-117 (0-1)	Total/NA	Solid	HRMS-Sox	
LCS 320-60235/2-A	Lab Control Sample	Total/NA	Solid	HRMS-Sox	
MB 320-60235/1-A	Method Blank	Total/NA	Solid	HRMS-Sox	

Analysis Batch: 61438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-104447-12	SB-123 (0-1)	Total/NA	Solid	1668C	60235
680-104447-13	SB-123 (1-3)	Total/NA	Solid	1668C	60235
680-104447-16	SB-124 (0-1)	Total/NA	Solid	1668C	60235
680-104447-20	SB-117 (0-1)	Total/NA	Solid	1668C	60235
LCS 320-60235/2-A	Lab Control Sample	Total/NA	Solid	1668C	60235
MB 320-60235/1-A	Method Blank	Total/NA	Solid	1668C	60235

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Client Sample ID: SB-123 (0-1)

Lab Sample ID: 680-104447-12
Date Collected: 08/19/14 15:35
Matrix: Solid
Date Received: 08/20/14 12:45
Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.36 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.36 g	20 uL	61438	12/23/14 16:48	KSS	TAL SAC

Client Sample ID: SB-123 (1-3)

Lab Sample ID: 680-104447-13
Date Collected: 08/19/14 15:45
Matrix: Solid
Date Received: 08/20/14 12:45
Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.02 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.02 g	20 uL	61438	12/23/14 18:03	KSS	TAL SAC

Client Sample ID: SB-124 (0-1)

Lab Sample ID: 680-104447-16
Date Collected: 08/19/14 17:40
Matrix: Solid
Date Received: 08/20/14 12:45
Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.09 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.09 g	20 uL	61438	12/23/14 19:18	KSS	TAL SAC

Client Sample ID: SB-117 (0-1)

Lab Sample ID: 680-104447-20
Date Collected: 08/20/14 11:45
Matrix: Solid
Date Received: 08/20/14 12:45
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			10.39 g	20 uL	60235	12/09/14 11:39	DXD	TAL SAC
Total/NA	Analysis	1668C		1	10.39 g	20 uL	61438	12/23/14 20:33	KSS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Serial Number 88755

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 - Hercules Savannah	PROJECT NO.: OH505000.GA60	PROJECT LOCATION (STATE): GA	PAGE 2 OF 2
TAL (LAB) PROJECT MANAGER:	P.O. NUMBER:	CONTRACT NO.:	STANDARD REPORT DELIVERY ●
CLIENT (SITE) PM: Doug Wilderman	CLIENT PHONE: 770-428-9009	CLIENT FAX:	DATE DUE
CLIENT NAME: ARCADIS	CLIENT E-MAIL: DAVID.WILDERMAN@ARCADIS-US.COM		EXPEDITED REPORT DELIVERY (SURCHARGE) ○
CLIENT ADDRESS: 1000 Cobb Place Blvd Bldg 500-A			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)			NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 2

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: SVOCs 8270D LL Diphenyl; PCB's; VOCs 8260B; SVOCs 8270D; 8315 Formaldehyde; VOCs 8260B; Alcohols

Preservative: None; None; Methanol Dionex; None; None; Methanol; None

NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID	SVOCs 8270D LL Diphenyl	PCB's	VOCs 8260B	SVOCs 8270D	8315 Formaldehyde	VOCs 8260B	Alcohols				REMARKS
8/19/14	1535	SB-123 (0-1)	G		+			✓	✓									
8/19/14	1545	SB-123 (1-3)	G		+			✓	✓	✓	✓							
8/19/14	1055	SB-108 (0-1)	G		+			✓		✓	✓							
8/19/14	1710	SB-108 (1-3)	G		+			✓		✓	✓							
8/19/14	1740	SB-124 (0-1)	G		+			✓	✓									
	~~1750~~	~~SB-124 (1-3)~~ mm																
8/20/14	1015	SB-120 (0-1)	G		+			✓				✓						
8/20/14	1020	SB-120 (1-3)	G		+			✓				✓						
8/20/14	1105	SB-114 (0-1)	G		+					✓	✓	✓	✓					
8/20/14	1145	SB-117 (0-1)	G		+				✓	✓	✓							

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Mark Ma	8/20 1220	1220	John Fiana	8/20/14	1245			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
John. H	8/20/14	1220						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
michelle	8/20/14	12:45	YES ○ NO ○		680-104447	1.2/1.8°

TAL8240-680 (1006)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-104447-2

Login Number: 104447
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-104447-2

Login Number: 104447
List Number: 4
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 08/22/14 01:39 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-104447-2

Login Number: 104447
List Number: 5
Creator: Yang, Nhia X

List Source: TestAmerica Sacramento
List Creation: 12/05/14 01:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-104447-2

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14 *
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14 *
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14 *
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-15
Louisiana (DW)	NELAP	6	LA140023	12-31-14 *
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-14 *
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	12-31-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-15
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14 *
South Carolina	State Program	4	98001	06-30-15
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-14-7	11-30-15
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14 *
West Virginia DEP	State Program	3	094	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

* Certification renewal pending - certification considered valid.

Laboratory: TestAmerica Sacramento (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

ANALYTICAL REPORT

Job Number: 680-104784-2

Job Description: Hercules Savannah

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, GA 30339

Attention: Chris Miller

Approved for release.
Kathryn E Smith
Project Manager II
12/13/2014 11:33 AM

Kathryn E Smith, Project Manager II
5102 LaRoche Avenue, Savannah, GA, 31404
(912)354-7858
kathy.smith@testamericainc.com
12/13/2014
Revision: 2

cc: Timothy Hassett
Kaitlin Maloney
Mr. David M Wilderman, P.G.

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

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CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah

Report Number: 680-104784-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Report was revised November 17, 2014 to include 1,1'-Biphenyl by 8270.

RECEIPT
The samples were received on 08/29/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4º C and 1.8º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples SED-1 (680-104784-19), SED-2 (680-104784-20) and SED-3 (680-104784-21) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 09/02/2014 and analyzed on 09/05/2014.

Acrolein recovered high for LCSD 680-347519/9.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples SW-1 (680-104784-16), SW-2 (680-104784-17), SW-3 (680-104784-18), DUP-01 (680-104784-22) and Trip Blank (680-104784-23) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/10/2014 and 09/11/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples SW-1 (680-104784-16), SW-2 (680-104784-17) and SW-3 (680-104784-18) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 09/03/2014 and analyzed on 09/11/2014.

Terphenyl-d14 (Surr) recovered high for MB 680-347091/10-A.

1,3,5-Trinitrobenzene, 2-Acetylaminofluorene, Aramite, Total and Dinoseb recovered high for LCS 680-347091/14-A.

Several analytes recovered low for the MS of sample SW-1MS (680-104784-16) in batch 680-348465. 1,3,5-Trinitrobenzene, Aramite, Total and Dinoseb recovered high.

Several analytes recovered low for the MSD of sample SW-1MSD (680-104784-16) in batch 680-348465. 1,3,5-Trinitrobenzene, 2-Acetylaminofluorene, Aramite, Total and Dinoseb recovered high.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (SOLID)
Samples SED-1 (680-104784-19), SED-2 (680-104784-20) and SED-3 (680-104784-21) were analyzed for Semivolatile Organic Compounds (Solid) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/30/2014 and 09/09/2014 and analyzed on 09/08/2014 and 09/11/2014.

4-Aminobiphenyl and Famphur recovered low for LCS 680-346739/10-A. Aramite, Total recovered high. Famphur recovered low for LCS 680-348054/19-A. 3-Methylcholanthrene, Aramite, Total and Isosafrole recovered high.

Several analytes recovered low for the MS/MSD of sample 680-104784-21 in batch 680-347819. 4-Chloroaniline exceeded the RPD limit.

Samples SED-1 (680-104784-19)[10X], SED-2 (680-104784-20)[10X] and SED-3 (680-104784-21)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly and surrogates were diluted out.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIOXINS AND FURANS

Samples SED-1 (680-104784-19), SED-2 (680-104784-20) and SED-3 (680-104784-21) were analyzed for dioxins and furans in accordance with EPA Method 8290A. The samples were prepared on 09/02/2014 and analyzed on 09/04/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS BY ION CHROMATOGRAPHY (28 DAY)

Samples SW-1 (680-104784-16), SW-2 (680-104784-17) and SW-3 (680-104784-18) were analyzed for Anions by Ion Chromatography (28 Day) in accordance with EPA Method 300.0. The samples were analyzed on 09/09/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

AMMONIA

Samples SW-1 (680-104784-16), SW-2 (680-104784-17) and SW-3 (680-104784-18) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 09/04/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GRAIN SIZE

Samples SED-1 (680-104784-19), SED-2 (680-104784-20) and SED-3 (680-104784-21) were analyzed for grain size in accordance with ASTM D422. The samples were analyzed on 09/02/2014 and 09/05/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples SED-1 (680-104784-19), SED-2 (680-104784-20) and SED-3 (680-104784-21) were analyzed for total organic carbon in accordance with Lloyd Kahn Method. The samples were analyzed on 09/11/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
680-104784-16	**SW-1**					
Ammonia		0.32		0.050	mg/L	350.1
Fluoride		0.16		0.10	mg/L	300.0
680-104784-17	**SW-2**					
N-Nitrosodi-n-butylamine		7.8		0.97	ug/L	8270C LL
Ammonia		0.15		0.050	mg/L	350.1
Fluoride		0.43		0.10	mg/L	300.0
680-104784-18	**SW-3**					
Ammonia		0.13		0.050	mg/L	350.1
Fluoride		0.53		0.10	mg/L	300.0
680-104784-19	**SED-1**					
Total TCDD		1.8	q	1.5	pg/g	8290A
Total TCDF		4.5	q	1.5	pg/g	8290A
Total HxCDD		56		7.3	pg/g	8290A
Total HxCDF		13		7.3	pg/g	8290A
Total Organic Carbon		14000		1000	mg/Kg	Lloyd Kahn
Gravel		2.6			%	D422
Sieve Size 3 inch		0.0			%	D422
Sand		79.2			%	D422
Sieve Size 2 inch		0.0			%	D422
Coarse Sand		5.6			%	D422
Sieve Size 1.5 inch		0.0			%	D422
Medium Sand		15.7			%	D422
Sieve Size 1 inch		0.0			%	D422
Fine Sand		57.9			%	D422
Sieve Size 0.75 inch		0.0			%	D422
Silt		14.0			%	D422
Sieve Size 0.375 inch		0.0			%	D422
Clay		4.3			%	D422
Sieve Size #4		2.6			%	D422
Sieve Size #10		5.6			%	D422
Sieve Size #20		8.4			%	D422
Sieve Size #40		7.3			%	D422
Sieve Size #60		6.1			%	D422
Sieve Size #80		6.2			%	D422
Sieve Size #100		10.1			%	D422
Sieve Size #200		35.5			%	D422
Hydrometer Reading 1		12.5			%	D422
Hydrometer Reading 2		0.5			%	D422
Hydrometer Reading 3		0.0			%	D422
Hydrometer Reading 4		0.5			%	D422

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Hydrometer Reading 5		0.5			%	D422
Hydrometer Reading 6		0.6			%	D422
Hydrometer Reading 7		0.5			%	D422
680-104784-20	**SED-2**					
Acetone		100		82	ug/Kg	8260B
Total TCDD		4.2	q	1.9	pg/g	8290A
Total TCDF		15	q	1.9	pg/g	8290A
Total PeCDD		20	q	9.3	pg/g	8290A
Total PeCDF		28	q	9.3	pg/g	8290A
Total HxCDD		320		9.3	pg/g	8290A
Total HxCDF		77	q	9.3	pg/g	8290A
Total Organic Carbon		20000		1000	mg/Kg	Lloyd Kahn
Gravel		3.0			%	D422
Sieve Size 3 inch		0.0			%	D422
Sand		81.9			%	D422
Sieve Size 2 inch		0.0			%	D422
Coarse Sand		2.2			%	D422
Sieve Size 1.5 inch		0.0			%	D422
Medium Sand		15.3			%	D422
Sieve Size 1 inch		0.0			%	D422
Fine Sand		64.4			%	D422
Sieve Size 0.75 inch		0.0			%	D422
Silt		4.8			%	D422
Sieve Size 0.375 inch		0.0			%	D422
Clay		10.3			%	D422
Sieve Size #4		3.0			%	D422
Sieve Size #10		2.2			%	D422
Sieve Size #20		4.7			%	D422
Sieve Size #40		10.6			%	D422
Sieve Size #60		10.3			%	D422
Sieve Size #80		9.7			%	D422
Sieve Size #100		11.8			%	D422
Sieve Size #200		32.6			%	D422
Hydrometer Reading 1		2.5			%	D422
Hydrometer Reading 2		0.6			%	D422
Hydrometer Reading 3		0.0			%	D422
Hydrometer Reading 4		1.1			%	D422
Hydrometer Reading 5		0.6			%	D422
Hydrometer Reading 6		1.3			%	D422
Hydrometer Reading 7		2.3			%	D422

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Sample ID	Client Sample ID			Reporting		
Analyte		Result	Qualifier	Limit	Units	Method
680-104784-21	**SED-3**					
Total TCDD		4.9	q	1.4	pg/g	8290A
Total TCDF		6.1	q	1.4	pg/g	8290A
Total PeCDD		11	q	7.0	pg/g	8290A
Total PeCDF		15	q	7.0	pg/g	8290A
Total HxCDD		130		7.0	pg/g	8290A
Total HxCDF		34		7.0	pg/g	8290A
Total Organic Carbon		9800		1000	mg/Kg	Lloyd Kahn
Gravel		2.9			%	D422
Sieve Size 3 inch		0.0			%	D422
Sand		58.3			%	D422
Sieve Size 2 inch		0.0			%	D422
Coarse Sand		3.0			%	D422
Sieve Size 1.5 inch		0.0			%	D422
Medium Sand		8.3			%	D422
Sieve Size 1 inch		0.0			%	D422
Fine Sand		47.0			%	D422
Sieve Size 0.75 inch		0.0			%	D422
Silt		12.8			%	D422
Sieve Size 0.375 inch		0.0			%	D422
Clay		26.0			%	D422
Sieve Size #4		2.9			%	D422
Sieve Size #10		3.0			%	D422
Sieve Size #20		2.3			%	D422
Sieve Size #40		6.0			%	D422
Sieve Size #60		6.6			%	D422
Sieve Size #80		9.0			%	D422
Sieve Size #100		10.5			%	D422
Sieve Size #200		20.9			%	D422
Hydrometer Reading 1		6.7			%	D422
Hydrometer Reading 2		0.8			%	D422
Hydrometer Reading 3		1.8			%	D422
Hydrometer Reading 4		0.9			%	D422
Hydrometer Reading 5		2.6			%	D422
Hydrometer Reading 6		2.8			%	D422
Hydrometer Reading 7		2.6			%	D422

METHOD SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL SAV	SW846 8260B	
Closed System Purge and Trap	TAL SAV		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL SAV	SW846 8270D	
Microwave Extraction	TAL SAV		SW846 3546
Organic Carbon, Total (TOC)	TAL BUR	EPA Lloyd Kahn	
Grain Size	TAL BUR	ASTM D422	
Dioxins and Furans (HRGC/HRMS)	TAL SAC	SW846 8290A	
Soxhlet Extraction of Dioxins and Furans	TAL SAC		SW846 8290
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL SAV	SW846 8260B	
Purge and Trap	TAL SAV		SW846 5030B
Semivolatile Organic Compounds by GCMS - Low Levels	TAL SAV	SW846 8270C LL	
Liquid-Liquid Extraction (Continuous)	TAL SAV		SW846 3520C
Anions, Ion Chromatography	TAL SAV	MCAWW 300.0	
Nitrogen, Ammonia	TAL SAV	MCAWW 350.1	

Lab References:

TAL BUR = TestAmerica Burlington

TAL SAC = TestAmerica Sacramento

TAL SAV = TestAmerica Savannah

Method References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method	Analyst	Analyst ID
SW846 8260B	Foreman, Terrance	TF1
SW846 8260B	Reaves, Teffany A	TAR
SW846 8260B	Tippins, Meagan MT	MMT
SW846 8270C LL	Campbell, Sophia M	SMC
SW846 8270D	Gillins, Lauren E	LEG
SW846 8290A	Stephens, Kyle	KSS
MCAWW 350.1	Etheridge, Jora M	JME
EPA Lloyd Kahn	Pham, Vu T	VTP
MCAWW 300.0	Seabrooks, Deanna A	DAS
ASTM D422	Degree, Steven L	SLD

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-104784-16	SW-1	Water	08/28/2014 1635	08/29/2014 1300
680-104784-17	SW-2	Water	08/28/2014 1540	08/29/2014 1300
680-104784-18	SW-3	Water	08/28/2014 1730	08/29/2014 1300
680-104784-19	SED-1	Solid	08/28/2014 1650	08/29/2014 1300
680-104784-20	SED-2	Solid	08/28/2014 1545	08/29/2014 1300
680-104784-21	SED-3	Solid	08/28/2014 1741	08/29/2014 1300
680-104784-22	DUP-01	Water	08/28/2014 0000	08/29/2014 1300
680-104784-23	Trip Blank	Water	08/28/2014 0000	08/29/2014 1300

SAMPLE RESULTS

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1033.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2015			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2015				

Analyte	Result (ug/L)	Qualifier	RL
Ethylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Propionitrile	20	U	20
Acrylonitrile	20	U	20
Vinyl acetate	2.0	U	2.0
4-Methyl-2-pentanone	10	U	10
Toluene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
Dibromochloromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Chloroprene	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Xylenes, Total	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
2-Hexanone	10	U	10
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Vinyl chloride	1.0	U	1.0
Acetonitrile	40	U	40
Methylene Chloride	5.0	U	5.0
Carbon disulfide	2.0	U	2.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,1-Dichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Dichlorodifluoromethane	1.0	U	1.0
Pentachloroethane	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
2-Butanone	10	U	10
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1033.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2015			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2015				

Analyte	Result (ug/L)	Qualifier	RL
Trichloroethene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	107		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1035.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2044			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2044				

Analyte	Result (ug/L)	Qualifier	RL
Ethylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Propionitrile	20	U	20
Acrylonitrile	20	U	20
Vinyl acetate	2.0	U	2.0
4-Methyl-2-pentanone	10	U	10
Toluene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
Dibromochloromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Chloroprene	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Xylenes, Total	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
2-Hexanone	10	U	10
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Vinyl chloride	1.0	U	1.0
Acetonitrile	40	U	40
Methylene Chloride	5.0	U	5.0
Carbon disulfide	2.0	U	2.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,1-Dichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Dichlorodifluoromethane	1.0	U	1.0
Pentachloroethane	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
2-Butanone	10	U	10
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1035.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2044			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2044				

Analyte	Result (ug/L)	Qualifier	RL
Trichloroethene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	108		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1037.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2114			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2114				

Analyte	Result (ug/L)	Qualifier	RL
Ethylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Propionitrile	20	U	20
Acrylonitrile	20	U	20
Vinyl acetate	2.0	U	2.0
4-Methyl-2-pentanone	10	U	10
Toluene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
Dibromochloromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Chloroprene	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Xylenes, Total	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
2-Hexanone	10	U	10
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Vinyl chloride	1.0	U	1.0
Acetonitrile	40	U	40
Methylene Chloride	5.0	U	5.0
Carbon disulfide	2.0	U	2.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,1-Dichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Dichlorodifluoromethane	1.0	U	1.0
Pentachloroethane	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
2-Butanone	10	U	10
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1037.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2114			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2114				

Analyte	Result (ug/L)	Qualifier	RL
Trichloroethene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	104		70 - 130
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	93		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid % Moisture: 33.2 Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-347519	Instrument ID:	CMSL
Prep Method:	5035	Prep Batch:	680-346848	Lab File ID:	LI0529.D
Dilution:	1.0			Initial Weight/Volume:	6.716 g
Analysis Date:	09/05/2014 1947			Final Weight/Volume:	5 mL
Prep Date:	09/02/2014 0930				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL
Acetone		56	U	56
Acetonitrile		220	U	220
Acrolein		110	U *	110
Acrylonitrile		110	U	110
Allyl chloride		5.6	U	5.6
Benzene		5.6	U	5.6
Bromodichloromethane		5.6	U	5.6
Bromoform		5.6	U	5.6
Bromomethane		5.6	U	5.6
2-Butanone		28	U	28
Carbon disulfide		5.6	U	5.6
Carbon tetrachloride		5.6	U	5.6
Chlorobenzene		5.6	U	5.6
Chloroethane		5.6	U	5.6
Chloroform		5.6	U	5.6
Chloromethane		5.6	U	5.6
Chloroprene		5.6	U	5.6
cis-1,3-Dichloropropene		5.6	U	5.6
Dibromochloromethane		5.6	U	5.6
1,2-Dibromo-3-Chloropropane		11	U	11
1,2-Dibromoethane		5.6	U	5.6
Dibromomethane		5.6	U	5.6
1,2-Dichlorobenzene		5.6	U	5.6
1,3-Dichlorobenzene		5.6	U	5.6
1,4-Dichlorobenzene		5.6	U	5.6
Dichlorodifluoromethane		5.6	U	5.6
1,1-Dichloroethane		5.6	U	5.6
1,2-Dichloroethane		5.6	U	5.6
1,1-Dichloroethene		5.6	U	5.6
1,2-Dichloropropane		5.6	U	5.6
1,4-Dioxane		56	U	56
Ethylbenzene		5.6	U	5.6
Ethyl methacrylate		5.6	U	5.6
Hexachlorobutadiene		5.6	U	5.6
2-Hexanone		28	U	28
Iodomethane		5.6	U	5.6
Isobutanol		220	U	220
Methacrylonitrile		110	U	110
Methylene Chloride		5.6	U	5.6
Methyl methacrylate		11	U	11
4-Methyl-2-pentanone		28	U	28
Naphthalene		5.6	U	5.6
Pentachloroethane		28	U	28
Propionitrile		110	U	110
Styrene		5.6	U	5.6
1,1,1,2-Tetrachloroethane		5.6	U	5.6

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid % Moisture: 33.2 Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-347519	Instrument ID:	CMSL
Prep Method:	5035	Prep Batch:	680-346848	Lab File ID:	LI0529.D
Dilution:	1.0			Initial Weight/Volume:	6.716 g
Analysis Date:	09/05/2014 1947			Final Weight/Volume:	5 mL
Prep Date:	09/02/2014 0930				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL
1,1,2,2-Tetrachloroethane		5.6	U	5.6
Tetrachloroethene		5.6	U	5.6
Toluene		5.6	U	5.6
trans-1,4-Dichloro-2-butene		11	U	11
trans-1,2-Dichloroethene		5.6	U	5.6
trans-1,3-Dichloropropene		5.6	U	5.6
1,2,4-Trichlorobenzene		5.6	U	5.6
1,1,1-Trichloroethane		5.6	U	5.6
1,1,2-Trichloroethane		5.6	U	5.6
Trichloroethene		5.6	U	5.6
Trichlorofluoromethane		5.6	U	5.6
1,2,3-Trichloropropane		5.6	U	5.6
Vinyl acetate		11	U	11
Vinyl chloride		5.6	U	5.6
Xylenes, Total		11	U	11

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	93		65 - 130
Dibromofluoromethane (Surr)	85		65 - 130
1,2-Dichloroethane-d4 (Surr)	86		65 - 130
Toluene-d8 (Surr)	89		65 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid % Moisture: 46.3 Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-347519	Instrument ID:	CMSL
Prep Method:	5035	Prep Batch:	680-346848	Lab File ID:	LI0530.D
Dilution:	1.0			Initial Weight/Volume:	5.701 g
Analysis Date:	09/05/2014 2008			Final Weight/Volume:	5 mL
Prep Date:	09/02/2014 0930				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL
Acetone		100		82
Acetonitrile		330	U	330
Acrolein		160	U *	160
Acrylonitrile		160	U	160
Allyl chloride		8.2	U	8.2
Benzene		8.2	U	8.2
Bromodichloromethane		8.2	U	8.2
Bromoform		8.2	U	8.2
Bromomethane		8.2	U	8.2
2-Butanone		41	U	41
Carbon disulfide		8.2	U	8.2
Carbon tetrachloride		8.2	U	8.2
Chlorobenzene		8.2	U	8.2
Chloroethane		8.2	U	8.2
Chloroform		8.2	U	8.2
Chloromethane		8.2	U	8.2
Chloroprene		8.2	U	8.2
cis-1,3-Dichloropropene		8.2	U	8.2
Dibromochloromethane		8.2	U	8.2
1,2-Dibromo-3-Chloropropane		16	U	16
1,2-Dibromoethane		8.2	U	8.2
Dibromomethane		8.2	U	8.2
1,2-Dichlorobenzene		8.2	U	8.2
1,3-Dichlorobenzene		8.2	U	8.2
1,4-Dichlorobenzene		8.2	U	8.2
Dichlorodifluoromethane		8.2	U	8.2
1,1-Dichloroethane		8.2	U	8.2
1,2-Dichloroethane		8.2	U	8.2
1,1-Dichloroethene		8.2	U	8.2
1,2-Dichloropropane		8.2	U	8.2
1,4-Dioxane		82	U	82
Ethylbenzene		8.2	U	8.2
Ethyl methacrylate		8.2	U	8.2
Hexachlorobutadiene		8.2	U	8.2
2-Hexanone		41	U	41
Iodomethane		8.2	U	8.2
Isobutanol		330	U	330
Methacrylonitrile		160	U	160
Methylene Chloride		8.2	U	8.2
Methyl methacrylate		16	U	16
4-Methyl-2-pentanone		41	U	41
Naphthalene		8.2	U	8.2
Pentachloroethane		41	U	41
Propionitrile		160	U	160
Styrene		8.2	U	8.2
1,1,1,2-Tetrachloroethane		8.2	U	8.2

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid % Moisture: 46.3 Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-347519	Instrument ID:	CMSL
Prep Method:	5035	Prep Batch:	680-346848	Lab File ID:	LI0530.D
Dilution:	1.0			Initial Weight/Volume:	5.701 g
Analysis Date:	09/05/2014 2008			Final Weight/Volume:	5 mL
Prep Date:	09/02/2014 0930				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL
1,1,2,2-Tetrachloroethane		8.2	U	8.2
Tetrachloroethene		8.2	U	8.2
Toluene		8.2	U	8.2
trans-1,4-Dichloro-2-butene		16	U	16
trans-1,2-Dichloroethene		8.2	U	8.2
trans-1,3-Dichloropropene		8.2	U	8.2
1,2,4-Trichlorobenzene		8.2	U	8.2
1,1,1-Trichloroethane		8.2	U	8.2
1,1,2-Trichloroethane		8.2	U	8.2
Trichloroethene		8.2	U	8.2
Trichlorofluoromethane		8.2	U	8.2
1,2,3-Trichloropropane		8.2	U	8.2
Vinyl acetate		16	U	16
Vinyl chloride		8.2	U	8.2
Xylenes, Total		16	U	16

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	89		65 - 130
Dibromofluoromethane (Surr)	88		65 - 130
1,2-Dichloroethane-d4 (Surr)	89		65 - 130
Toluene-d8 (Surr)	88		65 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid % Moisture: 28.8 Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-347519	Instrument ID:	CMSL
Prep Method:	5035	Prep Batch:	680-346848	Lab File ID:	LI0531.D
Dilution:	1.0			Initial Weight/Volume:	7.321 g
Analysis Date:	09/05/2014 2029			Final Weight/Volume:	5 mL
Prep Date:	09/02/2014 0930				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL
Acetone		48	U	48
Acetonitrile		190	U	190
Acrolein		96	U *	96
Acrylonitrile		96	U	96
Allyl chloride		4.8	U	4.8
Benzene		4.8	U	4.8
Bromodichloromethane		4.8	U	4.8
Bromoform		4.8	U	4.8
Bromomethane		4.8	U	4.8
2-Butanone		24	U	24
Carbon disulfide		4.8	U	4.8
Carbon tetrachloride		4.8	U	4.8
Chlorobenzene		4.8	U	4.8
Chloroethane		4.8	U	4.8
Chloroform		4.8	U	4.8
Chloromethane		4.8	U	4.8
Chloroprene		4.8	U	4.8
cis-1,3-Dichloropropene		4.8	U	4.8
Dibromochloromethane		4.8	U	4.8
1,2-Dibromo-3-Chloropropane		9.6	U	9.6
1,2-Dibromoethane		4.8	U	4.8
Dibromomethane		4.8	U	4.8
1,2-Dichlorobenzene		4.8	U	4.8
1,3-Dichlorobenzene		4.8	U	4.8
1,4-Dichlorobenzene		4.8	U	4.8
Dichlorodifluoromethane		4.8	U	4.8
1,1-Dichloroethane		4.8	U	4.8
1,2-Dichloroethane		4.8	U	4.8
1,1-Dichloroethene		4.8	U	4.8
1,2-Dichloropropane		4.8	U	4.8
1,4-Dioxane		48	U	48
Ethylbenzene		4.8	U	4.8
Ethyl methacrylate		4.8	U	4.8
Hexachlorobutadiene		4.8	U	4.8
2-Hexanone		24	U	24
Iodomethane		4.8	U	4.8
Isobutanol		190	U	190
Methacrylonitrile		96	U	96
Methylene Chloride		4.8	U	4.8
Methyl methacrylate		9.6	U	9.6
4-Methyl-2-pentanone		24	U	24
Naphthalene		4.8	U	4.8
Pentachloroethane		24	U	24
Propionitrile		96	U	96
Styrene		4.8	U	4.8
1,1,1,2-Tetrachloroethane		4.8	U	4.8

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid % Moisture: 28.8 Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-347519	Instrument ID:	CMSL
Prep Method:	5035	Prep Batch:	680-346848	Lab File ID:	LI0531.D
Dilution:	1.0			Initial Weight/Volume:	7.321 g
Analysis Date:	09/05/2014 2029			Final Weight/Volume:	5 mL
Prep Date:	09/02/2014 0930				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	RL
1,1,2,2-Tetrachloroethane		4.8	U	4.8
Tetrachloroethene		4.8	U	4.8
Toluene		4.8	U	4.8
trans-1,4-Dichloro-2-butene		9.6	U	9.6
trans-1,2-Dichloroethene		4.8	U	4.8
trans-1,3-Dichloropropene		4.8	U	4.8
1,2,4-Trichlorobenzene		4.8	U	4.8
1,1,1-Trichloroethane		4.8	U	4.8
1,1,2-Trichloroethane		4.8	U	4.8
Trichloroethene		4.8	U	4.8
Trichlorofluoromethane		4.8	U	4.8
1,2,3-Trichloropropane		4.8	U	4.8
Vinyl acetate		9.6	U	9.6
Vinyl chloride		4.8	U	4.8
Xylenes, Total		9.6	U	9.6

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	91		65 - 130
Dibromofluoromethane (Surr)	86		65 - 130
1,2-Dichloroethane-d4 (Surr)	88		65 - 130
Toluene-d8 (Surr)	88		65 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **DUP-01**

Lab Sample ID: 680-104784-22 Date Sampled: 08/28/2014 0000
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1039.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2144			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2144				

Analyte	Result (ug/L)	Qualifier	RL
Ethylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Propionitrile	20	U	20
Acrylonitrile	20	U	20
Vinyl acetate	2.0	U	2.0
4-Methyl-2-pentanone	10	U	10
Toluene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
Dibromochloromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Chloroprene	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Xylenes, Total	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
2-Hexanone	10	U	10
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Vinyl chloride	1.0	U	1.0
Acetonitrile	40	U	40
Methylene Chloride	5.0	U	5.0
Carbon disulfide	2.0	U	2.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,1-Dichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Dichlorodifluoromethane	1.0	U	1.0
Pentachloroethane	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
2-Butanone	10	U	10
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **DUP-01**

Lab Sample ID: 680-104784-22 Date Sampled: 08/28/2014 0000
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1039.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 2144			Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 2144				

Analyte	Result (ug/L)	Qualifier	RL
Trichloroethene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	103		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	92		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **Trip Blank**

Lab Sample ID: 680-104784-23 Date Sampled: 08/28/2014 0000
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1119.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 1245			Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 1245				

Analyte	Result (ug/L)	Qualifier	RL
Ethylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Propionitrile	20	U	20
Acrylonitrile	20	U	20
Vinyl acetate	2.0	U	2.0
4-Methyl-2-pentanone	10	U	10
Toluene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
Dibromochloromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Chloroprene	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Xylenes, Total	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
2-Hexanone	10	U	10
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Vinyl chloride	1.0	U	1.0
Acetonitrile	40	U	40
Methylene Chloride	5.0	U	5.0
Carbon disulfide	2.0	U	2.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,1-Dichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Dichlorodifluoromethane	1.0	U	1.0
Pentachloroethane	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
2-Butanone	10	U	10
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **Trip Blank**

Lab Sample ID: 680-104784-23 Date Sampled: 08/28/2014 0000
Client Matrix: Water Date Received: 08/29/2014 1300

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	PI1119.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 1245			Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 1245				

Analyte	Result (ug/L)	Qualifier	RL
Trichloroethene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		70 - 130
Dibromofluoromethane (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1125.D
Dilution:	1.0			Initial Weight/Volume:	507.9 mL
Analysis Date:	09/11/2014 2157			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
Acenaphthene	0.20	U	0.20
Acenaphthylene	0.20	U	0.20
Acetophenone	0.98	U	0.98
2-Acetylaminofluorene	0.98	U *	0.98
alpha,alpha-Dimethyl phenethylamine	9.8	U	9.8
4-Aminobiphenyl	4.9	U	4.9
Aniline	2.0	U	2.0
Anthracene	0.20	U	0.20
Aramite, Total	1.5	U *	1.5
Benzo[a]anthracene	0.20	U	0.20
Benzo[a]pyrene	0.20	U	0.20
Benzo[b]fluoranthene	0.20	U	0.20
Benzo[g,h,i]perylene	0.20	U	0.20
Benzo[k]fluoranthene	0.20	U	0.20
Benzyl alcohol	0.98	U	0.98
Bis(2-chloroethoxy)methane	0.98	U	0.98
Bis(2-chloroethyl)ether	0.98	U	0.98
bis (2-chloroisopropyl) ether	0.98	U	0.98
Bis(2-ethylhexyl) phthalate	2.0	U	2.0
4-Bromophenyl phenyl ether	0.98	U	0.98
Butyl benzyl phthalate	0.98	U	0.98
4-Chloroaniline	2.0	U	2.0
4-Chloro-3-methylphenol	0.98	U	0.98
2-Chloronaphthalene	0.98	U	0.98
2-Chlorophenol	0.98	U	0.98
4-Chlorophenyl phenyl ether	0.98	U	0.98
Chrysene	0.20	U	0.20
Diallate	0.98	U	0.98
Dibenz(a,h)anthracene	0.20	U	0.20
Dibenzofuran	0.98	U	0.98
1,4-Dichlorobenzene	0.98	U	0.98
1,3-Dichlorobenzene	0.98	U	0.98
1,2-Dichlorobenzene	0.98	U	0.98
3,3'-Dichlorobenzidine	20	U	20
2,4-Dichlorophenol	0.98	U	0.98
2,6-Dichlorophenol	0.98	U	0.98
Diethyl phthalate	0.98	U	0.98
Dimethoate	2.0	U	2.0
7,12-Dimethylbenz(a)anthracene	0.98	U	0.98
3,3'-Dimethylbenzidine	20	U *	20
2,4-Dimethylphenol	2.0	U	2.0
Dimethyl phthalate	0.98	U	0.98
Di-n-butyl phthalate	0.98	U	0.98
1,3-Dinitrobenzene	0.98	U	0.98
4,6-Dinitro-2-methylphenol	4.9	U	4.9
2,4-Dinitrophenol	9.8	U	9.8

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1125.D
Dilution:	1.0			Initial Weight/Volume:	507.9 mL
Analysis Date:	09/11/2014 2157			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4-Dinitrotoluene	0.98	U	0.98
2,6-Dinitrotoluene	0.98	U	0.98
Di-n-octyl phthalate	0.98	U	0.98
Dinoseb	2.0	U *	2.0
1,4-Dioxane	2.0	U	2.0
Disulfoton	0.98	U	0.98
Ethyl methanesulfonate	2.0	U	2.0
Ethyl Parathion	2.0	U	2.0
Famphur	0.98	U	0.98
Fluoranthene	0.20	U	0.20
Fluorene	0.20	U	0.20
Hexachlorobenzene	0.98	U	0.98
Hexachlorobutadiene	0.98	U	0.98
Hexachlorocyclopentadiene	2.0	U	2.0
Hexachloroethane	0.98	U	0.98
Hexachlorophene	490	U	490
Hexachloropropene	0.98	U	0.98
Indeno[1,2,3-cd]pyrene	0.20	U	0.20
Isophorone	0.98	U	0.98
Isosafrole	0.98	U	0.98
Methapyrilene	200	U	200
3-Methylcholanthrene	0.98	U	0.98
Methyl methanesulfonate	2.0	U	2.0
2-Methylnaphthalene	0.20	U	0.20
Methyl parathion	0.98	U	0.98
2-Methylphenol	2.0	U	2.0
3 & 4 Methylphenol	2.0	U	2.0
Naphthalene	0.20	U	0.20
1,4-Naphthoquinone	0.98	U	0.98
1-Naphthylamine	4.9	U	4.9
2-Naphthylamine	4.9	U	4.9
4-Nitroaniline	4.9	U	4.9
2-Nitroaniline	0.98	U	0.98
3-Nitroaniline	4.9	U	4.9
Nitrobenzene	0.98	U	0.98
4-Nitrophenol	4.9	U	4.9
2-Nitrophenol	0.98	U	0.98
4-Nitroquinoline-1-oxide	2.0	U	2.0
N-Nitro-o-toluidine	0.98	U	0.98
N-Nitrosodiethylamine	0.98	U	0.98
N-Nitrosodimethylamine	0.98	U	0.98
N-Nitrosodi-n-butylamine	0.98	U	0.98
N-Nitrosodi-n-propylamine	0.98	U	0.98
N-Nitrosodiphenylamine	0.98	U	0.98
N-Nitrosomethylethylamine	2.0	U	2.0
N-Nitrosomorpholine	0.98	U	0.98

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1125.D
Dilution:	1.0			Initial Weight/Volume:	507.9 mL
Analysis Date:	09/11/2014 2157			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosopiperidine	0.98	U	0.98
N-Nitrosopyrrolidine	0.98	U	0.98
o,o',o"-Triethylphosphorothioate	0.98	U	0.98
p-Dimethylamino azobenzene	4.9	U	4.9
Pentachlorobenzene	0.98	U	0.98
Pentachloronitrobenzene	0.98	U	0.98
Pentachlorophenol	4.9	U	4.9
Phenacetin	0.98	U	0.98
Phenanthrene	0.20	U	0.20
Phenol	0.98	U	0.98
Phorate	0.98	U	0.98
2-Picoline	2.0	U	2.0
p-Phenylene diamine	200	U	200
Pronamide	0.98	U	0.98
Pyrene	0.20	U	0.20
Pyridine	4.9	U	4.9
Safrole, Total	0.98	U	0.98
Sulfotepp	0.98	U	0.98
1,2,4,5-Tetrachlorobenzene	0.98	U	0.98
2,3,4,6-Tetrachlorophenol	0.98	U	0.98
Thionazin	0.98	U	0.98
2-Toluidine	0.98	U	0.98
1,2,4-Trichlorobenzene	0.98	U	0.98
2,4,6-Trichlorophenol	0.98	U	0.98
2,4,5-Trichlorophenol	0.98	U	0.98
1,3,5-Trinitrobenzene	0.98	U *	0.98
1,1'-Biphenyl	0.98	U	0.98

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	60		34 - 130
2-Fluorophenol (Surr)	57		25 - 130
Nitrobenzene-d5 (Surr)	62		32 - 130
Phenol-d5 (Surr)	58		27 - 130
Terphenyl-d14 (Surr)	84		36 - 130
2,4,6-Tribromophenol (Surr)	78		30 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1126.D
Dilution:	1.0			Initial Weight/Volume:	1030.9 mL
Analysis Date:	09/11/2014 2222			Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
Acenaphthene	0.19	U	0.19
Acenaphthylene	0.19	U	0.19
Acetophenone	0.97	U	0.97
2-Acetylaminofluorene	0.97	U *	0.97
alpha,alpha-Dimethyl phenethylamine	9.7	U	9.7
4-Aminobiphenyl	4.9	U	4.9
Aniline	1.9	U	1.9
Anthracene	0.19	U	0.19
Aramite, Total	1.5	U *	1.5
Benzo[a]anthracene	0.19	U	0.19
Benzo[a]pyrene	0.19	U	0.19
Benzo[b]fluoranthene	0.19	U	0.19
Benzo[g,h,i]perylene	0.19	U	0.19
Benzo[k]fluoranthene	0.19	U	0.19
Benzyl alcohol	0.97	U	0.97
Bis(2-chloroethoxy)methane	0.97	U	0.97
Bis(2-chloroethyl)ether	0.97	U	0.97
bis (2-chloroisopropyl) ether	0.97	U	0.97
Bis(2-ethylhexyl) phthalate	1.9	U	1.9
4-Bromophenyl phenyl ether	0.97	U	0.97
Butyl benzyl phthalate	0.97	U	0.97
4-Chloroaniline	1.9	U	1.9
4-Chloro-3-methylphenol	0.97	U	0.97
2-Chloronaphthalene	0.97	U	0.97
2-Chlorophenol	0.97	U	0.97
4-Chlorophenyl phenyl ether	0.97	U	0.97
Chrysene	0.19	U	0.19
Diallate	0.97	U	0.97
Dibenz(a,h)anthracene	0.19	U	0.19
Dibenzofuran	0.97	U	0.97
1,4-Dichlorobenzene	0.97	U	0.97
1,3-Dichlorobenzene	0.97	U	0.97
1,2-Dichlorobenzene	0.97	U	0.97
3,3'-Dichlorobenzidine	19	U	19
2,4-Dichlorophenol	0.97	U	0.97
2,6-Dichlorophenol	0.97	U	0.97
Diethyl phthalate	0.97	U	0.97
Dimethoate	1.9	U	1.9
7,12-Dimethylbenz(a)anthracene	0.97	U	0.97
3,3'-Dimethylbenzidine	19	U	19
2,4-Dimethylphenol	1.9	U	1.9
Dimethyl phthalate	0.97	U	0.97
Di-n-butyl phthalate	0.97	U	0.97
1,3-Dinitrobenzene	0.97	U	0.97
4,6-Dinitro-2-methylphenol	4.9	U	4.9
2,4-Dinitrophenol	9.7	U	9.7

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1126.D
Dilution:	1.0			Initial Weight/Volume:	1030.9 mL
Analysis Date:	09/11/2014 2222			Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4-Dinitrotoluene	0.97	U	0.97
2,6-Dinitrotoluene	0.97	U	0.97
Di-n-octyl phthalate	0.97	U	0.97
Dinoseb	1.9	U *	1.9
1,4-Dioxane	1.9	U	1.9
Disulfoton	0.97	U	0.97
Ethyl methanesulfonate	1.9	U	1.9
Ethyl Parathion	1.9	U	1.9
Famphur	0.97	U	0.97
Fluoranthene	0.19	U	0.19
Fluorene	0.19	U	0.19
Hexachlorobenzene	0.97	U	0.97
Hexachlorobutadiene	0.97	U	0.97
Hexachlorocyclopentadiene	1.9	U	1.9
Hexachloroethane	0.97	U	0.97
Hexachlorophene	490	U	490
Hexachloropropene	0.97	U	0.97
Indeno[1,2,3-cd]pyrene	0.19	U	0.19
Isophorone	0.97	U	0.97
Isosafrole	0.97	U	0.97
Methapyrilene	190	U	190
3-Methylcholanthrene	0.97	U	0.97
Methyl methanesulfonate	1.9	U	1.9
2-Methylnaphthalene	0.19	U	0.19
Methyl parathion	0.97	U	0.97
2-Methylphenol	1.9	U	1.9
3 & 4 Methylphenol	1.9	U	1.9
Naphthalene	0.19	U	0.19
1,4-Naphthoquinone	0.97	U	0.97
1-Naphthylamine	4.9	U	4.9
2-Naphthylamine	4.9	U	4.9
4-Nitroaniline	4.9	U	4.9
2-Nitroaniline	0.97	U	0.97
3-Nitroaniline	4.9	U	4.9
Nitrobenzene	0.97	U	0.97
4-Nitrophenol	4.9	U	4.9
2-Nitrophenol	0.97	U	0.97
4-Nitroquinoline-1-oxide	1.9	U	1.9
N-Nitro-o-toluidine	0.97	U	0.97
N-Nitrosodiethylamine	0.97	U	0.97
N-Nitrosodimethylamine	0.97	U	0.97
N-Nitrosodi-n-butylamine	7.8		0.97
N-Nitrosodi-n-propylamine	0.97	U	0.97
N-Nitrosodiphenylamine	0.97	U	0.97
N-Nitrosomethylethylamine	1.9	U	1.9
N-Nitrosomorpholine	0.97	U	0.97

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1126.D
Dilution:	1.0			Initial Weight/Volume:	1030.9 mL
Analysis Date:	09/11/2014 2222			Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosopiperidine	0.97	U	0.97
N-Nitrosopyrrolidine	0.97	U	0.97
o,o',o"-Triethylphosphorothioate	0.97	U	0.97
p-Dimethylamino azobenzene	4.9	U	4.9
Pentachlorobenzene	0.97	U	0.97
Pentachloronitrobenzene	0.97	U	0.97
Pentachlorophenol	4.9	U	4.9
Phenacetin	0.97	U	0.97
Phenanthrene	0.19	U	0.19
Phenol	0.97	U	0.97
Phorate	0.97	U	0.97
2-Picoline	1.9	U	1.9
p-Phenylene diamine	190	U	190
Pronamide	0.97	U	0.97
Pyrene	0.19	U	0.19
Pyridine	4.9	U	4.9
Safrole, Total	0.97	U	0.97
Sulfotepp	0.97	U	0.97
1,2,4,5-Tetrachlorobenzene	0.97	U	0.97
2,3,4,6-Tetrachlorophenol	0.97	U	0.97
Thionazin	0.97	U	0.97
2-Toluidine	0.97	U	0.97
1,2,4-Trichlorobenzene	0.97	U	0.97
2,4,6-Trichlorophenol	0.97	U	0.97
2,4,5-Trichlorophenol	0.97	U	0.97
1,3,5-Trinitrobenzene	0.97	U *	0.97
1,1'-Biphenyl	0.97	U	0.97

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	70		34 - 130
2-Fluorophenol (Surr)	68		25 - 130
Nitrobenzene-d5 (Surr)	67		32 - 130
Phenol-d5 (Surr)	66		27 - 130
Terphenyl-d14 (Surr)	83		36 - 130
2,4,6-Tribromophenol (Surr)	80		30 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1127.D
Dilution:	1.0			Initial Weight/Volume:	980 mL
Analysis Date:	09/11/2014 2247			Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
Acenaphthene	0.20	U	0.20
Acenaphthylene	0.20	U	0.20
Acetophenone	1.0	U	1.0
2-Acetylaminofluorene	1.0	U *	1.0
alpha,alpha-Dimethyl phenethylamine	10	U	10
4-Aminobiphenyl	5.1	U	5.1
Aniline	2.0	U	2.0
Anthracene	0.20	U	0.20
Aramite, Total	1.5	U *	1.5
Benzo[a]anthracene	0.20	U	0.20
Benzo[a]pyrene	0.20	U	0.20
Benzo[b]fluoranthene	0.20	U	0.20
Benzo[g,h,i]perylene	0.20	U	0.20
Benzo[k]fluoranthene	0.20	U	0.20
Benzyl alcohol	1.0	U	1.0
Bis(2-chloroethoxy)methane	1.0	U	1.0
Bis(2-chloroethyl)ether	1.0	U	1.0
bis (2-chloroisopropyl) ether	1.0	U	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	2.0
4-Bromophenyl phenyl ether	1.0	U	1.0
Butyl benzyl phthalate	1.0	U	1.0
4-Chloroaniline	2.0	U	2.0
4-Chloro-3-methylphenol	1.0	U	1.0
2-Chloronaphthalene	1.0	U	1.0
2-Chlorophenol	1.0	U	1.0
4-Chlorophenyl phenyl ether	1.0	U	1.0
Chrysene	0.20	U	0.20
Diallate	1.0	U	1.0
Dibenz(a,h)anthracene	0.20	U	0.20
Dibenzofuran	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
3,3'-Dichlorobenzidine	20	U	20
2,4-Dichlorophenol	1.0	U	1.0
2,6-Dichlorophenol	1.0	U	1.0
Diethyl phthalate	1.0	U	1.0
Dimethoate	2.0	U	2.0
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0
3,3'-Dimethylbenzidine	20	U	20
2,4-Dimethylphenol	2.0	U	2.0
Dimethyl phthalate	1.0	U	1.0
Di-n-butyl phthalate	1.0	U	1.0
1,3-Dinitrobenzene	1.0	U	1.0
4,6-Dinitro-2-methylphenol	5.1	U	5.1
2,4-Dinitrophenol	10	U	10

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1127.D
Dilution:	1.0			Initial Weight/Volume:	980 mL
Analysis Date:	09/11/2014 2247			Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4-Dinitrotoluene	1.0	U	1.0
2,6-Dinitrotoluene	1.0	U	1.0
Di-n-octyl phthalate	1.0	U	1.0
Dinoseb	2.0	U *	2.0
1,4-Dioxane	2.0	U	2.0
Disulfoton	1.0	U	1.0
Ethyl methanesulfonate	2.0	U	2.0
Ethyl Parathion	2.0	U	2.0
Famphur	1.0	U	1.0
Fluoranthene	0.20	U	0.20
Fluorene	0.20	U	0.20
Hexachlorobenzene	1.0	U	1.0
Hexachlorobutadiene	1.0	U	1.0
Hexachlorocyclopentadiene	2.0	U	2.0
Hexachloroethane	1.0	U	1.0
Hexachlorophene	510	U	510
Hexachloropropene	1.0	U	1.0
Indeno[1,2,3-cd]pyrene	0.20	U	0.20
Isophorone	1.0	U	1.0
Isosafrole	1.0	U	1.0
Methapyrilene	200	U	200
3-Methylcholanthrene	1.0	U	1.0
Methyl methanesulfonate	2.0	U	2.0
2-Methylnaphthalene	0.20	U	0.20
Methyl parathion	1.0	U	1.0
2-Methylphenol	2.0	U	2.0
3 & 4 Methylphenol	2.0	U	2.0
Naphthalene	0.20	U	0.20
1,4-Naphthoquinone	1.0	U	1.0
1-Naphthylamine	5.1	U	5.1
2-Naphthylamine	5.1	U	5.1
4-Nitroaniline	5.1	U	5.1
2-Nitroaniline	1.0	U	1.0
3-Nitroaniline	5.1	U	5.1
Nitrobenzene	1.0	U	1.0
4-Nitrophenol	5.1	U	5.1
2-Nitrophenol	1.0	U	1.0
4-Nitroquinoline-1-oxide	2.0	U	2.0
N-Nitro-o-toluidine	1.0	U	1.0
N-Nitrosodiethylamine	1.0	U	1.0
N-Nitrosodimethylamine	1.0	U	1.0
N-Nitrosodi-n-butylamine	1.0	U	1.0
N-Nitrosodi-n-propylamine	1.0	U	1.0
N-Nitrosodiphenylamine	1.0	U	1.0
N-Nitrosomethylethylamine	2.0	U	2.0
N-Nitrosomorpholine	1.0	U	1.0

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730
Client Matrix: Water Date Received: 08/29/2014 1300

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Analysis Method:	8270C LL	Analysis Batch:	680-348465	Instrument ID:	CMSD
Prep Method:	3520C	Prep Batch:	680-347091	Lab File ID:	DI1127.D
Dilution:	1.0			Initial Weight/Volume:	980 mL
Analysis Date:	09/11/2014 2247			Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	RL
N-Nitrosopiperidine	1.0	U	1.0
N-Nitrosopyrrolidine	1.0	U	1.0
o,o',o"-Triethylphosphorothioate	1.0	U	1.0
p-Dimethylamino azobenzene	5.1	U	5.1
Pentachlorobenzene	1.0	U	1.0
Pentachloronitrobenzene	1.0	U	1.0
Pentachlorophenol	5.1	U	5.1
Phenacetin	1.0	U	1.0
Phenanthrene	0.20	U	0.20
Phenol	1.0	U	1.0
Phorate	1.0	U	1.0
2-Picoline	2.0	U	2.0
p-Phenylene diamine	200	U	200
Pronamide	1.0	U	1.0
Pyrene	0.20	U	0.20
Pyridine	5.1	U	5.1
Safrole, Total	1.0	U	1.0
Sulfotepp	1.0	U	1.0
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0
2,3,4,6-Tetrachlorophenol	1.0	U	1.0
Thionazin	1.0	U	1.0
2-Toluidine	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
2,4,6-Trichlorophenol	1.0	U	1.0
2,4,5-Trichlorophenol	1.0	U	1.0
1,3,5-Trinitrobenzene	1.0	U *	1.0
1,1'-Biphenyl	1.0	U	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	71		34 - 130
2-Fluorophenol (Surr)	69		25 - 130
Nitrobenzene-d5 (Surr)	68		32 - 130
Phenol-d5 (Surr)	68		27 - 130
Terphenyl-d14 (Surr)	88		36 - 130
2,4,6-Tribromophenol (Surr)	84		30 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid % Moisture: 33.2 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-347819	Instrument ID:	CMST
Prep Method:	3546	Prep Batch:	680-346739	Lab File ID:	1TI0822.D
Dilution:	10			Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 2041			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL

Analyte DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene	610	U	610	4900
Acenaphthylene	540	U	540	4900
Acetophenone	420	U	420	4900
2-Acetylaminofluorene	420	U	420	4900
alpha,alpha-Dimethyl phenethylamine	40000	U	40000	1000000
4-Aminobiphenyl	550	U	550	4900
Aniline	510	U	510	9900
Anthracene	370	U	370	4900
Aramite, Total	850	U	850	4900
Benzo[a]anthracene	400	U	400	4900
Benzo[a]pyrene	780	U	780	4900
Benzo[b]fluoranthene	570	U	570	4900
Benzo[g,h,i]perylene	330	U	330	4900
Benzo[k]fluoranthene	970	U	970	4900
Benzyl alcohol	490	U	490	4900
1,1'-Biphenyl	25000	U	25000	25000
Bis(2-chloroethoxy)methane	580	U	580	4900
Bis(2-chloroethyl)ether	670	U	670	4900
bis (2-chloroisopropyl) ether	450	U	450	4900
Bis(2-ethylhexyl) phthalate	430	U	430	4900
4-Bromophenyl phenyl ether	540	U	540	4900
Butyl benzyl phthalate	390	U	390	4900
4-Chloroaniline	780	U	780	9900
4-Chloro-3-methylphenol	520	U	520	4900
2-Chloronaphthalene	520	U	520	4900
2-Chlorophenol	600	U	600	4900
4-Chlorophenyl phenyl ether	660	U	660	4900
Chrysene	310	U	310	4900
Diallate	2500	U	2500	4900
Dibenz(a,h)anthracene	580	U	580	4900
Dibenzofuran	490	U	490	4900
1,2-Dichlorobenzene	550	U	550	4900
1,3-Dichlorobenzene	510	U	510	4900
1,4-Dichlorobenzene	520	U	520	4900
3,3'-Dichlorobenzidine	420	U	420	9900
2,4-Dichlorophenol	520	U	520	4900
2,6-Dichlorophenol	400	U	400	4900
Diethyl phthalate	550	U	550	4900
Dimethoate	370	U	370	4900
7,12-Dimethylbenz(a)anthracene	250	U	250	4900
3,3'-Dimethylbenzidine	12000	U	12000	25000
2,4-Dimethylphenol	660	U	660	4900
Dimethyl phthalate	510	U	510	4900
Di-n-butyl phthalate	450	U	450	4900
1,3-Dinitrobenzene	360	U	360	4900
4,6-Dinitro-2-methylphenol	2500	U	2500	25000

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid % Moisture: 33.2 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-347819	Instrument ID:	CMST
Prep Method:	3546	Prep Batch:	680-346739	Lab File ID:	1TI0822.D
Dilution:	10			Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 2041			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4-Dinitrophenol		12000	U	12000	25000
2,4-Dinitrotoluene		730	U	730	4900
2,6-Dinitrotoluene		630	U	630	4900
Di-n-octyl phthalate		430	U	430	4900
Dinoseb		2400	U	2400	4900
1,4-Dioxane		1800	U	1800	4900
Disulfoton		250	U	250	4900
Ethyl methanesulfonate		460	U	460	4900
Ethyl Parathion		330	U	330	4900
Famphur		430	U	430	4900
Fluoranthene		480	U	480	4900
Fluorene		540	U	540	4900
Hexachlorobenzene		580	U	580	4900
Hexachlorobutadiene		540	U	540	4900
Hexachlorocyclopentadiene		610	U	610	4900
Hexachloroethane		420	U	420	4900
Hexachlorophene		190000	U	190000	2500000
Hexachloropropene		430	U	430	4900
Indeno[1,2,3-cd]pyrene		420	U	420	4900
Isophorone		490	U	490	4900
Isosafrole		360	U	360	4900
Methapyrilene		12000	U	12000	1000000
3-Methylcholanthrene		610	U	610	4900
Methyl methanesulfonate		250	U	250	4900
2-Methylnaphthalene		570	U	570	4900
Methyl parathion		390	U	390	4900
2-Methylphenol		400	U	400	4900
3 & 4 Methylphenol		640	U	640	4900
Naphthalene		450	U	450	4900
1,4-Naphthoquinone		2500	U	2500	4900
1-Naphthylamine		2500	U	2500	4900
2-Naphthylamine		2500	U	2500	4900
2-Nitroaniline		670	U	670	25000
3-Nitroaniline		690	U	690	25000
4-Nitroaniline		730	U	730	25000
Nitrobenzene		390	U	390	4900
2-Nitrophenol		610	U	610	4900
4-Nitrophenol		4900	U	4900	25000
4-Nitroquinoline-1-oxide		12000	U	12000	49000
N-Nitro-o-toluidine		390	U	390	4900
N-Nitrosodiethylamine		420	U	420	4900
N-Nitrosodimethylamine		1800	U	1800	4900
N-Nitrosodi-n-butylamine		360	U	360	4900
N-Nitrosodi-n-propylamine		480	U	480	4900
N-Nitrosodiphenylamine		490	U	490	4900
N-Nitrosomethylethylamine		2500	U	2500	4900

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid % Moisture: 33.2 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-347819	Instrument ID:	CMST
Prep Method:	3546	Prep Batch:	680-346739	Lab File ID:	1TI0822.D
Dilution:	10			Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 2041			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
N-Nitrosomorpholine		400	U	400	4900
N-Nitrosopiperidine		310	U	310	4900
N-Nitrosopyrrolidine		270	U	270	4900
o,o',o"-Triethylphosphorothioate		600	U	600	4900
p-Dimethylamino azobenzene		280	U	280	4900
Pentachlorobenzene		370	U	370	4900
Pentachloronitrobenzene		310	U	310	4900
Pentachlorophenol		4900	U	4900	25000
Phenacetin		490	U	490	4900
Phenanthrene		400	U	400	4900
Phenol		510	U	510	4900
Phorate		330	U	330	4900
2-Picoline		2500	U	2500	4900
p-Phenylene diamine		12000	U	12000	25000
Pronamide		360	U	360	4900
Pyrene		400	U	400	4900
Pyridine		4900	U	4900	9900
Safrole, Total		360	U	360	4900
Sulfotepp		300	U	300	4900
1,2,4,5-Tetrachlorobenzene		460	U	460	4900
2,3,4,6-Tetrachlorophenol		330	U	330	4900
Thionazin		340	U	340	4900
2-Toluidine		520	U	520	4900
1,2,4-Trichlorobenzene		460	U	460	4900
2,4,5-Trichlorophenol		520	U	520	4900
2,4,6-Trichlorophenol		430	U	430	4900
1,3,5-Trinitrobenzene		2500	U	2500	4900

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	41 - 116
2-Fluorophenol (Surr)	0	D	39 - 114
Nitrobenzene-d5 (Surr)	0	D	37 - 115
Phenol-d5 (Surr)	0	D	38 - 122
Terphenyl-d14 (Surr)	0	D	46 - 126
2,4,6-Tribromophenol (Surr)	0	D	45 - 129

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid % Moisture: 46.3 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-347819	Instrument ID:	CMST
Prep Method:	3546	Prep Batch:	680-346739	Lab File ID:	1TI0823.D
Dilution:	10			Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 2106			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL

Analyte DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene	760	U	760	6100
Acenaphthylene	670	U	670	6100
Acetophenone	520	U	520	6100
2-Acetylaminofluorene	520	U	520	6100
alpha,alpha-Dimethyl phenethylamine	50000	U	50000	1200000
4-Aminobiphenyl	690	U	690	6100
Aniline	630	U	630	12000
Anthracene	460	U	460	6100
Aramite, Total	1100	U	1100	6100
Benzo[a]anthracene	500	U	500	6100
Benzo[a]pyrene	970	U	970	6100
Benzo[b]fluoranthene	710	U	710	6100
Benzo[g,h,i]perylene	410	U	410	6100
Benzo[k]fluoranthene	1200	U	1200	6100
Benzyl alcohol	610	U	610	6100
1,1'-Biphenyl	32000	U	32000	32000
Bis(2-chloroethoxy)methane	730	U	730	6100
Bis(2-chloroethyl)ether	840	U	840	6100
bis (2-chloroisopropyl) ether	560	U	560	6100
Bis(2-ethylhexyl) phthalate	540	U	540	6100
4-Bromophenyl phenyl ether	670	U	670	6100
Butyl benzyl phthalate	480	U	480	6100
4-Chloroaniline	970	U	970	12000
4-Chloro-3-methylphenol	650	U	650	6100
2-Chloronaphthalene	650	U	650	6100
2-Chlorophenol	740	U	740	6100
4-Chlorophenyl phenyl ether	820	U	820	6100
Chrysene	390	U	390	6100
Diallate	3200	U	3200	6100
Dibenz(a,h)anthracene	730	U	730	6100
Dibenzofuran	610	U	610	6100
1,2-Dichlorobenzene	690	U	690	6100
1,3-Dichlorobenzene	630	U	630	6100
1,4-Dichlorobenzene	650	U	650	6100
3,3'-Dichlorobenzidine	520	U	520	12000
2,4-Dichlorophenol	650	U	650	6100
2,6-Dichlorophenol	500	U	500	6100
Diethyl phthalate	690	U	690	6100
Dimethoate	460	U	460	6100
7,12-Dimethylbenz(a)anthracene	320	U	320	6100
3,3'-Dimethylbenzidine	15000	U	15000	32000
2,4-Dimethylphenol	820	U	820	6100
Dimethyl phthalate	630	U	630	6100
Di-n-butyl phthalate	560	U	560	6100
1,3-Dinitrobenzene	450	U	450	6100
4,6-Dinitro-2-methylphenol	3200	U	3200	32000

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid % Moisture: 46.3 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-347819	Instrument ID:	CMST
Prep Method:	3546	Prep Batch:	680-346739	Lab File ID:	1TI0823.D
Dilution:	10			Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 2106			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4-Dinitrophenol		15000	U	15000	32000
2,4-Dinitrotoluene		910	U	910	6100
2,6-Dinitrotoluene		780	U	780	6100
Di-n-octyl phthalate		540	U	540	6100
Dinoseb		3000	U	3000	6100
1,4-Dioxane		2200	U	2200	6100
Disulfoton		320	U	320	6100
Ethyl methanesulfonate		580	U	580	6100
Ethyl Parathion		410	U	410	6100
Famphur		540	U	540	6100
Fluoranthene		600	U	600	6100
Fluorene		670	U	670	6100
Hexachlorobenzene		730	U	730	6100
Hexachlorobutadiene		670	U	670	6100
Hexachlorocyclopentadiene		760	U	760	6100
Hexachloroethane		520	U	520	6100
Hexachlorophene		240000	U	240000	3200000
Hexachloropropene		540	U	540	6100
Indeno[1,2,3-cd]pyrene		520	U	520	6100
Isophorone		610	U	610	6100
Isosafrole		450	U	450	6100
Methapyrilene		15000	U	15000	1200000
3-Methylcholanthrene		760	U	760	6100
Methyl methanesulfonate		320	U	320	6100
2-Methylnaphthalene		710	U	710	6100
Methyl parathion		480	U	480	6100
2-Methylphenol		500	U	500	6100
3 & 4 Methylphenol		800	U	800	6100
Naphthalene		560	U	560	6100
1,4-Naphthoquinone		3200	U	3200	6100
1-Naphthylamine		3200	U	3200	6100
2-Naphthylamine		3200	U	3200	6100
2-Nitroaniline		840	U	840	32000
3-Nitroaniline		860	U	860	32000
4-Nitroaniline		910	U	910	32000
Nitrobenzene		480	U	480	6100
2-Nitrophenol		760	U	760	6100
4-Nitrophenol		6100	U	6100	32000
4-Nitroquinoline-1-oxide		15000	U	15000	61000
N-Nitro-o-toluidine		480	U	480	6100
N-Nitrosodiethylamine		520	U	520	6100
N-Nitrosodimethylamine		2200	U	2200	6100
N-Nitrosodi-n-butylamine		450	U	450	6100
N-Nitrosodi-n-propylamine		600	U	600	6100
N-Nitrosodiphenylamine		610	U	610	6100
N-Nitrosomethylethylamine		3200	U	3200	6100

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid % Moisture: 46.3 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-347819	Instrument ID:	CMST
Prep Method:	3546	Prep Batch:	680-346739	Lab File ID:	1TI0823.D
Dilution:	10			Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 2106			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
N-Nitrosomorpholine		500	U	500	6100
N-Nitrosopiperidine		390	U	390	6100
N-Nitrosopyrrolidine		330	U	330	6100
o,o',o"-Triethylphosphorothioate		740	U	740	6100
p-Dimethylamino azobenzene		350	U	350	6100
Pentachlorobenzene		460	U	460	6100
Pentachloronitrobenzene		390	U	390	6100
Pentachlorophenol		6100	U	6100	32000
Phenacetin		610	U	610	6100
Phenanthrene		500	U	500	6100
Phenol		630	U	630	6100
Phorate		410	U	410	6100
2-Picoline		3200	U	3200	6100
p-Phenylene diamine		15000	U	15000	32000
Pronamide		450	U	450	6100
Pyrene		500	U	500	6100
Pyridine		6100	U	6100	12000
Safrole, Total		450	U	450	6100
Sulfotepp		370	U	370	6100
1,2,4,5-Tetrachlorobenzene		580	U	580	6100
2,3,4,6-Tetrachlorophenol		410	U	410	6100
Thionazin		430	U	430	6100
2-Toluidine		650	U	650	6100
1,2,4-Trichlorobenzene		580	U	580	6100
2,4,5-Trichlorophenol		650	U	650	6100
2,4,6-Trichlorophenol		540	U	540	6100
1,3,5-Trinitrobenzene		3200	U	3200	6100

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	41 - 116
2-Fluorophenol (Surr)	0	D	39 - 114
Nitrobenzene-d5 (Surr)	0	D	37 - 115
Phenol-d5 (Surr)	0	D	38 - 122
Terphenyl-d14 (Surr)	0	D	46 - 126
2,4,6-Tribromophenol (Surr)	0	D	45 - 129

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid % Moisture: 28.8 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-348405	Instrument ID:	CMSN
Prep Method:	3546	Prep Batch:	680-348054	Lab File ID:	1NI1117.D
Dilution:	10			Initial Weight/Volume:	30.11 g
Analysis Date:	09/11/2014 1803			Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL

Analyte DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene	570	U	570	4600
Acenaphthylene	500	U	500	4600
Acetophenone	390	U	390	4600
2-Acetylaminofluorene	390	U	390	4600
alpha,alpha-Dimethyl phenethylamine	38000	U	38000	940000
4-Aminobiphenyl	520	U	520	4600
Aniline	480	U	480	9200
Anthracene	350	U	350	4600
Aramite, Total	800	U	800	4600
Benzo[a]anthracene	380	U	380	4600
Benzo[a]pyrene	730	U	730	4600
Benzo[b]fluoranthene	530	U	530	4600
Benzo[g,h,i]perylene	310	U	310	4600
Benzo[k]fluoranthene	910	U	910	4600
Benzyl alcohol	460	U	460	4600
1,1'-Biphenyl	24000	U	24000	24000
Bis(2-chloroethoxy)methane	550	U	550	4600
Bis(2-chloroethyl)ether	630	U	630	4600
bis (2-chloroisopropyl) ether	420	U	420	4600
Bis(2-ethylhexyl) phthalate	410	U	410	4600
4-Bromophenyl phenyl ether	500	U	500	4600
Butyl benzyl phthalate	360	U	360	4600
4-Chloroaniline	730	U	730	9200
4-Chloro-3-methylphenol	490	U	490	4600
2-Chloronaphthalene	490	U	490	4600
2-Chlorophenol	560	U	560	4600
4-Chlorophenyl phenyl ether	620	U	620	4600
Chrysene	290	U	290	4600
Diallate	2400	U	2400	4600
Dibenz(a,h)anthracene	550	U	550	4600
Dibenzofuran	460	U	460	4600
1,2-Dichlorobenzene	520	U	520	4600
1,3-Dichlorobenzene	480	U	480	4600
1,4-Dichlorobenzene	490	U	490	4600
3,3'-Dichlorobenzidine	390	U	390	9200
2,4-Dichlorophenol	490	U	490	4600
2,6-Dichlorophenol	380	U	380	4600
Diethyl phthalate	520	U	520	4600
Dimethoate	350	U	350	4600
7,12-Dimethylbenz(a)anthracene	240	U	240	4600
3,3'-Dimethylbenzidine	12000	U	12000	24000
2,4-Dimethylphenol	620	U	620	4600
Dimethyl phthalate	480	U	480	4600
Di-n-butyl phthalate	420	U	420	4600
1,3-Dinitrobenzene	340	U	340	4600
4,6-Dinitro-2-methylphenol	2400	U	2400	24000

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid % Moisture: 28.8 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-348405	Instrument ID:	CMSN
Prep Method:	3546	Prep Batch:	680-348054	Lab File ID:	1NI1117.D
Dilution:	10			Initial Weight/Volume:	30.11 g
Analysis Date:	09/11/2014 1803			Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4-Dinitrophenol		12000	U	12000	24000
2,4-Dinitrotoluene		690	U	690	4600
2,6-Dinitrotoluene		590	U	590	4600
Di-n-octyl phthalate		410	U	410	4600
Dinoseb		2200	U	2200	4600
1,4-Dioxane		1700	U	1700	4600
Disulfoton		240	U	240	4600
Ethyl methanesulfonate		430	U	430	4600
Ethyl Parathion		310	U	310	4600
Famphur		410	U	410	4600
Fluoranthene		450	U	450	4600
Fluorene		500	U	500	4600
Hexachlorobenzene		550	U	550	4600
Hexachlorobutadiene		500	U	500	4600
Hexachlorocyclopentadiene		570	U	570	4600
Hexachloroethane		390	U	390	4600
Hexachlorophene		180000	U	180000	2400000
Hexachloropropene		410	U	410	4600
Indeno[1,2,3-cd]pyrene		390	U	390	4600
Isophorone		460	U	460	4600
Isosafrole		340	U	340	4600
Methapyrilene		12000	U	12000	940000
3-Methylcholanthrene		570	U	570	4600
Methyl methanesulfonate		240	U	240	4600
2-Methylnaphthalene		530	U	530	4600
Methyl parathion		360	U	360	4600
2-Methylphenol		380	U	380	4600
3 & 4 Methylphenol		600	U	600	4600
Naphthalene		420	U	420	4600
1,4-Naphthoquinone		2400	U	2400	4600
1-Naphthylamine		2400	U	2400	4600
2-Naphthylamine		2400	U	2400	4600
2-Nitroaniline		630	U	630	24000
3-Nitroaniline		640	U	640	24000
4-Nitroaniline		690	U	690	24000
Nitrobenzene		360	U	360	4600
2-Nitrophenol		570	U	570	4600
4-Nitrophenol		4600	U	4600	24000
4-Nitroquinoline-1-oxide		12000	U	12000	46000
N-Nitro-o-toluidine		360	U	360	4600
N-Nitrosodiethylamine		390	U	390	4600
N-Nitrosodimethylamine		1700	U	1700	4600
N-Nitrosodi-n-butylamine		340	U	340	4600
N-Nitrosodi-n-propylamine		450	U	450	4600
N-Nitrosodiphenylamine		460	U	460	4600
N-Nitrosomethylethylamine		2400	U	2400	4600

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid % Moisture: 28.8 Date Received: 08/29/2014 1300

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	680-348405	Instrument ID:	CMSN
Prep Method:	3546	Prep Batch:	680-348054	Lab File ID:	1NI1117.D
Dilution:	10			Initial Weight/Volume:	30.11 g
Analysis Date:	09/11/2014 1803			Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
N-Nitrosomorpholine		380	U	380	4600
N-Nitrosopiperidine		290	U	290	4600
N-Nitrosopyrrolidine		250	U	250	4600
o,o',o''-Triethylphosphorothioate		560	U	560	4600
p-Dimethylamino azobenzene		270	U	270	4600
Pentachlorobenzene		350	U	350	4600
Pentachloronitrobenzene		290	U	290	4600
Pentachlorophenol		4600	U	4600	24000
Phenacetin		460	U	460	4600
Phenanthrene		380	U	380	4600
Phenol		480	U	480	4600
Phorate		310	U	310	4600
2-Picoline		2400	U	2400	4600
p-Phenylene diamine		12000	U	12000	24000
Pronamide		340	U	340	4600
Pyrene		380	U	380	4600
Pyridine		4600	U	4600	9200
Safrole, Total		340	U	340	4600
Sulfotepp		280	U	280	4600
1,2,4,5-Tetrachlorobenzene		430	U	430	4600
2,3,4,6-Tetrachlorophenol		310	U	310	4600
Thionazin		320	U	320	4600
2-Toluidine		490	U	490	4600
1,2,4-Trichlorobenzene		430	U	430	4600
2,4,5-Trichlorophenol		490	U	490	4600
2,4,6-Trichlorophenol		410	U	410	4600
1,3,5-Trinitrobenzene		2400	U	2400	4600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	0	D	41 - 116
2-Fluorophenol (Surr)	0	D	39 - 114
Nitrobenzene-d5 (Surr)	0	D	37 - 115
Phenol-d5 (Surr)	0	D	38 - 122
Terphenyl-d14 (Surr)	0	D	46 - 126
2,4,6-Tribromophenol (Surr)	0	D	45 - 129

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635
Client Matrix: Water Date Received: 08/29/2014 1300

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	680-347905	Instrument ID:	CICL
	N/A	Prep Batch:	N/A	Lab File ID:	0909140226-66.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/09/2014 0226			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL

Analyte	Result (mg/L)	Qualifier	RL
Fluoride	0.16		0.10

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540
Client Matrix: Water Date Received: 08/29/2014 1300

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	680-347905	Instrument ID:	CICL
	N/A	Prep Batch:	N/A	Lab File ID:	0909140241-67.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/09/2014 0241			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL

Analyte	Result (mg/L)	Qualifier	RL
Fluoride	0.43		0.10

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730
Client Matrix: Water Date Received: 08/29/2014 1300

300.0 Anions, Ion Chromatography

Analysis Method:	300.0	Analysis Batch:	680-347905	Instrument ID:	CICL
	N/A	Prep Batch:	N/A	Lab File ID:	0909140324-70.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/09/2014 0324			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL

Analyte	Result (mg/L)	Qualifier	RL
Fluoride	0.53		0.10

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid % Moisture: 33.2 Date Received: 08/29/2014 1300

8290A Dioxins and Furans (HRGC/HRMS)

Analysis Method:	8290A	Analysis Batch:	320-51541	Instrument ID:	10D5
Prep Method:	8290	Prep Batch:	320-51346	Lab File ID:	04SE1410D5_10.d
Dilution:	1.0			Initial Weight/Volume:	10.24 g
Analysis Date:	09/04/2014 1648			Final Weight/Volume:	20 uL
Prep Date:	09/02/2014 1920			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (pg/g)	Qualifier	RL
2,3,7,8-TCDD		1.5	U q	1.5
Total TCDD		1.8	q	1.5
Total TCDF		4.5	q	1.5
Total PeCDD		7.3	U q	7.3
Total PeCDF		7.3	U q	7.3
Total HxCDD		56		7.3
Total HxCDF		13		7.3
13C-2,3,7,8-TCDD		240		290
13C-2,3,7,8-TCDF		240		290
13C-1,2,3,7,8-PeCDD		220		290
13C-1,2,3,7,8-PeCDF		230		290
13C-1,2,3,6,7,8-HxCDD		240		290
13C-1,2,3,4,7,8-HxCDF		260		290

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid % Moisture: 46.3 Date Received: 08/29/2014 1300

8290A Dioxins and Furans (HRGC/HRMS)

Analysis Method:	8290A	Analysis Batch:	320-51541	Instrument ID:	10D5
Prep Method:	8290	Prep Batch:	320-51346	Lab File ID:	04SE1410D5_11.d
Dilution:	1.0			Initial Weight/Volume:	9.99 g
Analysis Date:	09/04/2014 1734			Final Weight/Volume:	20 uL
Prep Date:	09/02/2014 1920			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (pg/g)	Qualifier	RL
2,3,7,8-TCDD		1.9	U q	1.9
Total TCDD		4.2	q	1.9
Total TCDF		15	q	1.9
Total PeCDD		20	q	9.3
Total PeCDF		28	q	9.3
Total HxCDD		320		9.3
Total HxCDF		77	q	9.3
13C-2,3,7,8-TCDD		240		370
13C-2,3,7,8-TCDF		240		370
13C-1,2,3,7,8-PeCDD		230		370
13C-1,2,3,7,8-PeCDF		230		370
13C-1,2,3,6,7,8-HxCDD		230		370
13C-1,2,3,4,7,8-HxCDF		260		370

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid % Moisture: 28.8 Date Received: 08/29/2014 1300

8290A Dioxins and Furans (HRGC/HRMS)

Analysis Method:	8290A	Analysis Batch:	320-51541	Instrument ID:	10D5
Prep Method:	8290	Prep Batch:	320-51346	Lab File ID:	04SE1410D5_12.d
Dilution:	1.0			Initial Weight/Volume:	10.01 g
Analysis Date:	09/04/2014 1820			Final Weight/Volume:	20 uL
Prep Date:	09/02/2014 1920			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (pg/g)	Qualifier	RL
2,3,7,8-TCDD		1.4	U q	1.4
Total TCDD		4.9	q	1.4
Total TCDF		6.1	q	1.4
Total PeCDD		11	q	7.0
Total PeCDF		15	q	7.0
Total HxCDD		130		7.0
Total HxCDF		34		7.0
13C-2,3,7,8-TCDD		190		280
13C-2,3,7,8-TCDF		190		280
13C-1,2,3,7,8-PeCDD		170		280
13C-1,2,3,7,8-PeCDF		180		280
13C-1,2,3,6,7,8-HxCDD		170		280
13C-1,2,3,4,7,8-HxCDF		190		280

General Chemistry

Client Sample ID: **SW-1**

Lab Sample ID: 680-104784-16 Date Sampled: 08/28/2014 1635

Client Matrix: Water Date Received: 08/29/2014 1300

Analyte	Result	Qual	Units	RL	Dil	Method
Ammonia	0.32		mg/L	0.050	1.0	350.1

Analysis Batch: 680-347415 Analysis Date: 09/04/2014 1425

General Chemistry

Client Sample ID: **SW-2**

Lab Sample ID: 680-104784-17 Date Sampled: 08/28/2014 1540

Client Matrix: Water Date Received: 08/29/2014 1300

Analyte	Result	Qual	Units	RL	Dil	Method
Ammonia	0.15		mg/L	0.050	1.0	350.1

Analysis Batch: 680-347415 Analysis Date: 09/04/2014 1356

General Chemistry

Client Sample ID: **SW-3**

Lab Sample ID: 680-104784-18 Date Sampled: 08/28/2014 1730

Client Matrix: Water Date Received: 08/29/2014 1300

Analyte	Result	Qual	Units	RL	Dil	Method
Ammonia	0.13		mg/L	0.050	1.0	350.1

Analysis Batch: 680-347415 Analysis Date: 09/04/2014 1425

General Chemistry

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid Date Received: 08/29/2014 1300

Analyte	Result	Qual	Units	RL	Dil	Method
Total Organic Carbon	14000		mg/Kg	1000	1.0	Lloyd Kahn

Analysis Batch: 200-77264 Analysis Date: 09/11/2014 2046 DryWt Corrected: N

General Chemistry

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid Date Received: 08/29/2014 1300

Analyte	Result	Qual	Units	RL	Dil	Method
Total Organic Carbon	20000		mg/Kg	1000	1.0	Lloyd Kahn

Analysis Batch: 200-77264 Analysis Date: 09/11/2014 2113 DryWt Corrected: N

General Chemistry

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid Date Received: 08/29/2014 1300

Analyte	Result	Qual	Units	RL	Dil	Method
Total Organic Carbon	9800		mg/Kg	1000	1.0	Lloyd Kahn

Analysis Batch: 200-77264 Analysis Date: 09/11/2014 2128 DryWt Corrected: N

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid Date Received: 08/29/2014 1300

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-76883	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	680-104784-A-19.txt
Dilution:	1.0			Initial Weight/Volume:	218.25 g
Analysis Date:	09/02/2014 1532			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		2.6		
Sand		79.2		
Coarse Sand		5.6		
Medium Sand		15.7		
Fine Sand		57.9		
Silt		14.0		
Clay		4.3		

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-1**

Lab Sample ID: 680-104784-19 Date Sampled: 08/28/2014 1650
Client Matrix: Solid Date Received: 08/29/2014 1300

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-76883	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	680-104784-A-19.txt
Dilution:	1.0			Initial Weight/Volume:	218.25 g
Analysis Date:	09/02/2014 1532			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Sieve Size 3 inch		0.0		
Sieve Size 2 inch		0.0		
Sieve Size 1.5 inch		0.0		
Sieve Size 1 inch		0.0		
Sieve Size 0.75 inch		0.0		
Sieve Size 0.375 inch		0.0		
Sieve Size #4		2.6		
Sieve Size #10		5.6		
Sieve Size #20		8.4		
Sieve Size #40		7.3		
Sieve Size #60		6.1		
Sieve Size #80		6.2		
Sieve Size #100		10.1		
Sieve Size #200		35.5		
Hydrometer Reading 1		12.5		
Hydrometer Reading 2		0.5		
Hydrometer Reading 3		0.0		
Hydrometer Reading 4		0.5		
Hydrometer Reading 5		0.5		
Hydrometer Reading 6		0.6		
Hydrometer Reading 7		0.5		

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid Date Received: 08/29/2014 1300

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-76883	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	680-104784-A-20.txt
Dilution:	1.0			Initial Weight/Volume:	225.88 g
Analysis Date:	09/02/2014 1534			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		3.0		
Sand		81.9		
Coarse Sand		2.2		
Medium Sand		15.3		
Fine Sand		64.4		
Silt		4.8		
Clay		10.3		

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-2**

Lab Sample ID: 680-104784-20 Date Sampled: 08/28/2014 1545
Client Matrix: Solid Date Received: 08/29/2014 1300

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-76883	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	680-104784-A-20.txt
Dilution:	1.0			Initial Weight/Volume:	225.88 g
Analysis Date:	09/02/2014 1534			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Sieve Size 3 inch		0.0		
Sieve Size 2 inch		0.0		
Sieve Size 1.5 inch		0.0		
Sieve Size 1 inch		0.0		
Sieve Size 0.75 inch		0.0		
Sieve Size 0.375 inch		0.0		
Sieve Size #4		3.0		
Sieve Size #10		2.2		
Sieve Size #20		4.7		
Sieve Size #40		10.6		
Sieve Size #60		10.3		
Sieve Size #80		9.7		
Sieve Size #100		11.8		
Sieve Size #200		32.6		
Hydrometer Reading 1		2.5		
Hydrometer Reading 2		0.6		
Hydrometer Reading 3		0.0		
Hydrometer Reading 4		1.1		
Hydrometer Reading 5		0.6		
Hydrometer Reading 6		1.3		
Hydrometer Reading 7		2.3		

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid Date Received: 08/29/2014 1300

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-76883	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	680-104784-C-21.txt
Dilution:	1.0			Initial Weight/Volume:	133.26 g
Analysis Date:	09/05/2014 1544			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Gravel		2.9		
Sand		58.3		
Coarse Sand		3.0		
Medium Sand		8.3		
Fine Sand		47.0		
Silt		12.8		
Clay		26.0		

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Client Sample ID: **SED-3**

Lab Sample ID: 680-104784-21 Date Sampled: 08/28/2014 1741
Client Matrix: Solid Date Received: 08/29/2014 1300

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-76883	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	680-104784-C-21.txt
Dilution:	1.0			Initial Weight/Volume:	133.26 g
Analysis Date:	09/05/2014 1544			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	NONE
Sieve Size 3 inch		0.0		
Sieve Size 2 inch		0.0		
Sieve Size 1.5 inch		0.0		
Sieve Size 1 inch		0.0		
Sieve Size 0.75 inch		0.0		
Sieve Size 0.375 inch		0.0		
Sieve Size #4		2.9		
Sieve Size #10		3.0		
Sieve Size #20		2.3		
Sieve Size #40		6.0		
Sieve Size #60		6.6		
Sieve Size #80		9.0		
Sieve Size #100		10.5		
Sieve Size #200		20.9		
Hydrometer Reading 1		6.7		
Hydrometer Reading 2		0.8		
Hydrometer Reading 3		1.8		
Hydrometer Reading 4		0.9		
Hydrometer Reading 5		2.6		
Hydrometer Reading 6		2.8		
Hydrometer Reading 7		2.6		

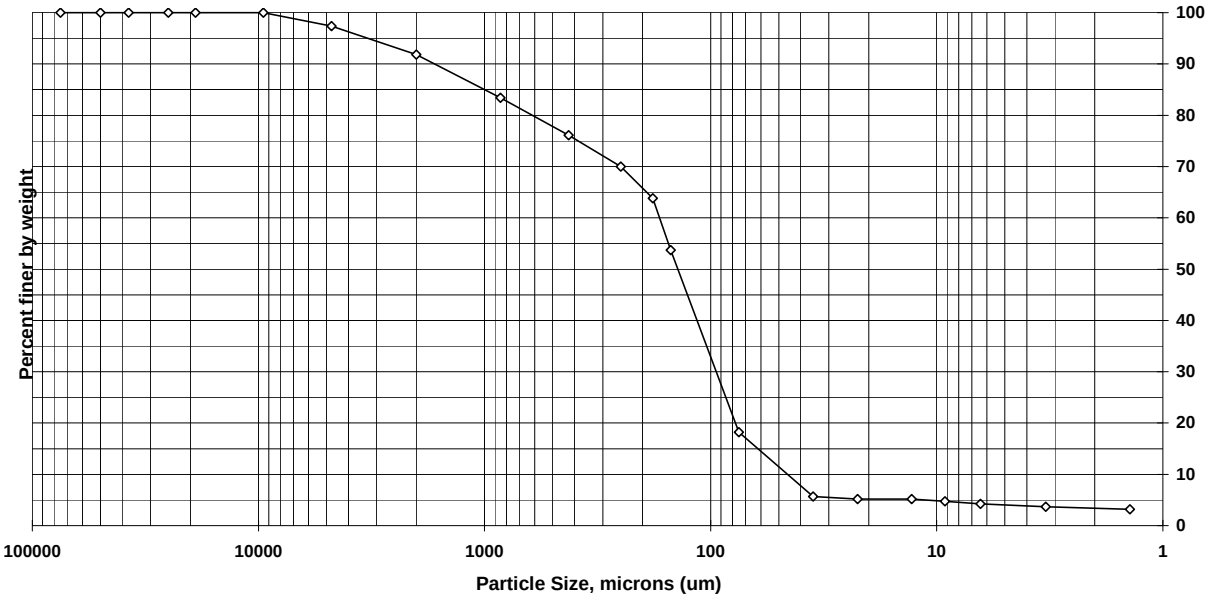
Particle Size of Soils by ASTM D422

				Date Received:	8/29/2014
Sample ID:	SED-1	**Percent Solids:**	77.8%	**Start Date:**	9/2/2014
Lab ID:	680-104784-A-19	**Specific Gravity:**	2.650	**End Date:**	9/5/2014

Shape (> #10): angular

Non-soil material: plant, wood, shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	97.4	2.6
#10	2000	91.8	5.6
#20	850	83.4	8.4
#40	425	76.1	7.3
#60	250	70.0	6.1
#80	180	63.8	6.2
#100	150	53.7	10.1
#200	75	18.2	35.5
Hyd1	35.2	5.7	12.5
Hyd2	22.4	5.2	0.5
Hyd3	12.9	5.2	0.0
Hyd4	9.2	4.7	0.5
Hyd5	6.4	4.3	0.5
Hyd6	3.3	3.7	0.6
Hyd7	1.4	3.2	0.5

Soil Classification	Percent of sample
Gravel	2.6
Sand	79.2
Coarse Sand	5.6
Medium Sand	15.7
Fine Sand	57.9
Silt	14.0
Clay	4.3

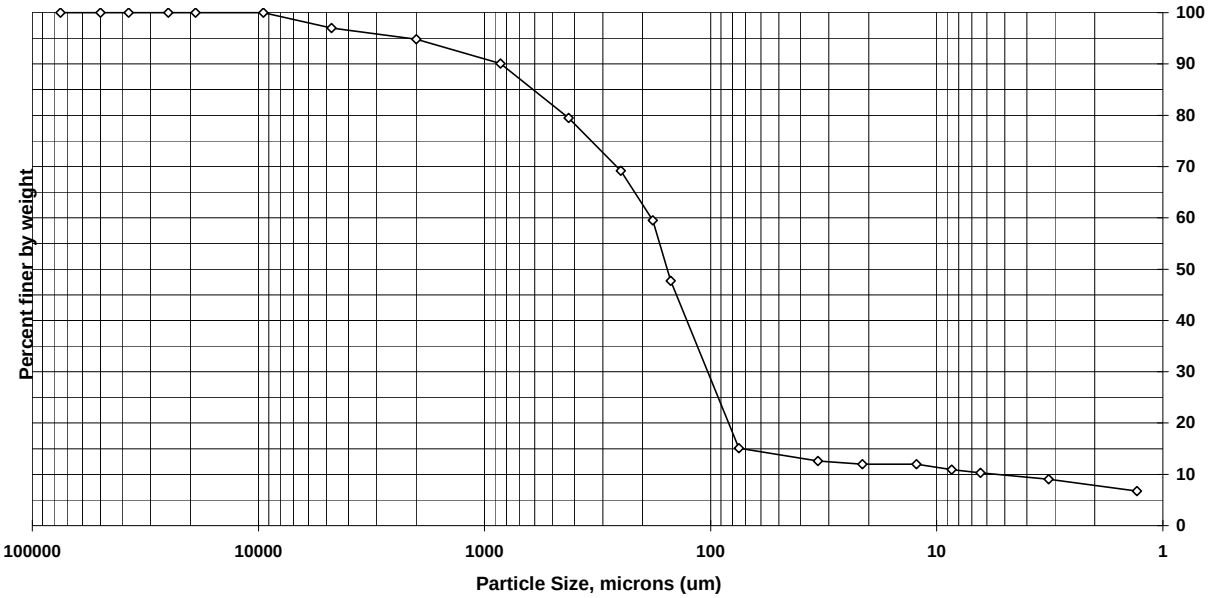
Particle Size of Soils by ASTM D422

				Date Received:	8/29/2014
Sample ID:	SED-2	**Percent Solids:**	62.0%	**Start Date:**	9/2/2014
Lab ID:	680-104784-A-20	**Specific Gravity:**	2.650	**End Date:**	9/5/2014

Shape (> #10): angular

Non-soil material: plant, wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	97.0	3.0
#10	2000	94.8	2.2
#20	850	90.1	4.7
#40	425	79.5	10.6
#60	250	69.2	10.3
#80	180	59.5	9.7
#100	150	47.7	11.8
#200	75	15.1	32.6
Hyd1	33.5	12.6	2.5
Hyd2	21.3	12.0	0.6
Hyd3	12.3	12.0	0.0
Hyd4	8.6	10.9	1.1
Hyd5	6.4	10.3	0.6
Hyd6	3.2	9.0	1.3
Hyd7	1.3	6.7	2.3

Soil Classification	Percent of sample
Gravel	3.0
Sand	81.9
Coarse Sand	2.2
Medium Sand	15.3
Fine Sand	64.4
Silt	4.8
Clay	10.3

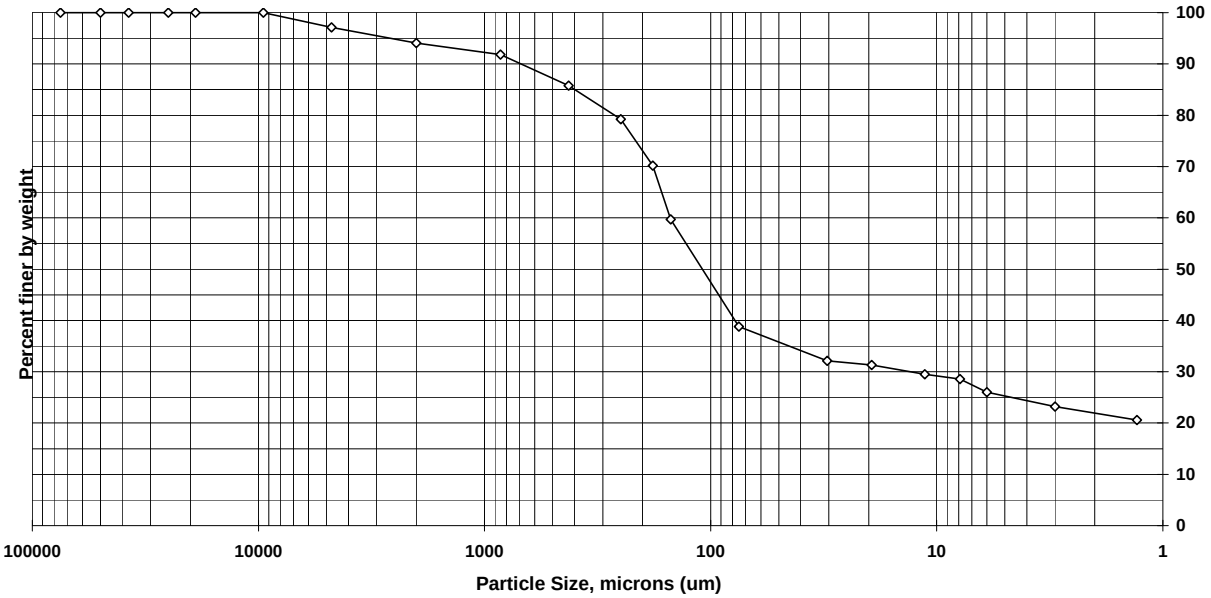
Particle Size of Soils by ASTM D422

				Date Received:	8/29/2014
Sample ID:	SED-3	**Percent Solids:**	69.4%	**Start Date:**	9/5/2014
Lab ID:	680-104784-C-21	**Specific Gravity:**	2.650	**End Date:**	9/10/2014

Shape (> #10): angular

Non-soil material: shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	97.1	2.9
#10	2000	94.1	3.0
#20	850	91.8	2.3
#40	425	85.8	6.0
#60	250	79.2	6.6
#80	180	70.2	9.0
#100	150	59.7	10.5
#200	75	38.8	20.9
Hyd1	30.5	32.1	6.7
Hyd2	19.4	31.3	0.8
Hyd3	11.3	29.5	1.8
Hyd4	7.9	28.6	0.9
Hyd5	6	26.0	2.6
Hyd6	3	23.2	2.8
Hyd7	1.3	20.6	2.6

Soil Classification	Percent of sample
Gravel	2.9
Sand	58.3
Coarse Sand	3.0
Medium Sand	8.3
Fine Sand	47.0
Silt	12.8
Clay	26.0

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	8/29/2014
Client Sample ID	SED-1	Start Date	09/02/2014 15:32
Lab Sample ID	680-104784-A-19	End Date	09/05/2014 11:33

Dry Weight Determination

Tin Weight	0.96	g
Wet Sample + Tin	40.83	g
Dry Sample + Tin	31.99	g
% Moisture	22.17	%

Non-soil material:	plant, wood, shell
Shape (> #10):	angular
Hardness (> #10):	hard

Date/Time in oven	09/02/2014 15:34
Date/Time out of oven	09/03/2014 14:30

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)		218.25	218.25
Sample Weight (Oven Dried)			170

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			14
Sample <#10			156
% Passing #10			71.5

Hydrometer Data

Serial Number	410874
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.20	492.70	4.50	g	97.4	Gravel	
#10	2000	462.85	472.31	9.46	g	91.8	Sand	Coarse
#20	850	380.60	394.86	14.26	g	83.4	Sand	Medium
#40	425	353.62	366.03	12.41	g	76.1	Sand	Medium
#60	250	351.67	361.99	10.32	g	70.0	Sand	Fine
#80	180	338.79	349.39	10.60	g	63.8	Sand	Fine
#100	150	329.63	346.86	17.23	g	53.7	Sand	Fine
#200	75	323.41	383.82	60.41	g	18.2	Sand	Fine
				0.00	g	18.2		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	170

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0100	21.0	35.2	5.67	Silt	
5	5	1.0095	21.0	22.4	5.2	Silt	
15	15	1.0095	21.0	12.9	5.2	Silt	
30	30	1.0090	21.0	9.2	4.72	Silt	
60	63	1.0085	21.0	6.4	4.25	Silt	
250	241	1.0080	20.5	3.3	3.66	Clay	
1440	1388	1.0075	20.5	1.4	3.19	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	8/29/2014
Client Sample ID	SED-2	Start Date	09/02/2014 15:34
Lab Sample ID	680-104784-A-20	End Date	09/05/2014 11:33

Dry Weight Determination

Tin Weight	0.97	g
Wet Sample + Tin	42.56	g
Dry Sample + Tin	26.76	g
% Moisture	37.99	%

Non-soil material:	plant, wood
Shape (> #10):	angular
Hardness (> #10):	hard

Date/Time in oven	09/02/2014 15:36
Date/Time out of oven	09/03/2014 14:31

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)		225.88	225.88
Sample Weight (Oven Dried)			140

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			7.29
Sample <#10			133
% Passing #10			58.9

Hydrometer Data

Serial Number	410874
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.20	492.46	4.26	g	97.0	Gravel	
#10	2000	462.85	465.88	3.03	g	94.8	Sand	Coarse
#20	850	389.67	396.26	6.59	g	90.1	Sand	Medium
#40	425	367.25	382.09	14.84	g	79.5	Sand	Medium
#60	250	349.20	363.65	14.45	g	69.2	Sand	Fine
#80	180	332.26	345.90	13.64	g	59.5	Sand	Fine
#100	150	331.56	348.05	16.49	g	47.7	Sand	Fine
#200	75	331.36	376.94	45.58	g	15.1	Sand	Fine
				0.00	g	15.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	140

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0150	21.0	33.5	12.6	Silt	
5	5	1.0145	21.0	21.3	12	Silt	
15	15	1.0145	21.0	12.3	12	Silt	
30	31	1.0135	21.0	8.6	10.9	Silt	
60	57	1.0130	21.0	6.4	10.3	Silt	
250	235	1.0120	20.5	3.2	9.03	Clay	
1440	1382	1.0100	20.5	1.3	6.74	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	8/29/2014
Client Sample ID	SED-3	Start Date	09/05/2014 15:44
Lab Sample ID	680-104784-C-21	End Date	09/10/2014 12:44

Dry Weight Determination

Tin Weight	0.99	g
Wet Sample + Tin	15.23	g
Dry Sample + Tin	10.87	g
% Moisture	30.62	%

Non-soil material:	shell
Shape (> #10):	angular
Hardness (> #10):	hard

Date/Time in oven	09/05/2014 15:46
Date/Time out of oven	09/08/2014 15:28

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)		133.26	133.26
Sample Weight (Oven Dried)			92.5

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			5.51
Sample <#10			87
% Passing #10			65.3

Hydrometer Data	
Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.19	490.90	2.71	g	97.1	Gravel	
#10	2000	462.85	465.65	2.80	g	94.1	Sand	Coarse
#20	850	389.67	391.77	2.10	g	91.8	Sand	Medium
#40	425	367.25	372.81	5.56	g	85.8	Sand	Medium
#60	250	349.20	355.29	6.09	g	79.2	Sand	Fine
#80	180	332.26	340.62	8.36	g	70.2	Sand	Fine
#100	150	331.56	341.31	9.75	g	59.7	Sand	Fine
#200	75	331.36	350.70	19.34	g	38.8	Sand	Fine
				0.00	g	38.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	92.5

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0230	21.0	30.5	32.1	Silt	
5	5	1.0225	21.0	19.4	31.3	Silt	
15	15	1.0215	21.0	11.3	29.5	Silt	
30	31	1.0210	21.0	7.9	28.6	Silt	
60	57	1.0195	21.0	6	26	Silt	
250	235	1.0180	20.5	3	23.2	Clay	
1440	1382	1.0165	20.5	1.3	20.6	Clay	

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.
	*	LCS or LCSD exceeds the control limits
	F1	MS and/or MSD Recovery exceeds the control limits
	F2	MS/MSD RPD exceeds control limits
	E	Result exceeded calibration range.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	X	Surrogate is outside control limits
HPLC/IC		
	U	Indicates the analyte was analyzed for but not detected.
Dioxin		
	U	Indicates the analyte was analyzed for but not detected.
	q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.

QUALITY CONTROL RESULTS

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 680-346848					
680-104784-19	SED-1	T	Solid	5035	
680-104784-20	SED-2	T	Solid	5035	
680-104784-21	SED-3	T	Solid	5035	
Analysis Batch:680-347519					
LCS 680-347519/7	Lab Control Sample	T	Solid	8260B	
LCSD 680-347519/9	Lab Control Sample Duplicate	T	Solid	8260B	
MB 680-347519/13	Method Blank	T	Solid	8260B	
680-104784-19	SED-1	T	Solid	8260B	680-346848
680-104784-20	SED-2	T	Solid	8260B	680-346848
680-104784-21	SED-3	T	Solid	8260B	680-346848
Analysis Batch:680-348182					
LCS 680-348182/4	Lab Control Sample	T	Water	8260B	
LCSD 680-348182/5	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-348182/25	Method Blank	T	Water	8260B	
680-104784-16	SW-1	T	Water	8260B	
680-104784-17	SW-2	T	Water	8260B	
680-104784-18	SW-3	T	Water	8260B	
680-104784-22	DUP-01	T	Water	8260B	
Analysis Batch:680-348369					
LCS 680-348369/4	Lab Control Sample	T	Water	8260B	
LCSD 680-348369/5	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-348369/8	Method Blank	T	Water	8260B	
680-104784-23	Trip Blank	T	Water	8260B	

Report Basis

T = Total

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 680-346739					
LCS 680-346739/10-A	Lab Control Sample	T	Solid	3546	
LCS 680-346739/13-A	Lab Control Sample	T	Solid	3546	
MB 680-346739/9-A	Method Blank	T	Solid	3546	
680-104784-19	SED-1	T	Solid	3546	
680-104784-20	SED-2	T	Solid	3546	
680-104784-D-21-B MSMS	Matrix Spike	T	Solid	3546	
680-104784-D-21-C MSDMSD	Matrix Spike Duplicate	T	Solid	3546	
Prep Batch: 680-347091					
LCS 680-347091/14-A	Lab Control Sample	T	Water	3520C	
MB 680-347091/10-A	Method Blank	T	Water	3520C	
680-104784-16	SW-1	T	Water	3520C	
680-104784-16MS	Matrix Spike	T	Water	3520C	
680-104784-16MSD	Matrix Spike Duplicate	T	Water	3520C	
680-104784-17	SW-2	T	Water	3520C	
680-104784-18	SW-3	T	Water	3520C	
Analysis Batch:680-347819					
LCS 680-346739/10-A	Lab Control Sample	T	Solid	8270D	680-346739
LCS 680-346739/13-A	Lab Control Sample	T	Solid	8270D	680-346739
MB 680-346739/9-A	Method Blank	T	Solid	8270D	680-346739
680-104784-19	SED-1	T	Solid	8270D	680-346739
680-104784-20	SED-2	T	Solid	8270D	680-346739
680-104784-D-21-B MSMS	Matrix Spike	T	Solid	8270D	680-346739
680-104784-D-21-C MSDMSD	Matrix Spike Duplicate	T	Solid	8270D	680-346739
Prep Batch: 680-348054					
LCS 680-348054/19-A	Lab Control Sample	T	Solid	3546	
MB 680-348054/15-A	Method Blank	T	Solid	3546	
680-104784-21	SED-3	T	Solid	3546	
Analysis Batch:680-348405					
LCS 680-348054/19-A	Lab Control Sample	T	Solid	8270D	680-348054
MB 680-348054/15-A	Method Blank	T	Solid	8270D	680-348054
680-104784-21	SED-3	T	Solid	8270D	680-348054
Analysis Batch:680-348465					
LCS 680-347091/14-A	Lab Control Sample	T	Water	8270C LL	680-347091
MB 680-347091/10-A	Method Blank	T	Water	8270C LL	680-347091
680-104784-16	SW-1	T	Water	8270C LL	680-347091
680-104784-16MS	Matrix Spike	T	Water	8270C LL	680-347091
680-104784-16MSD	Matrix Spike Duplicate	T	Water	8270C LL	680-347091
680-104784-17	SW-2	T	Water	8270C LL	680-347091
680-104784-18	SW-3	T	Water	8270C LL	680-347091

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Report Basis					
T = Total					
Dioxin					
Prep Batch: 320-51346					
LCS 320-51346/2-A	Lab Control Sample	T	Solid	8290	
LCSD 320-51346/3-A	Lab Control Sample Duplicate	T	Solid	8290	
MB 320-51346/1-A	Method Blank	T	Solid	8290	
680-104784-19	SED-1	T	Solid	8290	
680-104784-20	SED-2	T	Solid	8290	
680-104784-21	SED-3	T	Solid	8290	
Analysis Batch:320-51541					
LCS 320-51346/2-A	Lab Control Sample	T	Solid	8290A	320-51346
LCSD 320-51346/3-A	Lab Control Sample Duplicate	T	Solid	8290A	320-51346
MB 320-51346/1-A	Method Blank	T	Solid	8290A	320-51346
680-104784-19	SED-1	T	Solid	8290A	320-51346
680-104784-20	SED-2	T	Solid	8290A	320-51346
680-104784-21	SED-3	T	Solid	8290A	320-51346
Report Basis					
T = Total					
General Chemistry					
Analysis Batch:200-77264					
LCS 200-77264/6	Lab Control Sample	T	Solid	Lloyd Kahn	
MB 200-77264/5	Method Blank	T	Solid	Lloyd Kahn	
680-104784-19	SED-1	T	Solid	Lloyd Kahn	
680-104784-20	SED-2	T	Solid	Lloyd Kahn	
680-104784-21	SED-3	T	Solid	Lloyd Kahn	
Analysis Batch:680-347415					
LCS 680-347415/43	Lab Control Sample	T	Water	350.1	
MB 680-347415/27	Method Blank	T	Water	350.1	
680-104784-16	SW-1	T	Water	350.1	
680-104784-17	SW-2	T	Water	350.1	
680-104784-18	SW-3	T	Water	350.1	
Report Basis					
T = Total					

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Geotechnical					
Analysis Batch:200-76883					
680-104784-19	SED-1	T	Solid	D422	
680-104784-20	SED-2	T	Solid	D422	
680-104784-21	SED-3	T	Solid	D422	
Analysis Batch:680-347905					
LCS 680-347905/54	Lab Control Sample	T	Water	300.0	
LCSD 680-347905/55	Lab Control Sample Duplicate	T	Water	300.0	
MB 680-347905/53	Method Blank	T	Water	300.0	
680-104784-16	SW-1	T	Water	300.0	
680-104784-17	SW-2	T	Water	300.0	
680-104784-17MS	Matrix Spike	T	Water	300.0	
680-104784-17MSD	Matrix Spike Duplicate	T	Water	300.0	
680-104784-18	SW-3	T	Water	300.0	

Report Basis

T = Total

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	DCA %Rec	TOL %Rec
680-104784-19	SED-1	93	85	86	89
680-104784-20	SED-2	89	88	89	88
680-104784-21	SED-3	91	86	88	88

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene (Surr)	65-130
DBFM = Dibromofluoromethane (Surr)	65-130
DCA = 1,2-Dichloroethane-d4 (Surr)	65-130
TOL = Toluene-d8 (Surr)	65-130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TOL %Rec	DBFM %Rec	DCA %Rec	BFB %Rec
MB 680-347519/13		89	87	91	82
LCS 680-347519/7		88	112	117	92
LCSD 680-347519/9		88	119	120	92

Surrogate	Acceptance Limits
TOL = Toluene-d8 (Surr)	65-130
DBFM = Dibromofluoromethane (Surr)	65-130
DCA = 1,2-Dichloroethane-d4 (Surr)	65-130
BFB = 4-Bromofluorobenzene (Surr)	65-130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TOL %Rec	DBFM %Rec	DCA %Rec	BFB %Rec
680-104784-16	SW-1	107	103	102	95
680-104784-17	SW-2	108	102	103	94
680-104784-18	SW-3	105	104	106	93
680-104784-22	DUP-01	104	103	107	92
680-104784-23	Trip Blank	106	102	102	98
MB 680-348182/25		105	100	99	94
MB 680-348369/8		108	100	96	97
LCS 680-348182/4		99	100	102	95
LCS 680-348369/4		109	106	107	98
LCSD 680-348182/5		100	98	99	96
LCSD 680-348369/5		102	99	101	99

Surrogate	Acceptance Limits
TOL = Toluene-d8 (Surr)	70-130
DBFM = Dibromofluoromethane (Surr)	70-130
DCA = 1,2-Dichloroethane-d4 (Surr)	70-130
BFB = 4-Bromofluorobenzene (Surr)	70-130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Surrogate Recovery Report

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec
680-104784-16	SW-1	60	57	62	58	84	78
680-104784-17	SW-2	70	68	67	66	83	80
680-104784-18	SW-3	71	69	68	68	88	84
MB 680-347091/10-A		85	83	79	77	131X	85
LCS 680-347091/14-A		83	88	75	78	96	91
680-104784-16 MS	SW-1 MS	60	52	56	54	81	76
680-104784-16 MSD	SW-1 MSD	59	56	58	56	72	76

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	34-130
2FP = 2-Fluorophenol (Surr)	25-130
NBZ = Nitrobenzene-d5 (Surr)	32-130
PHL = Phenol-d5 (Surr)	27-130
TPH = Terphenyl-d14 (Surr)	36-130
TBP = 2,4,6-Tribromophenol (Surr)	30-130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec
680-104784-19	SED-1	0D	0D	0D	0D	0D	0D
680-104784-20	SED-2	0D	0D	0D	0D	0D	0D
680-104784-21	SED-3	0D	0D	0D	0D	0D	0D
MB 680-346739/9-A		84	65	74	66	85	80
MB 680-348054/15-A		81	97	94	96	112	95
LCS 680-346739/10-A		69	54	67	58	70	72
LCS 680-346739/13-A		76	64	66	68	82	79
LCS 680-348054/19-A		84	97	92	98	104	114
680-104784-D-21-B MS		63	51	34X	54	62	62
680-104784-D-21-C MSD		52	44	31X	46	53	55

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	41-116
2FP = 2-Fluorophenol (Surr)	39-114
NBZ = Nitrobenzene-d5 (Surr)	37-115
PHL = Phenol-d5 (Surr)	38-122
TPH = Terphenyl-d14 (Surr)	46-126
TBP = 2,4,6-Tribromophenol (Surr)	45-129

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Surrogate Recovery Report

8290A Dioxins and Furans (HRGC/HRMS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCDD %Rec	TCDF %Rec	PeCDD %Rec	PeCDF %Rec	HxCDD %Rec	HxCDF %Rec
680-104784-19	SED-1	83	82	77	80	81	90
680-104784-20	SED-2	65	65	61	63	61	69
680-104784-21	SED-3	66	67	60	63	61	68
MB 320-51346/1-A		77	76	73	76	79	79
LCS 320-51346/2-A		77	77	72	75	83	81
LCSD 320-51346/3-A		83	83	79	81	85	87

Surrogate	Acceptance Limits
TCDD = 13C-2,3,7,8-TCDD	40-135
TCDF = 13C-2,3,7,8-TCDF	40-135
PeCDD = 13C-1,2,3,7,8-PeCDD	40-135
PeCDF = 13C-1,2,3,7,8-PeCDF	40-135
HxCDD = 13C-1,2,3,6,7,8-HxCDD	40-135
HxCDF = 13C-1,2,3,4,7,8-HxCDF	40-135

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347519

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 680-347519/13	Analysis Batch:	680-347519	Instrument ID:	CMSL
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	LI0513Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.02 g
Analysis Date:	09/05/2014 1354	Units:	ug/Kg	Final Weight/Volume:	5 g
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Acrolein	100	U	100
Allyl chloride	5.0	U	5.0
Acrylonitrile	100	U	100
Chlorobenzene	5.0	U	5.0
Chloroprene	5.0	U	5.0
cis-1,3-Dichloropropene	5.0	U	5.0
Carbon tetrachloride	5.0	U	5.0
Dibromochloromethane	5.0	U	5.0
1,2-Dibromo-3-Chloropropane	10	U	10
1,2-Dibromoethane	5.0	U	5.0
Acetone	50	U	50
Chloroform	5.0	U	5.0
1,2-Dichlorobenzene	5.0	U	5.0
Benzene	5.0	U	5.0
1,3-Dichlorobenzene	5.0	U	5.0
1,4-Dichlorobenzene	5.0	U	5.0
Bromomethane	5.0	U	5.0
Chloromethane	5.0	U	5.0
1,2-Dichloroethane	5.0	U	5.0
Dibromomethane	5.0	U	5.0
Chloroethane	5.0	U	5.0
Acetonitrile	200	U	200
1,4-Dioxane	50	U	50
Carbon disulfide	5.0	U	5.0
Ethylbenzene	5.0	U	5.0
Bromoform	5.0	U	5.0
Bromodichloromethane	5.0	U	5.0
Hexachlorobutadiene	5.0	U	5.0
1,1-Dichloroethane	5.0	U	5.0
2-Hexanone	25	U	25
1,1-Dichloroethene	5.0	U	5.0
Iodomethane	5.0	U	5.0
Dichlorodifluoromethane	5.0	U	5.0
Methacrylonitrile	100	U	100
Methylene Chloride	5.0	U	5.0
Isobutanol	200	U	200
1,2-Dichloropropane	5.0	U	5.0
4-Methyl-2-pentanone	25	U	25
2-Butanone	25	U	25
Naphthalene	5.0	U	5.0
Pentachloroethane	25	U	25
Propionitrile	100	U	100
Styrene	5.0	U	5.0
1,1,1,2-Tetrachloroethane	5.0	U	5.0
Methyl methacrylate	10	U	10

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347519

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 680-347519/13	Analysis Batch:	680-347519	Instrument ID:	CMSL
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	LI0513Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.02 g
Analysis Date:	09/05/2014 1354	Units:	ug/Kg	Final Weight/Volume:	5 g
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
1,1,2,2-Tetrachloroethane	5.0	U	5.0
Ethyl methacrylate	5.0	U	5.0
Tetrachloroethene	5.0	U	5.0
Toluene	5.0	U	5.0
trans-1,4-Dichloro-2-butene	10	U	10
trans-1,2-Dichloroethene	5.0	U	5.0
trans-1,3-Dichloropropene	5.0	U	5.0
1,2,4-Trichlorobenzene	5.0	U	5.0
1,1,1-Trichloroethane	5.0	U	5.0
1,1,2-Trichloroethane	5.0	U	5.0
Trichloroethene	5.0	U	5.0
Trichlorofluoromethane	5.0	U	5.0
1,2,3-Trichloropropane	5.0	U	5.0
Vinyl acetate	10	U	10
Vinyl chloride	5.0	U	5.0
Xylenes, Total	10	U	10

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	89	65 - 130
Dibromofluoromethane (Surr)	87	65 - 130
1,2-Dichloroethane-d4 (Surr)	91	65 - 130
4-Bromofluorobenzene (Surr)	82	65 - 130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-347519

Method: 8260B
Preparation: N/A

LCS Lab Sample ID:	LCS 680-347519/7	Analysis Batch:	680-347519	Instrument ID:	CMSL
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	LI0507Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.05 g
Analysis Date:	09/05/2014 1131	Units:	ug/Kg	Final Weight/Volume:	5 g
Prep Date:	N/A				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-347519/9	Analysis Batch:	680-347519	Instrument ID:	CMSL
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	LI0509Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.01 g
Analysis Date:	09/05/2014 1223	Units:	ug/Kg	Final Weight/Volume:	5 g
Prep Date:	N/A				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acrolein	142	151	50 - 150	7	50		*
Allyl chloride	119	120	50 - 150	1	50		
Acrylonitrile	116	112	50 - 150	3	50		
Chlorobenzene	88	87	80 - 120	0	50		
cis-1,3-Dichloropropene	114	116	74 - 125	3	50		
Carbon tetrachloride	114	122	67 - 140	8	50		
Dibromochloromethane	115	112	77 - 132	1	50		
1,2-Dibromo-3-Chloropropane	87	80	49 - 152	7	50		
1,2-Dibromoethane	114	115	72 - 129	2	50		
Acetone	111	108	54 - 139	2	50		
Chloroform	118	121	80 - 121	3	50		
1,2-Dichlorobenzene	91	90	75 - 128	0	50		
Benzene	115	119	76 - 120	4	50		
1,3-Dichlorobenzene	92	92	76 - 128	1	50		
1,4-Dichlorobenzene	90	92	76 - 128	2	50		
Bromomethane	112	112	10 - 174	0	50		
Chloromethane	118	119	48 - 146	2	50		
1,2-Dichloroethane	119	117	61 - 140	1	50		
Dibromomethane	116	116	73 - 127	1	50		
Chloroethane	111	117	10 - 176	6	50		
1,4-Dioxane	115	109	50 - 150	5	50		
Carbon disulfide	115	119	74 - 125	4	50		
Ethylbenzene	89	89	78 - 121	1	50		
Bromoform	87	85	64 - 150	2	50		
Bromodichloromethane	114	115	72 - 131	2	50		
Hexachlorobutadiene	90	96	70 - 146	8	50		
1,1-Dichloroethane	116	120	80 - 120	4	50		
2-Hexanone	119	113	60 - 126	4	50		
1,1-Dichloroethene	118	121	64 - 138	4	50		
Iodomethane	117	119	50 - 150	2	50		
Dichlorodifluoromethane	117	121	72 - 134	4	50		
Methylene Chloride	111	111	80 - 120	1	50		
Isobutanol	115	110	50 - 150	4	50		
1,2-Dichloropropane	112	113	73 - 121	2	50		
4-Methyl-2-pentanone	118	112	59 - 127	4	50		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-347519

Method: 8260B
Preparation: N/A

LCS Lab Sample ID:	LCS 680-347519/7	Analysis Batch:	680-347519	Instrument ID:	CMSL
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	LI0507Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.05 g
Analysis Date:	09/05/2014 1131	Units:	ug/Kg	Final Weight/Volume:	5 g
Prep Date:	N/A				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-347519/9	Analysis Batch:	680-347519	Instrument ID:	CMSL
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	LI0509Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.01 g
Analysis Date:	09/05/2014 1223	Units:	ug/Kg	Final Weight/Volume:	5 g
Prep Date:	N/A				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2-Butanone	116	111	66 - 123	4	50		
Naphthalene	97	96	71 - 138	1	50		
Styrene	91	89	78 - 123	1	50		
1,1,1,2-Tetrachloroethane	90	88	80 - 129	2	50		
1,1,2,2-Tetrachloroethane	92	86	70 - 123	6	50		
Ethyl methacrylate	120	117	50 - 150	1	50		
Tetrachloroethene	116	120	77 - 130	4	50		
Toluene	118	122	73 - 122	4	50		
trans-1,4-Dichloro-2-butene	92	81	50 - 150	12	50		
trans-1,2-Dichloroethene	117	119	79 - 120	2	50		
trans-1,3-Dichloropropene	118	117	69 - 133	0	50		
1,2,4-Trichlorobenzene	93	96	77 - 142	4	50		
1,1,1-Trichloroethane	120	125	73 - 132	5	50		
1,1,2-Trichloroethane	112	112	72 - 124	1	50		
Trichloroethene	113	118	78 - 125	5	50		
Trichlorofluoromethane	116	118	60 - 148	2	50		
1,2,3-Trichloropropane	91	85	67 - 132	6	50		
Vinyl acetate	127	124	10 - 200	1	50		
Vinyl chloride	115	119	65 - 133	5	50		
Xylenes, Total	90	90	79 - 121	1	50		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	88	88	65 - 130
Dibromofluoromethane (Surr)	112	119	65 - 130
1,2-Dichloroethane-d4 (Surr)	117	120	65 - 130
4-Bromofluorobenzene (Surr)	92	92	65 - 130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-348182

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 680-348182/25	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 1604	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 1604				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
Acrylonitrile	20	U	20
Chlorobenzene	1.0	U	1.0
Chloroprene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Acetonitrile	40	U	40
Carbon disulfide	2.0	U	2.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Hexanone	10	U	10
1,1-Dichloroethene	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dichlorodifluoromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Methylene Chloride	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
4-Methyl-2-pentanone	10	U	10
2-Butanone	10	U	10
Pentachloroethane	5.0	U	5.0
Propionitrile	20	U	20
Styrene	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-348182

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 680-348182/25	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 1604	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 1604				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Trichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	105	70 - 130
Dibromofluoromethane (Surr)	100	70 - 130
1,2-Dichloroethane-d4 (Surr)	99	70 - 130
4-Bromofluorobenzene (Surr)	94	70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-348182

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 680-348182/4	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1007Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 1331	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 1331				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-348182/5	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 1401	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 1401				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acrolein	129	127	50 - 150	1	50		
Allyl chloride	104	96	50 - 150	7	50		
Acrylonitrile	94	92	50 - 150	2	50		
Chlorobenzene	100	101	79 - 120	1	30		
cis-1,3-Dichloropropene	99	95	73 - 128	4	30		
Carbon tetrachloride	98	99	70 - 131	1	30		
Dibromochloromethane	93	94	63 - 134	1	50		
Acetone	89	86	39 - 162	4	50		
Chloroform	99	98	76 - 128	1	30		
Benzene	97	96	74 - 123	1	30		
Bromomethane	89	96	10 - 171	7	50		
Chloromethane	90	94	47 - 151	4	30		
1,2-Dichloroethane	101	100	75 - 120	1	30		
Dibromomethane	91	91	75 - 122	0	30		
Chloroethane	108	101	47 - 148	6	40		
Carbon disulfide	101	111	63 - 142	10	30		
Ethylbenzene	100	103	78 - 125	2	30		
Bromoform	90	93	60 - 134	4	30		
Bromodichloromethane	97	98	72 - 129	0	30		
1,1-Dichloroethane	103	102	69 - 132	2	30		
2-Hexanone	90	90	52 - 149	0	30		
1,1-Dichloroethene	97	96	73 - 134	1	30		
Iodomethane	85	85	50 - 150	0	50		
Dichlorodifluoromethane	85	91	41 - 165	6	50		
Methylene Chloride	89	93	79 - 124	4	30		
Isobutanol	92	90	50 - 150	2	50		
1,2-Dichloropropane	95	93	71 - 126	2	30		
4-Methyl-2-pentanone	89	90	51 - 143	1	30		
2-Butanone	93	89	55 - 142	4	30		
Styrene	95	97	75 - 129	2	30		
1,1,1,2-Tetrachloroethane	98	98	68 - 132	1	30		
1,1,2,2-Tetrachloroethane	89	92	71 - 127	3	30		
Ethyl methacrylate	91	91	50 - 150	1	50		
Tetrachloroethene	107	106	77 - 128	1	30		
Toluene	95	92	77 - 125	3	30		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-348182

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 680-348182/4	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1007Q.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 1331	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 1331				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-348182/5	Analysis Batch:	680-348182	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/10/2014 1401	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/10/2014 1401				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
trans-1,4-Dichloro-2-butene	98	103	50 - 150	5	50		
trans-1,2-Dichloroethene	102	98	78 - 130	4	30		
1,1,1-Trichloroethane	106	108	76 - 126	2	30		
1,1,2-Trichloroethane	89	87	69 - 127	2	30		
Trichloroethene	105	104	80 - 120	0	30		
Trichlorofluoromethane	97	99	66 - 144	2	30		
Vinyl acetate	98	93	10 - 200	5	30		
Vinyl chloride	98	78	58 - 141	23	30		
Xylenes, Total	98	100	80 - 124	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	99	100	70 - 130
Dibromofluoromethane (Surr)	100	98	70 - 130
1,2-Dichloroethane-d4 (Surr)	102	99	70 - 130
4-Bromofluorobenzene (Surr)	95	96	70 - 130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-348369

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 680-348369/8	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1115.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 1054	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 1054				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Acrolein	20	U	20
Allyl chloride	1.0	U	1.0
Acrylonitrile	20	U	20
Chlorobenzene	1.0	U	1.0
Chloroprene	1.0	U	1.0
cis-1,3-Dichloropropene	1.0	U	1.0
Carbon tetrachloride	1.0	U	1.0
Dibromochloromethane	1.0	U	1.0
Acetone	25	U	25
Chloroform	1.0	U	1.0
Benzene	1.0	U	1.0
Bromomethane	5.0	U	5.0
Chloromethane	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
Dibromomethane	1.0	U	1.0
Chloroethane	5.0	U	5.0
Acetonitrile	40	U	40
Carbon disulfide	2.0	U	2.0
Ethylbenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromodichloromethane	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
2-Hexanone	10	U	10
1,1-Dichloroethene	1.0	U	1.0
Iodomethane	5.0	U	5.0
Dichlorodifluoromethane	1.0	U	1.0
Methacrylonitrile	20	U	20
Methylene Chloride	5.0	U	5.0
Isobutanol	40	U	40
1,2-Dichloropropane	1.0	U	1.0
4-Methyl-2-pentanone	10	U	10
2-Butanone	10	U	10
Pentachloroethane	5.0	U	5.0
Propionitrile	20	U	20
Styrene	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Methyl methacrylate	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
Ethyl methacrylate	1.0	U	1.0
Tetrachloroethene	1.0	U	1.0
Toluene	1.0	U	1.0
trans-1,4-Dichloro-2-butene	2.0	U	2.0
trans-1,2-Dichloroethene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-348369

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 680-348369/8	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1115.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 1054	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 1054				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Trichloroethene	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	108	70 - 130
Dibromofluoromethane (Surr)	100	70 - 130
1,2-Dichloroethane-d4 (Surr)	96	70 - 130
4-Bromofluorobenzene (Surr)	97	70 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-348369

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 680-348369/4	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1107.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 0855	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 0855				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-348369/5	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1109.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 0925	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 0925				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acrolein	130	126	50 - 150	3	50		
Allyl chloride	68	106	50 - 150	43	50		
Acrylonitrile	94	95	50 - 150	1	50		
Chlorobenzene	106	99	79 - 120	7	30		
cis-1,3-Dichloropropene	103	98	73 - 128	5	30		
Carbon tetrachloride	114	108	70 - 131	5	30		
Dibromochloromethane	99	93	63 - 134	6	50		
Acetone	93	100	39 - 162	7	50		
Chloroform	107	101	76 - 128	6	30		
Benzene	106	102	74 - 123	5	30		
Bromomethane	112	105	10 - 171	7	50		
Chloromethane	111	100	47 - 151	11	30		
1,2-Dichloroethane	109	102	75 - 120	6	30		
Dibromomethane	100	94	75 - 122	7	30		
Chloroethane	116	98	47 - 148	18	40		
Carbon disulfide	131	126	63 - 142	4	30		
Ethylbenzene	112	105	78 - 125	6	30		
Bromoform	95	88	60 - 134	7	30		
Bromodichloromethane	105	101	72 - 129	4	30		
1,1-Dichloroethane	111	106	69 - 132	5	30		
2-Hexanone	95	94	52 - 149	0	30		
1,1-Dichloroethene	127	101	73 - 134	23	30		
Iodomethane	120	84	50 - 150	35	50		
Dichlorodifluoromethane	156	104	41 - 165	40	50		
Methylene Chloride	110	108	79 - 124	2	30		
Isobutanol	94	102	50 - 150	9	50		
1,2-Dichloropropane	101	98	71 - 126	2	30		
4-Methyl-2-pentanone	95	96	51 - 143	1	30		
2-Butanone	100	102	55 - 142	2	30		
Styrene	102	96	75 - 129	7	30		
1,1,1,2-Tetrachloroethane	104	95	68 - 132	8	30		
1,1,2,2-Tetrachloroethane	93	89	71 - 127	3	30		
Ethyl methacrylate	94	94	50 - 150	1	50		
Tetrachloroethene	125	115	77 - 128	8	30		
Toluene	103	99	77 - 125	3	30		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-348369

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 680-348369/4	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1107.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 0855	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 0855				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-348369/5	Analysis Batch:	680-348369	Instrument ID:	CMSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PI1109.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2014 0925	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	09/11/2014 0925				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
trans-1,4-Dichloro-2-butene	105	97	50 - 150	7	50		
trans-1,2-Dichloroethene	110	105	78 - 130	5	30		
1,1,1-Trichloroethane	124	116	76 - 126	7	30		
1,1,2-Trichloroethane	94	91	69 - 127	3	30		
Trichloroethene	116	108	80 - 120	7	30		
Trichlorofluoromethane	123	114	66 - 144	8	30		
Vinyl acetate	106	100	10 - 200	6	30		
Vinyl chloride	117	110	58 - 141	7	30		
Xylenes, Total	107	101	80 - 124	5	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	109	102	70 - 130
Dibromofluoromethane (Surr)	106	99	70 - 130
1,2-Dichloroethane-d4 (Surr)	107	101	70 - 130
4-Bromofluorobenzene (Surr)	98	99	70 - 130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

Lab Sample ID:	MB 680-347091/10-A	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/11/2014 2107	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
Acenaphthene	0.20	U	0.20
Acenaphthylene	0.20	U	0.20
Acetophenone	1.0	U	1.0
2-Acetylaminofluorene	1.0	U	1.0
alpha,alpha-Dimethyl phenethylamine	10	U	10
4-Aminobiphenyl	5.0	U	5.0
Aniline	2.0	U	2.0
Anthracene	0.20	U	0.20
Aramite, Total	1.5	U	1.5
Benzo[a]anthracene	0.20	U	0.20
Benzo[a]pyrene	0.20	U	0.20
Benzo[b]fluoranthene	0.20	U	0.20
Benzo[g,h,i]perylene	0.20	U	0.20
Benzo[k]fluoranthene	0.20	U	0.20
Benzyl alcohol	1.0	U	1.0
Bis(2-chloroethoxy)methane	1.0	U	1.0
Bis(2-chloroethyl)ether	1.0	U	1.0
bis (2-chloroisopropyl) ether	1.0	U	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	2.0
4-Bromophenyl phenyl ether	1.0	U	1.0
Butyl benzyl phthalate	1.0	U	1.0
4-Chloroaniline	2.0	U	2.0
4-Chloro-3-methylphenol	1.0	U	1.0
2-Chloronaphthalene	1.0	U	1.0
2-Chlorophenol	1.0	U	1.0
4-Chlorophenyl phenyl ether	1.0	U	1.0
Chrysene	0.20	U	0.20
Diallate	1.0	U	1.0
Dibenz(a,h)anthracene	0.20	U	0.20
Dibenzofuran	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
3,3'-Dichlorobenzidine	20	U	20
2,4-Dichlorophenol	1.0	U	1.0
2,6-Dichlorophenol	1.0	U	1.0
Diethyl phthalate	1.0	U	1.0
Dimethoate	2.0	U	2.0
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0
3,3'-Dimethylbenzidine	20	U	20
2,4-Dimethylphenol	2.0	U	2.0
Dimethyl phthalate	1.0	U	1.0
Di-n-butyl phthalate	1.0	U	1.0
1,3-Dinitrobenzene	1.0	U	1.0
4,6-Dinitro-2-methylphenol	5.0	U	5.0

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

Lab Sample ID:	MB 680-347091/10-A	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/11/2014 2107	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
2,4-Dinitrophenol	10	U	10
2,4-Dinitrotoluene	1.0	U	1.0
2,6-Dinitrotoluene	1.0	U	1.0
Di-n-octyl phthalate	1.0	U	1.0
Dinoseb	2.0	U	2.0
1,4-Dioxane	2.0	U	2.0
Disulfoton	1.0	U	1.0
Ethyl methanesulfonate	2.0	U	2.0
Ethyl Parathion	2.0	U	2.0
Famphur	1.0	U	1.0
Fluoranthene	0.20	U	0.20
Fluorene	0.20	U	0.20
Hexachlorobenzene	1.0	U	1.0
Hexachlorobutadiene	1.0	U	1.0
Hexachlorocyclopentadiene	2.0	U	2.0
Hexachloroethane	1.0	U	1.0
Hexachlorophene	500	U	500
Hexachloropropene	1.0	U	1.0
Indeno[1,2,3-cd]pyrene	0.20	U	0.20
Isophorone	1.0	U	1.0
Isosafrole	1.0	U	1.0
Methapyrilene	200	U	200
3-Methylcholanthrene	1.0	U	1.0
Methyl methanesulfonate	2.0	U	2.0
2-Methylnaphthalene	0.20	U	0.20
Methyl parathion	1.0	U	1.0
2-Methylphenol	2.0	U	2.0
3 & 4 Methylphenol	2.0	U	2.0
Naphthalene	0.20	U	0.20
1,4-Naphthoquinone	1.0	U	1.0
1-Naphthylamine	5.0	U	5.0
2-Naphthylamine	5.0	U	5.0
4-Nitroaniline	5.0	U	5.0
2-Nitroaniline	1.0	U	1.0
3-Nitroaniline	5.0	U	5.0
Nitrobenzene	1.0	U	1.0
4-Nitrophenol	5.0	U	5.0
2-Nitrophenol	1.0	U	1.0
4-Nitroquinoline-1-oxide	2.0	U	2.0
N-Nitro-o-toluidine	1.0	U	1.0
N-Nitrosodiethylamine	1.0	U	1.0
N-Nitrosodimethylamine	1.0	U	1.0
N-Nitrosodi-n-butylamine	1.0	U	1.0
N-Nitrosodi-n-propylamine	1.0	U	1.0
N-Nitrosodiphenylamine	1.0	U	1.0

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

Lab Sample ID:	MB 680-347091/10-A	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/11/2014 2107	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
N-Nitrosomethylethylamine	2.0	U	2.0
N-Nitrosomorpholine	1.0	U	1.0
N-Nitrosopiperidine	1.0	U	1.0
N-Nitrosopyrrolidine	1.0	U	1.0
o,o',o"-Triethylphosphorothioate	1.0	U	1.0
p-Dimethylamino azobenzene	5.0	U	5.0
Pentachlorobenzene	1.0	U	1.0
Pentachloronitrobenzene	1.0	U	1.0
Pentachlorophenol	5.0	U	5.0
Phenacetin	1.0	U	1.0
Phenanthrene	0.20	U	0.20
Phenol	1.0	U	1.0
Phorate	1.0	U	1.0
2-Picoline	2.0	U	2.0
p-Phenylene diamine	200	U	200
Pronamide	1.0	U	1.0
Pyrene	0.20	U	0.20
Pyridine	5.0	U	5.0
Safrole, Total	1.0	U	1.0
Sulfotepp	1.0	U	1.0
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0
2,3,4,6-Tetrachlorophenol	1.0	U	1.0
Thionazin	1.0	U	1.0
2-Toluidine	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
2,4,6-Trichlorophenol	1.0	U	1.0
2,4,5-Trichlorophenol	1.0	U	1.0
1,3,5-Trinitrobenzene	1.0	U	1.0
1,1'-Biphenyl	1.0	U	1.0

Surrogate	% Rec		Acceptance Limits
2-Fluorobiphenyl	85		34 - 130
2-Fluorophenol (Surr)	83		25 - 130
Nitrobenzene-d5 (Surr)	79		32 - 130
Phenol-d5 (Surr)	77		27 - 130
Terphenyl-d14 (Surr)	131	X	36 - 130
2,4,6-Tribromophenol (Surr)	85		30 - 130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

Lab Sample ID:	LCS 680-347091/14-A	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1124.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/11/2014 2132	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Acetylaminofluorene	10.0	14.9	149	10 - 130	*
alpha,alpha-Dimethyl phenethylamine	10.0	8.87	89	10 - 130	J
4-Aminobiphenyl	10.0	3.42	34	10 - 130	J
Aramite, Total	10.0	18.3	183	10 - 130	*
Diallate	10.0	8.42	84	10 - 130	
2,6-Dichlorophenol	10.0	9.42	94	10 - 130	
Dimethoate	10.0	5.57	56	10 - 130	
7,12-Dimethylbenz(a)anthracene	10.0	11.2	112	10 - 130	
3,3'-Dimethylbenzidine	25.0	19.6	79	10 - 130	J
1,3-Dinitrobenzene	10.0	9.65	96	10 - 130	
Dinoseb	10.0	18.3	183	10 - 130	*
Disulfoton	10.0	5.85	59	10 - 130	
Ethyl methanesulfonate	10.0	5.32	53	10 - 130	
Ethyl Parathion	10.0	11.7	117	10 - 130	
Famphur	10.0	1.41	14	10 - 130	
Hexachlorophene	50.0	25	18	10 - 130	U
Hexachloropropene	10.0	3.13	31	10 - 130	
Isosafrole	10.0	12.1	121	10 - 130	
Methapyrilene	50.0	39.7	79	10 - 130	J E
3-Methylcholanthrene	10.0	11.8	118	10 - 130	
Methyl methanesulfonate	10.0	1.26	13	10 - 130	J
Methyl parathion	10.0	6.43	64	10 - 130	
1,4-Naphthoquinone	10.0	1.93	19	10 - 130	
1-Naphthylamine	10.0	3.65	36	10 - 130	J
2-Naphthylamine	10.0	2.58	26	10 - 130	J
4-Nitroquinoline-1-oxide	10.0	7.89	79	10 - 130	
N-Nitro-o-toluidine	10.0	9.40	94	10 - 130	
N-Nitrosodiethylamine	10.0	8.54	85	10 - 130	
N-Nitrosodi-n-butylamine	10.0	9.40	94	10 - 130	
N-Nitrosomethylethylamine	10.0	8.36	84	10 - 130	
N-Nitrosomorpholine	10.0	9.61	96	10 - 130	
N-Nitrosopiperidine	10.0	8.75	88	10 - 130	
N-Nitrosopyrrolidine	10.0	8.80	88	10 - 130	
o,o',o''-Triethylphosphorothioate	10.0	7.11	71	10 - 130	
p-Dimethylamino azobenzene	10.0	12.5	125	10 - 130	
Pentachlorobenzene	10.0	8.25	83	10 - 130	
Pentachloronitrobenzene	10.0	11.6	116	10 - 130	
Phenacetin	10.0	12.1	121	10 - 130	
Phorate	10.0	9.36	94	10 - 130	
2-Picoline	10.0	8.22	82	10 - 130	
p-Phenylene diamine	50.0	16	17	10 - 130	U

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

Lab Sample ID:	LCS 680-347091/14-A	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1124.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	09/11/2014 2132	Units:	ug/L	Final Weight/Volume:	1.0 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Pronamide	10.0	10.7	107	10 - 130	
Safrole, Total	10.0	7.07	71	10 - 130	
Sulfotepp	10.0	8.78	88	10 - 130	
1,2,4,5-Tetrachlorobenzene	10.0	4.98	50	10 - 130	
2,3,4,6-Tetrachlorophenol	10.0	9.96	100	10 - 130	
Thionazin	10.0	9.52	95	10 - 130	
2-Toluidine	10.0	6.08	61	10 - 130	
1,3,5-Trinitrobenzene	10.0	17.3	173	10 - 130	*

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	83	34 - 130
2-Fluorophenol (Surr)	88	25 - 130
Nitrobenzene-d5 (Surr)	75	32 - 130
Phenol-d5 (Surr)	78	27 - 130
Terphenyl-d14 (Surr)	96	36 - 130
2,4,6-Tribromophenol (Surr)	91	30 - 130

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

MS Lab Sample ID:	680-104784-16	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1128.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	480.7 mL
Analysis Date:	09/11/2014 2312			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	680-104784-16	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1129.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	497.2 mL
Analysis Date:	09/11/2014 2336			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2-Acetylaminofluorene	108	136	10 - 130	19	50		F1
alpha,alpha-Dimethyl phenethylamine	53	60	10 - 130	9	50	U	U
4-Aminobiphenyl	4	4	10 - 130	6	50	U F1	U F1
Aramite, Total	160	150	10 - 130	10	50	F1	F1
Diallate	67	68	10 - 130	2	50		
2,6-Dichlorophenol	72	78	10 - 130	4	50		
Dimethoate	52	54	10 - 130	1	50		
7,12-Dimethylbenz(a)anthracene	40	30	10 - 130	31	50		
3,3'-Dimethylbenzidine	0	0	10 - 130	NC	50	U F1	U F1
1,3-Dinitrobenzene	76	81	10 - 130	3	50		
Dinoseb	150	166	10 - 130	7	50	F1	F1
Disulfoton	44	43	10 - 130	7	50		
Ethyl methanesulfonate	35	41	10 - 130	12	50		
Ethyl Parathion	102	100	10 - 130	5	50		
Famphur	30	26	10 - 130	17	50		
Hexachlorophene	0	0	10 - 130	NC	50	U F1	U F1
Hexachloropropene	10	11	10 - 130	6	50		
Isosafrole	65	71	10 - 130	6	50		
Methapyrilene	48	62	10 - 130	22	50	U E	U E
3-Methylcholanthrene	63	57	10 - 130	14	50		
Methyl methanesulfonate	8	9	10 - 130	10	50	U F1	U F1
Methyl parathion	60	62	10 - 130	0	50		
1,4-Naphthoquinone	34	38	10 - 130	7	50		
1-Naphthylamine	0	0	10 - 130	NC	50	U F1	U F1
2-Naphthylamine	0	0	10 - 130	NC	50	U F1	U F1
4-Nitroquinoline-1-oxide	47	51	10 - 130	6	50		
N-Nitro-o-toluidine	61	62	10 - 130	2	50		
N-Nitrosodiethylamine	58	69	10 - 130	15	50		
N-Nitrosodi-n-butylamine	73	81	10 - 130	7	50		
N-Nitrosomethylethylamine	56	65	10 - 130	12	50		
N-Nitrosomorpholine	64	77	10 - 130	16	50		
N-Nitrosopiperidine	64	77	10 - 130	15	50		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-347091

Method: 8270C LL
Preparation: 3520C

MS Lab Sample ID:	680-104784-16	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1128.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	480.7 mL
Analysis Date:	09/11/2014 2312			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	680-104784-16	Analysis Batch:	680-348465	Instrument ID:	CMSD
Client Matrix:	Water	Prep Batch:	680-347091	Lab File ID:	DI1129.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	497.2 mL
Analysis Date:	09/11/2014 2336			Final Weight/Volume:	0.5 mL
Prep Date:	09/03/2014 1533			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
N-Nitrosopyrrolidine	68	77	10 - 130	9	50		
o,o',o''-Triethylphosphorothioate	47	47	10 - 130	2	50		
p-Dimethylamino azobenzene	102	99	10 - 130	6	50		
Pentachlorobenzene	48	54	10 - 130	7	50		
Pentachloronitrobenzene	90	96	10 - 130	4	50		
Phenacetin	104	104	10 - 130	3	50		
Phorate	75	72	10 - 130	8	50		
2-Picoline	43	58	10 - 130	27	50		
p-Phenylene diamine	0	0	10 - 130	NC	50	U F1	U F1
Pronamide	83	89	10 - 130	3	50		
Safrole, Total	49	56	10 - 130	10	50		
Sulfotepp	67	65	10 - 130	6	50		
1,2,4,5-Tetrachlorobenzene	25	31	10 - 130	17	50		
2,3,4,6-Tetrachlorophenol	81	86	10 - 130	3	50		
Thionazin	76	74	10 - 130	6	50		
2-Toluidine	28	30	10 - 130	5	50		
1,3,5-Trinitrobenzene	139	152	10 - 130	5	50	F1	F1

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	60	59	34 - 130
2-Fluorophenol (Surr)	52	56	25 - 130
Nitrobenzene-d5 (Surr)	56	58	32 - 130
Phenol-d5 (Surr)	54	56	27 - 130
Terphenyl-d14 (Surr)	81	72	36 - 130
2,4,6-Tribromophenol (Surr)	76	76	30 - 130

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Method Blank - Batch: 680-346739 **Method: 8270D**
Preparation: 3546

Lab Sample ID:	MB 680-346739/9-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0809.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.04 g
Analysis Date:	09/08/2014 1507	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
Acenaphthene	330	U	330
Acenaphthylene	330	U	330
Acetophenone	330	U	330
2-Acetylaminofluorene	330	U	330
alpha,alpha-Dimethyl phenethylamine	67000	U	67000
4-Aminobiphenyl	330	U	330
Aniline	660	U	660
Anthracene	330	U	330
Aramite, Total	330	U	330
Benzo[a]anthracene	330	U	330
Benzo[a]pyrene	330	U	330
Benzo[b]fluoranthene	330	U	330
Benzo[g,h,i]perylene	330	U	330
Benzo[k]fluoranthene	330	U	330
Benzyl alcohol	330	U	330
1,1'-Biphenyl	1700	U	1700
Bis(2-chloroethoxy)methane	330	U	330
Bis(2-chloroethyl)ether	330	U	330
bis (2-chloroisopropyl) ether	330	U	330
Bis(2-ethylhexyl) phthalate	330	U	330
4-Bromophenyl phenyl ether	330	U	330
Butyl benzyl phthalate	330	U	330
4-Chloroaniline	660	U	660
4-Chloro-3-methylphenol	330	U	330
2-Chloronaphthalene	330	U	330
2-Chlorophenol	330	U	330
4-Chlorophenyl phenyl ether	330	U	330
Chrysene	330	U	330
Diallate	330	U	330
Dibenz(a,h)anthracene	330	U	330
Dibenzofuran	330	U	330
1,2-Dichlorobenzene	330	U	330
1,3-Dichlorobenzene	330	U	330
1,4-Dichlorobenzene	330	U	330
3,3'-Dichlorobenzidine	660	U	660
2,4-Dichlorophenol	330	U	330
2,6-Dichlorophenol	330	U	330
Diethyl phthalate	330	U	330
Dimethoate	330	U	330
7,12-Dimethylbenz(a)anthracene	330	U	330
3,3'-Dimethylbenzidine	1700	U	1700
2,4-Dimethylphenol	330	U	330
Dimethyl phthalate	330	U	330
Di-n-butyl phthalate	330	U	330
1,3-Dinitrobenzene	330	U	330

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-346739

Method: 8270D
Preparation: 3546

Lab Sample ID:	MB 680-346739/9-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0809.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.04 g
Analysis Date:	09/08/2014 1507	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
4,6-Dinitro-2-methylphenol	1700	U	1700
2,4-Dinitrophenol	1700	U	1700
2,4-Dinitrotoluene	330	U	330
2,6-Dinitrotoluene	330	U	330
Di-n-octyl phthalate	330	U	330
Dinoseb	330	U	330
1,4-Dioxane	330	U	330
Disulfoton	330	U	330
Ethyl methanesulfonate	330	U	330
Ethyl Parathion	330	U	330
Famphur	330	U	330
Fluoranthene	330	U	330
Fluorene	330	U	330
Hexachlorobenzene	330	U	330
Hexachlorobutadiene	330	U	330
Hexachlorocyclopentadiene	330	U	330
Hexachloroethane	330	U	330
Hexachlorophene	170000	U	170000
Hexachloropropene	330	U	330
Indeno[1,2,3-cd]pyrene	330	U	330
Isophorone	330	U	330
Isosafrole	330	U	330
Methapyrilene	67000	U	67000
3-Methylcholanthrene	330	U	330
Methyl methanesulfonate	330	U	330
2-Methylnaphthalene	330	U	330
Methyl parathion	330	U	330
2-Methylphenol	330	U	330
3 & 4 Methylphenol	330	U	330
Naphthalene	330	U	330
1,4-Naphthoquinone	330	U	330
1-Naphthylamine	330	U	330
2-Naphthylamine	330	U	330
2-Nitroaniline	1700	U	1700
3-Nitroaniline	1700	U	1700
4-Nitroaniline	1700	U	1700
Nitrobenzene	330	U	330
2-Nitrophenol	330	U	330
4-Nitrophenol	1700	U	1700
4-Nitroquinoline-1-oxide	3300	U	3300
N-Nitro-o-toluidine	330	U	330
N-Nitrosodiethylamine	330	U	330
N-Nitrosodimethylamine	330	U	330
N-Nitrosodi-n-butylamine	330	U	330
N-Nitrosodi-n-propylamine	330	U	330

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-346739

Method: 8270D
Preparation: 3546

Lab Sample ID:	MB 680-346739/9-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0809.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.04 g
Analysis Date:	09/08/2014 1507	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
N-Nitrosodiphenylamine	330	U	330
N-Nitrosomethylethylamine	330	U	330
N-Nitrosomorpholine	330	U	330
N-Nitrosopiperidine	330	U	330
N-Nitrosopyrrolidine	330	U	330
o,o',o"-Triethylphosphorothioate	330	U	330
p-Dimethylamino azobenzene	330	U	330
Pentachlorobenzene	330	U	330
Pentachloronitrobenzene	330	U	330
Pentachlorophenol	1700	U	1700
Phenacetin	330	U	330
Phenanthrene	330	U	330
Phenol	330	U	330
Phorate	330	U	330
2-Picoline	330	U	330
p-Phenylene diamine	1700	U	1700
Pronamide	330	U	330
Pyrene	330	U	330
Pyridine	660	U	660
Safrole, Total	330	U	330
Sulfotepp	330	U	330
1,2,4,5-Tetrachlorobenzene	330	U	330
2,3,4,6-Tetrachlorophenol	330	U	330
Thionazin	330	U	330
2-Toluidine	330	U	330
1,2,4-Trichlorobenzene	330	U	330
2,4,5-Trichlorophenol	330	U	330
2,4,6-Trichlorophenol	330	U	330
1,3,5-Trinitrobenzene	330	U	330

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	84	41 - 116
2-Fluorophenol (Surr)	65	39 - 114
Nitrobenzene-d5 (Surr)	74	37 - 115
Phenol-d5 (Surr)	66	38 - 122
Terphenyl-d14 (Surr)	85	46 - 126
2,4,6-Tribromophenol (Surr)	80	45 - 129

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-346739

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 680-346739/13-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0810.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.04 g
Analysis Date:	09/08/2014 1534	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	3330	2270	68	47 - 130	
Acenaphthylene	3330	2440	73	45 - 130	
Acetophenone	3330	2210	66	44 - 130	
Aniline	3330	1520	46	10 - 130	
Anthracene	3330	2570	77	50 - 130	
Benzo[a]anthracene	3330	2690	81	50 - 130	
Benzo[a]pyrene	3330	2570	77	47 - 131	
Benzo[b]fluoranthene	3330	2550	77	48 - 130	
Benzo[g,h,i]perylene	3330	2430	73	42 - 130	
Benzo[k]fluoranthene	3330	2780	83	48 - 108	
Benzyl alcohol	3330	2210	66	42 - 130	
1,1'-Biphenyl	3330	2440	73	48 - 130	
Bis(2-chloroethoxy)methane	3330	2200	66	47 - 130	
Bis(2-chloroethyl)ether	3330	2050	62	37 - 130	
bis (2-chloroisopropyl) ether	3330	2320	70	38 - 130	
Bis(2-ethylhexyl) phthalate	3330	2800	84	48 - 130	
4-Bromophenyl phenyl ether	3330	2560	77	53 - 130	
Butyl benzyl phthalate	3330	2730	82	53 - 134	
4-Chloroaniline	3330	1690	51	10 - 130	
4-Chloro-3-methylphenol	3330	2610	78	51 - 130	
2-Chloronaphthalene	3330	2480	74	48 - 130	
2-Chlorophenol	3330	2220	67	47 - 130	
4-Chlorophenyl phenyl ether	3330	2470	74	49 - 130	
Chrysene	3330	2640	79	47 - 130	
Dibenz(a,h)anthracene	3330	2540	76	44 - 130	
Dibenzofuran	3330	2510	76	49 - 130	
1,2-Dichlorobenzene	3330	2170	65	46 - 130	
1,3-Dichlorobenzene	3330	2110	63	44 - 130	
1,4-Dichlorobenzene	3330	2210	66	44 - 130	
3,3'-Dichlorobenzidine	3330	1930	58	16 - 130	
2,4-Dichlorophenol	3330	2410	72	48 - 130	
Diethyl phthalate	3330	2510	75	49 - 130	
2,4-Dimethylphenol	3330	2290	69	43 - 130	
Dimethyl phthalate	3330	2530	76	50 - 130	
Di-n-butyl phthalate	3330	2600	78	52 - 130	
1,3-Dinitrobenzene	3330	2450	74	10 - 130	
4,6-Dinitro-2-methylphenol	6660	5050	76	23 - 130	
2,4-Dinitrophenol	6660	4270	64	10 - 130	
2,4-Dinitrotoluene	3330	2590	78	49 - 111	
2,6-Dinitrotoluene	3330	2630	79	49 - 130	
Di-n-octyl phthalate	3330	2480	75	46 - 130	

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-346739

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 680-346739/13-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0810.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.04 g
Analysis Date:	09/08/2014 1534	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,4-Dioxane	3330	1380	41	14 - 130	
Fluoranthene	3330	2580	77	51 - 130	
Fluorene	3330	2630	79	52 - 130	
Hexachlorobenzene	3330	2690	81	53 - 130	
Hexachlorobutadiene	3330	2370	71	48 - 130	
Hexachlorocyclopentadiene	3330	2370	71	28 - 130	
Hexachloroethane	3330	2190	66	42 - 130	
Indeno[1,2,3-cd]pyrene	3330	2480	75	41 - 130	
Isophorone	3330	2250	68	48 - 130	
2-Methylnaphthalene	3330	2290	69	48 - 130	
2-Methylphenol	3330	2240	67	46 - 130	
3 & 4 Methylphenol	3330	2290	69	46 - 130	
Naphthalene	3330	2310	69	47 - 130	
2-Nitroaniline	3330	2500	75	44 - 130	
3-Nitroaniline	3330	2010	60	21 - 130	
4-Nitroaniline	3330	2400	72	41 - 130	
Nitrobenzene	3330	2250	68	45 - 130	
2-Nitrophenol	3330	2350	71	43 - 130	
4-Nitrophenol	6660	4860	73	40 - 130	
N-Nitrosodimethylamine	3330	2030	61	33 - 130	
N-Nitrosodi-n-propylamine	3330	2300	69	38 - 130	
N-Nitrosodiphenylamine	3330	2560	77	50 - 130	
Pentachlorophenol	6660	5200	78	41 - 130	
Phenanthrene	3330	2560	77	52 - 130	
Phenol	3330	2270	68	47 - 130	
Pyrene	3330	2730	82	50 - 130	
Pyridine	3330	1500	45	21 - 130	
1,2,4,5-Tetrachlorobenzene	3330	2610	78	10 - 130	
2,3,4,6-Tetrachlorophenol	3330	2540	76	10 - 130	
1,2,4-Trichlorobenzene	3330	2360	71	47 - 130	
2,4,5-Trichlorophenol	3330	2580	78	51 - 130	
2,4,6-Trichlorophenol	3330	2450	74	50 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	76	41 - 116
2-Fluorophenol (Surr)	64	39 - 114
Nitrobenzene-d5 (Surr)	66	37 - 115
Phenol-d5 (Surr)	68	38 - 122
Terphenyl-d14 (Surr)	82	46 - 126
2,4,6-Tribromophenol (Surr)	79	45 - 129

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-346739

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 680-346739/10-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0813.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.01 g
Analysis Date:	09/08/2014 1652	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Acetylaminofluorene	3330	2570	77	10 - 130	
alpha,alpha-Dimethyl phenethylamine	3330	2700	40	10 - 130	U
4-Aminobiphenyl	3330	314	9	10 - 130	J *
Aramite, Total	3330	6100	183	10 - 130	*
Diallate	3330	2100	63	10 - 130	
2,6-Dichlorophenol	3330	2400	72	10 - 130	
Dimethoate	3330	1340	40	10 - 130	
7,12-Dimethylbenz(a)anthracene	3330	2720	82	10 - 130	
3,3'-Dimethylbenzidine	8330	1660	20	10 - 130	J
1,3-Dinitrobenzene	3330	2130	64	10 - 130	
Dinoseb	3330	3080	92	27 - 130	
Disulfoton	3330	1280	38	10 - 130	
Ethyl methanesulfonate	3330	1130	34	10 - 130	
Ethyl Parathion	3330	2960	89	10 - 130	
Famphur	3330	49.6	1	10 - 130	J *
Hexachlorophene	16700	13000	41	10 - 130	U
Hexachloropropene	3330	2410	72	10 - 130	
Isosafrole	3330	4060	122	10 - 130	
Methapyrilene	16700	10800	65	10 - 130	J E
3-Methylcholanthrene	3330	3450	103	10 - 130	
Methyl methanesulfonate	3330	351	11	10 - 130	
Methyl parathion	3330	2070	62	10 - 130	
1,4-Naphthoquinone	3330	535	16	10 - 130	
1-Naphthylamine	3330	385	12	10 - 130	
2-Naphthylamine	3330	606	18	10 - 130	
4-Nitroquinoline-1-oxide	3330	1990	60	10 - 130	J
N-Nitro-o-toluidine	3330	1380	42	10 - 130	
N-Nitrosodiethylamine	3330	1820	55	10 - 130	
N-Nitrosodi-n-butylamine	3330	2320	70	10 - 130	
N-Nitrosomethylethylamine	3330	1720	52	10 - 130	
N-Nitrosomorpholine	3330	1850	56	10 - 130	
N-Nitrosopiperidine	3330	2110	63	10 - 130	
N-Nitrosopyrrolidine	3330	1920	58	10 - 130	
o,o',o''-Triethylphosphorothioate	3330	2200	66	10 - 130	
p-Dimethylamino azobenzene	3330	2230	67	10 - 130	
Pentachlorobenzene	3330	2380	72	10 - 130	
Pentachloronitrobenzene	3330	2910	87	10 - 130	
Phenacetin	3330	2480	74	10 - 130	
Phorate	3330	2050	62	10 - 130	
2-Picoline	3330	1630	49	10 - 130	
p-Phenylene diamine	16700	1940	12	10 - 130	

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-346739

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 680-346739/10-A	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0813.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.01 g
Analysis Date:	09/08/2014 1652	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Pronamide	3330	2480	74	10 - 130	
Safrole, Total	3330	2500	75	10 - 130	
Sulfotepp	3330	2160	65	10 - 130	
1,2,4,5-Tetrachlorobenzene	3330	2320	70	10 - 130	
2,3,4,6-Tetrachlorophenol	3330	2190	66	10 - 130	
Thionazin	3330	2170	65	10 - 130	
2-Toluidine	3330	854	26	10 - 130	
1,3,5-Trinitrobenzene	3330	3280	98	10 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	69	41 - 116
2-Fluorophenol (Surr)	54	39 - 114
Nitrobenzene-d5 (Surr)	67	37 - 115
Phenol-d5 (Surr)	58	38 - 122
Terphenyl-d14 (Surr)	70	46 - 126
2,4,6-Tribromophenol (Surr)	72	45 - 129

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-346739

Method: 8270D
Preparation: 3546

MS Lab Sample ID:	680-104784-D-21-B MS	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0811.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 1600			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	680-104784-D-21-C MSD	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0812.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.01 g
Analysis Date:	09/08/2014 1626			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	53	43	58 - 130	19	50	F1	F1
Acenaphthylene	61	50	58 - 130	20	50		F1
Acetophenone	60	50	42 - 130	18	50		
Aniline	51	33	29 - 130	43	50		
Anthracene	61	51	60 - 130	18	50		F1
Benzo[a]anthracene	62	52	62 - 130	17	50		F1
Benzo[a]pyrene	61	49	68 - 131	21	50	F1	F1
Benzo[b]fluoranthene	58	46	53 - 130	22	50		F1
Benzo[g,h,i]perylene	57	47	54 - 130	19	50		F1
Benzo[k]fluoranthene	64	52	57 - 130	20	50		F1
Benzyl alcohol	50	44	44 - 130	14	50		
1,1'-Biphenyl	63	0	57 - 130	NC	50		U F1
Bis(2-chloroethoxy)methane	58	48	56 - 130	20	50		F1
Bis(2-chloroethyl)ether	51	44	42 - 130	14	50		
bis (2-chloroisopropyl) ether	56	47	44 - 130	17	50		
Bis(2-ethylhexyl) phthalate	68	56	62 - 132	18	50		F1
4-Bromophenyl phenyl ether	63	52	65 - 130	19	50	F1	F1
Butyl benzyl phthalate	64	54	65 - 134	17	50	F1	F1
4-Chloroaniline	47	27	36 - 130	57	50		F1 F2
4-Chloro-3-methylphenol	66	54	52 - 130	19	50		
2-Chloronaphthalene	62	50	55 - 130	22	50		F1
2-Chlorophenol	54	46	51 - 130	16	50		F1
4-Chlorophenyl phenyl ether	60	49	61 - 130	20	50	F1	F1
Chrysene	62	51	62 - 130	19	50		F1
Dibenz(a,h)anthracene	61	50	56 - 130	20	50		F1
Dibenzofuran	62	50	56 - 130	21	50		F1
1,2-Dichlorobenzene	54	47	46 - 130	15	50		
1,3-Dichlorobenzene	53	44	45 - 130	18	50		F1
1,4-Dichlorobenzene	55	45	45 - 130	20	50		
3,3'-Dichlorobenzidine	38	36	45 - 130	6	50	F1	F1
2,4-Dichlorophenol	61	51	53 - 130	18	50		F1
Diethyl phthalate	61	51	62 - 130	17	50	F1	F1

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-346739

Method: 8270D
Preparation: 3546

MS Lab Sample ID:	680-104784-D-21-B MS	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0811.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 1600			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	680-104784-D-21-C MSD	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0812.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.01 g
Analysis Date:	09/08/2014 1626			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	58	49	47 - 130	18	50		
Dimethyl phthalate	62	51	63 - 130	20	50	F1	F1
Di-n-butyl phthalate	58	49	65 - 130	17	50	F1	F1
1,3-Dinitrobenzene	19	16	10 - 130	16	50		
4,6-Dinitro-2-methylphenol	4	0	14 - 137	NC	50	U F1	U F1
2,4-Dinitrophenol	0	0	10 - 154	NC	50	U F1	U F1
2,4-Dinitrotoluene	26	22	55 - 130	18	50	F1	F1
2,6-Dinitrotoluene	29	24	57 - 130	18	50	F1	F1
Di-n-octyl phthalate	61	51	59 - 146	19	50		F1
1,4-Dioxane	30	26	10 - 130	11	50		
Fluoranthene	58	48	62 - 130	19	50	F1	F1
Fluorene	64	52	58 - 130	21	50		F1
Hexachlorobenzene	65	54	59 - 130	18	50		F1
Hexachlorobutadiene	63	51	47 - 130	20	50		
Hexachlorocyclopentadiene	10	6	35 - 130	49	50	F1	U F1
Hexachloroethane	38	30	44 - 130	23	50	F1	F1
Indeno[1,2,3-cd]pyrene	60	48	52 - 130	21	50		F1
Isophorone	58	48	48 - 130	18	50		
2-Methylnaphthalene	59	48	55 - 130	20	50		F1
2-Methylphenol	54	46	49 - 130	16	50		F1
3 & 4 Methylphenol	56	48	50 - 130	15	50		F1
Naphthalene	61	49	54 - 130	22	50		F1
2-Nitroaniline	40	37	52 - 130	9	50	U F1	U F1
3-Nitroaniline	31	22	42 - 130	34	50	U F1	U F1
4-Nitroaniline	39	32	49 - 130	18	50	U F1	U F1
Nitrobenzene	36	32	43 - 130	13	50	F1	F1
2-Nitrophenol	23	18	45 - 130	21	50	F1	F1
4-Nitrophenol	37	37	30 - 130	1	50		
N-Nitrosodimethylamine	39	35	31 - 130	11	50		
N-Nitrosodi-n-propylamine	54	47	48 - 130	13	50		F1
N-Nitrosodiphenylamine	63	53	62 - 130	17	50		F1
Pentachlorophenol	62	54	38 - 131	13	50		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-346739

Method: 8270D
Preparation: 3546

MS Lab Sample ID:	680-104784-D-21-B MS	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0811.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.02 g
Analysis Date:	09/08/2014 1600			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	680-104784-D-21-C MSD	Analysis Batch:	680-347819	Instrument ID:	CMST
Client Matrix:	Solid	Prep Batch:	680-346739	Lab File ID:	1TI0812.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.01 g
Analysis Date:	09/08/2014 1626			Final Weight/Volume:	1 mL
Prep Date:	08/30/2014 1036			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenanthrene	62	51	61 - 130	19	50		F1
Phenol	55	46	46 - 130	17	50		
Pyrene	65	55	59 - 130	17	50		F1
Pyridine	31	27	26 - 130	14	50		
1,2,4,5-Tetrachlorobenzene	68	55	10 - 130	22	50		
2,3,4,6-Tetrachlorophenol	63	53	10 - 130	17	50		
1,2,4-Trichlorobenzene	60	49	51 - 130	20	50		F1
2,4,5-Trichlorophenol	67	54	60 - 130	21	50		F1
2,4,6-Trichlorophenol	61	54	53 - 130	13	50		

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2-Fluorobiphenyl	63		52		41 - 116
2-Fluorophenol (Surr)	51		44		39 - 114
Nitrobenzene-d5 (Surr)	34	X	31	X	37 - 115
Phenol-d5 (Surr)	54		46		38 - 122
Terphenyl-d14 (Surr)	62		53		46 - 126
2,4,6-Tribromophenol (Surr)	62		55		45 - 129

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Method Blank - Batch: 680-348054 **Method: 8270D**
Preparation: 3546

Lab Sample ID:	MB 680-348054/15-A	Analysis Batch:	680-348405	Instrument ID:	CMSN
Client Matrix:	Solid	Prep Batch:	680-348054	Lab File ID:	1NI1124.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.02 g
Analysis Date:	09/11/2014 1556	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
Acenaphthene	330	U	330
Acenaphthylene	330	U	330
Acetophenone	330	U	330
2-Acetylaminofluorene	330	U	330
alpha,alpha-Dimethyl phenethylamine	67000	U	67000
4-Aminobiphenyl	330	U	330
Aniline	660	U	660
Anthracene	330	U	330
Aramite, Total	330	U	330
Benzo[a]anthracene	330	U	330
Benzo[a]pyrene	330	U	330
Benzo[b]fluoranthene	330	U	330
Benzo[g,h,i]perylene	330	U	330
Benzo[k]fluoranthene	330	U	330
Benzyl alcohol	330	U	330
1,1'-Biphenyl	1700	U	1700
Bis(2-chloroethoxy)methane	330	U	330
Bis(2-chloroethyl)ether	330	U	330
bis (2-chloroisopropyl) ether	330	U	330
Bis(2-ethylhexyl) phthalate	330	U	330
4-Bromophenyl phenyl ether	330	U	330
Butyl benzyl phthalate	330	U	330
4-Chloroaniline	660	U	660
4-Chloro-3-methylphenol	330	U	330
2-Chloronaphthalene	330	U	330
2-Chlorophenol	330	U	330
4-Chlorophenyl phenyl ether	330	U	330
Chrysene	330	U	330
Diallate	330	U	330
Dibenz(a,h)anthracene	330	U	330
Dibenzofuran	330	U	330
1,2-Dichlorobenzene	330	U	330
1,3-Dichlorobenzene	330	U	330
1,4-Dichlorobenzene	330	U	330
3,3'-Dichlorobenzidine	660	U	660
2,4-Dichlorophenol	330	U	330
2,6-Dichlorophenol	330	U	330
Diethyl phthalate	330	U	330
Dimethoate	330	U	330
7,12-Dimethylbenz(a)anthracene	330	U	330
3,3'-Dimethylbenzidine	1700	U	1700
2,4-Dimethylphenol	330	U	330
Dimethyl phthalate	330	U	330
Di-n-butyl phthalate	330	U	330
1,3-Dinitrobenzene	330	U	330

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-348054

Method: 8270D
Preparation: 3546

Lab Sample ID:	MB 680-348054/15-A	Analysis Batch:	680-348405	Instrument ID:	CMSN
Client Matrix:	Solid	Prep Batch:	680-348054	Lab File ID:	1NI1124.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.02 g
Analysis Date:	09/11/2014 1556	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
4,6-Dinitro-2-methylphenol	1700	U	1700
2,4-Dinitrophenol	1700	U	1700
2,4-Dinitrotoluene	330	U	330
2,6-Dinitrotoluene	330	U	330
Di-n-octyl phthalate	330	U	330
Dinoseb	330	U	330
1,4-Dioxane	330	U	330
Disulfoton	330	U	330
Ethyl methanesulfonate	330	U	330
Ethyl Parathion	330	U	330
Famphur	330	U	330
Fluoranthene	330	U	330
Fluorene	330	U	330
Hexachlorobenzene	330	U	330
Hexachlorobutadiene	330	U	330
Hexachlorocyclopentadiene	330	U	330
Hexachloroethane	330	U	330
Hexachlorophene	170000	U	170000
Hexachloropropene	330	U	330
Indeno[1,2,3-cd]pyrene	330	U	330
Isophorone	330	U	330
Isosafrole	330	U	330
Methapyrilene	67000	U	67000
3-Methylcholanthrene	330	U	330
Methyl methanesulfonate	330	U	330
2-Methylnaphthalene	330	U	330
Methyl parathion	330	U	330
2-Methylphenol	330	U	330
3 & 4 Methylphenol	330	U	330
Naphthalene	330	U	330
1,4-Naphthoquinone	330	U	330
1-Naphthylamine	330	U	330
2-Naphthylamine	330	U	330
2-Nitroaniline	1700	U	1700
3-Nitroaniline	1700	U	1700
4-Nitroaniline	1700	U	1700
Nitrobenzene	330	U	330
2-Nitrophenol	330	U	330
4-Nitrophenol	1700	U	1700
4-Nitroquinoline-1-oxide	3300	U	3300
N-Nitro-o-toluidine	330	U	330
N-Nitrosodiethylamine	330	U	330
N-Nitrosodimethylamine	330	U	330
N-Nitrosodi-n-butylamine	330	U	330
N-Nitrosodi-n-propylamine	330	U	330

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-348054

Method: 8270D
Preparation: 3546

Lab Sample ID:	MB 680-348054/15-A	Analysis Batch:	680-348405	Instrument ID:	CMSN
Client Matrix:	Solid	Prep Batch:	680-348054	Lab File ID:	1NI1124.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.02 g
Analysis Date:	09/11/2014 1556	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
N-Nitrosodiphenylamine	330	U	330
N-Nitrosomethylethylamine	330	U	330
N-Nitrosomorpholine	330	U	330
N-Nitrosopiperidine	330	U	330
N-Nitrosopyrrolidine	330	U	330
o,o',o"-Triethylphosphorothioate	330	U	330
p-Dimethylamino azobenzene	330	U	330
Pentachlorobenzene	330	U	330
Pentachloronitrobenzene	330	U	330
Pentachlorophenol	1700	U	1700
Phenacetin	330	U	330
Phenanthrene	330	U	330
Phenol	330	U	330
Phorate	330	U	330
2-Picoline	330	U	330
p-Phenylene diamine	1700	U	1700
Pronamide	330	U	330
Pyrene	330	U	330
Pyridine	660	U	660
Safrole, Total	330	U	330
Sulfotepp	330	U	330
1,2,4,5-Tetrachlorobenzene	330	U	330
2,3,4,6-Tetrachlorophenol	330	U	330
Thionazin	330	U	330
2-Toluidine	330	U	330
1,2,4-Trichlorobenzene	330	U	330
2,4,5-Trichlorophenol	330	U	330
2,4,6-Trichlorophenol	330	U	330
1,3,5-Trinitrobenzene	330	U	330

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	81	41 - 116
2-Fluorophenol (Surr)	97	39 - 114
Nitrobenzene-d5 (Surr)	94	37 - 115
Phenol-d5 (Surr)	96	38 - 122
Terphenyl-d14 (Surr)	112	46 - 126
2,4,6-Tribromophenol (Surr)	95	45 - 129

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-348054

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 680-348054/19-A	Analysis Batch:	680-348405	Instrument ID:	CMSN
Client Matrix:	Solid	Prep Batch:	680-348054	Lab File ID:	1NI1113.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	09/11/2014 1532	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Acetylaminofluorene	3330	3400	102	10 - 130	
alpha,alpha-Dimethyl phenethylamine	3330	2700	71	10 - 130	U
4-Aminobiphenyl	3330	505	15	10 - 130	
Aramite, Total	3330	7190	216	10 - 130	*
Diallate	3330	3520	106	10 - 130	
2,6-Dichlorophenol	3330	2880	87	10 - 130	
Dimethoate	3330	1940	58	10 - 130	
7,12-Dimethylbenz(a)anthracene	3330	3380	101	10 - 130	
3,3'-Dimethylbenzidine	8330	3480	42	10 - 130	
1,3-Dinitrobenzene	3330	3290	99	10 - 130	
Dinoseb	3330	3160	95	27 - 130	
Disulfoton	3330	1870	56	10 - 130	
Ethyl methanesulfonate	3330	2010	60	10 - 130	
Ethyl Parathion	3330	3310	100	10 - 130	
Famphur	3330	131	4	10 - 130	J *
Hexachlorophene	16700	13000	49	10 - 130	U
Hexachloropropene	3330	2330	70	10 - 130	
Isosafrole	3330	5470	164	10 - 130	*
Methapyrilene	16700	14100	85	10 - 130	J E
3-Methylcholanthrene	3330	4640	139	10 - 130	*
Methyl methanesulfonate	3330	418	13	10 - 130	
Methyl parathion	3330	1760	53	10 - 130	
1,4-Naphthoquinone	3330	706	21	10 - 130	
1-Naphthylamine	3330	627	19	10 - 130	
2-Naphthylamine	3330	968	29	10 - 130	
4-Nitroquinoline-1-oxide	3330	2350	71	10 - 130	J
N-Nitro-o-toluidine	3330	2390	72	10 - 130	
N-Nitrosodiethylamine	3330	3310	100	10 - 130	
N-Nitrosodi-n-butylamine	3330	3450	103	10 - 130	
N-Nitrosomethylethylamine	3330	3180	96	10 - 130	
N-Nitrosomorpholine	3330	3440	103	10 - 130	
N-Nitrosopiperidine	3330	3110	93	10 - 130	
N-Nitrosopyrrolidine	3330	3610	108	10 - 130	
o,o',o''-Triethylphosphorothioate	3330	3140	94	10 - 130	
p-Dimethylamino azobenzene	3330	3590	108	10 - 130	
Pentachlorobenzene	3330	3030	91	10 - 130	
Pentachloronitrobenzene	3330	3150	94	10 - 130	
Phenacetin	3330	3510	105	10 - 130	
Phorate	3330	3200	96	10 - 130	
2-Picoline	3330	2840	85	10 - 130	
p-Phenylene diamine	16700	3270	20	10 - 130	

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Lab Control Sample - Batch: 680-348054

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 680-348054/19-A	Analysis Batch:	680-348405	Instrument ID:	CMSN
Client Matrix:	Solid	Prep Batch:	680-348054	Lab File ID:	1NI1113.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	09/11/2014 1532	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	09/09/2014 1431			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Pronamide	3330	3100	93	10 - 130	
Safrole, Total	3330	2790	84	10 - 130	
Sulfotepp	3330	3090	93	10 - 130	
1,2,4,5-Tetrachlorobenzene	3330	2770	83	10 - 130	
2,3,4,6-Tetrachlorophenol	3330	3180	95	10 - 130	
Thionazin	3330	3180	95	10 - 130	
2-Toluidine	3330	1350	40	10 - 130	
1,3,5-Trinitrobenzene	3330	2870	86	10 - 130	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	84	41 - 116
2-Fluorophenol (Surr)	97	39 - 114
Nitrobenzene-d5 (Surr)	92	37 - 115
Phenol-d5 (Surr)	98	38 - 122
Terphenyl-d14 (Surr)	104	46 - 126
2,4,6-Tribromophenol (Surr)	114	45 - 129

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347905

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 680-347905/53	Analysis Batch:	680-347905	Instrument ID:	CICL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0908142319-53.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/08/2014 2319	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
Fluoride	0.10	U	0.10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 680-347905

Method: 300.0
Preparation: N/A

LCS Lab Sample ID:	LCS 680-347905/54	Analysis Batch:	680-347905	Instrument ID:	CICL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0908142333-54.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/08/2014 2333	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 680-347905/55	Analysis Batch:	680-347905	Instrument ID:	CICL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0908142348-55.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/08/2014 2348	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Fluoride	100	101	90 - 110	1	30		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-347905

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	680-104784-17	Analysis Batch:	680-347905	Instrument ID:	CICL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0909140255-68.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/09/2014 0255			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL
Leach Date:	N/A				

MSD Lab Sample ID:	680-104784-17	Analysis Batch:	680-347905	Instrument ID:	CICL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0909140310-69.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/09/2014 0310			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	25 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Fluoride	103	103	80 - 120	1	30		

Client: ARCADIS U.S., Inc. Job Number: 680-104784-2

Method Blank - Batch: 320-51346 **Method: 8290A**
Preparation: 8290

Lab Sample ID:	MB 320-51346/1-A	Analysis Batch:	320-51541	Instrument ID:	10D5
Client Matrix:	Solid	Prep Batch:	320-51346	Lab File ID:	04SE1410D5_4.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	09/04/2014 1212	Units:	pg/g	Final Weight/Volume:	20 uL
Prep Date:	09/02/2014 1920			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	RL
13C-2,3,7,8-TCDD	153		200
13C-2,3,7,8-TCDF	153		200
13C-1,2,3,7,8-PeCDD	146		200
13C-1,2,3,7,8-PeCDF	151		200
13C-1,2,3,6,7,8-HxCDD	159		200
13C-1,2,3,4,7,8-HxCDF	157		200
2,3,7,8-TCDD	1.0	U	1.0
Total TCDD	1.0	U	1.0
Total TCDF	1.0	U	1.0
Total PeCDD	5.0	U	5.0
Total PeCDF	5.0	U	5.0
Total HxCDD	5.0	U	5.0
Total HxCDF	5.0	U	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 320-51346 **Method: 8290A**
Preparation: 8290

LCS Lab Sample ID:	LCS 320-51346/2-A	Analysis Batch:	320-51541	Instrument ID:	10D5
Client Matrix:	Solid	Prep Batch:	320-51346	Lab File ID:	04SE1410D5_5.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	09/04/2014 1258	Units:	pg/g	Final Weight/Volume:	20 uL
Prep Date:	09/02/2014 1920			Injection Volume:	2 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 320-51346/3-A	Analysis Batch:	320-51541	Instrument ID:	10D5
Client Matrix:	Solid	Prep Batch:	320-51346	Lab File ID:	04SE1410D5_6.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 g
Analysis Date:	09/04/2014 1344	Units:	pg/g	Final Weight/Volume:	20 uL
Prep Date:	09/02/2014 1920			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,3,7,8-TCDD	99	101	77 - 130	1	20		

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 680-347415

Method: 350.1
Preparation: N/A

Lab Sample ID:	MB 680-347415/27	Analysis Batch:	680-347415	Instrument ID:	KONELAB1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	KONE11409041NH3-B.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	09/04/2014 1356	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Ammonia	0.050	U	0.050

Lab Control Sample - Batch: 680-347415

Method: 350.1
Preparation: N/A

Lab Sample ID:	LCS 680-347415/43	Analysis Batch:	680-347415	Instrument ID:	KONELAB1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	KONE11409041NH3-B.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	09/04/2014 1457	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia	1.00	1.03	103	90 - 110	

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Method Blank - Batch: 200-77264

Method: Lloyd Kahn
Preparation: N/A

Lab Sample ID:	MB 200-77264/5	Analysis Batch:	200-77264	Instrument ID:	WCCH2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	091114B005
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/11/2014 1843	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL
Total Organic Carbon	1000	U	1000

Lab Control Sample - Batch: 200-77264

Method: Lloyd Kahn
Preparation: N/A

Lab Sample ID:	LCS 200-77264/6	Analysis Batch:	200-77264	Instrument ID:	WCCH2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	091114B007
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/11/2014 1856	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	20100	20000	99	75 - 125	

Serial Number 88819

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	04007000.MA60	GA
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
David Windham	770-428-9009	
CLIENT NAME	CLIENT E-MAIL	
ARCADIS	christopher.miller@arcadis-us.com	
CLIENT ADDRESS		
1000 Abbey Place Blvd Bldg 500A		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 2

STANDARD REPORT DELIVERY (✓)

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ( )

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

MATRIX TYPE: COMPOSITE (C) OR GRAB (G) INDICATE; AQUEOUS (WATER); SOLID OR SEMISOLID; AIR; NONAQUEOUS LIQUID (OIL, SOLVENT, ...)

REQUIRED ANALYSIS: VOCs 8260B

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOCs 8260B									REMARKS
8/28/14	1200	TW-11 (082814)	G	✓				✓									
8/28/14	1145	TW-5 (082814)	G	✓				✓									
8/28/14	1055	TW-6 (082814)	G	✓				✓									
8/28/14	1025	TW-12 (082814)	G	✓				✓									
8/28/14	0830	TW-3 (082814)	G	✓				✓									
8/28/14	1145	TW-10 (082814)	G	✓				✓									
8/27/14	0957	TW-7 (082714)	G	✓				✓									
8/27/14	1010	TW-8 (082714)	G	✓				✓									
8/28/14	0848	MW-23A (082814)	G	✓				✓									
8/28/14	0852	MW-23B (082814)	G	✓				✓									
8/28/14	1105	TW-2 (082814)	G	✓				✓									
8/28/14	1112	TW-1 (082814)	G	✓				✓									

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	8/28/14	1300						

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.
[signature]	8-29-14	13:00	YES (✓) NO ( )		680-104784

680-104784 Chain of Custody

1.8 / 1.4°C

TAL8240-680 (1008)

Serial Number 88820

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)	MATRIX TYPE	REQUIRED ANALYSIS	PAGE	OF
Ashland - Savannah	04007000.04A.00	GA			2	2
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.			STANDARD REPORT DELIVERY ( )	
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770-428-9009	CLIENT FAX			DATE DUE	
CLIENT NAME: ARCADIS	CLIENT E-MAIL: christopher.miller@arcadis-us.com				EXPEDITED REPORT DELIVERY (SURCHARGE) ( )	
CLIENT ADDRESS: 1000 Cobb Place Blvd Bldg 500-A Kennesaw GA					DATE DUE	
COMPANY CONTRACTING THIS WORK (if applicable)				PRESERVATIVE	NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOC's 8260B									REMARKS
8/28/14	1135 ~~1119~~	TW-9 (082814)	G	✓				✓									
8/27/14	1010	TW-4 (082714)	G	✓				✓									
8/28/14	✓	Trip Blank	X	✓				✓									

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	8/29/14	1300						
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
[signature]	8.29.14	13:00	YES (✓) NO ( )		680 / 104784	1.8 / 1.4°C

TAL8240-680 (1008)

Serial Number 83997

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)
Sadmanh - Ashland - Savannah	OH007000 GACO	GA
TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770-428-9009	CLIENT FAX
CLIENT NAME: ARCADIS	CLIENT E-MAIL: Christopher.miller@arcadis-us.com	
CLIENT ADDRESS: 1000 Cobb Place Blvd Bldg 500 A Kennesaw, GA		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ✓
DATE DUE
EXPEDITED REPORT DELIVERY (SURCHARGE)
DATE DUE
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	VOCs 8260B	SVOCs 8270D	Ammonia	Fluoride	Dissolved Fe, Mn 6020	Grain Size Analysis	TOC				REMARKS
								PRESERVATIVE										
8/28/14	1635	SW-1	G	✓				✓	✓	✓	✓							
8/28/14	1540	SW-2	G	✓				✓	✓	✓	✓							
8/28/14	1730	SW-3	G	✓				✓	✓	✓	✓							
8/28/14	1050	SED-1	G		✓			✓	✓			✓	✓	✓				
8/28/14	1545	SED-2	G		✓			✓	✓			✓	✓	✓				
8/28/14	1741	SED-3	G		✓			✓	✓			✓	✓	✓				

NUMBER OF CONTAINERS SUBMITTED

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Mark Myers	8/29/14	1300 ~~1245~~						
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
[signature]	8.29.14	13:00	YES ✓ NO		680 104784	1.8/1.4°C

TAL8240-680 (1008)

12/13/2014

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Login Number: 104784

List Source: TestAmerica Savannah

List Number: 1

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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?	N/A	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC/received MS/MSD for -11.
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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Login Number: 104784
List Number: 2
Creator: Gagne, Eric M

List Source: TestAmerica Burlington
List Creation: 08/30/14 01:24 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	820220
Sample custody seals, if present, are 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	0.2ºC. IR GUN ID 181. CF= -0.2
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	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	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: ARCADIS U.S., Inc.

Job Number: 680-104784-2

Login Number: 104784
List Number: 3
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 08/30/14 11:57 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers completely submerged in water.
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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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: 680-106063-1
Client Project/Site: Hercules Savannah

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
10/10/2014 5:04:26 PM

Kathryn Smith, Project Manager II
(912)354-7858
kathy.smith@testamericainc.com

LINKS

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
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.
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-106063-1	ASH-03-1 (100814)	Solid	10/08/14 14:30	10/08/14 16:25

Job ID: 680-106063-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: ARCADIS U.S., Inc.
Project: Hercules Savannah
Report Number: 680-106063-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 10/08/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 22.4 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample ASH-03-1 (100814) (680-106063-1) was analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared and analyzed on 10/09/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (SOLID)

Sample ASH-03-1 (100814) (680-106063-1) was analyzed for Semivolatile Organic Compounds (Solid) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 10/09/2014 and analyzed on 10/10/2014.

Famphur recovered low for LCS 680-352721/6-A. Aramite, Total and Isosafrole recovered high.

Sample ASH-03-1 (100814) (680-106063-1)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly and surrogates were not recovered.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PESTICIDES AND PCBS

Sample ASH-03-1 (100814) (680-106063-1) was analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 10/09/2014 and analyzed on 10/10/2014.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

DCB Decachlorobiphenyl recovered high for LCS 680-352725/6-A, ASH-03-1 (100814)MS (680-106063-1MS) and ASH-03-1 (100814)MSD (680-106063-1MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Client Sample ID: ASH-03-1 (100814)

Date Collected: 10/08/14 14:30
Date Received: 10/08/14 16:25

Lab Sample ID: 680-106063-1

Matrix: Solid
Percent Solids: 86.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**49**		48		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Acetonitrile	190	U	190		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Acrolein	96	U	96		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Acrylonitrile	96	U	96		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Allyl chloride	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Benzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Bromodichloromethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Bromoform	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Bromomethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
2-Butanone	24	U	24		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Carbon disulfide	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Carbon tetrachloride	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Chlorobenzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Chloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Chloroform	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Chloromethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Chloroprene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
cis-1,3-Dichloropropene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Dibromochloromethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2-Dibromo-3-Chloropropane	9.6	U	9.6		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2-Dibromoethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Dibromomethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2-Dichlorobenzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,3-Dichlorobenzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,4-Dichlorobenzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Dichlorodifluoromethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,1-Dichloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2-Dichloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,1-Dichloroethene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2-Dichloropropane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,4-Dioxane	48	U	48		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Ethylbenzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Ethyl methacrylate	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Hexachlorobutadiene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
2-Hexanone	24	U	24		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Iodomethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Isobutanol	190	U	190		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Methacrylonitrile	96	U	96		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Methylene Chloride	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Methyl methacrylate	9.6	U	9.6		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
4-Methyl-2-pentanone	24	U	24		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Naphthalene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Pentachloroethane	24	U	24		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Propionitrile	96	U	96		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Styrene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,1,1,2-Tetrachloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,1,2,2-Tetrachloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Tetrachloroethene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Toluene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Client Sample ID: ASH-03-1 (100814)

Date Collected: 10/08/14 14:30
Date Received: 10/08/14 16:25

Lab Sample ID: 680-106063-1

Matrix: Solid
Percent Solids: 86.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,4-Dichloro-2-butene	9.6	U	9.6		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
trans-1,2-Dichloroethene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
trans-1,3-Dichloropropene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2,4-Trichlorobenzene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,1,1-Trichloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,1,2-Trichloroethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Trichloroethene	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Trichlorofluoromethane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
1,2,3-Trichloropropane	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Vinyl acetate	9.6	U	9.6		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Vinyl chloride	4.8	U	4.8		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1
Xylenes, Total	9.6	U	9.6		ug/Kg	☼	10/09/14 09:24	10/09/14 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*65 - 130*	*10/09/14 09:24*	*10/09/14 23:04*	*1*
Dibromofluoromethane (Surr)	*86*		*65 - 130*	*10/09/14 09:24*	*10/09/14 23:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*77*		*65 - 130*	*10/09/14 09:24*	*10/09/14 23:04*	*1*
Toluene-d8 (Surr)	*83*		*65 - 130*	*10/09/14 09:24*	*10/09/14 23:04*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Acenaphthylene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Acetophenone	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Acetylaminofluorene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
alpha,alpha-Dimethyl phenethylamine	1500000	U	1500000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Aminobiphenyl	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Aniline	15000	U	15000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Anthracene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Aramite, Total	7600	U *	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Benzo[a]anthracene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Benzo[a]pyrene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Benzo[b]fluoranthene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Benzo[g,h,i]perylene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Benzo[k]fluoranthene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Benzyl alcohol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,1'-Biphenyl	**61000**		39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Bis(2-chloroethoxy)methane	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Bis(2-chloroethyl)ether	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
bis (2-chloroisopropyl) ether	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Bis(2-ethylhexyl) phthalate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Bromophenyl phenyl ether	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Butyl benzyl phthalate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Chloroaniline	15000	U	15000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Chloro-3-methylphenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Chloronaphthalene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Chlorophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Chlorophenyl phenyl ether	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Chrysene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Diallate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20

Client Sample ID: ASH-03-1 (100814)

Date Collected: 10/08/14 14:30
Date Received: 10/08/14 16:25

Lab Sample ID: 680-106063-1

Matrix: Solid
Percent Solids: 86.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Dibenzofuran	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,2-Dichlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,3-Dichlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,4-Dichlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
3,3'-Dichlorobenzidine	15000	U	15000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,4-Dichlorophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,6-Dichlorophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Diethyl phthalate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Dimethoate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
7,12-Dimethylbenz(a)anthracene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
3,3'-Dimethylbenzidine	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,4-Dimethylphenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Dimethyl phthalate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Di-n-butyl phthalate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,3-Dinitrobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4,6-Dinitro-2-methylphenol	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,4-Dinitrophenol	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,4-Dinitrotoluene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,6-Dinitrotoluene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Di-n-octyl phthalate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Dinoseb	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,4-Dioxane	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Disulfoton	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Ethyl methanesulfonate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Ethyl Parathion	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Famphur	7600	U *	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Fluoranthene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Fluorene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Hexachlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Hexachlorobutadiene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Hexachlorocyclopentadiene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Hexachloroethane	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Hexachlorophene	3900000	U	3900000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Hexachloropropene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Indeno[1,2,3-cd]pyrene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Isophorone	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Isosafrole	7600	U *	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Methapyrilene	1500000	U	1500000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
3-Methylcholanthrene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Methyl methanesulfonate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Methylnaphthalene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Methyl parathion	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Methylphenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
3 & 4 Methylphenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Naphthalene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,4-Naphthoquinone	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1-Naphthylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Naphthylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Client Sample ID: ASH-03-1 (100814)

Date Collected: 10/08/14 14:30
Date Received: 10/08/14 16:25

Lab Sample ID: 680-106063-1

Matrix: Solid
Percent Solids: 86.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
3-Nitroaniline	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Nitroaniline	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Nitrobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Nitrophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Nitrophenol	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
4-Nitroquinoline-1-oxide	76000	U	76000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitro-o-toluidine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosodiethylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosodimethylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosodi-n-butylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosodi-n-propylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosodiphenylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosomethylethylamine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosomorpholine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosopiperidine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
N-Nitrosopyrrolidine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
o,o',o''-Triethylphosphorothioate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
p-Dimethylamino azobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Pentachlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Pentachloronitrobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Pentachlorophenol	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Phenacetin	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Phenanthrene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Phenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Diphenyl ether	**150000**		7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Phorate	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Picoline	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
p-Phenylene diamine	39000	U	39000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Pronamide	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Pyrene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Pyridine	15000	U	15000		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Safrole, Total	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Sulfotepp	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,2,4,5-Tetrachlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,3,4,6-Tetrachlorophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
Thionazin	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2-Toluidine	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,2,4-Trichlorobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,4,5-Trichlorophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
2,4,6-Trichlorophenol	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20
1,3,5-Trinitrobenzene	7600	U	7600		ug/Kg	☼	10/09/14 09:33	10/10/14 13:37	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*D*	*41 - 116*	*10/09/14 09:33*	*10/10/14 13:37*	*20*
2-Fluorophenol (Surr)	*0*	*D*	*39 - 114*	*10/09/14 09:33*	*10/10/14 13:37*	*20*
Nitrobenzene-d5 (Surr)	*0*	*D*	*37 - 115*	*10/09/14 09:33*	*10/10/14 13:37*	*20*
Phenol-d5 (Surr)	*0*	*D*	*38 - 122*	*10/09/14 09:33*	*10/10/14 13:37*	*20*
Terphenyl-d14 (Surr)	*0*	*D*	*46 - 126*	*10/09/14 09:33*	*10/10/14 13:37*	*20*
2,4,6-Tribromophenol (Surr)	*0*	*D*	*45 - 129*	*10/09/14 09:33*	*10/10/14 13:37*	*20*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Client Sample ID: ASH-03-1 (100814)

Date Collected: 10/08/14 14:30
Date Received: 10/08/14 16:25

Lab Sample ID: 680-106063-1

Matrix: Solid
Percent Solids: 86.9

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1221	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1232	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1242	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1248	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1254	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1260	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1262	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1
PCB-1268	38	U	38		ug/Kg	☼	10/09/14 09:46	10/10/14 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*54 - 133*	*10/09/14 09:46*	*10/10/14 00:58*	*1*
Tetrachloro-m-xylene	*85*		*46 - 130*	*10/09/14 09:46*	*10/10/14 00:58*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-352876/8
Matrix: Solid
Analysis Batch: 352876

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	49	U	49		ug/Kg			10/09/14 17:31	1
Acetonitrile	190	U	190		ug/Kg			10/09/14 17:31	1
Acrolein	97	U	97		ug/Kg			10/09/14 17:31	1
Acrylonitrile	97	U	97		ug/Kg			10/09/14 17:31	1
Allyl chloride	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Benzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Bromodichloromethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Bromoform	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Bromomethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
2-Butanone	24	U	24		ug/Kg			10/09/14 17:31	1
Carbon disulfide	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Carbon tetrachloride	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Chlorobenzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Chloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Chloroform	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Chloromethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Chloroprene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
cis-1,3-Dichloropropene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Dibromochloromethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,2-Dibromo-3-Chloropropane	9.7	U	9.7		ug/Kg			10/09/14 17:31	1
1,2-Dibromoethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Dibromomethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,2-Dichlorobenzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,3-Dichlorobenzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,4-Dichlorobenzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Dichlorodifluoromethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,1-Dichloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,2-Dichloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,1-Dichloroethene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,2-Dichloropropane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,4-Dioxane	49	U	49		ug/Kg			10/09/14 17:31	1
Ethylbenzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Ethyl methacrylate	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Hexachlorobutadiene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
2-Hexanone	24	U	24		ug/Kg			10/09/14 17:31	1
Iodomethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Isobutanol	190	U	190		ug/Kg			10/09/14 17:31	1
Methacrylonitrile	97	U	97		ug/Kg			10/09/14 17:31	1
Methylene Chloride	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Methyl methacrylate	9.7	U	9.7		ug/Kg			10/09/14 17:31	1
4-Methyl-2-pentanone	24	U	24		ug/Kg			10/09/14 17:31	1
Naphthalene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Pentachloroethane	24	U	24		ug/Kg			10/09/14 17:31	1
Propionitrile	97	U	97		ug/Kg			10/09/14 17:31	1
Styrene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,1,1,2-Tetrachloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,1,2,2-Tetrachloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Tetrachloroethene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-352876/8
Matrix: Solid
Analysis Batch: 352876

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
trans-1,4-Dichloro-2-butene	9.7	U	9.7		ug/Kg			10/09/14 17:31	1
trans-1,2-Dichloroethene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
trans-1,3-Dichloropropene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,2,4-Trichlorobenzene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,1,1-Trichloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,1,2-Trichloroethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Trichloroethene	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Trichlorofluoromethane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
1,2,3-Trichloropropane	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Vinyl acetate	9.7	U	9.7		ug/Kg			10/09/14 17:31	1
Vinyl chloride	4.9	U	4.9		ug/Kg			10/09/14 17:31	1
Xylenes, Total	9.7	U	9.7		ug/Kg			10/09/14 17:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*65 - 130*		*10/09/14 17:31*	*1*
Dibromofluoromethane (Surr)	*88*		*65 - 130*		*10/09/14 17:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*65 - 130*		*10/09/14 17:31*	*1*
Toluene-d8 (Surr)	*88*		*65 - 130*		*10/09/14 17:31*	*1*

Lab Sample ID: LCS 680-352876/4
Matrix: Solid
Analysis Batch: 352876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	244	262		ug/Kg		107	54 - 139
Acrolein	964	1160		ug/Kg		120	50 - 150
Acrylonitrile	488	542		ug/Kg		111	50 - 150
Allyl chloride	48.8	49.7		ug/Kg		102	50 - 150
Benzene	48.8	49.1		ug/Kg		101	76 - 120
Bromodichloromethane	48.8	50.8		ug/Kg		104	72 - 131
Bromoform	48.8	55.5		ug/Kg		114	64 - 150
Bromomethane	48.8	51.9		ug/Kg		106	10 - 174
2-Butanone	244	240		ug/Kg		98	66 - 123
Carbon disulfide	48.8	49.6		ug/Kg		102	74 - 125
Carbon tetrachloride	48.8	49.9		ug/Kg		102	67 - 140
Chlorobenzene	48.8	50.9		ug/Kg		104	80 - 120
Chloroethane	48.8	46.5		ug/Kg		95	10 - 176
Chloroform	48.8	49.1		ug/Kg		101	80 - 121
Chloromethane	48.8	48.5		ug/Kg		99	48 - 146
cis-1,3-Dichloropropene	48.8	53.7		ug/Kg		110	74 - 125
Dibromochloromethane	48.8	52.2		ug/Kg		107	77 - 132
1,2-Dibromo-3-Chloropropane	48.8	57.8		ug/Kg		118	49 - 152
1,2-Dibromoethane	48.8	53.9		ug/Kg		110	72 - 129
Dibromomethane	48.8	52.9		ug/Kg		108	73 - 127
1,2-Dichlorobenzene	48.8	51.7		ug/Kg		106	75 - 128
1,3-Dichlorobenzene	48.8	51.5		ug/Kg		105	76 - 128
1,4-Dichlorobenzene	48.8	51.1		ug/Kg		105	76 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-352876/4
Matrix: Solid
Analysis Batch: 352876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	48.8	52.9		ug/Kg		108	72 - 134
1,1-Dichloroethane	48.8	49.2		ug/Kg		101	80 - 120
1,2-Dichloroethane	48.8	51.5		ug/Kg		106	61 - 140
1,1-Dichloroethene	48.8	48.0		ug/Kg		98	64 - 138
1,2-Dichloropropane	48.8	50.6		ug/Kg		104	73 - 121
1,4-Dioxane	977	1040		ug/Kg		106	50 - 150
Ethylbenzene	48.8	52.1		ug/Kg		107	78 - 121
Ethyl methacrylate	48.8	46.9		ug/Kg		96	50 - 150
Hexachlorobutadiene	48.8	52.6		ug/Kg		108	70 - 146
2-Hexanone	244	240		ug/Kg		98	60 - 126
Iodomethane	48.8	53.3		ug/Kg		109	50 - 150
Isobutanol	1220	1190		ug/Kg		97	50 - 150
Methylene Chloride	48.8	50.6		ug/Kg		104	80 - 120
4-Methyl-2-pentanone	244	239		ug/Kg		98	59 - 127
Naphthalene	48.8	53.8		ug/Kg		110	71 - 138
Styrene	48.8	53.6		ug/Kg		110	78 - 123
1,1,1,2-Tetrachloroethane	48.8	52.3		ug/Kg		107	80 - 129
1,1,2,2-Tetrachloroethane	48.8	54.9		ug/Kg		112	70 - 123
Tetrachloroethene	48.8	50.0		ug/Kg		102	77 - 130
Toluene	48.8	50.6		ug/Kg		104	73 - 122
trans-1,4-Dichloro-2-butene	48.8	50.1		ug/Kg		103	50 - 150
trans-1,2-Dichloroethene	48.8	48.6		ug/Kg		100	79 - 120
trans-1,3-Dichloropropene	48.8	54.4		ug/Kg		111	69 - 133
1,2,4-Trichlorobenzene	48.8	55.5		ug/Kg		114	77 - 142
1,1,1-Trichloroethane	48.8	49.6		ug/Kg		102	73 - 132
1,1,2-Trichloroethane	48.8	51.5		ug/Kg		105	72 - 124
Trichloroethene	48.8	49.4		ug/Kg		101	78 - 125
Trichlorofluoromethane	48.8	47.7		ug/Kg		98	60 - 148
1,2,3-Trichloropropane	48.8	56.3		ug/Kg		115	67 - 132
Vinyl acetate	97.7	128		ug/Kg		131	10 - 200
Vinyl chloride	48.8	47.3		ug/Kg		97	65 - 133
Xylenes, Total	97.7	106		ug/Kg		109	79 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*65 - 130*
Dibromofluoromethane (Surr)	*101*		*65 - 130*
1,2-Dichloroethane-d4 (Surr)	*103*		*65 - 130*
Toluene-d8 (Surr)	*103*		*65 - 130*

Lab Sample ID: LCSD 680-352876/5
Matrix: Solid
Analysis Batch: 352876

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	247	254		ug/Kg		103	54 - 139	3	50
Acrolein	974	1090		ug/Kg		112	50 - 150	6	50
Acrylonitrile	493	538		ug/Kg		109	50 - 150	1	50
Allyl chloride	49.3	48.7		ug/Kg		99	50 - 150	2	50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-352876/5
Matrix: Solid
Analysis Batch: 352876

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
Benzene	49.3	48.8		ug/Kg		99	76 - 120	0	50
Bromodichloromethane	49.3	50.5		ug/Kg		102	72 - 131	1	50
Bromoform	49.3	54.4		ug/Kg		110	64 - 150	2	50
Bromomethane	49.3	52.9		ug/Kg		107	10 - 174	2	50
2-Butanone	247	233		ug/Kg		95	66 - 123	3	50
Carbon disulfide	49.3	48.8		ug/Kg		99	74 - 125	2	50
Carbon tetrachloride	49.3	49.5		ug/Kg		100	67 - 140	1	50
Chlorobenzene	49.3	50.1		ug/Kg		102	80 - 120	2	50
Chloroethane	49.3	45.4		ug/Kg		92	10 - 176	2	50
Chloroform	49.3	48.7		ug/Kg		99	80 - 121	1	50
Chloromethane	49.3	46.9		ug/Kg		95	48 - 146	3	50
cis-1,3-Dichloropropene	49.3	53.1		ug/Kg		108	74 - 125	1	50
Dibromochloromethane	49.3	52.0		ug/Kg		105	77 - 132	0	50
1,2-Dibromo-3-Chloropropane	49.3	56.3		ug/Kg		114	49 - 152	3	50
1,2-Dibromoethane	49.3	53.6		ug/Kg		109	72 - 129	1	50
Dibromomethane	49.3	51.7		ug/Kg		105	73 - 127	2	50
1,2-Dichlorobenzene	49.3	50.8		ug/Kg		103	75 - 128	2	50
1,3-Dichlorobenzene	49.3	50.4		ug/Kg		102	76 - 128	2	50
1,4-Dichlorobenzene	49.3	50.0		ug/Kg		101	76 - 128	2	50
Dichlorodifluoromethane	49.3	52.6		ug/Kg		107	72 - 134	1	50
1,1-Dichloroethane	49.3	48.2		ug/Kg		98	80 - 120	2	50
1,2-Dichloroethane	49.3	51.1		ug/Kg		104	61 - 140	1	50
1,1-Dichloroethene	49.3	47.0		ug/Kg		95	64 - 138	2	50
1,2-Dichloropropane	49.3	49.9		ug/Kg		101	73 - 121	1	50
1,4-Dioxane	986	987		ug/Kg		100	50 - 150	5	50
Ethylbenzene	49.3	51.0		ug/Kg		103	78 - 121	2	50
Ethyl methacrylate	49.3	46.5		ug/Kg		94	50 - 150	1	50
Hexachlorobutadiene	49.3	51.3		ug/Kg		104	70 - 146	2	50
2-Hexanone	247	230		ug/Kg		93	60 - 126	4	50
Iodomethane	49.3	53.1		ug/Kg		108	50 - 150	0	50
Isobutanol	1230	1140		ug/Kg		93	50 - 150	4	50
Methylene Chloride	49.3	50.2		ug/Kg		102	80 - 120	1	50
4-Methyl-2-pentanone	247	230		ug/Kg		93	59 - 127	4	50
Naphthalene	49.3	52.4		ug/Kg		106	71 - 138	3	50
Styrene	49.3	53.1		ug/Kg		108	78 - 123	1	50
1,1,1,2-Tetrachloroethane	49.3	51.0		ug/Kg		103	80 - 129	3	50
1,1,2,2-Tetrachloroethane	49.3	53.6		ug/Kg		109	70 - 123	2	50
Tetrachloroethene	49.3	48.9		ug/Kg		99	77 - 130	2	50
Toluene	49.3	49.7		ug/Kg		101	73 - 122	2	50
trans-1,4-Dichloro-2-butene	49.3	48.2		ug/Kg		98	50 - 150	4	50
trans-1,2-Dichloroethene	49.3	48.8		ug/Kg		99	79 - 120	0	50
trans-1,3-Dichloropropene	49.3	53.8		ug/Kg		109	69 - 133	1	50
1,2,4-Trichlorobenzene	49.3	54.9		ug/Kg		111	77 - 142	1	50
1,1,1-Trichloroethane	49.3	49.5		ug/Kg		100	73 - 132	0	50
1,1,2-Trichloroethane	49.3	51.5		ug/Kg		104	72 - 124	0	50
Trichloroethene	49.3	49.2		ug/Kg		100	78 - 125	1	50
Trichlorofluoromethane	49.3	46.8		ug/Kg		95	60 - 148	2	50
1,2,3-Trichloropropane	49.3	54.7		ug/Kg		111	67 - 132	3	50

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-352876/5
Matrix: Solid
Analysis Batch: 352876

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
Vinyl acetate			98.6	124		ug/Kg		126	10 - 200	3	50
Vinyl chloride			49.3	47.2		ug/Kg		96	65 - 133	0	50
Xylenes, Total			98.6	104		ug/Kg		105	79 - 121	2	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*65 - 130*
Dibromofluoromethane (Surr)	*101*		*65 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*65 - 130*
Toluene-d8 (Surr)	*101*		*65 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-352721/2-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 352721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Acenaphthylene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Acetophenone	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Acetylaminofluorene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
alpha,alpha-Dimethyl phenethylamine	67000	U	67000		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Aminobiphenyl	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Aniline	660	U	660		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Anthracene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Aramite, Total	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Benzo[a]anthracene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Benzo[a]pyrene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Benzo[b]fluoranthene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Benzo[g,h,i]perylene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Benzo[k]fluoranthene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Benzyl alcohol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,1'-Biphenyl	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Bis(2-chloroethoxy)methane	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Bis(2-chloroethyl)ether	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
bis (2-chloroisopropyl) ether	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Bis(2-ethylhexyl) phthalate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Bromophenyl phenyl ether	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Butyl benzyl phthalate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Chloroaniline	660	U	660		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Chloro-3-methylphenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Chloronaphthalene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Chlorophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Chlorophenyl phenyl ether	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Chrysene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Diallate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Dibenz(a,h)anthracene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Dibenzofuran	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-352721/2-A | **Client Sample ID: Method Blank**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 352853 | **Prep Batch: 352721**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,3-Dichlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,4-Dichlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
3,3'-Dichlorobenzidine	660	U	660		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,4-Dichlorophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,6-Dichlorophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Diethyl phthalate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Dimethoate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
7,12-Dimethylbenz(a)anthracene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
3,3'-Dimethylbenzidine	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,4-Dimethylphenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Dimethyl phthalate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Di-n-butyl phthalate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,3-Dinitrobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4,6-Dinitro-2-methylphenol	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,4-Dinitrophenol	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,4-Dinitrotoluene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,6-Dinitrotoluene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Di-n-octyl phthalate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Dinoseb	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,4-Dioxane	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Disulfoton	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Ethyl methanesulfonate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Ethyl Parathion	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Famphur	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Fluoranthene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Fluorene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Hexachlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Hexachlorobutadiene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Hexachlorocyclopentadiene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Hexachloroethane	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Hexachlorophene	170000	U	170000		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Hexachloropropene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Indeno[1,2,3-cd]pyrene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Isophorone	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Isosafrole	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Methapyrilene	67000	U	67000		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
3-Methylcholanthrene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Methyl methanesulfonate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Methylnaphthalene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Methyl parathion	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Methylphenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
3 & 4 Methylphenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Naphthalene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,4-Naphthoquinone	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1-Naphthylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Naphthylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Nitroaniline	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-352721/2-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 352721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Nitroaniline	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Nitrobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Nitrophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Nitrophenol	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
4-Nitroquinoline-1-oxide	3300	U	3300		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitro-o-toluidine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosodiethylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosodimethylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosodi-n-butylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosodi-n-propylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosodiphenylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosomethylethylamine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosomorpholine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosopiperidine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
N-Nitrosopyrrolidine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
o,o',o''-Triethylphosphorothioate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
p-Dimethylamino azobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Pentachlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Pentachloronitrobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Pentachlorophenol	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Phenacetin	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Phenanthrene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Phenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Diphenyl ether	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Phorate	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Picoline	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
p-Phenylene diamine	1700	U	1700		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Pronamide	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Pyrene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Pyridine	660	U	660		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Safrole, Total	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Sulfotepp	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,2,4,5-Tetrachlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,3,4,6-Tetrachlorophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
Thionazin	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2-Toluidine	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,2,4-Trichlorobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,4,5-Trichlorophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
2,4,6-Trichlorophenol	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1
1,3,5-Trinitrobenzene	330	U	330		ug/Kg		10/09/14 09:33	10/09/14 18:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*41 - 116*	*10/09/14 09:33*	*10/09/14 18:22*	*1*
2-Fluorophenol (Surr)	*96*		*39 - 114*	*10/09/14 09:33*	*10/09/14 18:22*	*1*
Nitrobenzene-d5 (Surr)	*86*		*37 - 115*	*10/09/14 09:33*	*10/09/14 18:22*	*1*
Phenol-d5 (Surr)	*95*		*38 - 122*	*10/09/14 09:33*	*10/09/14 18:22*	*1*
Terphenyl-d14 (Surr)	*113*		*46 - 126*	*10/09/14 09:33*	*10/09/14 18:22*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-352721/2-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 352721

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	94		45 - 129	10/09/14 09:33	10/09/14 18:22	1

Lab Sample ID: LCS 680-352721/3-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 352721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	3330	2640		ug/Kg		79	47 - 130
Acenaphthylene	3330	2780		ug/Kg		83	45 - 130
Acetophenone	3330	2540		ug/Kg		76	44 - 130
Aniline	3330	2030		ug/Kg		61	10 - 130
Anthracene	3330	2840		ug/Kg		85	50 - 130
Benzo[a]anthracene	3330	3140		ug/Kg		94	50 - 130
Benzo[a]pyrene	3330	2990		ug/Kg		90	47 - 131
Benzo[b]fluoranthene	3330	2840		ug/Kg		85	48 - 130
Benzo[g,h,i]perylene	3330	2920		ug/Kg		88	42 - 130
Benzo[k]fluoranthene	3330	2860		ug/Kg		86	48 - 108
Benzyl alcohol	3330	2750		ug/Kg		82	42 - 130
1,1'-Biphenyl	3330	2680		ug/Kg		81	48 - 130
Bis(2-chloroethoxy)methane	3330	2660		ug/Kg		80	47 - 130
Bis(2-chloroethyl)ether	3330	2610		ug/Kg		78	37 - 130
bis (2-chloroisopropyl) ether	3330	2640		ug/Kg		79	38 - 130
Bis(2-ethylhexyl) phthalate	3330	3410		ug/Kg		102	48 - 130
4-Bromophenyl phenyl ether	3330	2790		ug/Kg		84	53 - 130
Butyl benzyl phthalate	3330	3470		ug/Kg		104	53 - 134
4-Chloroaniline	3330	2020		ug/Kg		61	10 - 130
4-Chloro-3-methylphenol	3330	2780		ug/Kg		84	51 - 130
2-Chloronaphthalene	3330	2640		ug/Kg		79	48 - 130
2-Chlorophenol	3330	2660		ug/Kg		80	47 - 130
4-Chlorophenyl phenyl ether	3330	2660		ug/Kg		80	49 - 130
Chrysene	3330	3200		ug/Kg		96	47 - 130
Dibenz(a,h)anthracene	3330	2930		ug/Kg		88	44 - 130
Dibenzofuran	3330	2710		ug/Kg		81	49 - 130
1,2-Dichlorobenzene	3330	2430		ug/Kg		73	46 - 130
1,3-Dichlorobenzene	3330	2370		ug/Kg		71	44 - 130
1,4-Dichlorobenzene	3330	2360		ug/Kg		71	44 - 130
3,3'-Dichlorobenzidine	3330	2710		ug/Kg		81	16 - 130
2,4-Dichlorophenol	3330	2700		ug/Kg		81	48 - 130
Diethyl phthalate	3330	2800		ug/Kg		84	49 - 130
2,4-Dimethylphenol	3330	2670		ug/Kg		80	43 - 130
Dimethyl phthalate	3330	2820		ug/Kg		85	50 - 130
Di-n-butyl phthalate	3330	2870		ug/Kg		86	52 - 130
1,3-Dinitrobenzene	3330	2870		ug/Kg		86	10 - 130
4,6-Dinitro-2-methylphenol	6660	5750		ug/Kg		86	23 - 130
2,4-Dinitrophenol	6660	5010		ug/Kg		75	10 - 130
2,4-Dinitrotoluene	3330	2830		ug/Kg		85	49 - 111
2,6-Dinitrotoluene	3330	2900		ug/Kg		87	49 - 130
Di-n-octyl phthalate	3330	3640		ug/Kg		109	46 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-352721/3-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 352721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	3330	1610		ug/Kg		48	14 - 130
Fluoranthene	3330	2820		ug/Kg		85	51 - 130
Fluorene	3330	2750		ug/Kg		83	52 - 130
Hexachlorobenzene	3330	2800		ug/Kg		84	53 - 130
Hexachlorobutadiene	3330	2450		ug/Kg		74	48 - 130
Hexachlorocyclopentadiene	3330	2390		ug/Kg		72	28 - 130
Hexachloroethane	3330	2380		ug/Kg		72	42 - 130
Indeno[1,2,3-cd]pyrene	3330	3070		ug/Kg		92	41 - 130
Isophorone	3330	2660		ug/Kg		80	48 - 130
2-Methylnaphthalene	3330	2630		ug/Kg		79	48 - 130
2-Methylphenol	3330	2590		ug/Kg		78	46 - 130
3 & 4 Methylphenol	3330	2730		ug/Kg		82	46 - 130
Naphthalene	3330	2520		ug/Kg		76	47 - 130
2-Nitroaniline	3330	2800		ug/Kg		84	44 - 130
3-Nitroaniline	3330	2480		ug/Kg		75	21 - 130
4-Nitroaniline	3330	2790		ug/Kg		84	41 - 130
Nitrobenzene	3330	2530		ug/Kg		76	45 - 130
2-Nitrophenol	3330	2670		ug/Kg		80	43 - 130
4-Nitrophenol	6660	5410		ug/Kg		81	40 - 130
N-Nitrosodimethylamine	3330	2180		ug/Kg		66	33 - 130
N-Nitrosodi-n-propylamine	3330	2490		ug/Kg		75	38 - 130
N-Nitrosodiphenylamine	3330	2890		ug/Kg		87	50 - 130
Pentachlorophenol	6660	5810		ug/Kg		87	41 - 130
Phenanthrene	3330	2850		ug/Kg		86	52 - 130
Phenol	3330	2580		ug/Kg		77	47 - 130
Pyrene	3330	3320		ug/Kg		100	50 - 130
Pyridine	3330	1960		ug/Kg		59	21 - 130
1,2,4,5-Tetrachlorobenzene	3330	2540		ug/Kg		76	10 - 130
2,3,4,6-Tetrachlorophenol	3330	2700		ug/Kg		81	10 - 130
1,2,4-Trichlorobenzene	3330	2420		ug/Kg		73	47 - 130
2,4,5-Trichlorophenol	3330	2760		ug/Kg		83	51 - 130
2,4,6-Trichlorophenol	3330	2730		ug/Kg		82	50 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*41 - 116*
2-Fluorophenol (Surr)	*84*		*39 - 114*
Nitrobenzene-d5 (Surr)	*79*		*37 - 115*
Phenol-d5 (Surr)	*85*		*38 - 122*
Terphenyl-d14 (Surr)	*101*		*46 - 126*
2,4,6-Tribromophenol (Surr)	*87*		*45 - 129*

Lab Sample ID: LCS 680-352721/6-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 352721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Acetylaminofluorene	3330	3250		ug/Kg		98	10 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-352721/6-A
Matrix: Solid
Analysis Batch: 352853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 352721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha,alpha-Dimethyl phenethylamine	3330	2700	U	ug/Kg		65	10 - 130
4-Aminobiphenyl	3330	765		ug/Kg		23	10 - 130
Aramite, Total	3330	6670	*	ug/Kg		200	10 - 130
Diallate	3330	3190		ug/Kg		96	10 - 130
2,6-Dichlorophenol	3330	2560		ug/Kg		77	10 - 130
Dimethoate	3330	2630		ug/Kg		79	10 - 130
7,12-Dimethylbenz(a)anthracene	3330	2990		ug/Kg		90	10 - 130
3,3'-Dimethylbenzidine	8330	2700		ug/Kg		32	10 - 130
1,3-Dinitrobenzene	3330	2890		ug/Kg		87	10 - 130
Dinoseb	3330	2870		ug/Kg		86	27 - 130
Disulfoton	3330	2980		ug/Kg		90	10 - 130
Ethyl methanesulfonate	3330	2620		ug/Kg		79	10 - 130
Ethyl Parathion	3330	3070		ug/Kg		92	10 - 130
Famphur	3330	133	J *	ug/Kg		4	10 - 130
Hexachlorophene	16700	13000	U	ug/Kg		27	10 - 130
Hexachloropropene	3330	2190		ug/Kg		66	10 - 130
Isosafrole	3330	5030	*	ug/Kg		151	10 - 130
Methapyrilene	16700	13100	J E	ug/Kg		79	10 - 130
3-Methylcholanthrene	3330	3480		ug/Kg		105	10 - 130
Methyl methanesulfonate	3330	1470		ug/Kg		44	10 - 130
Methyl parathion	3330	2720		ug/Kg		82	10 - 130
1,4-Naphthoquinone	3330	1220		ug/Kg		37	10 - 130
1-Naphthylamine	3330	1020		ug/Kg		31	10 - 130
2-Naphthylamine	3330	542		ug/Kg		16	10 - 130
4-Nitroquinoline-1-oxide	3330	1830	J	ug/Kg		55	10 - 130
N-Nitro-o-toluidine	3330	2210		ug/Kg		66	10 - 130
N-Nitrosodiethylamine	3330	2850		ug/Kg		85	10 - 130
N-Nitrosodi-n-butylamine	3330	2770		ug/Kg		83	10 - 130
N-Nitrosomethylethylamine	3330	2850		ug/Kg		86	10 - 130
N-Nitrosomorpholine	3330	2620		ug/Kg		79	10 - 130
N-Nitrosopiperidine	3330	2810		ug/Kg		84	10 - 130
N-Nitrosopyrrolidine	3330	2910		ug/Kg		87	10 - 130
o,o',o''-Triethylphosphorothioate	3330	2870		ug/Kg		86	10 - 130
p-Dimethylamino azobenzene	3330	3240		ug/Kg		97	10 - 130
Pentachlorobenzene	3330	2700		ug/Kg		81	10 - 130
Pentachloronitrobenzene	3330	2580		ug/Kg		77	10 - 130
Phenacetin	3330	2970		ug/Kg		89	10 - 130
Diphenyl ether	3330	2620		ug/Kg		79	10 - 130
Phorate	3330	3430		ug/Kg		103	10 - 130
2-Picoline	3330	2760		ug/Kg		83	10 - 130
p-Phenylene diamine	16700	6740	E	ug/Kg		40	10 - 130
Pronamide	3330	2710		ug/Kg		81	10 - 130
Safrole, Total	3330	2640		ug/Kg		79	10 - 130
Sulfotepp	3330	2810		ug/Kg		84	10 - 130
1,2,4,5-Tetrachlorobenzene	3330	2590		ug/Kg		78	10 - 130
2,3,4,6-Tetrachlorophenol	3330	2690		ug/Kg		81	10 - 130
Thionazin	3330	3100		ug/Kg		93	10 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-352721/6-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352853 — **Prep Batch: 352721**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Toluidine	3330	1440		ug/Kg		43	10 - 130
1,3,5-Trinitrobenzene	3330	2350		ug/Kg		71	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*41 - 116*
2-Fluorophenol (Surr)	*89*		*39 - 114*
Nitrobenzene-d5 (Surr)	*82*		*37 - 115*
Phenol-d5 (Surr)	*88*		*38 - 122*
Terphenyl-d14 (Surr)	*103*		*46 - 126*
2,4,6-Tribromophenol (Surr)	*90*		*45 - 129*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-352725/2-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1221	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1232	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1242	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1248	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1254	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1260	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1262	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1
PCB-1268	33	U	33		ug/Kg		10/09/14 09:46	10/09/14 23:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*96*		*54 - 133*	*10/09/14 09:46*	*10/09/14 23:56*	*1*
Tetrachloro-m-xylene	*88*		*46 - 130*	*10/09/14 09:46*	*10/09/14 23:56*	*1*

Lab Sample ID: LCS 680-352725/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	666	565		ug/Kg		85	43 - 130
PCB-1260	666	616		ug/Kg		93	45 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*96*		*54 - 133*
Tetrachloro-m-xylene	*85*		*46 - 130*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: LCS 680-352725/6-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1268	665	706		ug/Kg		106	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*244*	*X*	*54 - 133*
Tetrachloro-m-xylene	*88*		*46 - 130*

Lab Sample ID: LCS 680-352725/9-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1262	666	691		ug/Kg		104	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*98*		*54 - 133*
Tetrachloro-m-xylene	*88*		*46 - 130*

Lab Sample ID: 680-106063-1 MS — **Client Sample ID: ASH-03-1 (100814)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	38	U	768	716		ug/Kg	☼	93	43 - 130
PCB-1260	38	U	768	704		ug/Kg	☼	92	45 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*91*		*54 - 133*
Tetrachloro-m-xylene	*94*		*46 - 130*

Lab Sample ID: 680-106063-1 MS — **Client Sample ID: ASH-03-1 (100814)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1268	38	U	768	835		ug/Kg	☼	109	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*245*	*X*	*54 - 133*
Tetrachloro-m-xylene	*94*		*46 - 130*

Lab Sample ID: 680-106063-1 MS — **Client Sample ID: ASH-03-1 (100814)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 352913 — **Prep Batch: 352725**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1262	38	U	767	627	p	ug/Kg	☼	82	50 - 150

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: 680-106063-1 MS
Matrix: Solid
Analysis Batch: 352913

Client Sample ID: ASH-03-1 (100814)
Prep Type: Total/NA
Prep Batch: 352725

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	104		54 - 133
Tetrachloro-m-xylene	99		46 - 130

Lab Sample ID: 680-106063-1 MSD
Matrix: Solid
Analysis Batch: 352913

Client Sample ID: ASH-03-1 (100814)
Prep Type: Total/NA
Prep Batch: 352725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	38	U	766	671		ug/Kg	☼	88	43 - 130	6	50
PCB-1260	38	U	766	724		ug/Kg	☼	94	45 - 130	3	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	92		54 - 133
Tetrachloro-m-xylene	90		46 - 130

Lab Sample ID: 680-106063-1 MSD
Matrix: Solid
Analysis Batch: 352913

Client Sample ID: ASH-03-1 (100814)
Prep Type: Total/NA
Prep Batch: 352725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1268	38	U	764	843		ug/Kg	☼	110	50 - 150	1	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	249	X	54 - 133
Tetrachloro-m-xylene	95		46 - 130

Lab Sample ID: 680-106063-1 MSD
Matrix: Solid
Analysis Batch: 352913

Client Sample ID: ASH-03-1 (100814)
Prep Type: Total/NA
Prep Batch: 352725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1262	38	U	768	801		ug/Kg	☼	104	50 - 150	24	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl	95		54 - 133
Tetrachloro-m-xylene	94		46 - 130

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

GC/MS VOA

Prep Batch: 352718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1	ASH-03-1 (100814)	Total/NA	Solid	5035	

Analysis Batch: 352876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1	ASH-03-1 (100814)	Total/NA	Solid	8260B	352718
LCS 680-352876/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-352876/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 680-352876/8	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 352721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1	ASH-03-1 (100814)	Total/NA	Solid	3546	
LCS 680-352721/3-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 680-352721/6-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-352721/2-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 352853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-352721/3-A	Lab Control Sample	Total/NA	Solid	8270D	352721
LCS 680-352721/6-A	Lab Control Sample	Total/NA	Solid	8270D	352721
MB 680-352721/2-A	Method Blank	Total/NA	Solid	8270D	352721

Analysis Batch: 352992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1	ASH-03-1 (100814)	Total/NA	Solid	8270D	352721

GC Semi VOA

Prep Batch: 352725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1	ASH-03-1 (100814)	Total/NA	Solid	3546	
680-106063-1 MS	ASH-03-1 (100814)	Total/NA	Solid	3546	
680-106063-1 MS	ASH-03-1 (100814)	Total/NA	Solid	3546	
680-106063-1 MS	ASH-03-1 (100814)	Total/NA	Solid	3546	
680-106063-1 MSD	ASH-03-1 (100814)	Total/NA	Solid	3546	
680-106063-1 MSD	ASH-03-1 (100814)	Total/NA	Solid	3546	
680-106063-1 MSD	ASH-03-1 (100814)	Total/NA	Solid	3546	
LCS 680-352725/3-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 680-352725/6-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 680-352725/9-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-352725/2-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 352913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725
680-106063-1 MS	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725
680-106063-1 MS	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725
680-106063-1 MS	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725

GC Semi VOA (Continued)

Analysis Batch: 352913 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106063-1 MSD	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725
680-106063-1 MSD	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725
680-106063-1 MSD	ASH-03-1 (100814)	Total/NA	Solid	8081B/8082A	352725
LCS 680-352725/3-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	352725
LCS 680-352725/6-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	352725
LCS 680-352725/9-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	352725
MB 680-352725/2-A	Method Blank	Total/NA	Solid	8081B/8082A	352725

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Client Sample ID: ASH-03-1 (100814)

Date Collected: 10/08/14 14:30
Date Received: 10/08/14 16:25

Lab Sample ID: 680-106063-1

Matrix: Solid
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.997 g	5 mL	352718	10/09/14 09:24	FES	TAL SAV
Total/NA	Analysis	8260B		1	5.997 g	5 mL	352876	10/09/14 23:04	DJK	TAL SAV
Total/NA	Prep	3546			30.02 g	1 mL	352721	10/09/14 09:33	JMV	TAL SAV
Total/NA	Analysis	8270D		20	30.02 g	1 mL	352992	10/10/14 13:37	LEG	TAL SAV
Total/NA	Prep	3546			15.05 g	10 mL	352725	10/09/14 09:46	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.05 g	10 mL	352913	10/10/14 00:58	JCK	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 86752

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 Hercules	PROJECT NO.: DH070000.GA60	PROJECT LOCATION (STATE): GA
TAL (LAB) PROJECT MANAGER: Kathy Smith	P.O. NUMBER:	CONTRACT NO.:
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE:	CLIENT FAX:
CLIENT NAME: ARCADIS	CLIENT E-MAIL: david.wilderman@arcadis-us.com	
CLIENT ADDRESS: 1000 Cobb Place Blvd, Kennesaw, GA		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE ___ OF ___

STANDARD REPORT DELIVERY ◯

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ◯

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 0

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8260B	8270D	8082A								REMARKS
								PRESERVATIVE										
10/8/14	1430	ASH-03-1 (100814)			X			✓	✓	✓								8082A, 8270D (include biphenyl, diphenyl oxide)

NUMBER OF CONTAINERS SUBMITTED

680-106063 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	10/8/14	1520						
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
	10/8/14	16:25	YES ◯ NO ◯		680-106063	22.4° C

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-106063-1

Login Number: 106063

List Source: TestAmerica Savannah

List Number: 1

Creator: Kicklighter, Marilyn D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	False	No cooler
Sample custody seals, if present, are intact.	False	No cooler
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	False	
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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106063-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14 *
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14 *
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

* Certification renewal pending - certification considered valid.

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: 680-106486-1
Client Project/Site: Hercules Savannah

For:
ARCADIS U.S., Inc.
2410 Paces Ferry Road
Suite 400
Atlanta, Georgia 30339

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
10/31/2014 2:23:09 PM

Kathryn Smith, Project Manager II
(912)354-7858
kathy.smith@testamericainc.com

LINKS

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery exceeds the control limits

GC Semi VOA

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
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
8081B/8082A	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-106486-1	STP 1-1	Solid	10/22/14 07:15	10/22/14 10:10
680-106486-2	STP 2-1	Solid	10/22/14 07:20	10/22/14 10:10
680-106486-3	STP 3-1	Solid	10/22/14 07:35	10/22/14 10:10
680-106486-4	STP 3-2	Solid	10/22/14 07:40	10/22/14 10:10
680-106486-5	STP 4-1	Solid	10/22/14 08:00	10/22/14 10:10
680-106486-6	STP 4-2	Solid	10/22/14 08:15	10/22/14 10:10
680-106486-7	STP 4-3	Solid	10/22/14 08:25	10/22/14 10:10
680-106486-8	STP 5-1	Solid	10/22/14 08:40	10/22/14 10:10
680-106486-9	STP 5-2	Solid	10/22/14 08:50	10/22/14 10:10
680-106486-10	Trip Blank	Water	10/22/14 07:00	10/22/14 10:10

Job ID: 680-106486-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: ARCADIS U.S., Inc.
Project: Hercules Savannah
Report Number: 680-106486-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 10/22/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.8 C.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples STP 1-1 (680-106486-1), STP 2-1 (680-106486-2), STP 3-1 (680-106486-3), STP 3-2 (680-106486-4), STP 4-1 (680-106486-5), STP 4-2 (680-106486-6), STP 4-3 (680-106486-7) and STP 5-1 (680-106486-8) were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 10/23/2014 and analyzed on 10/28/2014.

Samples STP 1-1 (680-106486-1)[20X], STP 2-1 (680-106486-2)[20X], STP 3-1 (680-106486-3)[20X], STP 3-2 (680-106486-4)[20X], STP 4-1 (680-106486-5)[20X], STP 4-2 (680-106486-6)[20X], STP 4-3 (680-106486-7)[20X] and STP 5-1 (680-106486-8)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample Trip Blank (680-106486-10) was analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/27/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples STP 1-1 (680-106486-1), STP 2-1 (680-106486-2), STP 3-1 (680-106486-3), STP 3-2 (680-106486-4), STP 4-1 (680-106486-5), STP 4-2 (680-106486-6), STP 4-3 (680-106486-7), STP 5-1 (680-106486-8) and STP 5-2 (680-106486-9) were analyzed for TCLP semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8270C. The samples were leached on 10/24/2014, prepared on 10/27/2014 and analyzed on 10/30/2014.

Pyridine recovered low for the MSD of sample STP 1-1MSD (680-106486-1) in batch 680-356138.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PESTICIDES AND PCBS

Samples STP 1-1 (680-106486-1), STP 2-1 (680-106486-2), STP 3-1 (680-106486-3), STP 3-2 (680-106486-4), STP 4-1 (680-106486-5), STP 4-2 (680-106486-6), STP 4-3 (680-106486-7), STP 5-1 (680-106486-8) and STP 5-2 (680-106486-9) were analyzed for Pesticides and PCBs in accordance with EPA SW-846 Method 8081B_8082A. The samples were prepared on 10/23/2014 and analyzed on 10/24/2014 and 10/27/2014.

This method incorporates 2nd column confirmation. Corrective action is not taken for surrogate/spike compounds unless results from both columns are unacceptable. Results outside criteria are qualified.

The following sample(s) required a sulfuric acid clean-up, via EPA Method 3665A, to reduce matrix interferences: (680-106486-2 MS), (680-106486-2 MSD), STP 1-1 (680-106486-1), STP 2-1 (680-106486-2), STP 3-1 (680-106486-3), STP 3-2 (680-106486-4), STP 4-1 (680-106486-5), STP 4-2 (680-106486-6), STP 4-3 (680-106486-7), STP 5-1 (680-106486-8), STP 5-2 (680-106486-9).

Job ID: 680-106486-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS/MOISTURE

Samples STP 1-1 (680-106486-1), STP 2-1 (680-106486-2), STP 3-1 (680-106486-3), STP 3-2 (680-106486-4), STP 4-1 (680-106486-5), STP 4-2 (680-106486-6), STP 4-3 (680-106486-7), STP 5-1 (680-106486-8) and STP 5-2 (680-106486-9) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 10/22/2014.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 1-1

Date Collected: 10/22/14 07:15
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-1

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 13:25	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 13:25	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 13:25	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 13:25	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 13:25	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 13:25	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 13:25	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 13:25	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 13:25	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 13:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/28/14 13:25*	*20*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*10/28/14 13:25*	*20*
Dibromofluoromethane (Surr)	*119*		*70 - 130*		*10/28/14 13:25*	*20*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/28/14 13:25*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
2,4-Dinitrotoluene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
Hexachlorobenzene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
Hexachlorobutadiene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
Hexachloroethane	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
Methyl Phenols,Total	0.099	U	0.099		mg/L		10/27/14 16:01	10/30/14 18:32	1
Nitrobenzene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
Pentachlorophenol	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 18:32	1
Pyridine	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 18:32	1
2,4,5-Trichlorophenol	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1
2,4,6-Trichlorophenol	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*38 - 130*	*10/27/14 16:01*	*10/30/14 18:32*	*1*
2-Fluorophenol	*68*		*25 - 130*	*10/27/14 16:01*	*10/30/14 18:32*	*1*
Nitrobenzene-d5	*79*		*39 - 130*	*10/27/14 16:01*	*10/30/14 18:32*	*1*
Phenol-d5	*71*		*25 - 130*	*10/27/14 16:01*	*10/30/14 18:32*	*1*
Terphenyl-d14	*115*		*10 - 143*	*10/27/14 16:01*	*10/30/14 18:32*	*1*
2,4,6-Tribromophenol	*91*		*31 - 141*	*10/27/14 16:01*	*10/30/14 18:32*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1221	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1232	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1242	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1248	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1254	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1260	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1262	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1
PCB-1268	37	U	37		ug/Kg	☼	10/23/14 11:50	10/27/14 18:05	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 1-1
Date Collected: 10/22/14 07:15
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-1
Matrix: Solid
Percent Solids: 89.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	96		54 - 133	10/23/14 11:50	10/27/14 18:05	1
Tetrachloro-m-xylene	88		46 - 130	10/23/14 11:50	10/27/14 18:05	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 2-1

Lab Sample ID: 680-106486-2

Date Collected: 10/22/14 07:20
Date Received: 10/22/14 10:10

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 13:46	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 13:46	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 13:46	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 13:46	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 13:46	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 13:46	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 13:46	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 13:46	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 13:46	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 13:46	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/28/14 13:46*	*20*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*10/28/14 13:46*	*20*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*10/28/14 13:46*	*20*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*10/28/14 13:46*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
2,4-Dinitrotoluene	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
Hexachlorobenzene	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
Hexachlorobutadiene	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
Hexachloroethane	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
Methyl Phenols,Total	0.093	U	0.093		mg/L		10/27/14 16:01	10/30/14 18:57	1
Nitrobenzene	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
Pentachlorophenol	0.23	U	0.23		mg/L		10/27/14 16:01	10/30/14 18:57	1
Pyridine	0.23	U	0.23		mg/L		10/27/14 16:01	10/30/14 18:57	1
2,4,5-Trichlorophenol	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1
2,4,6-Trichlorophenol	0.046	U	0.046		mg/L		10/27/14 16:01	10/30/14 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*38 - 130*	*10/27/14 16:01*	*10/30/14 18:57*	*1*
2-Fluorophenol	*65*		*25 - 130*	*10/27/14 16:01*	*10/30/14 18:57*	*1*
Nitrobenzene-d5	*74*		*39 - 130*	*10/27/14 16:01*	*10/30/14 18:57*	*1*
Phenol-d5	*69*		*25 - 130*	*10/27/14 16:01*	*10/30/14 18:57*	*1*
Terphenyl-d14	*100*		*10 - 143*	*10/27/14 16:01*	*10/30/14 18:57*	*1*
2,4,6-Tribromophenol	*80*		*31 - 141*	*10/27/14 16:01*	*10/30/14 18:57*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1221	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1232	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1242	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1248	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1254	**200**		35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1260	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1262	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1
PCB-1268	35	U	35		ug/Kg	☼	10/23/14 11:50	10/24/14 14:33	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 2-1
Date Collected: 10/22/14 07:20
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-2
Matrix: Solid
Percent Solids: 93.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		54 - 133	10/23/14 11:50	10/24/14 14:33	1
Tetrachloro-m-xylene	88		46 - 130	10/23/14 11:50	10/24/14 14:33	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 3-1

Lab Sample ID: 680-106486-3

Date Collected: 10/22/14 07:35
Date Received: 10/22/14 10:10

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 14:06	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 14:06	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 14:06	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 14:06	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 14:06	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 14:06	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 14:06	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 14:06	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 14:06	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 14:06	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/28/14 14:06*	*20*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*10/28/14 14:06*	*20*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*10/28/14 14:06*	*20*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*10/28/14 14:06*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
2,4-Dinitrotoluene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
Hexachlorobenzene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
Hexachlorobutadiene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
Hexachloroethane	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
Methyl Phenols,Total	0.10	U	0.10		mg/L		10/27/14 16:01	10/30/14 19:22	1
Nitrobenzene	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
Pentachlorophenol	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 19:22	1
Pyridine	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 19:22	1
2,4,5-Trichlorophenol	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1
2,4,6-Trichlorophenol	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*38 - 130*	*10/27/14 16:01*	*10/30/14 19:22*	*1*
2-Fluorophenol	*56*		*25 - 130*	*10/27/14 16:01*	*10/30/14 19:22*	*1*
Nitrobenzene-d5	*68*		*39 - 130*	*10/27/14 16:01*	*10/30/14 19:22*	*1*
Phenol-d5	*64*		*25 - 130*	*10/27/14 16:01*	*10/30/14 19:22*	*1*
Terphenyl-d14	*96*		*10 - 143*	*10/27/14 16:01*	*10/30/14 19:22*	*1*
2,4,6-Tribromophenol	*66*		*31 - 141*	*10/27/14 16:01*	*10/30/14 19:22*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1221	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1232	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1242	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1248	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1254	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1260	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1262	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1
PCB-1268	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 14:48	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 3-1
Date Collected: 10/22/14 07:35
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-3
Matrix: Solid
Percent Solids: 87.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	101		54 - 133	10/23/14 11:50	10/24/14 14:48	1
Tetrachloro-m-xylene	92		46 - 130	10/23/14 11:50	10/24/14 14:48	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 3-2

Lab Sample ID: 680-106486-4

Date Collected: 10/22/14 07:40
Matrix: Solid
Date Received: 10/22/14 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 14:26	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 14:26	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 14:26	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 14:26	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 14:26	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 14:26	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 14:26	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 14:26	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 14:26	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 14:26	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*70 - 130*		*10/28/14 14:26*	*20*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*10/28/14 14:26*	*20*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*10/28/14 14:26*	*20*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/28/14 14:26*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
2,4-Dinitrotoluene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
Hexachlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
Hexachlorobutadiene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
Hexachloroethane	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
Methyl Phenols,Total	0.098	U	0.098		mg/L		10/27/14 16:01	10/30/14 19:48	1
Nitrobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
Pentachlorophenol	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 19:48	1
Pyridine	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 19:48	1
2,4,5-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1
2,4,6-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*38 - 130*	*10/27/14 16:01*	*10/30/14 19:48*	*1*
2-Fluorophenol	*61*		*25 - 130*	*10/27/14 16:01*	*10/30/14 19:48*	*1*
Nitrobenzene-d5	*71*		*39 - 130*	*10/27/14 16:01*	*10/30/14 19:48*	*1*
Phenol-d5	*67*		*25 - 130*	*10/27/14 16:01*	*10/30/14 19:48*	*1*
Terphenyl-d14	*97*		*10 - 143*	*10/27/14 16:01*	*10/30/14 19:48*	*1*
2,4,6-Tribromophenol	*75*		*31 - 141*	*10/27/14 16:01*	*10/30/14 19:48*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1221	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1232	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1242	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1248	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1254	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1260	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1262	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1
PCB-1268	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:04	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 3-2
Date Collected: 10/22/14 07:40
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-4
Matrix: Solid
Percent Solids: 86.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		54 - 133	10/23/14 11:50	10/24/14 15:04	1
Tetrachloro-m-xylene	94		46 - 130	10/23/14 11:50	10/24/14 15:04	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-1

Lab Sample ID: 680-106486-5

Date Collected: 10/22/14 08:00
Matrix: Solid
Date Received: 10/22/14 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 14:46	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 14:46	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 14:46	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 14:46	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 14:46	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 14:46	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 14:46	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 14:46	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 14:46	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 14:46	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/28/14 14:46*	*20*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*10/28/14 14:46*	*20*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*10/28/14 14:46*	*20*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/28/14 14:46*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
2,4-Dinitrotoluene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
Hexachlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
Hexachlorobutadiene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
Hexachloroethane	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
Methyl Phenols,Total	0.098	U	0.098		mg/L		10/27/14 16:01	10/30/14 20:13	1
Nitrobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
Pentachlorophenol	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 20:13	1
Pyridine	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 20:13	1
2,4,5-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1
2,4,6-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*38 - 130*	*10/27/14 16:01*	*10/30/14 20:13*	*1*
2-Fluorophenol	*65*		*25 - 130*	*10/27/14 16:01*	*10/30/14 20:13*	*1*
Nitrobenzene-d5	*76*		*39 - 130*	*10/27/14 16:01*	*10/30/14 20:13*	*1*
Phenol-d5	*65*		*25 - 130*	*10/27/14 16:01*	*10/30/14 20:13*	*1*
Terphenyl-d14	*105*		*10 - 143*	*10/27/14 16:01*	*10/30/14 20:13*	*1*
2,4,6-Tribromophenol	*79*		*31 - 141*	*10/27/14 16:01*	*10/30/14 20:13*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1221	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1232	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1242	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1248	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1254	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1260	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1262	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1
PCB-1268	40	U	40		ug/Kg	☼	10/23/14 11:50	10/24/14 15:19	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-1
Date Collected: 10/22/14 08:00
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-5
Matrix: Solid
Percent Solids: 82.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		54 - 133	10/23/14 11:50	10/24/14 15:19	1
Tetrachloro-m-xylene	95		46 - 130	10/23/14 11:50	10/24/14 15:19	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-2

Lab Sample ID: 680-106486-6

Date Collected: 10/22/14 08:15
Matrix: Solid
Date Received: 10/22/14 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 15:06	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 15:06	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 15:06	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 15:06	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 15:06	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 15:06	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 15:06	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 15:06	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 15:06	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 15:06	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/28/14 15:06*	*20*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*10/28/14 15:06*	*20*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*10/28/14 15:06*	*20*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*10/28/14 15:06*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
2,4-Dinitrotoluene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
Hexachlorobenzene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
Hexachlorobutadiene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
Hexachloroethane	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
Methyl Phenols,Total	0.097	U	0.097		mg/L		10/27/14 16:01	10/30/14 20:38	1
Nitrobenzene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
Pentachlorophenol	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 20:38	1
Pyridine	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 20:38	1
2,4,5-Trichlorophenol	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1
2,4,6-Trichlorophenol	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*38 - 130*	*10/27/14 16:01*	*10/30/14 20:38*	*1*
2-Fluorophenol	*68*		*25 - 130*	*10/27/14 16:01*	*10/30/14 20:38*	*1*
Nitrobenzene-d5	*79*		*39 - 130*	*10/27/14 16:01*	*10/30/14 20:38*	*1*
Phenol-d5	*68*		*25 - 130*	*10/27/14 16:01*	*10/30/14 20:38*	*1*
Terphenyl-d14	*111*		*10 - 143*	*10/27/14 16:01*	*10/30/14 20:38*	*1*
2,4,6-Tribromophenol	*76*		*31 - 141*	*10/27/14 16:01*	*10/30/14 20:38*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1221	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1232	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1242	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1248	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1254	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1260	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1262	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1
PCB-1268	39	U	39		ug/Kg	☼	10/23/14 11:50	10/24/14 15:35	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-2
Date Collected: 10/22/14 08:15
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-6
Matrix: Solid
Percent Solids: 84.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	100		54 - 133	10/23/14 11:50	10/24/14 15:35	1
Tetrachloro-m-xylene	93		46 - 130	10/23/14 11:50	10/24/14 15:35	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-3

Lab Sample ID: 680-106486-7

Date Collected: 10/22/14 08:25
Date Received: 10/22/14 10:10

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 15:26	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 15:26	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 15:26	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 15:26	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 15:26	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 15:26	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 15:26	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 15:26	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 15:26	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 15:26	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*10/28/14 15:26*	*20*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*10/28/14 15:26*	*20*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*10/28/14 15:26*	*20*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*10/28/14 15:26*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
2,4-Dinitrotoluene	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
Hexachlorobenzene	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
Hexachlorobutadiene	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
Hexachloroethane	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
Methyl Phenols,Total	0.094	U	0.094		mg/L		10/27/14 16:01	10/30/14 21:04	1
Nitrobenzene	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
Pentachlorophenol	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 21:04	1
Pyridine	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 21:04	1
2,4,5-Trichlorophenol	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1
2,4,6-Trichlorophenol	0.047	U	0.047		mg/L		10/27/14 16:01	10/30/14 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*38 - 130*	*10/27/14 16:01*	*10/30/14 21:04*	*1*
2-Fluorophenol	*68*		*25 - 130*	*10/27/14 16:01*	*10/30/14 21:04*	*1*
Nitrobenzene-d5	*79*		*39 - 130*	*10/27/14 16:01*	*10/30/14 21:04*	*1*
Phenol-d5	*77*		*25 - 130*	*10/27/14 16:01*	*10/30/14 21:04*	*1*
Terphenyl-d14	*114*		*10 - 143*	*10/27/14 16:01*	*10/30/14 21:04*	*1*
2,4,6-Tribromophenol	*77*		*31 - 141*	*10/27/14 16:01*	*10/30/14 21:04*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1221	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1232	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1242	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1248	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1254	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1260	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1262	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1
PCB-1268	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 15:50	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-3
Date Collected: 10/22/14 08:25
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-7
Matrix: Solid
Percent Solids: 85.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	105		54 - 133	10/23/14 11:50	10/24/14 15:50	1
Tetrachloro-m-xylene	92		46 - 130	10/23/14 11:50	10/24/14 15:50	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 5-1

Date Collected: 10/22/14 08:40
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-8

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.020	U	0.020		mg/L			10/28/14 15:47	20
2-Butanone	0.20	U	0.20		mg/L			10/28/14 15:47	20
Carbon tetrachloride	0.020	U	0.020		mg/L			10/28/14 15:47	20
Chlorobenzene	0.020	U	0.020		mg/L			10/28/14 15:47	20
Chloroform	0.020	U	0.020		mg/L			10/28/14 15:47	20
1,2-Dichloroethane	0.020	U	0.020		mg/L			10/28/14 15:47	20
1,1-Dichloroethene	0.020	U	0.020		mg/L			10/28/14 15:47	20
Tetrachloroethene	0.020	U	0.020		mg/L			10/28/14 15:47	20
Trichloroethene	0.020	U	0.020		mg/L			10/28/14 15:47	20
Vinyl chloride	0.020	U	0.020		mg/L			10/28/14 15:47	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/28/14 15:47*	*20*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*10/28/14 15:47*	*20*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*10/28/14 15:47*	*20*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*10/28/14 15:47*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
2,4-Dinitrotoluene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
Hexachlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
Hexachlorobutadiene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
Hexachloroethane	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
Methyl Phenols,Total	0.098	U	0.098		mg/L		10/27/14 16:01	10/30/14 21:29	1
Nitrobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
Pentachlorophenol	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 21:29	1
Pyridine	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 21:29	1
2,4,5-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1
2,4,6-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*38 - 130*	*10/27/14 16:01*	*10/30/14 21:29*	*1*
2-Fluorophenol	*66*		*25 - 130*	*10/27/14 16:01*	*10/30/14 21:29*	*1*
Nitrobenzene-d5	*73*		*39 - 130*	*10/27/14 16:01*	*10/30/14 21:29*	*1*
Phenol-d5	*68*		*25 - 130*	*10/27/14 16:01*	*10/30/14 21:29*	*1*
Terphenyl-d14	*102*		*10 - 143*	*10/27/14 16:01*	*10/30/14 21:29*	*1*
2,4,6-Tribromophenol	*80*		*31 - 141*	*10/27/14 16:01*	*10/30/14 21:29*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1221	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1232	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1242	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1248	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1254	**170**		38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1260	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1262	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1
PCB-1268	38	U	38		ug/Kg	☼	10/23/14 11:50	10/24/14 16:05	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 5-1
Date Collected: 10/22/14 08:40
Date Received: 10/22/14 10:10

Lab Sample ID: 680-106486-8
Matrix: Solid
Percent Solids: 87.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		54 - 133	10/23/14 11:50	10/24/14 16:05	1
Tetrachloro-m-xylene	96		46 - 130	10/23/14 11:50	10/24/14 16:05	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 5-2

Lab Sample ID: 680-106486-9

Date Collected: 10/22/14 08:50

Matrix: Solid

Date Received: 10/22/14 10:10

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
2,4-Dinitrotoluene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
Hexachlorobenzene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
Hexachlorobutadiene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
Hexachloroethane	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
Methyl Phenols,Total	0.095	U	0.095		mg/L		10/27/14 16:01	10/30/14 21:55	1
Nitrobenzene	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
Pentachlorophenol	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 21:55	1
Pyridine	0.24	U	0.24		mg/L		10/27/14 16:01	10/30/14 21:55	1
2,4,5-Trichlorophenol	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1
2,4,6-Trichlorophenol	0.048	U	0.048		mg/L		10/27/14 16:01	10/30/14 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*38 - 130*	*10/27/14 16:01*	*10/30/14 21:55*	*1*
2-Fluorophenol	*69*		*25 - 130*	*10/27/14 16:01*	*10/30/14 21:55*	*1*
Nitrobenzene-d5	*80*		*39 - 130*	*10/27/14 16:01*	*10/30/14 21:55*	*1*
Phenol-d5	*74*		*25 - 130*	*10/27/14 16:01*	*10/30/14 21:55*	*1*
Terphenyl-d14	*97*		*10 - 143*	*10/27/14 16:01*	*10/30/14 21:55*	*1*
2,4,6-Tribromophenol	*74*		*31 - 141*	*10/27/14 16:01*	*10/30/14 21:55*	*1*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1221	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1232	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1242	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1248	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1254	**88**		40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1260	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1262	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1
PCB-1268	40	U	40		ug/Kg	☼	10/23/14 11:50	10/27/14 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*101*		*54 - 133*	*10/23/14 11:50*	*10/27/14 18:19*	*1*
Tetrachloro-m-xylene	*82*		*46 - 130*	*10/23/14 11:50*	*10/27/14 18:19*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-106486-10

Date Collected: 10/22/14 07:00

Matrix: Water

Date Received: 10/22/14 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			10/27/14 12:44	1
Acetonitrile	40	U	40		ug/L			10/27/14 12:44	1
Acrolein	20	U *	20		ug/L			10/27/14 12:44	1
Acrylonitrile	20	U	20		ug/L			10/27/14 12:44	1
Allyl chloride	1.0	U	1.0		ug/L			10/27/14 12:44	1
Benzene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Bromodichloromethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
Bromoform	1.0	U	1.0		ug/L			10/27/14 12:44	1
Bromomethane	5.0	U	5.0		ug/L			10/27/14 12:44	1
2-Butanone	10	U	10		ug/L			10/27/14 12:44	1
Carbon disulfide	2.0	U	2.0		ug/L			10/27/14 12:44	1
Carbon tetrachloride	1.0	U	1.0		ug/L			10/27/14 12:44	1
Chlorobenzene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Chloroethane	5.0	U	5.0		ug/L			10/27/14 12:44	1
Chloroform	1.0	U	1.0		ug/L			10/27/14 12:44	1
Chloromethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
Chloroprene	1.0	U	1.0		ug/L			10/27/14 12:44	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Dibromochloromethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			10/27/14 12:44	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
Dibromomethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,4-Dioxane	100	U	100		ug/L			10/27/14 12:44	1
Ethylbenzene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Ethyl methacrylate	1.0	U	1.0		ug/L			10/27/14 12:44	1
2-Hexanone	10	U	10		ug/L			10/27/14 12:44	1
Iodomethane	10	U	10		ug/L			10/27/14 12:44	1
Isobutanol	50	U	50		ug/L			10/27/14 12:44	1
Methacrylonitrile	20	U	20		ug/L			10/27/14 12:44	1
Methylene Chloride	5.0	U	5.0		ug/L			10/27/14 12:44	1
Methyl methacrylate	1.0	U	1.0		ug/L			10/27/14 12:44	1
4-Methyl-2-pentanone	10	U	10		ug/L			10/27/14 12:44	1
Pentachloroethane	5.0	U	5.0		ug/L			10/27/14 12:44	1
Propionitrile	20	U	20		ug/L			10/27/14 12:44	1
Styrene	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
Tetrachloroethene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Toluene	1.0	U	1.0		ug/L			10/27/14 12:44	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			10/27/14 12:44	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			10/27/14 12:44	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-106486-10

Date Collected: 10/22/14 07:00

Matrix: Water

Date Received: 10/22/14 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			10/27/14 12:44	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
Trichloroethene	1.0	U	1.0		ug/L			10/27/14 12:44	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			10/27/14 12:44	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			10/27/14 12:44	1
Vinyl acetate	2.0	U	2.0		ug/L			10/27/14 12:44	1
Vinyl chloride	1.0	U	1.0		ug/L			10/27/14 12:44	1
Xylenes, Total	2.0	U	2.0		ug/L			10/27/14 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/27/14 12:44*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*10/27/14 12:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*10/27/14 12:44*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*10/27/14 12:44*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-355402/9
Matrix: Water
Analysis Batch: 355402

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	10	U	10		ug/L			10/27/14 11:49	1
Acetonitrile	40	U	40		ug/L			10/27/14 11:49	1
Acrolein	20	U	20		ug/L			10/27/14 11:49	1
Acrylonitrile	20	U	20		ug/L			10/27/14 11:49	1
Allyl chloride	1.0	U	1.0		ug/L			10/27/14 11:49	1
Benzene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Bromodichloromethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
Bromoform	1.0	U	1.0		ug/L			10/27/14 11:49	1
Bromomethane	5.0	U	5.0		ug/L			10/27/14 11:49	1
2-Butanone	10	U	10		ug/L			10/27/14 11:49	1
Carbon disulfide	2.0	U	2.0		ug/L			10/27/14 11:49	1
Carbon tetrachloride	1.0	U	1.0		ug/L			10/27/14 11:49	1
Chlorobenzene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Chloroethane	5.0	U	5.0		ug/L			10/27/14 11:49	1
Chloroform	1.0	U	1.0		ug/L			10/27/14 11:49	1
Chloromethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
Chloroprene	1.0	U	1.0		ug/L			10/27/14 11:49	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Dibromochloromethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,2-Dibromo-3-Chloropropane	5.0	U	5.0		ug/L			10/27/14 11:49	1
1,2-Dibromoethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
Dibromomethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,4-Dioxane	100	U	100		ug/L			10/27/14 11:49	1
Ethylbenzene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Ethyl methacrylate	1.0	U	1.0		ug/L			10/27/14 11:49	1
2-Hexanone	10	U	10		ug/L			10/27/14 11:49	1
Iodomethane	10	U	10		ug/L			10/27/14 11:49	1
Isobutanol	50	U	50		ug/L			10/27/14 11:49	1
Methacrylonitrile	20	U	20		ug/L			10/27/14 11:49	1
Methylene Chloride	5.0	U	5.0		ug/L			10/27/14 11:49	1
Methyl methacrylate	1.0	U	1.0		ug/L			10/27/14 11:49	1
4-Methyl-2-pentanone	10	U	10		ug/L			10/27/14 11:49	1
Pentachloroethane	5.0	U	5.0		ug/L			10/27/14 11:49	1
Propionitrile	20	U	20		ug/L			10/27/14 11:49	1
Styrene	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
Tetrachloroethene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Toluene	1.0	U	1.0		ug/L			10/27/14 11:49	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			10/27/14 11:49	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-355402/9
Matrix: Water
Analysis Batch: 355402

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			10/27/14 11:49	1
trans-1,3-Dichloropropene	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,2,4-Trichlorobenzene	5.0	U	5.0		ug/L			10/27/14 11:49	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
Trichloroethene	1.0	U	1.0		ug/L			10/27/14 11:49	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			10/27/14 11:49	1
1,2,3-Trichloropropane	1.0	U	1.0		ug/L			10/27/14 11:49	1
Vinyl acetate	2.0	U	2.0		ug/L			10/27/14 11:49	1
Vinyl chloride	1.0	U	1.0		ug/L			10/27/14 11:49	1
Xylenes, Total	2.0	U	2.0		ug/L			10/27/14 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*10/27/14 11:49*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*10/27/14 11:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*10/27/14 11:49*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*10/27/14 11:49*	*1*

Lab Sample ID: LCS 680-355402/4
Matrix: Water
Analysis Batch: 355402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	248		ug/L		99	39 - 162
Benzene	50.0	52.8		ug/L		106	74 - 123
Bromodichloromethane	50.0	55.2		ug/L		110	72 - 129
Bromoform	50.0	45.7		ug/L		91	60 - 134
Bromomethane	50.0	60.9		ug/L		122	10 - 171
2-Butanone	250	245		ug/L		98	55 - 142
Carbon disulfide	50.0	52.9		ug/L		106	63 - 142
Carbon tetrachloride	50.0	50.2		ug/L		100	70 - 131
Chlorobenzene	50.0	51.0		ug/L		102	79 - 120
Chloroethane	50.0	52.4		ug/L		105	47 - 148
Chloroform	50.0	51.5		ug/L		103	76 - 128
Chloromethane	50.0	62.0		ug/L		124	47 - 151
cis-1,3-Dichloropropene	50.0	58.4		ug/L		117	73 - 128
Dibromochloromethane	50.0	59.7		ug/L		119	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	51.6		ug/L		103	57 - 126
1,2-Dibromoethane	50.0	54.4		ug/L		109	75 - 127
Dibromomethane	50.0	52.0		ug/L		104	75 - 122
1,2-Dichlorobenzene	50.0	50.2		ug/L		100	77 - 124
1,3-Dichlorobenzene	50.0	50.7		ug/L		101	79 - 123
1,4-Dichlorobenzene	50.0	49.2		ug/L		98	76 - 124
Dichlorodifluoromethane	50.0	71.2		ug/L		142	41 - 165
1,1-Dichloroethane	50.0	50.4		ug/L		101	69 - 132
1,2-Dichloroethane	50.0	50.8		ug/L		102	75 - 120
1,1-Dichloroethene	50.0	46.7		ug/L		93	73 - 134
1,2-Dichloropropane	50.0	54.1		ug/L		108	71 - 126

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-355402/4
Matrix: Water
Analysis Batch: 355402

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	51.3		ug/L		103	78 - 125
2-Hexanone	250	265		ug/L		106	52 - 149
Methylene Chloride	50.0	51.9		ug/L		104	79 - 124
4-Methyl-2-pentanone	250	267		ug/L		107	51 - 143
Styrene	50.0	56.3		ug/L		113	75 - 129
1,1,1,2-Tetrachloroethane	50.0	53.7		ug/L		107	68 - 132
1,1,2,2-Tetrachloroethane	50.0	50.5		ug/L		101	71 - 127
Tetrachloroethene	50.0	48.6		ug/L		97	77 - 128
Toluene	50.0	52.7		ug/L		105	77 - 125
trans-1,2-Dichloroethene	50.0	49.3		ug/L		99	78 - 130
trans-1,3-Dichloropropene	50.0	58.1		ug/L		116	72 - 127
1,2,4-Trichlorobenzene	50.0	51.9		ug/L		104	67 - 134
1,1,1-Trichloroethane	50.0	50.7		ug/L		101	76 - 126
1,1,2-Trichloroethane	50.0	52.5		ug/L		105	69 - 127
Trichloroethene	50.0	50.5		ug/L		101	80 - 120
Trichlorofluoromethane	50.0	46.0		ug/L		92	66 - 144
1,2,3-Trichloropropane	50.0	51.7		ug/L		103	74 - 126
Vinyl chloride	50.0	57.3		ug/L		115	58 - 141
Xylenes, Total	100	105		ug/L		105	80 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 680-355402/5
Matrix: Water
Analysis Batch: 355402

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	250	230		ug/L		92	39 - 162	8	50
Benzene	50.0	52.4		ug/L		105	74 - 123	1	30
Bromodichloromethane	50.0	53.1		ug/L		106	72 - 129	4	30
Bromoform	50.0	45.1		ug/L		90	60 - 134	1	30
Bromomethane	50.0	64.1		ug/L		128	10 - 171	5	50
2-Butanone	250	237		ug/L		95	55 - 142	3	30
Carbon disulfide	50.0	51.7		ug/L		103	63 - 142	2	30
Carbon tetrachloride	50.0	48.0		ug/L		96	70 - 131	5	30
Chlorobenzene	50.0	50.3		ug/L		101	79 - 120	1	30
Chloroethane	50.0	53.0		ug/L		106	47 - 148	1	40
Chloroform	50.0	51.6		ug/L		103	76 - 128	0	30
Chloromethane	50.0	61.2		ug/L		122	47 - 151	1	30
cis-1,3-Dichloropropene	50.0	56.7		ug/L		113	73 - 128	3	30
Dibromochloromethane	50.0	56.2		ug/L		112	63 - 134	6	50
1,2-Dibromo-3-Chloropropane	50.0	51.4		ug/L		103	57 - 126	0	50
1,2-Dibromoethane	50.0	51.6		ug/L		103	75 - 127	5	30
Dibromomethane	50.0	49.9		ug/L		100	75 - 122	4	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-355402/5
Matrix: Water
Analysis Batch: 355402

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	49.5		ug/L		99	77 - 124	1	30
1,3-Dichlorobenzene	50.0	50.0		ug/L		100	79 - 123	1	30
1,4-Dichlorobenzene	50.0	49.0		ug/L		98	76 - 124	0	30
Dichlorodifluoromethane	50.0	63.2		ug/L		126	41 - 165	12	50
1,1-Dichloroethane	50.0	50.1		ug/L		100	69 - 132	1	30
1,2-Dichloroethane	50.0	43.7		ug/L		87	75 - 120	15	30
1,1-Dichloroethene	50.0	45.8		ug/L		92	73 - 134	2	30
1,2-Dichloropropane	50.0	53.5		ug/L		107	71 - 126	1	30
Ethylbenzene	50.0	51.6		ug/L		103	78 - 125	1	30
2-Hexanone	250	253		ug/L		101	52 - 149	5	30
Methylene Chloride	50.0	49.0		ug/L		98	79 - 124	6	30
4-Methyl-2-pentanone	250	255		ug/L		102	51 - 143	5	30
Styrene	50.0	56.7		ug/L		113	75 - 129	1	30
1,1,1,2-Tetrachloroethane	50.0	53.7		ug/L		107	68 - 132	0	30
1,1,2,2-Tetrachloroethane	50.0	49.6		ug/L		99	71 - 127	2	30
Tetrachloroethene	50.0	47.6		ug/L		95	77 - 128	2	30
Toluene	50.0	51.9		ug/L		104	77 - 125	1	30
trans-1,2-Dichloroethene	50.0	49.4		ug/L		99	78 - 130	0	30
trans-1,3-Dichloropropene	50.0	56.2		ug/L		112	72 - 127	3	50
1,2,4-Trichlorobenzene	50.0	50.7		ug/L		101	67 - 134	2	30
1,1,1-Trichloroethane	50.0	48.1		ug/L		96	76 - 126	5	30
1,1,2-Trichloroethane	50.0	50.7		ug/L		101	69 - 127	4	30
Trichloroethene	50.0	50.6		ug/L		101	80 - 120	0	30
Trichlorofluoromethane	50.0	45.5		ug/L		91	66 - 144	1	30
1,2,3-Trichloropropane	50.0	50.8		ug/L		102	74 - 126	2	30
Vinyl chloride	50.0	52.6		ug/L		105	58 - 141	9	30
Xylenes, Total	100	105		ug/L		105	80 - 124	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 680-355567/9
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
2-Butanone	0.010	U	0.010		mg/L			10/28/14 10:18	1
Carbon tetrachloride	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
Chlorobenzene	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
Chloroform	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
1,2-Dichloroethane	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
1,1-Dichloroethene	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
Tetrachloroethene	0.0010	U	0.0010		mg/L			10/28/14 10:18	1
Trichloroethene	0.0010	U	0.0010		mg/L			10/28/14 10:18	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-355567/9
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.0010	U	0.0010		mg/L			10/28/14 10:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/28/14 10:18*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*		*10/28/14 10:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*10/28/14 10:18*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*		*10/28/14 10:18*	*1*

Lab Sample ID: LCS 680-355567/4
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.0545		mg/L		109	74 - 123
2-Butanone	0.250	0.290		mg/L		116	55 - 142
Carbon tetrachloride	0.0500	0.0550		mg/L		110	70 - 131
Chlorobenzene	0.0500	0.0515		mg/L		103	79 - 120
Chloroform	0.0500	0.0555		mg/L		111	76 - 128
1,2-Dichloroethane	0.0500	0.0564		mg/L		113	75 - 120
1,1-Dichloroethene	0.0500	0.0523		mg/L		105	73 - 134
Tetrachloroethene	0.0500	0.0524		mg/L		105	77 - 128
Trichloroethene	0.0500	0.0535		mg/L		107	80 - 120
Vinyl chloride	0.0500	0.0605		mg/L		121	58 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*70 - 130*
Dibromofluoromethane (Surr)	*112*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 680-355567/5
Matrix: Solid
Analysis Batch: 355567

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
Benzene	0.0500	0.0526		mg/L		105	74 - 123	4	30
2-Butanone	0.250	0.271		mg/L		109	55 - 142	7	30
Carbon tetrachloride	0.0500	0.0536		mg/L		107	70 - 131	3	30
Chlorobenzene	0.0500	0.0512		mg/L		102	79 - 120	1	30
Chloroform	0.0500	0.0540		mg/L		108	76 - 128	3	30
1,2-Dichloroethane	0.0500	0.0543		mg/L		109	75 - 120	4	30
1,1-Dichloroethene	0.0500	0.0518		mg/L		104	73 - 134	1	30
Tetrachloroethene	0.0500	0.0498		mg/L		100	77 - 128	5	30
Trichloroethene	0.0500	0.0522		mg/L		104	80 - 120	2	30
Vinyl chloride	0.0500	0.0612		mg/L		122	58 - 141	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-355567/5
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LB 680-355121/1-A
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
2-Butanone	0.010	U	0.010		mg/L			10/28/14 11:44	1
Carbon tetrachloride	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
Chlorobenzene	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
Chloroform	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
1,2-Dichloroethane	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
1,1-Dichloroethene	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
Tetrachloroethene	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
Trichloroethene	0.0010	U	0.0010		mg/L			10/28/14 11:44	1
Vinyl chloride	0.0010	U	0.0010		mg/L			10/28/14 11:44	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/28/14 11:44	1
Dibromofluoromethane (Surr)	107		70 - 130		10/28/14 11:44	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		10/28/14 11:44	1
4-Bromofluorobenzene (Surr)	99		70 - 130		10/28/14 11:44	1

Lab Sample ID: 680-106486-8 MS
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: STP 5-1
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.020	U	1.00	1.08		mg/L		108	74 - 123
2-Butanone	0.20	U	5.00	5.61		mg/L		112	55 - 142
Carbon tetrachloride	0.020	U	1.00	1.14		mg/L		114	70 - 131
Chlorobenzene	0.020	U	1.00	1.03		mg/L		103	79 - 120
Chloroform	0.020	U	1.00	1.12		mg/L		112	76 - 128
1,2-Dichloroethane	0.020	U	1.00	1.11		mg/L		111	75 - 120
1,1-Dichloroethene	0.020	U	1.00	1.18		mg/L		118	73 - 134
Tetrachloroethene	0.020	U	1.00	1.08		mg/L		108	77 - 128
Trichloroethene	0.020	U	1.00	1.10		mg/L		110	80 - 120
Vinyl chloride	0.020	U	1.00	1.22		mg/L		122	58 - 141

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	104		70 - 130
Dibromofluoromethane (Surr)	113		70 - 130
1,2-Dichloroethane-d4 (Surr)	108		70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-106486-8 MS
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: STP 5-1
Prep Type: TCLP

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 680-106486-8 MSD
Matrix: Solid
Analysis Batch: 355567

Client Sample ID: STP 5-1
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.020	U	1.00	1.18		mg/L		118	74 - 123	9	30
2-Butanone	0.20	U	5.00	6.04		mg/L		121	55 - 142	7	30
Carbon tetrachloride	0.020	U	1.00	1.26		mg/L		126	70 - 131	10	30
Chlorobenzene	0.020	U	1.00	1.13		mg/L		113	79 - 120	9	30
Chloroform	0.020	U	1.00	1.18		mg/L		118	76 - 128	6	30
1,2-Dichloroethane	0.020	U	1.00	1.18		mg/L		118	75 - 120	6	30
1,1-Dichloroethene	0.020	U	1.00	1.23		mg/L		123	73 - 134	4	30
Tetrachloroethene	0.020	U	1.00	1.20		mg/L		120	77 - 128	10	30
Trichloroethene	0.020	U	1.00	1.20		mg/L		120	80 - 120	9	30
Vinyl chloride	0.020	U	1.00	1.35		mg/L		135	58 - 141	10	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	*117*		*70 - 130*
Dibromofluoromethane (Surr)	*120*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 130*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-355438/21-A
Matrix: Solid
Analysis Batch: 356138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 355438

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
2,4-Dinitrotoluene	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
Hexachlorobenzene	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
Hexachlorobutadiene	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
Hexachloroethane	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
Methyl Phenols,Total	0.020	U	0.020		mg/L		10/27/14 16:01	10/30/14 16:51	1
Nitrobenzene	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
Pentachlorophenol	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 16:51	1
Pyridine	0.050	U	0.050		mg/L		10/27/14 16:01	10/30/14 16:51	1
2,4,5-Trichlorophenol	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1
2,4,6-Trichlorophenol	0.010	U	0.010		mg/L		10/27/14 16:01	10/30/14 16:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	*79*		*38 - 130*	*10/27/14 16:01*	*10/30/14 16:51*	*1*
2-Fluorophenol	*68*		*25 - 130*	*10/27/14 16:01*	*10/30/14 16:51*	*1*
Nitrobenzene-d5	*86*		*39 - 130*	*10/27/14 16:01*	*10/30/14 16:51*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-355438/21-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 356138 — **Prep Batch: 355438**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5	70		25 - 130	10/27/14 16:01	10/30/14 16:51	1
Terphenyl-d14	118		10 - 143	10/27/14 16:01	10/30/14 16:51	1
2,4,6-Tribromophenol	83		31 - 141	10/27/14 16:01	10/30/14 16:51	1

Lab Sample ID: LCS 680-355438/22-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 356138 — **Prep Batch: 355438**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.100	0.0448		mg/L		45	43 - 130
2,4-Dinitrotoluene	0.100	0.0802		mg/L		80	63 - 130
Hexachlorobenzene	0.100	0.0784		mg/L		78	52 - 130
Hexachlorobutadiene	0.100	0.0466		mg/L		47	36 - 130
Hexachloroethane	0.100	0.0409		mg/L		41	39 - 130
Nitrobenzene	0.100	0.0627		mg/L		63	56 - 130
Pentachlorophenol	0.200	0.172		mg/L		86	42 - 138
Pyridine	0.100	0.050	U	mg/L		26	10 - 130
2,4,5-Trichlorophenol	0.100	0.0753		mg/L		75	61 - 130
2,4,6-Trichlorophenol	0.100	0.0724		mg/L		72	57 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	63		38 - 130
2-Fluorophenol	46		25 - 130
Nitrobenzene-d5	59		39 - 130
Phenol-d5	49		25 - 130
Terphenyl-d14	100		10 - 143
2,4,6-Tribromophenol	71		31 - 141

Lab Sample ID: LB1 680-355273/1-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 356138 — **Prep Batch: 355438**

Analyte	LB1 Result	LB1 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
2,4-Dinitrotoluene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
Hexachlorobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
Hexachlorobutadiene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
Hexachloroethane	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
Methyl Phenols,Total	0.099	U	0.099		mg/L		10/27/14 16:01	10/30/14 17:16	1
Nitrobenzene	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
Pentachlorophenol	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 17:16	1
Pyridine	0.25	U	0.25		mg/L		10/27/14 16:01	10/30/14 17:16	1
2,4,5-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1
2,4,6-Trichlorophenol	0.049	U	0.049		mg/L		10/27/14 16:01	10/30/14 17:16	1

Surrogate	LB1 %Recovery	LB1 Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		38 - 130	10/27/14 16:01	10/30/14 17:16	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB1 680-355273/1-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 356138 — **Prep Batch: 355438**

Surrogate	LB1 %Recovery	LB1 Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	60		25 - 130	10/27/14 16:01	10/30/14 17:16	1
Nitrobenzene-d5	72		39 - 130	10/27/14 16:01	10/30/14 17:16	1
Phenol-d5	63		25 - 130	10/27/14 16:01	10/30/14 17:16	1
Terphenyl-d14	104		10 - 143	10/27/14 16:01	10/30/14 17:16	1
2,4,6-Tribromophenol	73		31 - 141	10/27/14 16:01	10/30/14 17:16	1

Lab Sample ID: 680-106486-1 MS — **Client Sample ID: STP 1-1**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 356138 — **Prep Batch: 355438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.050	U	0.494	0.258		mg/L		52	43 - 130
2,4-Dinitrotoluene	0.050	U	0.494	0.421		mg/L		85	63 - 130
Hexachlorobenzene	0.050	U	0.494	0.354		mg/L		72	52 - 130
Hexachlorobutadiene	0.050	U	0.494	0.264		mg/L		53	36 - 130
Hexachloroethane	0.050	U	0.494	0.245		mg/L		50	39 - 130
Nitrobenzene	0.050	U	0.494	0.332		mg/L		67	56 - 130
Pentachlorophenol	0.25	U	0.988	0.888		mg/L		90	42 - 138
Pyridine	0.25	U	0.494	0.261		mg/L		53	10 - 130
2,4,5-Trichlorophenol	0.050	U	0.494	0.407		mg/L		82	61 - 130
2,4,6-Trichlorophenol	0.050	U	0.494	0.373		mg/L		75	57 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	70		38 - 130
2-Fluorophenol	54		25 - 130
Nitrobenzene-d5	66		39 - 130
Phenol-d5	58		25 - 130
Terphenyl-d14	97		10 - 143
2,4,6-Tribromophenol	79		31 - 141

Lab Sample ID: 680-106486-1 MSD — **Client Sample ID: STP 1-1**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 356138 — **Prep Batch: 355438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.050	U	0.491	0.259		mg/L		53	43 - 130	1	50
2,4-Dinitrotoluene	0.050	U	0.491	0.387		mg/L		79	63 - 130	8	50
Hexachlorobenzene	0.050	U	0.491	0.324		mg/L		66	52 - 130	9	50
Hexachlorobutadiene	0.050	U	0.491	0.275		mg/L		56	36 - 130	4	50
Hexachloroethane	0.050	U	0.491	0.262		mg/L		53	39 - 130	7	50
Nitrobenzene	0.050	U	0.491	0.374		mg/L		76	56 - 130	12	50
Pentachlorophenol	0.25	U	0.982	0.872		mg/L		89	42 - 138	2	50
Pyridine	0.25	U	0.491	0.25	U F1	mg/L		0	10 - 130	NC	50
2,4,5-Trichlorophenol	0.050	U	0.491	0.377		mg/L		77	61 - 130	7	50
2,4,6-Trichlorophenol	0.050	U	0.491	0.351		mg/L		71	57 - 130	6	50

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-106486-1 MSD
Matrix: Solid
Analysis Batch: 356138

Client Sample ID: STP 1-1
Prep Type: TCLP
Prep Batch: 355438

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*65*		*38 - 130*
2-Fluorophenol	*55*		*25 - 130*
Nitrobenzene-d5	*68*		*39 - 130*
Phenol-d5	*57*		*25 - 130*
Terphenyl-d14	*87*		*10 - 143*
2,4,6-Tribromophenol	*71*		*31 - 141*

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography

Lab Sample ID: MB 680-354974/18-A
Matrix: Solid
Analysis Batch: 355206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354974

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1221	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1232	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1242	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1248	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1254	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1260	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1262	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1
PCB-1268	33	U	33		ug/Kg		10/23/14 11:50	10/24/14 14:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*121*		*54 - 133*	*10/23/14 11:50*	*10/24/14 14:02*	*1*
Tetrachloro-m-xylene	*105*		*46 - 130*	*10/23/14 11:50*	*10/24/14 14:02*	*1*

Lab Sample ID: LCS 680-354974/19-A
Matrix: Solid
Analysis Batch: 355206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	666	701		ug/Kg		105	43 - 130
PCB-1260	666	774		ug/Kg		116	45 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*110*		*54 - 133*
Tetrachloro-m-xylene	*91*		*46 - 130*

Lab Sample ID: 680-106486-2 MS
Matrix: Solid
Analysis Batch: 355206

Client Sample ID: STP 2-1
Prep Type: Total/NA
Prep Batch: 354974

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	35	U	715	695		ug/Kg	☼	97	43 - 130

Method: 8081B/8082A - Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography (Continued)

Lab Sample ID: 680-106486-2 MS — **Client Sample ID: STP 2-1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 355206 — **Prep Batch: 354974**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1260	35	U	715	658		ug/Kg	☼	92	45 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*59*		*54 - 133*
Tetrachloro-m-xylene	*94*		*46 - 130*

Lab Sample ID: 680-106486-2 MSD — **Client Sample ID: STP 2-1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 355206 — **Prep Batch: 354974**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	35	U	714	689		ug/Kg	☼	97	43 - 130	1	50
PCB-1260	35	U	714	665		ug/Kg	☼	93	45 - 130	1	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*54 - 133*
Tetrachloro-m-xylene	*90*		*46 - 130*

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

GC/MS VOA

Leach Batch: 355121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	TCLP	Solid	1311	
680-106486-2	STP 2-1	TCLP	Solid	1311	
680-106486-3	STP 3-1	TCLP	Solid	1311	
680-106486-4	STP 3-2	TCLP	Solid	1311	
680-106486-5	STP 4-1	TCLP	Solid	1311	
680-106486-6	STP 4-2	TCLP	Solid	1311	
680-106486-7	STP 4-3	TCLP	Solid	1311	
680-106486-8	STP 5-1	TCLP	Solid	1311	
680-106486-8 MS	STP 5-1	TCLP	Solid	1311	
680-106486-8 MSD	STP 5-1	TCLP	Solid	1311	
LB 680-355121/1-A	Method Blank	TCLP	Solid	1311	

Analysis Batch: 355402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-10	Trip Blank	Total/NA	Water	8260B	
LCS 680-355402/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-355402/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-355402/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 355567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	TCLP	Solid	8260B	355121
680-106486-2	STP 2-1	TCLP	Solid	8260B	355121
680-106486-3	STP 3-1	TCLP	Solid	8260B	355121
680-106486-4	STP 3-2	TCLP	Solid	8260B	355121
680-106486-5	STP 4-1	TCLP	Solid	8260B	355121
680-106486-6	STP 4-2	TCLP	Solid	8260B	355121
680-106486-7	STP 4-3	TCLP	Solid	8260B	355121
680-106486-8	STP 5-1	TCLP	Solid	8260B	355121
680-106486-8 MS	STP 5-1	TCLP	Solid	8260B	355121
680-106486-8 MSD	STP 5-1	TCLP	Solid	8260B	355121
LB 680-355121/1-A	Method Blank	TCLP	Solid	8260B	355121
LCS 680-355567/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-355567/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 680-355567/9	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Leach Batch: 355273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	TCLP	Solid	1311	
680-106486-1 MS	STP 1-1	TCLP	Solid	1311	
680-106486-1 MSD	STP 1-1	TCLP	Solid	1311	
680-106486-2	STP 2-1	TCLP	Solid	1311	
680-106486-3	STP 3-1	TCLP	Solid	1311	
680-106486-4	STP 3-2	TCLP	Solid	1311	
680-106486-5	STP 4-1	TCLP	Solid	1311	
680-106486-6	STP 4-2	TCLP	Solid	1311	
680-106486-7	STP 4-3	TCLP	Solid	1311	
680-106486-8	STP 5-1	TCLP	Solid	1311	

GC/MS Semi VOA (Continued)

Leach Batch: 355273 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-9	STP 5-2	TCLP	Solid	1311	
LB1 680-355273/1-B	Method Blank	TCLP	Solid	1311	

Prep Batch: 355438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	TCLP	Solid	3520C	355273
680-106486-1 MS	STP 1-1	TCLP	Solid	3520C	355273
680-106486-1 MSD	STP 1-1	TCLP	Solid	3520C	355273
680-106486-2	STP 2-1	TCLP	Solid	3520C	355273
680-106486-3	STP 3-1	TCLP	Solid	3520C	355273
680-106486-4	STP 3-2	TCLP	Solid	3520C	355273
680-106486-5	STP 4-1	TCLP	Solid	3520C	355273
680-106486-6	STP 4-2	TCLP	Solid	3520C	355273
680-106486-7	STP 4-3	TCLP	Solid	3520C	355273
680-106486-8	STP 5-1	TCLP	Solid	3520C	355273
680-106486-9	STP 5-2	TCLP	Solid	3520C	355273
LB1 680-355273/1-B	Method Blank	TCLP	Solid	3520C	355273
LCS 680-355438/22-A	Lab Control Sample	Total/NA	Solid	3520C	
MB 680-355438/21-A	Method Blank	Total/NA	Solid	3520C	

Analysis Batch: 356138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	TCLP	Solid	8270C	355438
680-106486-1 MS	STP 1-1	TCLP	Solid	8270C	355438
680-106486-1 MSD	STP 1-1	TCLP	Solid	8270C	355438
680-106486-2	STP 2-1	TCLP	Solid	8270C	355438
680-106486-3	STP 3-1	TCLP	Solid	8270C	355438
680-106486-4	STP 3-2	TCLP	Solid	8270C	355438
680-106486-5	STP 4-1	TCLP	Solid	8270C	355438
680-106486-6	STP 4-2	TCLP	Solid	8270C	355438
680-106486-7	STP 4-3	TCLP	Solid	8270C	355438
680-106486-8	STP 5-1	TCLP	Solid	8270C	355438
680-106486-9	STP 5-2	TCLP	Solid	8270C	355438
LB1 680-355273/1-B	Method Blank	TCLP	Solid	8270C	355438
LCS 680-355438/22-A	Lab Control Sample	Total/NA	Solid	8270C	355438
MB 680-355438/21-A	Method Blank	Total/NA	Solid	8270C	355438

GC Semi VOA

Prep Batch: 354974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	Total/NA	Solid	3546	
680-106486-2	STP 2-1	Total/NA	Solid	3546	
680-106486-2 MS	STP 2-1	Total/NA	Solid	3546	
680-106486-2 MSD	STP 2-1	Total/NA	Solid	3546	
680-106486-3	STP 3-1	Total/NA	Solid	3546	
680-106486-4	STP 3-2	Total/NA	Solid	3546	
680-106486-5	STP 4-1	Total/NA	Solid	3546	
680-106486-6	STP 4-2	Total/NA	Solid	3546	
680-106486-7	STP 4-3	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 354974 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-8	STP 5-1	Total/NA	Solid	3546	
680-106486-9	STP 5-2	Total/NA	Solid	3546	
LCS 680-354974/19-A	Lab Control Sample	Total/NA	Solid	3546	
MB 680-354974/18-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 355206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-2	STP 2-1	Total/NA	Solid	8081B/8082A	354974
680-106486-2 MS	STP 2-1	Total/NA	Solid	8081B/8082A	354974
680-106486-2 MSD	STP 2-1	Total/NA	Solid	8081B/8082A	354974
680-106486-3	STP 3-1	Total/NA	Solid	8081B/8082A	354974
680-106486-4	STP 3-2	Total/NA	Solid	8081B/8082A	354974
680-106486-5	STP 4-1	Total/NA	Solid	8081B/8082A	354974
680-106486-6	STP 4-2	Total/NA	Solid	8081B/8082A	354974
680-106486-7	STP 4-3	Total/NA	Solid	8081B/8082A	354974
680-106486-8	STP 5-1	Total/NA	Solid	8081B/8082A	354974
LCS 680-354974/19-A	Lab Control Sample	Total/NA	Solid	8081B/8082A	354974
MB 680-354974/18-A	Method Blank	Total/NA	Solid	8081B/8082A	354974

Analysis Batch: 355531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	Total/NA	Solid	8081B/8082A	354974
680-106486-9	STP 5-2	Total/NA	Solid	8081B/8082A	354974

General Chemistry

Analysis Batch: 354901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-106486-1	STP 1-1	Total/NA	Solid	Moisture	
680-106486-2	STP 2-1	Total/NA	Solid	Moisture	
680-106486-3	STP 3-1	Total/NA	Solid	Moisture	
680-106486-4	STP 3-2	Total/NA	Solid	Moisture	
680-106486-5	STP 4-1	Total/NA	Solid	Moisture	
680-106486-6	STP 4-2	Total/NA	Solid	Moisture	
680-106486-7	STP 4-3	Total/NA	Solid	Moisture	
680-106486-8	STP 5-1	Total/NA	Solid	Moisture	
680-106486-9	STP 5-2	Total/NA	Solid	Moisture	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 1-1

Lab Sample ID: 680-106486-1

Date Collected: 10/22/14 07:15

Matrix: Solid

Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.10 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 13:25	MMT	TAL SAV
TCLP	Leach	1311			100.03 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			201.9 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	201.9 mL	1.0 mL	356138	10/30/14 18:32	LEG	TAL SAV
Total/NA	Prep	3546			15.00 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.00 g	10 mL	355531	10/27/14 18:05	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:09	MDK	TAL SAV

Client Sample ID: STP 2-1

Lab Sample ID: 680-106486-2

Date Collected: 10/22/14 07:20

Matrix: Solid

Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.02 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 13:46	MMT	TAL SAV
TCLP	Leach	1311			100.05 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			216.2 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	216.2 mL	1.0 mL	356138	10/30/14 18:57	LEG	TAL SAV
Total/NA	Prep	3546			15.04 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.04 g	10 mL	355206	10/24/14 14:33	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:09	MDK	TAL SAV

Client Sample ID: STP 3-1

Lab Sample ID: 680-106486-3

Date Collected: 10/22/14 07:35

Matrix: Solid

Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.27 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 14:06	MMT	TAL SAV
TCLP	Leach	1311			100.00 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			200.8 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	200.8 mL	1.0 mL	356138	10/30/14 19:22	LEG	TAL SAV
Total/NA	Prep	3546			14.99 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	14.99 g	10 mL	355206	10/24/14 14:48	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: STP 3-2

Lab Sample ID: 680-106486-4

Date Collected: 10/22/14 07:40

Matrix: Solid

Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.37 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 3-2

Lab Sample ID: 680-106486-4

Date Collected: 10/22/14 07:40
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 14:26	MMT	TAL SAV
TCLP	Leach	1311			100.05 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			204.0 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	204.0 mL	1.0 mL	356138	10/30/14 19:48	LEG	TAL SAV
Total/NA	Prep	3546			15.02 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.02 g	10 mL	355206	10/24/14 15:04	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: STP 4-1

Lab Sample ID: 680-106486-5

Date Collected: 10/22/14 08:00
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.17 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 14:46	MMT	TAL SAV
TCLP	Leach	1311			100.05 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			205.0 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	205.0 mL	1.0 mL	356138	10/30/14 20:13	LEG	TAL SAV
Total/NA	Prep	3546			15.02 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.02 g	10 mL	355206	10/24/14 15:19	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: STP 4-2

Lab Sample ID: 680-106486-6

Date Collected: 10/22/14 08:15
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.12 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 15:06	MMT	TAL SAV
TCLP	Leach	1311			100.04 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			206.5 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	206.5 mL	1.0 mL	356138	10/30/14 20:38	LEG	TAL SAV
Total/NA	Prep	3546			15.02 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.02 g	10 mL	355206	10/24/14 15:35	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: STP 4-3

Lab Sample ID: 680-106486-7

Date Collected: 10/22/14 08:25
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.13 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 15:26	MMT	TAL SAV

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Client Sample ID: STP 4-3

Lab Sample ID: 680-106486-7

Date Collected: 10/22/14 08:25
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.00 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			212.5 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	212.5 mL	1.0 mL	356138	10/30/14 21:04	LEG	TAL SAV
Total/NA	Prep	3546			15.01 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.01 g	10 mL	355206	10/24/14 15:50	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: STP 5-1

Lab Sample ID: 680-106486-8

Date Collected: 10/22/14 08:40
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			20.16 g	400 mL	355121	10/23/14 22:30	JDS	TAL SAV
TCLP	Analysis	8260B		20	5 mL	5 mL	355567	10/28/14 15:47	MMT	TAL SAV
TCLP	Leach	1311			100.01 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			204.2 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	204.2 mL	1.0 mL	356138	10/30/14 21:29	LEG	TAL SAV
Total/NA	Prep	3546			15.04 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.04 g	10 mL	355206	10/24/14 16:05	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: STP 5-2

Lab Sample ID: 680-106486-9

Date Collected: 10/22/14 08:50
Matrix: Solid
Date Received: 10/22/14 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			100.05 g	2000 mL	355273	10/24/14 19:00	JDS	TAL SAV
TCLP	Prep	3520C			209.7 mL	1.0 mL	355438	10/27/14 16:01	RBS	TAL SAV
TCLP	Analysis	8270C		1	209.7 mL	1.0 mL	356138	10/30/14 21:55	LEG	TAL SAV
Total/NA	Prep	3546			15.00 g	10 mL	354974	10/23/14 11:50	JMV	TAL SAV
Total/NA	Analysis	8081B/8082A		1	15.00 g	10 mL	355531	10/27/14 18:19	JCK	TAL SAV
Total/NA	Analysis	Moisture		1			354901	10/22/14 18:31	MDK	TAL SAV

Client Sample ID: Trip Blank

Lab Sample ID: 680-106486-10

Date Collected: 10/22/14 07:00
Matrix: Water
Date Received: 10/22/14 10:10

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	355402	10/27/14 12:44	TAR	TAL SAV

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Serial Number 88241

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 Hercules Kymene	01401000.GA60	GA

TAL (LAB) PROJECT MANAGER	P.O. NUMBER	CONTRACT NO.
Kathy Smith	—	

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
David Wilderman	404-952-1635	770-428-4014

CLIENT NAME	CLIENT E-MAIL
ARCADIS	david.wilderman@arcadis-us.com

CLIENT ADDRESS: 1000 Cobb Place Blvd, Kennesaw, GA

COMPANY CONTRACTING THIS WORK (if applicable):

PAGE ___ OF ___

STANDARD REPORT DELIVERY ◉

DATE DUE ___

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE ___

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	TCLP SW-846 1311 8260B	TCLP 8270C SW-846 1311	Total PCB SW-846 3082A							REMARKS
								PRESERVATIVE									
								NUMBER OF CONTAINERS SUBMITTED									
10-22-14	0715	STP 1-1			X			✓	✓	✓							
	0720	STP 2-1			X			✓	✓	✓							
	0735	STP 3-1			X			✓	✓	✓							
	0740	STP 3-2			X			✓	✓	✓							
	0800	STP 4-1			X			✓	✓	✓							
	0815	STP 4-2			X			✓	✓	✓							
	0825	STP 4-3			X			✓	✓	✓							
	0840	STP 5-1			X			✓	✓	✓							
	0850	STP - 5-2			X				✓	✓							
	0700	Trip Blank			X			✓									

680-106486 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	10/22/14	10:05						

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			[signature]	10/22/14	10:10			

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	10/22/14	1010	YES ○ NO ○		680-106486	4.8 a1

TAL8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-106486-1

Login Number: 106486

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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?	N/A	
There are no discrepancies between the containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Hercules Savannah

TestAmerica Job ID: 680-106486-1

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14 *
Indiana	State Program	5	N/A	06-30-15
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program	1	GA00006	09-24-16
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program	5	9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-15
New Jersey	NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP	2	10842	03-31-15
North Carolina (DW)	State Program	4	13701	07-31-15
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-15
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14 *
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

* Certification renewal pending - certification considered valid.

Appendix D

Soil Boring Logs

BORING LOG

Boring/Well Number: SB- F4	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 0945 End Time: 1015	
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND w/ trace organics - dry loose, VFG, rounded color - brown ( )	SM	D	SB-F4 (0-1) (2014) Collected @ 1000
								Moist after 1 Ft Same as above except color is pale brown	SM	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- F6	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1035 End Time: 1100	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SA F4			SB-F6 (0-1) (2014) 1050

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- F15	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1110 End Time: 1140	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SA F4			SB-F15 (0-1) (2014) @ 1130

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- F27	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1500 End Time: 1600
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND - LOOSE w/ trace org., v.dk. brown V.F.G, Round, dry			(0-1) 1515
								1-1.25 SILTY SAND w/ little clay "Burnt" smell/ odor dry			(1-3) 1530
								1.25 - 1.5 SAA except MOIST			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 133	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1620 End Time: 1655	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2.
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING NEAR DITCH

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SILTY SAND w/ trace organics, loose, VFG 0-1.5 dry 1.5-2 Moist			0-1 @ 1650

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 13A	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1705 End Time: 1745
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

NEAR DITCH

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SA SB-133			0-1 @ 1740

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 138	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 0915 End Time: 0950	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches):	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) 0-1 ↓	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SILTY SAND-AND-ROAD BASE = SS IS VFG LOOSE w/ trace organics and is beneath rock layer 0.2' THICK; HAD TO ATTEMPT 3 TIMES; FIRST + SECOND ATTEMPTS HAD OBSTRUCTIONS I COULD NOT GET THROUGH; DRY- FROM 0-1.5			(0-1) 0998
								1.5-2.0 MOIST / NO SAMPLE			
								1-2 SILTY SAND-VFG, LOOSE, MOIST ROUND, V.dark brown			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- F14	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1010 End Time: 1100
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ ~~Drum~~ JH

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

* Area is shaded - dry/moist - rained yest.

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								~~0-1~~ 0-1			
HA								SILTY SAND w/ trace Organics * dry/Moist, Soft, loose, VFG, Round, V.d. brown	SM	D/M	0-1 G 1055
								PAST 1.0 ft SOIL IS wet			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 152	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/29/2014 End Date: 8/30/2014	Borehole Start Time: 1110 End Time: 1155	
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (~~inches~~): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~20
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) GRASS	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								collected soil below grass - moist, likely from rain (yesterday) No dry soil; collecting (0-1)	SM	M	DUP-01 (0-1) 1150
								going down to 2.0			
								1-2 wet soil - SAA			
								SILTY SAND w/ trace clay slightly cohesive, VFG, loose, round, wet, very dark brown	SM	W	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 14	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1345 End Time: 1430	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): 6	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) (Strong odor (burnt sweet))	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND, VFG, w/ burnt wood dry, loose, v. dark brown	Sm	D	(0-1) 1415
								1-2.5 Strong odor obs. SILTY Sand w/ more wood (burnt) Moist to wet	Sm	M/W	
								No sample from 1-3			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- F12	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1445 End Time: 1515	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): 8	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-2.0 SILTY SAND light (yellowish brown) loose, well sort DRY to 1.0	SM	D	(0-1) 1510
								MOIST 1-2 No Sample Collected Same as above	SM	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 151	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1530 End Time: 1600
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): 6	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1.5 SILTY SAND - loose, dry, VFG, dk brown	SM	D	(0-1) 1555
								1.5-2.5 SILTY SAND + SILTY CLAY (CLUMPY) Moist - No sample colleded - v. dk brown slightly cohesive/not plastic	SM/CL	M	DUP-02 ✓

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- f3	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1620 End Time: 1650
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): ~6	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked): Nearest well DTW 3.40 (flush)

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND w/trace sand VFG-LOOSE, v. dk brown,	SM	D	1645 (0-1)
								1-2 SILTY SAND - Moist/wet light yellowish brown no sample collected		M/W	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 118	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1705 End Time: 1735
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches):	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND - loose, VFG, dry - brown	SM	D	(0-1)
								1-2 Moist SILTY SAND - VFG loose, round, v.dk brown	SM	M	1730
								(No sample collected			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 119	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 0845 End Time: 0915
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): 6	Borehole Diameter (inches): 3	Borehole Depth (feet): ~1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

0-0.5 Road base v. dark gray loose

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) 0.5-1.5	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SILTY SAND-w/little SILTY Clay-(clumpy) VFG, loose, not plastic/slight Cohes.		D/M	0910 (0-1)
								0-1 dry/moist			
								1-1.5 Moist			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 115	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 0935 End Time: 1005	
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): 6 + ?	Borehole Diameter (inches): 3	Borehole Depth (feet): N/A
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) UNABLE TO COLLECT	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SAMPLE FROM THIS LOCATION— CORED APPROX. 6-INCHES ANOTHER SLAB LOC BELOW TOP SLAB			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 116	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1015 End Time: 1045	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): 6	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) 0-1.5	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SILTY SAND - loose w/some Clay (chumpy) Moist, VFG, slight Cohesion, brown	SM /CL	M	(0-1) 9 1040
								SILTY SANDY CLAY wet, cohesive, not plastic. Soft v.dk brown Odor obs. No Sample collected after 1.0ft	SM	W	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 113	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1105 End Time: 1135	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): ~ 8	Borehole Diameter (inches): 3	Borehole Depth (feet): ~ 1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-0.5 SILTY SAND bM, loose, VFG, vdk gray	SM	D	(0-1) 1130
								0.5-1.5 SILTY CLAY - plastic/ cohesive/ soft/ moist.	CL	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 135	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1330 End Time: 1355	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness ~~(inches)~~: ~1.0	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1.5 SILTY SAND loose, VFG poorly sort, dk brown w/ little clay slightly cohesive/not plas.	SM	D	(0-1) G 1350
								DRY (0-1) (1-1.5) MOIST			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 136	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1410 End Time: 1445
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches):	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~2.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SANDY CLAY reddish brown/dry Med ~~Stiff, Cohesive~~ JH Slightly cohesive, VFG	CL	D	(0-1) 1430
								1-2.5 SILTY CLAYEY SAND VFG, Dry to 2.5' then Moist, dk gray			(1-3) 1440
								Collected 1-3 sample from above 2.5'			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 137	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1500 End Time: 1535	
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches):	Borehole Diameter (inches): 3	Borehole Depth (feet): ~1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Note: located in a depressed area

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY CLAYEY SAND - DRY/M loose, VFG, light yellowish brown not cohesive/plastic	SM	D/M	(0-1)
								moist after 1.0- to 1.5 No sample Collected from 1-3	SM	M	1530

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 140	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1545 End Time: 1610	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness ~~(inches)~~: N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~2.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~2.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-0.5 SILTY SAND DRY, LOOSE, VERY FINE grained, round, dark brown	SM	D	(0-1) 1605
								0.5-2.5 SILTY CLAY - soft, cohesive/plastic reddish brown, red, yellowish brown	CL	D	(1-3) 1610
								2-2.5 MOIST			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 143	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1620 End Time: 1655
Environmental Contractor: ARCADIS	Geologist's ~~Name:~~ (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3
Borehole Depth (feet): ~2.0		
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): N/A		

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND w/ trace organics dry, loose, VFG, round dark brown	SM	D	(0-1) 1650
								1-2 SILTY Clayey Sand- Moist at 1.5-2 Not plastic/Cohes., soft VFG dark brown	CL	M	DUP-06 Collected (0-1)
								NO Sample collected (1-3)			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 139	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1705 End Time: 1735
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.5	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND - loose VFG, rounded, dark brown, dry	SM	D	(0-1)
								1-2 SILTY CLAY - soft, plastic, reddish brown, cohesive Moist. No sample collected (1-3)	CL	M	1730

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-145	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/22/2014 End Date: 8/22/2014	Borehole Start Time: 1100 End Time: 1140	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): 5 2.0
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 2.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks) 0-2.5	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SILTY SAND loose, dry until 2.0', VFG, well sorted, round, moist after 2.0	SM	D	0-1 ⊖ 1125
								after 2.0'	SM	M	1-3 ⊖ 1135

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 146	Permit Number: NOT APPLICAPLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/22/2014 End Date: 8/22/2014	Borehole Start Time: 1155 End Time: 1220	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): N/A JH ~~N/A~~	Borehole Diameter (inches): 3	Borehole Depth (feet): ~1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								SILTY SAND - 0-1.5 (w/ ballast rocks) (Dry to 1.0) Moist from 1.0, loose, VFG. dark brown, round, well sort.			(0-1) G 1215 DUP-07 collected (0-1)
								No Sample collected (1-3)			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 148	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/22/2014 End Date: 8/22/2014	Borehole Start Time: 1245 End Time: 1325	
Environmental Contractor: ARCADIS	Geologist's Name: ~~(circle one)~~ JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): ~1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								0-1 SILTY SAND - loose, dry, VFG, round, well sorted color: Brown			(0-1) 1310
								Same as above except Moist after 1.0			Dup05 (0-1) collected
								No Sample collected (1-3)			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 144	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/22/2014 End Date: 8/22/2014	Borehole Start Time: 1345 End Time: 1415
Environmental Contractor: ARCADIS	Geologist's Name: (circle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3
Borehole Depth (feet): 1.5		
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~1.0	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): N/A		

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
								0-0.5			
HA								SILTY SAND - loose, VFG, dry, well sort, round, dark brown dry to 1.0	SM	D	(0-1) @ 1405
								0.5-1.5 moist at 1.0 SILTY CLAY - plastic/cohesive/soft, dark reddish brown	CL	M	
								No sample collected from 1-3			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 123	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1525 End Time: 1555
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.8
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.5	Measured Well DTW (in feet after water recharges in well): 22.23	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1						0	Gravel ~~Fill~~ on Surface, Native Soil @ 3" bgs, red sand w/ some silt and gravel.	SM	D	0-1 PCB 8270D
							1	Red Silty Sand w/ some gravel ~~Red Sand w/ some silt and~~	SM	D	1-1.5 PCB's 8270D
							1.5				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 128	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: End Time:
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine - Med Grain Sand w/some Gravel, odor present, Dark Gray/Brown	SM	D-M	
							1				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 108	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/19/2014 End Date: 8/19/2014	Borehole Start Time: 1650 End Time: 1725	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): 2.9
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 2.9	Measured Well DTW (in feet after water recharges in well): 3.52	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							red sand w/ ~~some~~ silt	SM	D	
							1				
	1-3							red sand w/ some silt, thin silt to gray sand w/ some silt	SM	D	
							2.9				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 174	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/ /2014 End Date: 8/ /2014	Borehole Start Time: 1720 End Time: 1745
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.4
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): ~~[illegible]~~ i	Measured Well DTW (in feet after water recharges in well): 3.52	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine Grain Sand w/ some Silt, gray, ~~[illegible]~~ slightly shiny	SM	D	
							1				
							1.4	Fine Grain Sand w/ some Silt gray shiny		M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB-121	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/ /2014 End Date: 8/ /2014	Borehole Start Time: 0920 End Time: 0955
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 0.9
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): NM	Measured Well DTW (in feet after water recharges in well): 2.52	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-0.9							Gravel, Resistance @ 0.9' bgs. Other, 3' North, Resistance @ 0.9' bgs, No sample	G ~~SM~~	D	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 120	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1005 End Time: 10030
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 2' bgs
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 2	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Grand to 0.5' bgs	G		SVOCs
								Fine - Med Green Sand, Orange Color,	SM	D	Formaldehyde
							1				
	1-3							Fine - Med Green Sand, Orange	SM	D	
							2				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 114	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1050 End Time: 1120
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine - Med grain Sand, orange well sorted	Sm	D	VOC's SVOC's Formaldehyde
							1	Fine - Med grain Sand, orange/tan well sorted		M	NS
							1.5				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 117	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1130 End Time: 1155
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine Grain - Med Grain Sand, Gray - Orange color,	SM	D	VOC's SVOC's PCB's
							1				
							0.2	Same as above but contains moisture	SM	M	
								Note: last rain was yesterday afternoon			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 122	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1345 End Time: 1450
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.3
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Dark gray, Silty-Sand, Fine	SM	D	PCB's
							1	Pale gray Silty-Sand, Fine brown	MS	M	
							1.3				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 110	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/ /2014 End Date: 8/ /2014	Borehole Start Time: 1500 End Time: 1530
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): ND	Borehole Diameter (inches): 3	Borehole Depth (feet): 1
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): <1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1						1	Loose Grained Sand w/ some gravel, Dark Gray / Brown, Dry - Moist	~~MS~~ SM	D- M	VOC's SVOC's

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 109	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1540 End Time: 1605
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): 3, concrete	Borehole Diameter (inches): 3	Borehole Depth (feet): 2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 2	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Brown Fine-Grained Sand, med		D	
							1				
	1-3							Brown Fine-Grained Sand med		D-m	
							2				
								Encountered Moisture @ 2' bgs			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 112	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/20/2014 End Date: 8/20/2014	Borehole Start Time: 1640 End Time: 1700	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet):
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): NA	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								* Encounter Concrete @ 3" bgs. offset 1' South. * Encountered Concrete @ Same Depth, no Sample			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 111	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 0900 End Time: 0950
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine-Med Grain Sand w/ some Gravel, Brown		D	VOC's SVOC's Formaldehyde
							1				
							0.2	Same as above w/ higher moisture content		M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 128	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1000 End Time: 1040	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.2	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine - Coarse Grain Sand w/ some Gravel - Gray - Brown		D-M	SVOCs VOCs PCBs
							1	~~Sand or clay~~ Fine Sand, Gray well Sorted, moist		M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 131	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1130 End Time: 1210
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.1
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine grained Sand w/ gravel, Grey - Brown, ~~[illegible]~~ Some Moisture Present	SW	D-M	VOC's SVOC's PCB's

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 129	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1350 End Time: 1440
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 2
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.9	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine-Coarse Grain Sand, w some gravel, Dark Brown/Grey	SM	D	VOCs SVOCs PCBs
	1-3						1 2	Fine Grained Sand w some Silt, Light Grey	SM	D- M	VOCs SVOCs PCBs

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 125	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: NA End Time: NA
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): NA
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								No Boring, b/c of utilities			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 117	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: NA End Time: NA
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): NA
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA								No Boring / Sample, sample location inside ~~Asbestos~~ building containing Asbestos, did not proceed			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 130	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1505 End Time: 1545	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS		DRILLER / HELPER Name: N/A
Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.1
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): NM	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Med-Coarse Grain Sand and Gravel	SM	D	PCBs VOCs SVOCs
							1	Hit Refusal @ 1.1' bgs offset 1' East, also hit refusal ~~and~~ around 1' bgs			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 152	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1605 End Time: 1640	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.4
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.2	Measured Well DTW (in feet after water recharges in well): 3.32	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	01							Fine Grain Sand w/ some silt and Gravel, Dark Gray	SM	D	VOCs SVOCs PCBs
							1				
							0.4	Same as above w/ more moisture content	SM	D-M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 142	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/21/2014 End Date: 8/21/2014	Borehole Start Time: 1645 End Time: 1750	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.9
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.9	Measured Well DTW (in feet after water recharges in well): 3.52	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Fine Grained ~~[illegible]~~ sand w/ silt Brown	SM	D	VOC's SVOC's
	1-3						1 1.9	Fine Grained sand w/silt Brown / Gray	SM	D-M	VOC's SVOC's

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 156	Permit Number: NOT APPLICABLE	
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/11/2014 End Date: 8/12/2014	Borehole Start Time: 1115 End Time: 1140
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.5
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0/1							Course grain Sand w/ Gravel Dark staining, odor present	SM	D-M	SVOCs
							1	Fine - Med Grain Sand w/ Gravel, Dark color, odor present	SM	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 153	Permit Number: NOT APPLICABLE		
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/27/2014 End Date: 8/27/2014	Borehole Start Time: 1150 End Time: 1220	
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.7
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.1	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Coarse Grain Sand w/ trace Dark Brown	SM	D-M	SVOC's 1.1 Highest
							1	Same as above w/ higher moisture content	SM	M	
							1.7				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 150	Permit Number: NOT APPLICABLE	DUP-04
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/22/2014 End Date: 8/22/2014	Borehole Start Time: 1240 End Time: 1310
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1.4
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 1.2	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1							Loose brown sand w/ trace coal and some organic material	SM SG	D-M	
							1	Same as above w/ higher moisture content	SM	M	

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: SB- 149	Permit Number: NOT APPLICABLE	DUP-03
Site Name: ASHLAND LOUISVILLE ROAD (HERCULES)	Borehole Start Date: 8/22/2014 End Date: 8/22/2014	Borehole Start Time: 1315 End Time: 1325
Environmental Contractor: ARCADIS	Geologist's Name: (cirle one) JOHN HANNA / MARK MYERS	DRILLER / HELPER Name: N/A

Drilling Company: N/A	Pavement Thickness (inches): NA	Borehole Diameter (inches): 3	Borehole Depth (feet): 1
Drilling Method(s): HAND AUGER	Apparent Borehole DTW (in feet from soil moisture content): 0.9	Measured Well DTW (in feet after water recharges in well): 1.81	OVA (list model and check type): N/A

Disposition of Drill Cuttings [check method(s)]: ☑ Drum

(describe if other or multiple items are checked):

Borehole Completion (circle one): ABANDON BORING

Sample Type	Sample Depth Interval (feet)					PID READING		Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0-1						1	Fine grain Sand w/ Some Silt + Gravel. Dark Brown	SM	D-M	SVOCs 1,1 Biphenyl

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Appendix E

Hydraulic Testing Results

Table 1
Hydraulic Slug Test Summary
VIRP Semiannual Progress Report
Ashland - Hercules
3000 Louisville Road
Savannah, Georgia

Well/Test ID	HSU	Primary K Result (ft/day)		Well Average
MW-22_1	Shallow	**9.8E-01**	**Bouwer-Rice (1976)**	1.5E+00
MW-22_2	Shallow	**2.1E+00**	**Bouwer-Rice (1976)**	
MW-24_1	Shallow	**8.3E-01**	**Bouwer-Rice (1976)**	8.3E-01
MWD-22_1	Intermediate	**3.9E-01**	**Bouwer-Rice (1976)**	3.9E-01
MWD-24_1	Intermediate	**9.6E-02**	**Bouwer-Rice (1976)**	9.6E-02
MWD-29_1	Intermediate	**6.0E-02**	**Bouwer-Rice (1976)**	6.0E-02
MWD-F3_1	Deep	**8.1E-03**	**Bouwer-Rice (1976)**	8.1E-03
MW-F1_1	Shallow	**9.2E-01**	**Bouwer-Rice (1976)**	9.3E-01
MW-F1_2	Shallow	**9.3E-01**	**Bouwer-Rice (1976)**	
MW-F9_1	Shallow	**7.2E-01**	**Bouwer-Rice (1976)**	7.2E-01
MW-F13_1	Shallow	**3.3E-02**	**Dagan (1978)**	3.3E-02
MW-F15_1	Shallow	**3.6E-01**	**Bouwer-Rice (1976)**	3.6E-01

Shallow (7 wells)

Range (ft/day)	3.3E-02	to	1.5E+00
Geometric Mean (ft/day)			4.7E-01

Intermediate (3 wells)

Range (ft/day)	9.60E-02	to	3.9E-01
Geometric Mean (ft/day)			1.3E-01

Deep (1 well)

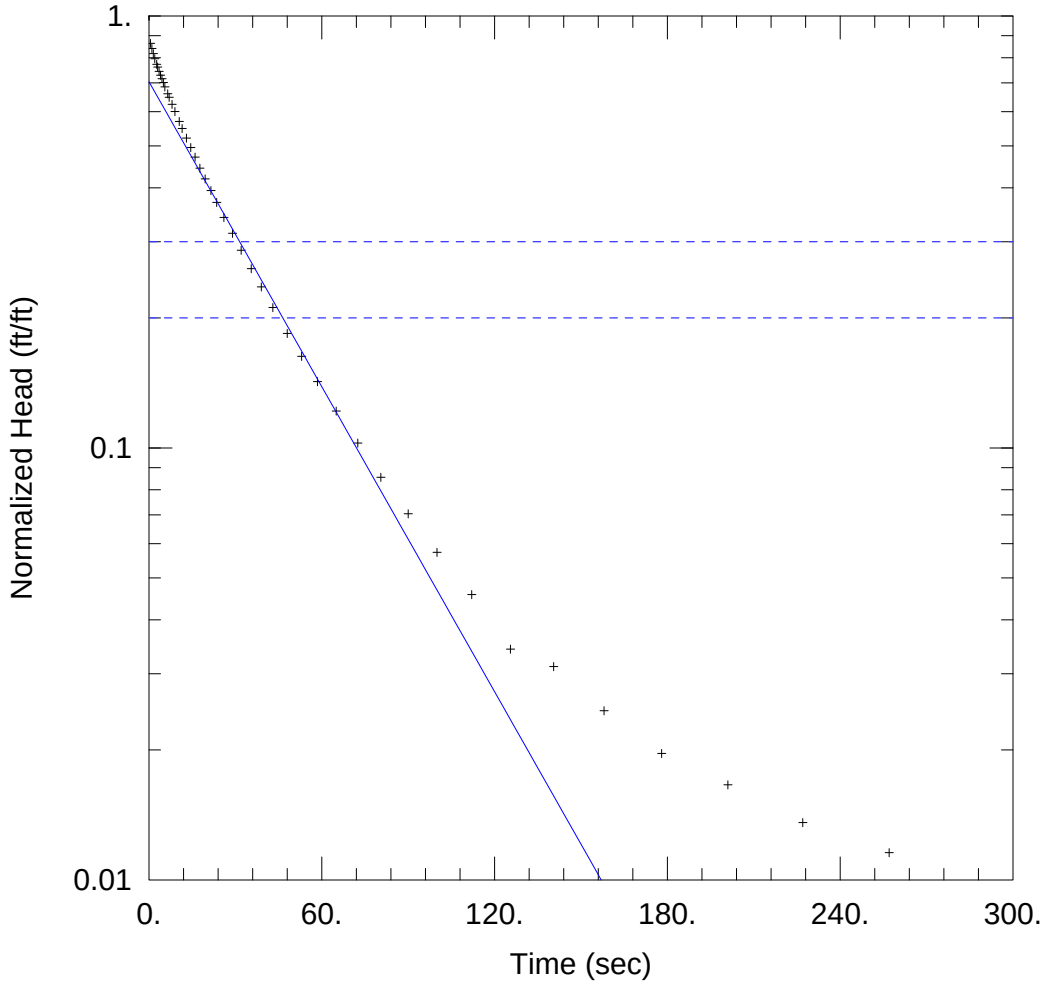
Range (ft/day)	8.1E-03

Table 2
Hydraulic Slug Calculations
VIRP Semiannual Progress Report
Ashland - Hercules
3000 Louisville Road
Savannah, Georgia

Well/Test ID	Screened Interval	HSU	Test #	H(o)*	H(o)	H(o)/H(o)* difference (ft)		H	b		Kv/Kh	d	L		T	r(c)	r(eq)	r(p)	r(w)	r(sk)	Effective Casing Radius Correction	Frictional Well Loss Correction	S Cooper (1967)		Ss KGS (1994)		K1 (ft/d)		K2 (ft/d)		K3 (ft/d)	
MW-22	10-20	Shallow	1	1.605	1.988	0.383	~20%	17.88	85	Water table to confining layer	1	7.88	10	Entire Screen Length	14.88	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	6.8E-04	Plausible	--	--	**9.8E-01**	**Bouwer-Rice (1976)**	1.3E+00	Hvorslev (1951)		
MW-22	10-20	Shallow	2	1.605	1.697	0.092	<10%	17.88	85	Water table to confining layer	1	7.88	10	Entire Screen Length	14.88	0.086	0.011	0	0.354	0.354	No	Yes, default	5.6E-06	Plausible	--	--	**2.1E+00**	**Bouwer-Rice (1976)**	3.0E+00	Hvorslev (1951)		
MW-24	10-20	Shallow	1	1.605	1.734	0.129	<10%	18.56	85	Water table to confining layer	1	8.56	10	Entire Screen Length	14.92	0.086	0.011	0	0.354	0.354	No	Yes, default	3.1E-05	Plausible	--	--	**8.3E-01**	**Bouwer-Rice (1976)**	1.2E+00	Hvorslev (1951)		
MWD-22	40-50	Intermediate	1	1.605	1.607	0.002	<10%	38.81	85	Water table to confining layer	1	28.81	10	Entire Screen Length	14.94	0.086	0.011	0	0.354	0.354	No	Yes, default	4.1E-07	Implausibly Low	8.9E-06	Plausible	**3.9E-01**	**Bouwer-Rice (1976)**	4.7E-01	Hvorslev (1951)		
MWD-24	40-50	Intermediate	1	1.605	1.861	0.256	~20%	42.59	85	Water table to confining layer	1	32.59	10	Entire Screen Length	14.75	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	1.2E-06	Plausible	--	--	**9.6E-02**	**Bouwer-Rice (1976)**	1.2E-01	Hvorslev (1951)		
MWD-29	40-50	Intermediate	1	1.605	1.884	0.279	15-20%	44.11	85	Water table to confining layer	1	34.11	10	Entire Screen Length	14.86	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	3.2E-06	Plausible	--	--	**6.0E-02**	**Bouwer-Rice (1976)**	7.7E-02	Hvorslev (1951)		
MWD-F3	67-87	Deep	1	1.605	1.864	0.259	10-15%	74.01	85	Water table to confining layer	1	54.01	20	Entire Screen Length	14.86	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	2.6E-06	Plausible	--	--	**8.1E-03**	**Bouwer-Rice (1976)**	8.8E-03	Hvorslev (1951)		
MW-F1	10-20	Shallow	1	1.605	1.721	0.116	<10%	18.21	85	Water table to confining layer	1	8.21	10	Entire Screen Length	14.90	0.086	0.011	0	0.354	0.354	No	Yes, default	2.0E-04	Plausible	--	--	**9.2E-01**	**Bouwer-Rice (1976)**	1.3E+00	Hvorslev (1951)		
MW-F1	10-20	Shallow	2	1.605	1.597	-0.01	<10%	18.21	85	Water table to confining layer	1	8.21	10	Entire Screen Length	14.90	0.086	0.011	0	0.354	0.354	No	Yes, default	4.3E-07	Implausibly Low	7.7E-06	Plausible	**9.3E-01**	**Bouwer-Rice (1976)**	1.3E+00	Hvorslev (1951)		
MW-F9	10-20	Shallow	1	1.605	1.731	0.126	<10%	15.72	85	Water table to confining layer	1	5.72	10	Entire Screen Length	14.89	0.086	0.011	0	0.354	0.354	No	Yes, default	3.8E-08	Implausibly Low	4.2E-06	Plausible	**7.2E-01**	**Bouwer-Rice (1976)**	1.1E+00	Hvorslev (1951)		
MW-F13	10-20	Shallow	1	1.605	1.27	-0.335	~20%	12.03	85	Water table to confining layer	1	2.03	10	Entire Screen Length	8.97	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	4.7E-02	Plausible	--	--	**3.3E-02**	**Dagan (1978)**	3.4E-02	Hvorslev (1951)	3.4E-02	Bouwer-Rice (1976)
MW-F15	10-20	Shallow	1	1.605	1.408	-0.197	10-15%	16.81	85	Water table to confining layer	1	6.81	10	Entire Screen Length	9.86	0.086	0.011	0	0.354	0.354	Yes, Butler (1998) eq (3.1)	Yes, default	7.2E-05	Plausible	--	--	**3.6E-01**	**Bouwer-Rice (1976)**	4.8E-01	Hvorslev (1951)		

Abbreviations

HSU	Hydrostratigraphic Unit
H(o)	Measured initial displacement
H(o)*	Theoretical/expected initial displacement; the expected displacement based on the volume of the slug/bailer and inner diameter of the well.
H	Static water column height
b	Saturated aquifer thickness
Kv/Kh	Vertical-to-horizontal hydraulic conductivity anisotropy.
d	Depth to top of well screen from static water level or aquifer top
L	Effective length of well screen
T	Transducer depth
r(c)	Inside radius of well casing; 0.086 ft for a 2-inch Schedule 40 PVC well casing.
r(eq)	Radius of downhole equipment. The measured diameter of the transducer cable is 0.011 ft.
r(p)	Inside radius of packer (0 if none present)
r(w)	Effective radius of well. If the well is constructed with a filter pack, r(w) is best represented by the borehole diameter. A borehole drilled with a 4.25-inch ID hollow-stem auger has an approximate borehole diamter of 0.354 ft.
r(sk)	Outer radius of well skin (disturbed zone enveloping filter pack). If it is assumed that no skin is present, then this value should be equal to r(w)
S	Storativity. Calculation of storativity using the Cooper et al. (1967) is used as a diagnostic tool. If a type curve with a plausible S ($\geq 10^{-7}$) can be fit to the data, then one can assume the vertical componnent of hydraulic conductivity is is much less than the radial component, i.e. flow is constrained to the interval of the formation intersected by the screen.
Ss	Specific storage. Calculation of Ss using the KGS Model (1994) is used as a diagnostic tool to evaluate potential well skin effects. If a type curve with plausible Ss ($\geq 10^{-6}$) can be fit to the data than one can assume that skin effects will not have a major impact on the analysis.
K	Hydraulic conductivity



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-22_\MW-22_1.aqt
Date: 09/16/14 Time: 09:46:00

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-22

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

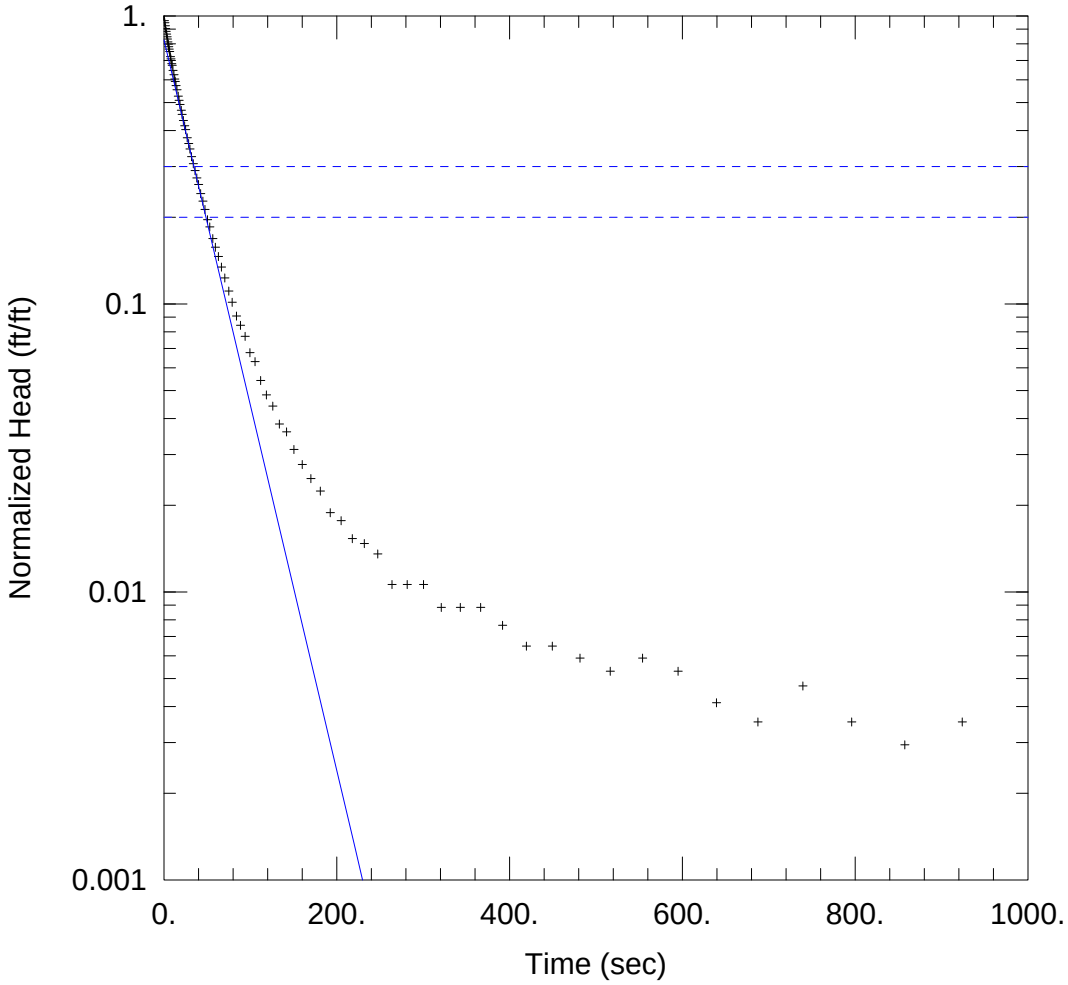
WELL DATA (MW-22)

Initial Displacement: 1.988 ft
Total Well Penetration Depth: 17.88 ft
Casing Radius: 0.086 ft
Static Water Column Height: 17.88 ft
Screen Length: 10. ft
Well Radius: 0.354 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.98 ft/day
y0 = 1.4 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-22_\MW-22_2.aqt
Date: 09/16/14 Time: 09:47:06

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-22

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

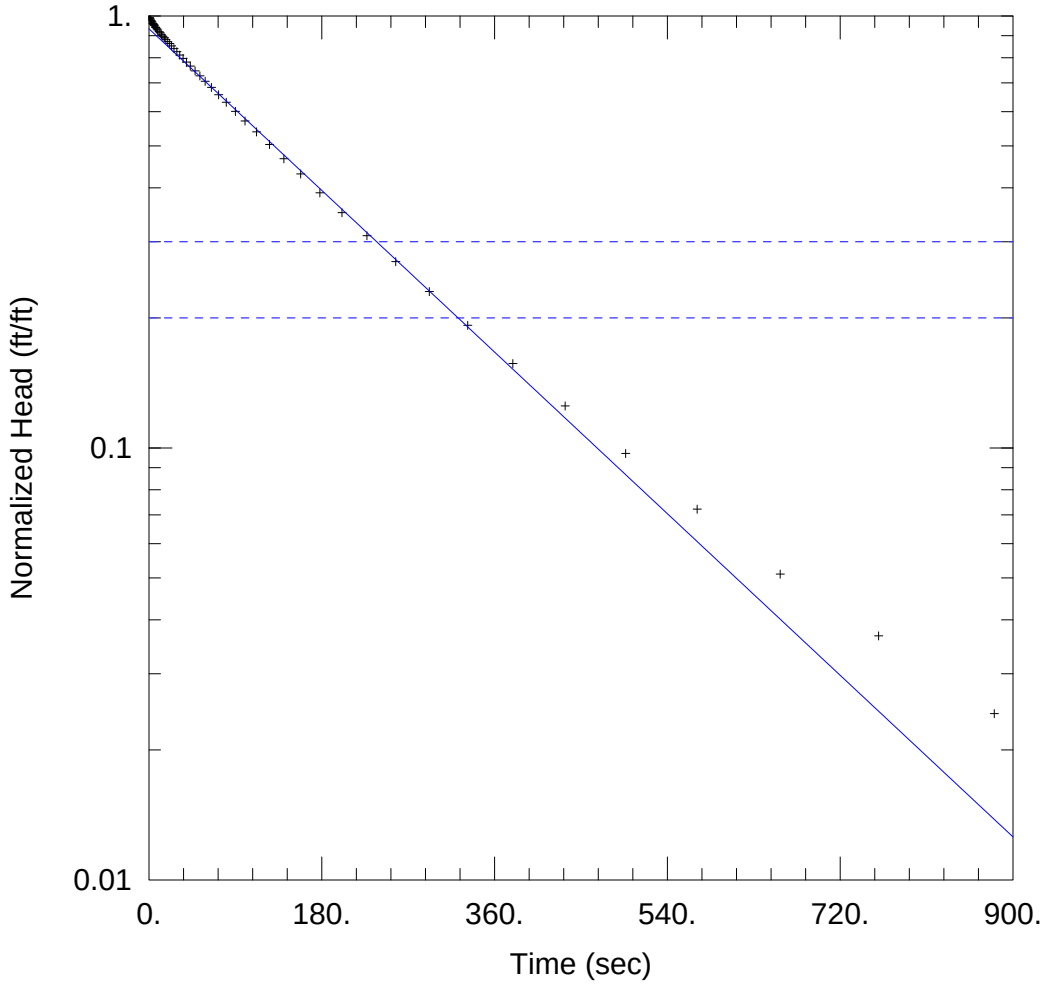
WELL DATA (MW-22)

Initial Displacement: 1.697 ft
Static Water Column Height: 17.88 ft
Total Well Penetration Depth: 17.88 ft
Screen Length: 10. ft
Casing Radius: 0.086 ft
Well Radius: 0.354 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 2.1 ft/day
y0 = 1.4 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-22_\MWD-22_1.aqt
Date: 09/16/14 Time: 09:49:23

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MWD-22

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

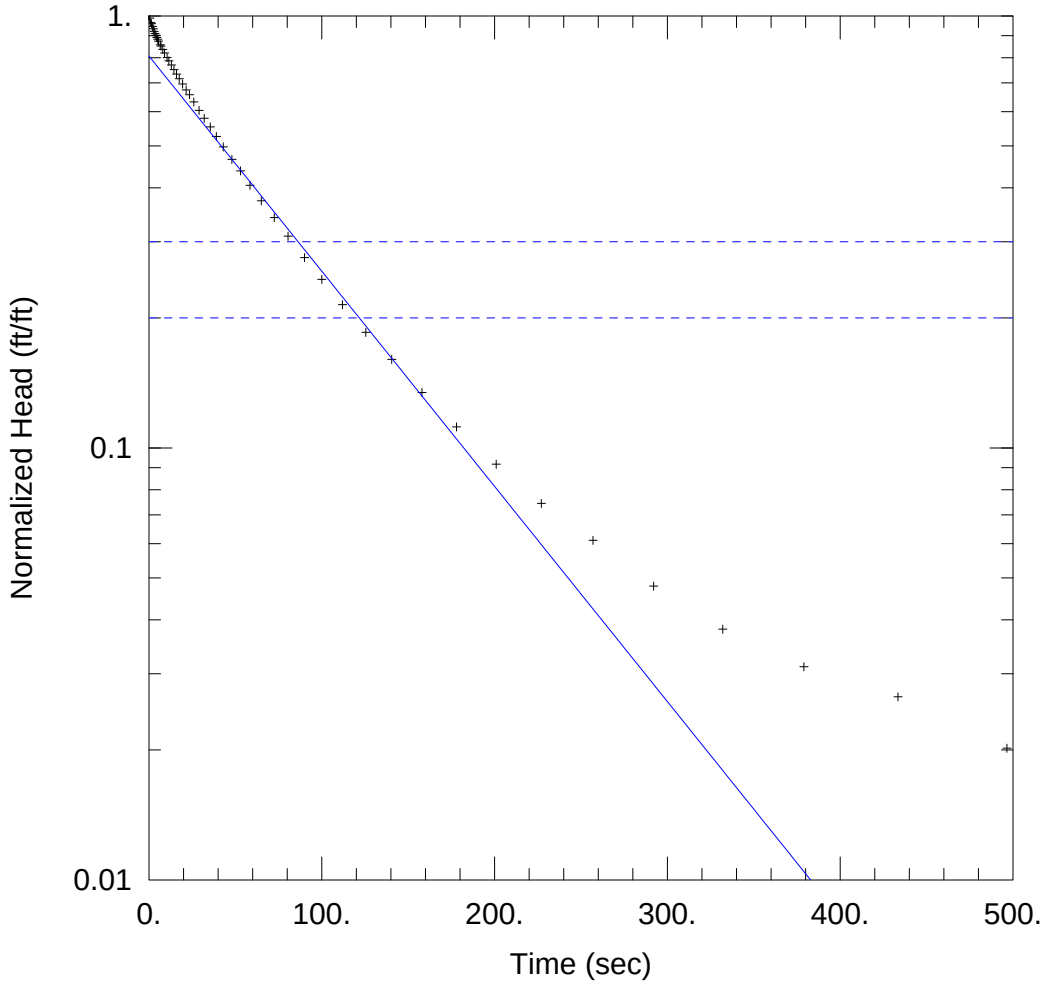
WELL DATA (MWD-22)

Initial Displacement: 1.607 ft
Static Water Column Height: 38.81 ft
Total Well Penetration Depth: 38.81 ft
Screen Length: 10. ft
Casing Radius: 0.086 ft
Well Radius: 0.354 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.39 ft/day
y0 = 1.5 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-24_\MW-24_1.aqt
Date: 09/16/14 Time: 09:48:49

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-24

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

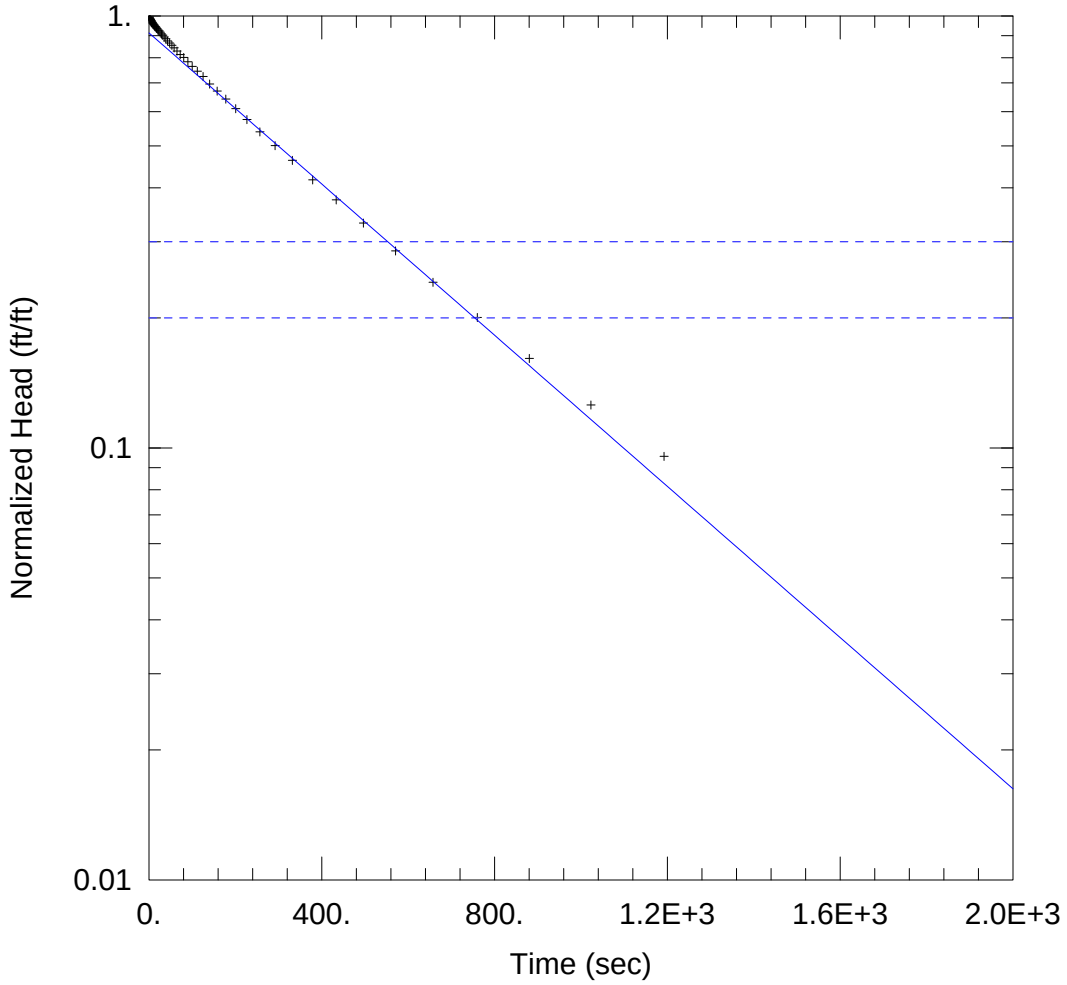
WELL DATA (MW-24)

Initial Displacement: 1.734 ft
Static Water Column Height: 18.56 ft
Total Well Penetration Depth: 18.56 ft
Screen Length: 10. ft
Casing Radius: 0.086 ft
Well Radius: 0.354 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.83 ft/day
y0 = 1.4 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-24_\MWD-24_1.aqt
Date: 09/16/14 Time: 09:51:28

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MWD-24

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

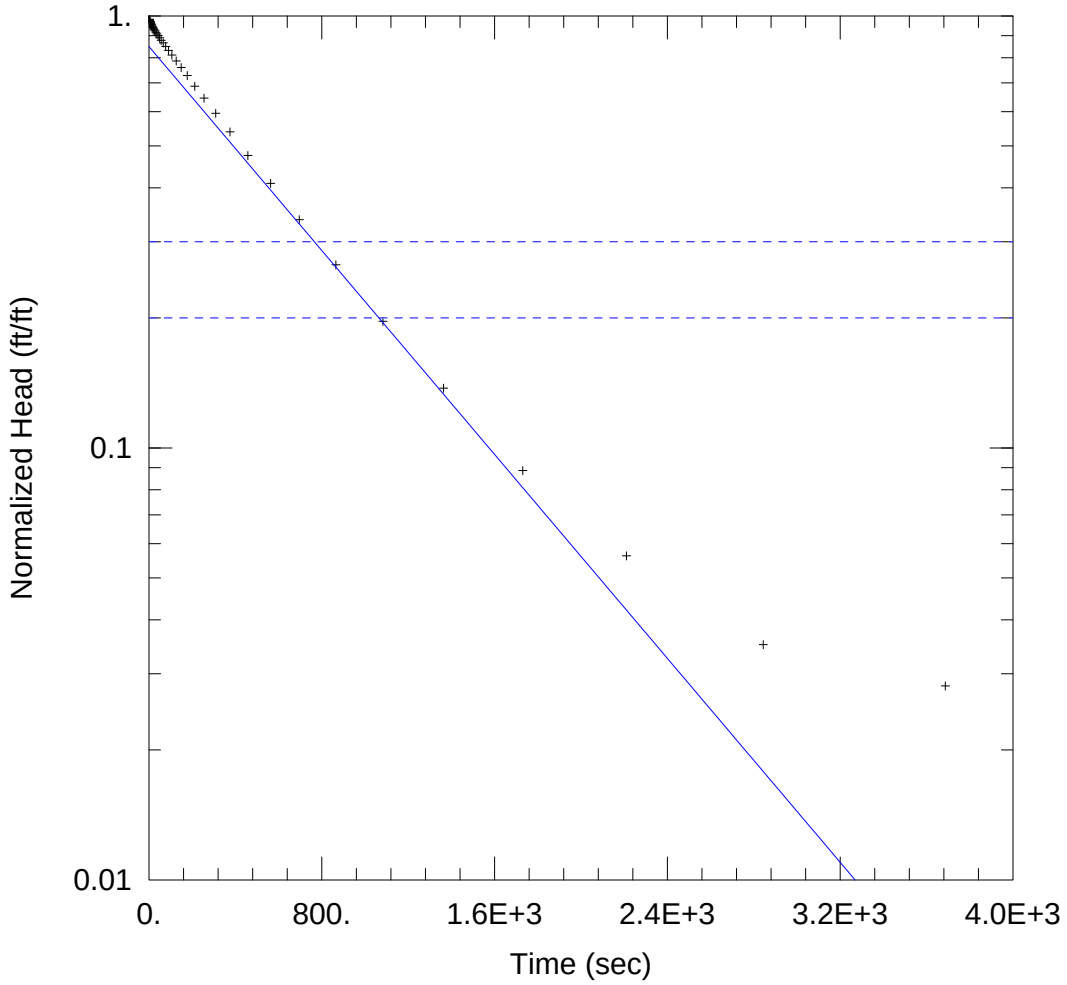
WELL DATA (MWD-24)

Initial Displacement: 1.861 ft
Total Well Penetration Depth: 42.59 ft
Casing Radius: 0.089 ft
Static Water Column Height: 42.59 ft
Screen Length: 10. ft
Well Radius: 0.354 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.096 ft/day
y0 = 1.7 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-29_\MWD-29_1.aqt
Date: 09/16/14 Time: 09:53:10

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MWD-29

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

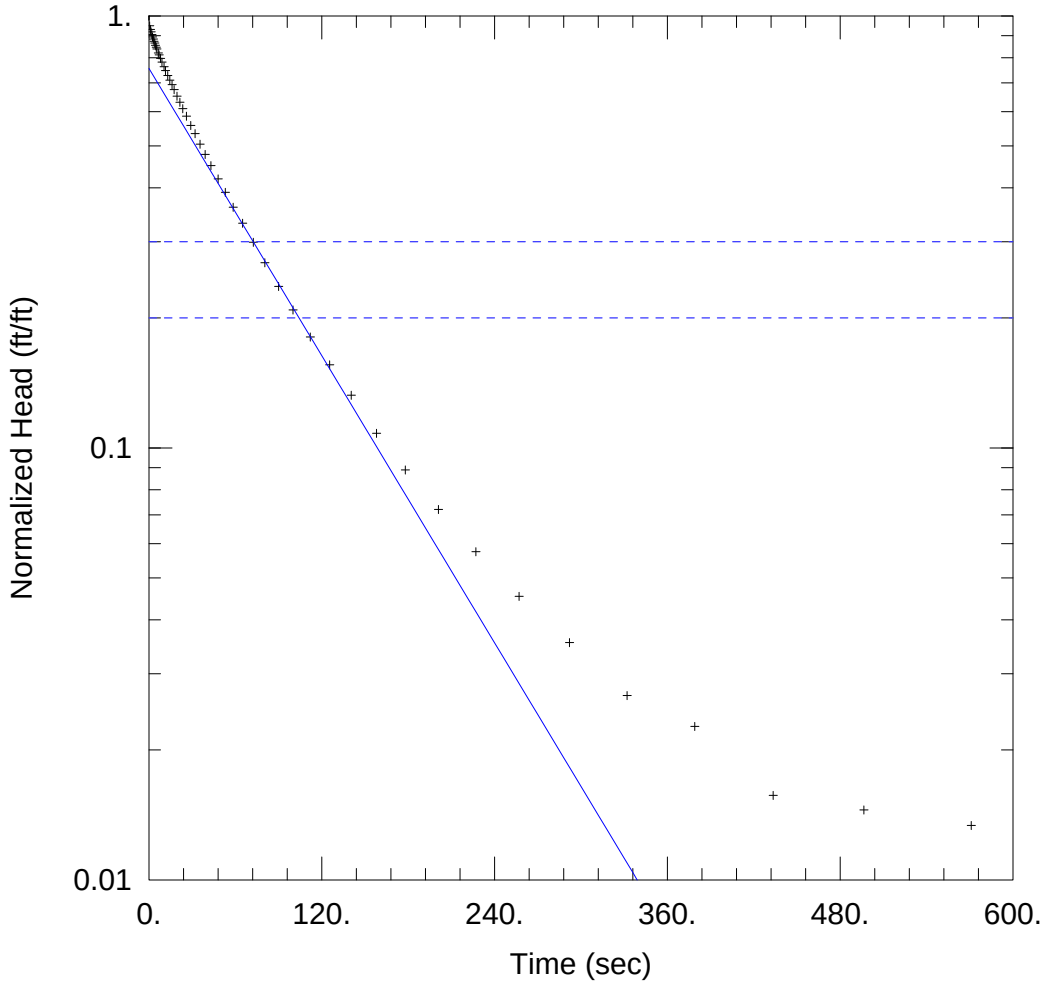
WELL DATA (MWD-29)

Initial Displacement: 1.884 ft
Total Well Penetration Depth: 44.11 ft
Casing Radius: 0.086 ft
Static Water Column Height: 44.11 ft
Screen Length: 10. ft
Well Radius: 0.354 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.06 ft/day
y0 = 1.6 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F1_\MW-F1_1.aqt
Date: 09/16/14 Time: 09:55:42

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-F1

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

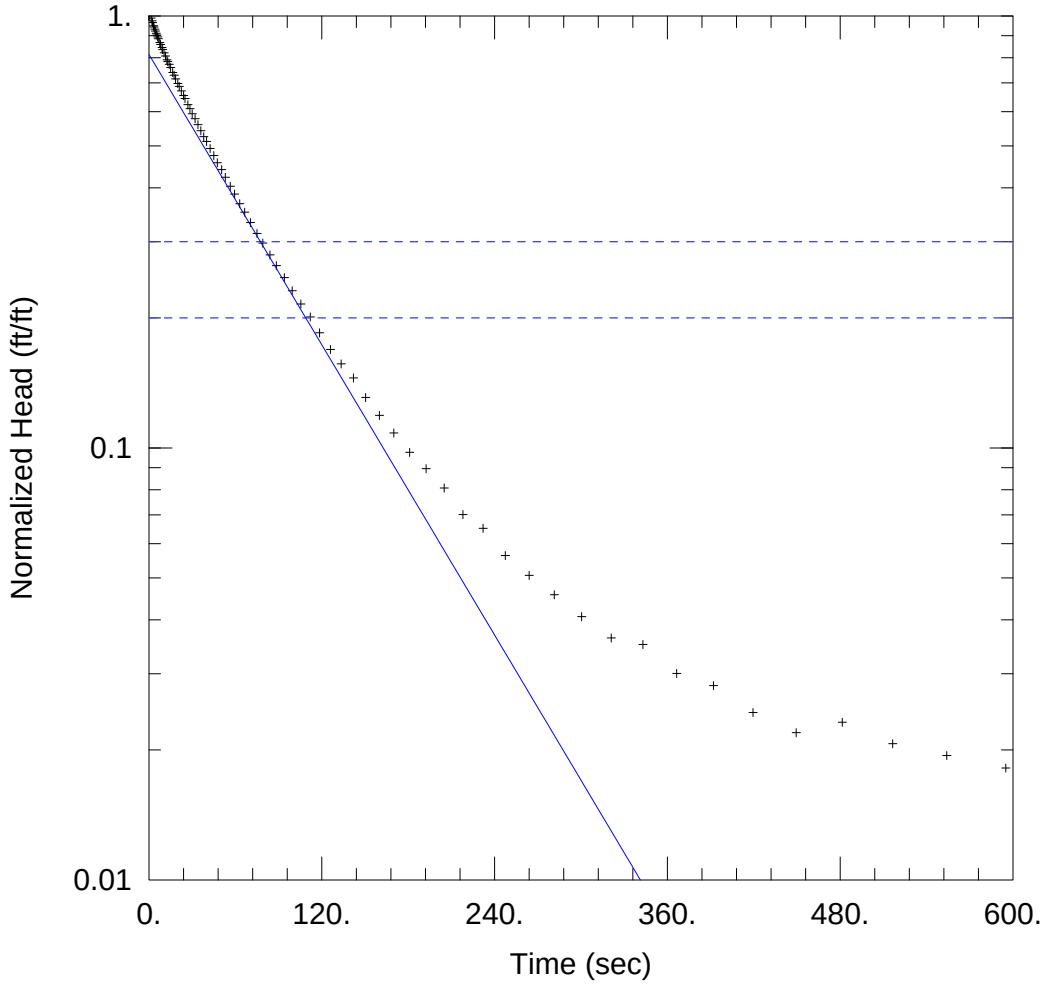
WELL DATA (MW-F1)

Initial Displacement: 1.721 ft
Total Well Penetration Depth: 18.21 ft
Casing Radius: 0.086 ft
Static Water Column Height: 18.21 ft
Screen Length: 10. ft
Well Radius: 0.354 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.92 ft/day
y0 = 1.3 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F1_\MW-F1_2.aqt
Date: 09/16/14 Time: 09:56:36

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-F1

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

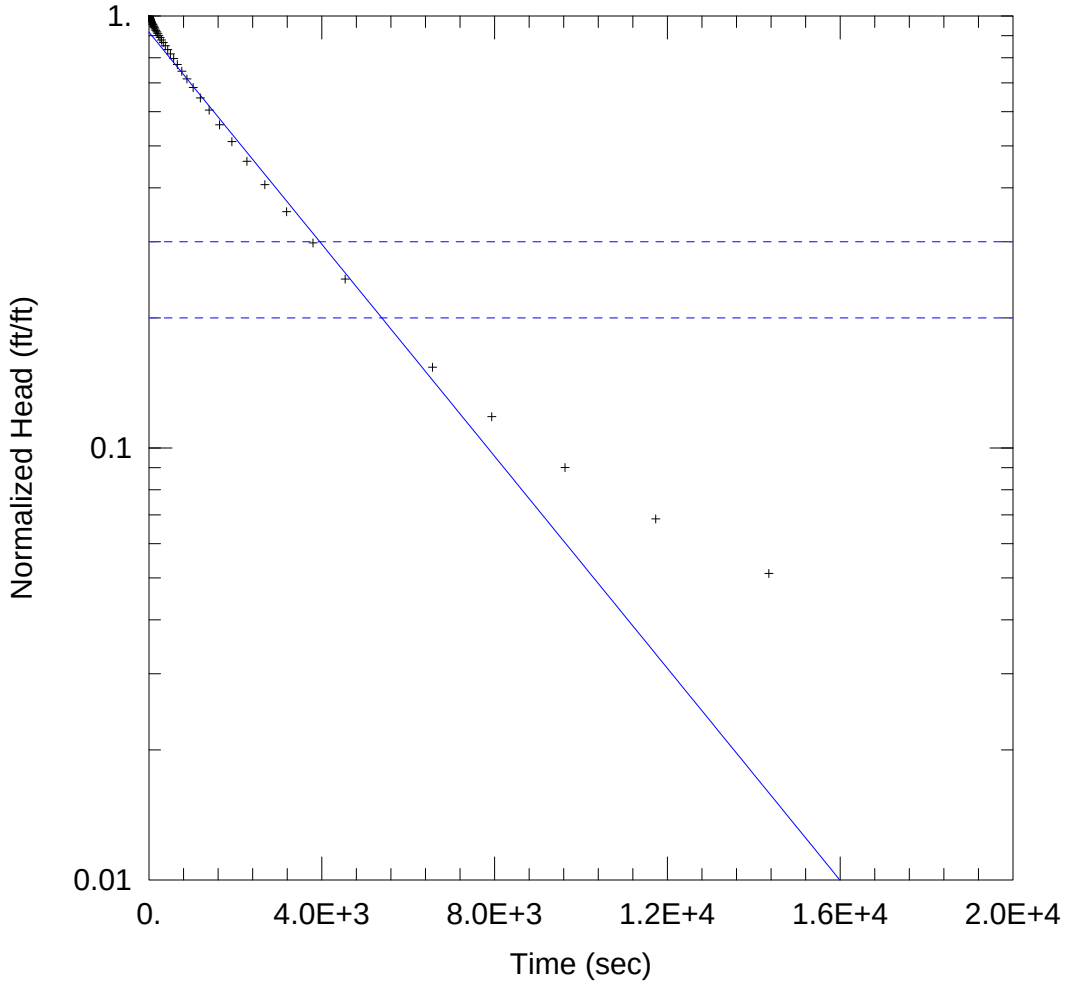
WELL DATA (MW-F1)

Initial Displacement: 1.597 ft
Static Water Column Height: 18.21 ft
Total Well Penetration Depth: 18.21 ft
Screen Length: 10. ft
Casing Radius: 0.086 ft
Well Radius: 0.354 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.93 ft/day
y0 = 1.3 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MWD-F3_\MWD-F3_1.aqt
Date: 09/16/14 Time: 09:54:38

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MWD-F3

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

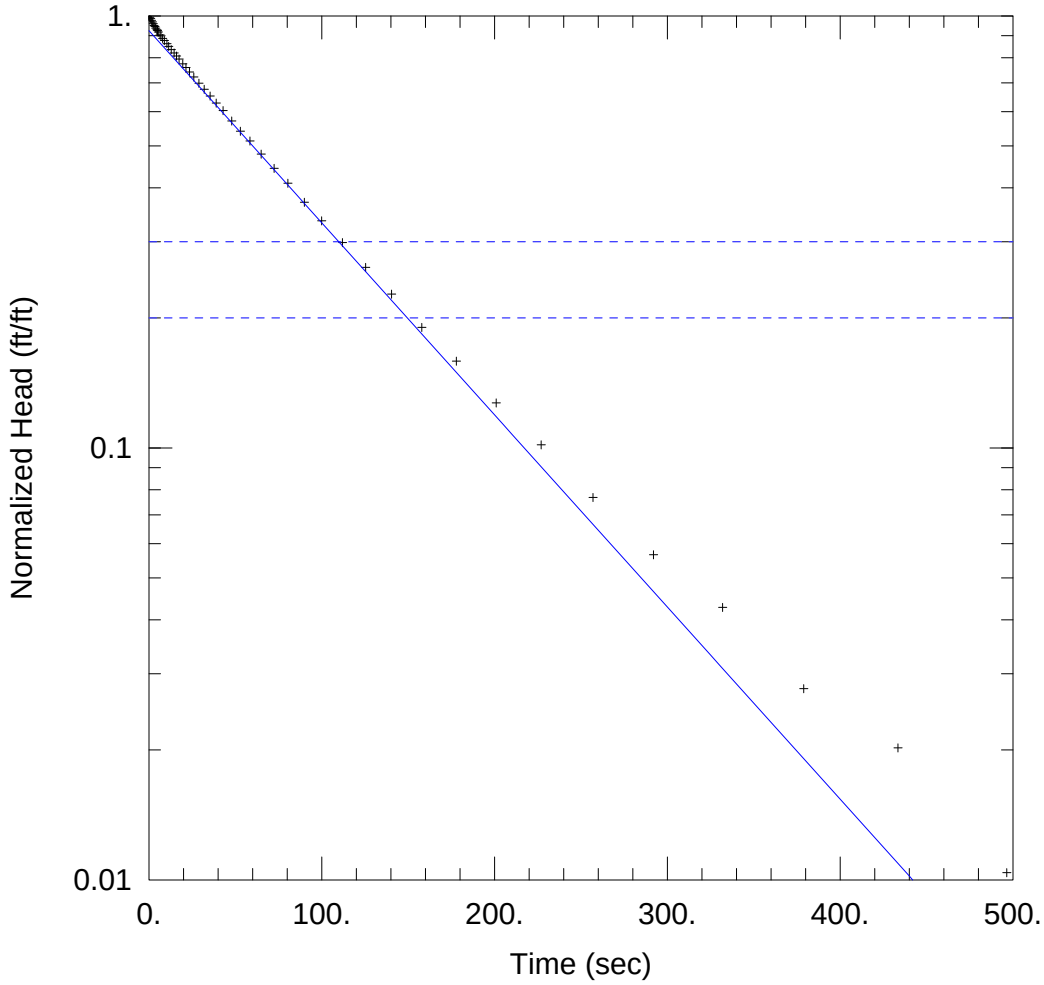
WELL DATA (MWD-F3)

Initial Displacement: 1.854 ft
Total Well Penetration Depth: 74.01 ft
Casing Radius: 0.086 ft
Static Water Column Height: 74.01 ft
Screen Length: 20. ft
Well Radius: 0.354 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.0081 ft/day
y0 = 1.7 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F9_\MW-F9_1.aqt
Date: 09/16/14 Time: 09:57:39

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-F9

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

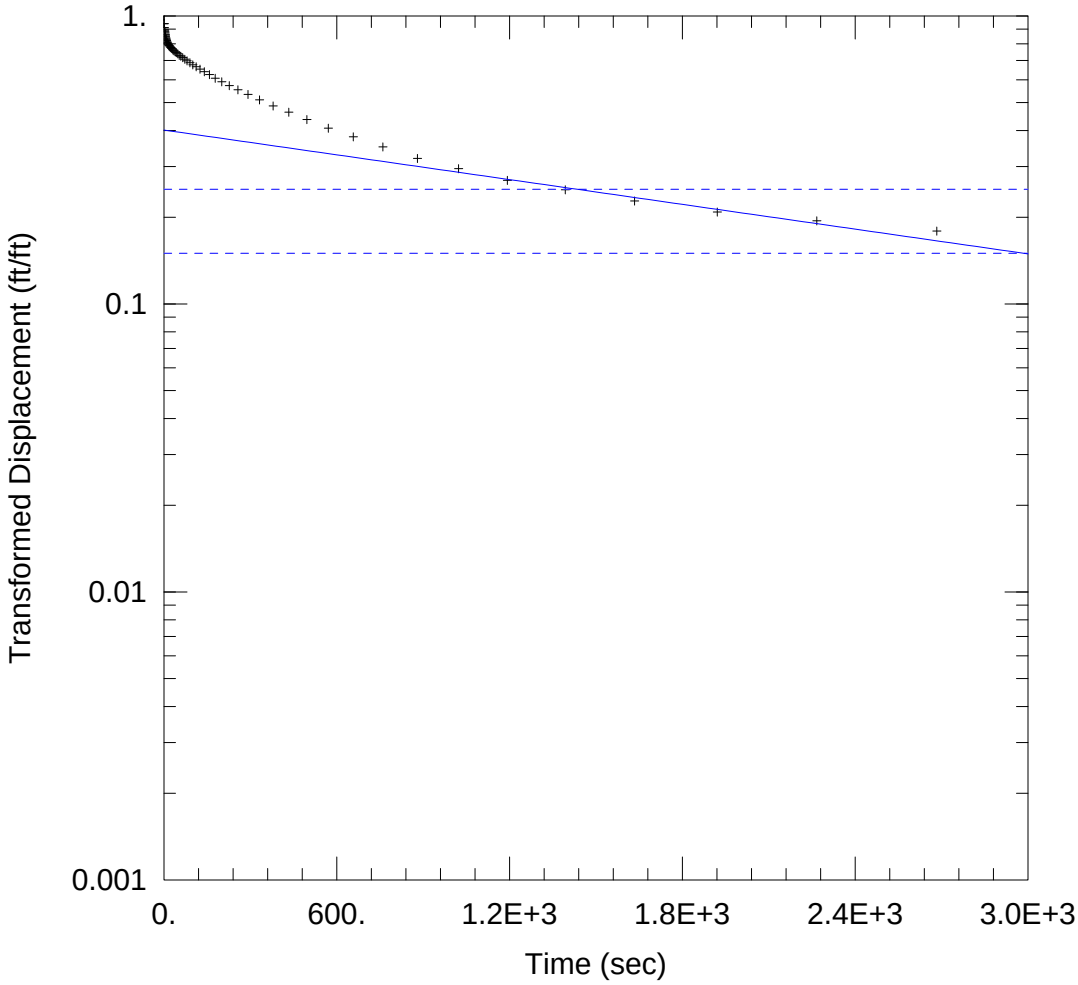
WELL DATA (MW-F9)

Initial Displacement: 1.731 ft
Total Well Penetration Depth: 15.72 ft
Casing Radius: 0.086 ft
Static Water Column Height: 15.72 ft
Screen Length: 10. ft
Well Radius: 0.354 ft

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.72 ft/day
y0 = 1.6 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F13_\MW-F13_mw.aqt
Date: 09/16/14 Time: 10:00:04

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-F13

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

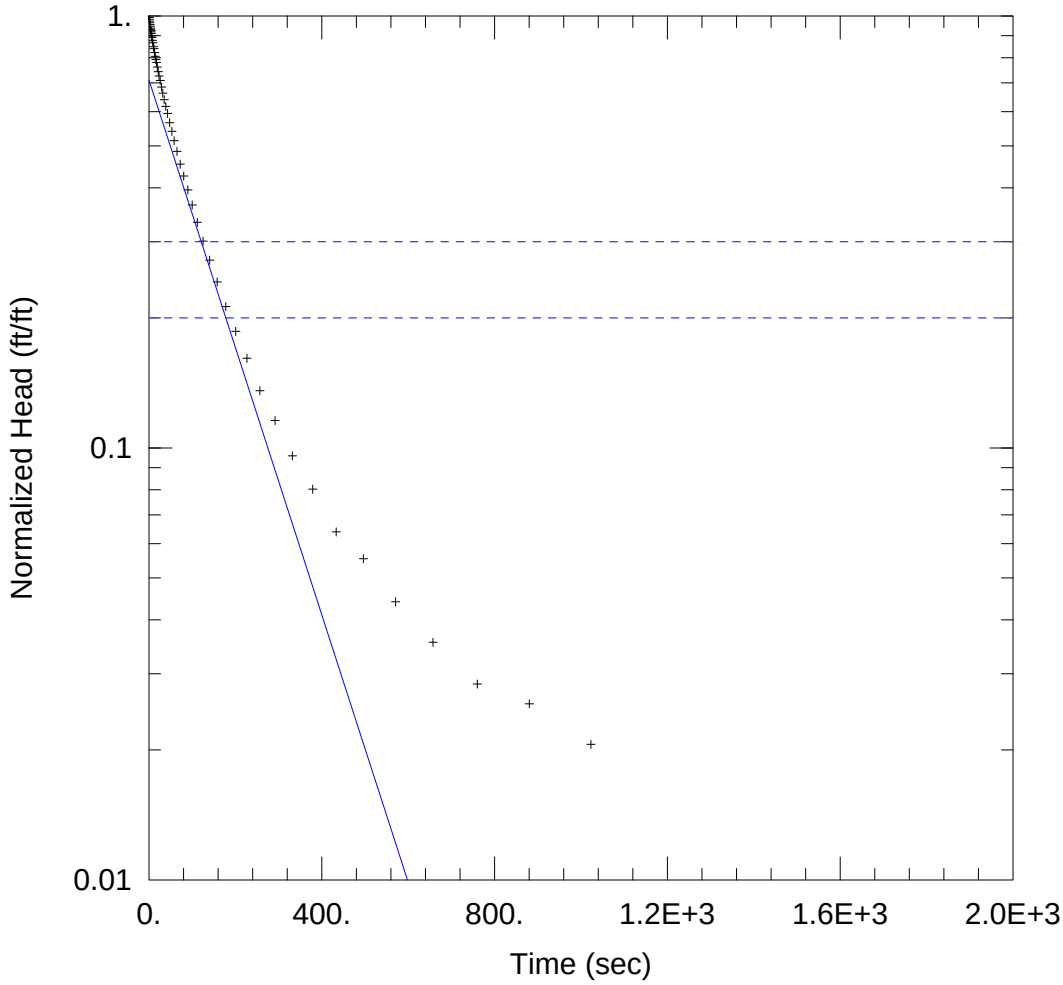
WELL DATA (MW-F13)

Initial Displacement: 1.27 ft
Total Well Penetration Depth: 12.03 ft
Casing Radius: 0.086 ft
Static Water Column Height: 12.03 ft
Screen Length: 10. ft
Well Radius: 0.354 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan

K = 0.033 ft/day
y0 = 0.53 ft



WELL TEST ANALYSIS

Data Set: C:\Users\mdwebb\Desktop\Savannah-Hercules\Results\MW-F15_\MW-F15_1.aqt
Date: 09/16/14 Time: 10:01:12

PROJECT INFORMATION

Company: Arcadis
Client: Ashland Inc.
Project: OH007000.GA60
Location: Savannah, GA
Test Well: MW-F15

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-F15)

Initial Displacement: 1.408 ft
Total Well Penetration Depth: 16.81 ft
Casing Radius: 0.086 ft
Static Water Column Height: 16.81 ft
Screen Length: 10. ft
Well Radius: 0.354 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Confined
Solution Method: Bouwer-Rice

K = 0.36 ft/day
y0 = 1. ft

ARCADIS

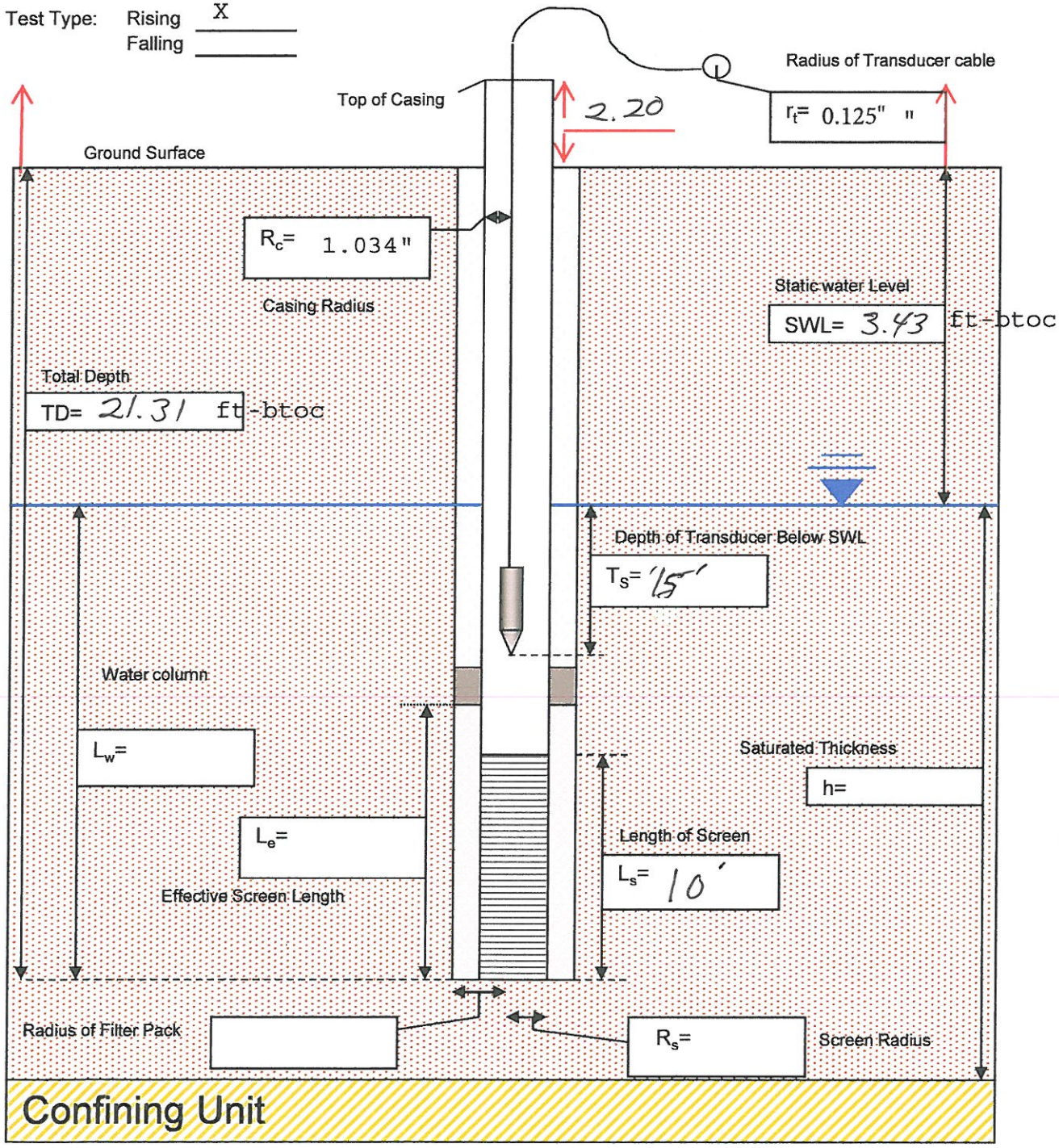
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-22 Prepared By: Robby Shealy Date: 8/29/14 Time: 1145

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer 1,000 ml

Number of Tests: 2 Data File Name: MW-22 Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: _____ r_t: _____

Test ID: _____ T_S Baseline: 14.875 Pressure Reading: _____

H_o: _____ Test Start 1154 Test End 1200

Test ID: _____ T_S Baseline: 14.879 Pressure Reading: _____

H_o: _____ Test Start 1208 Test End 1223

Test ID: _____ T_S Baseline: _____ Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

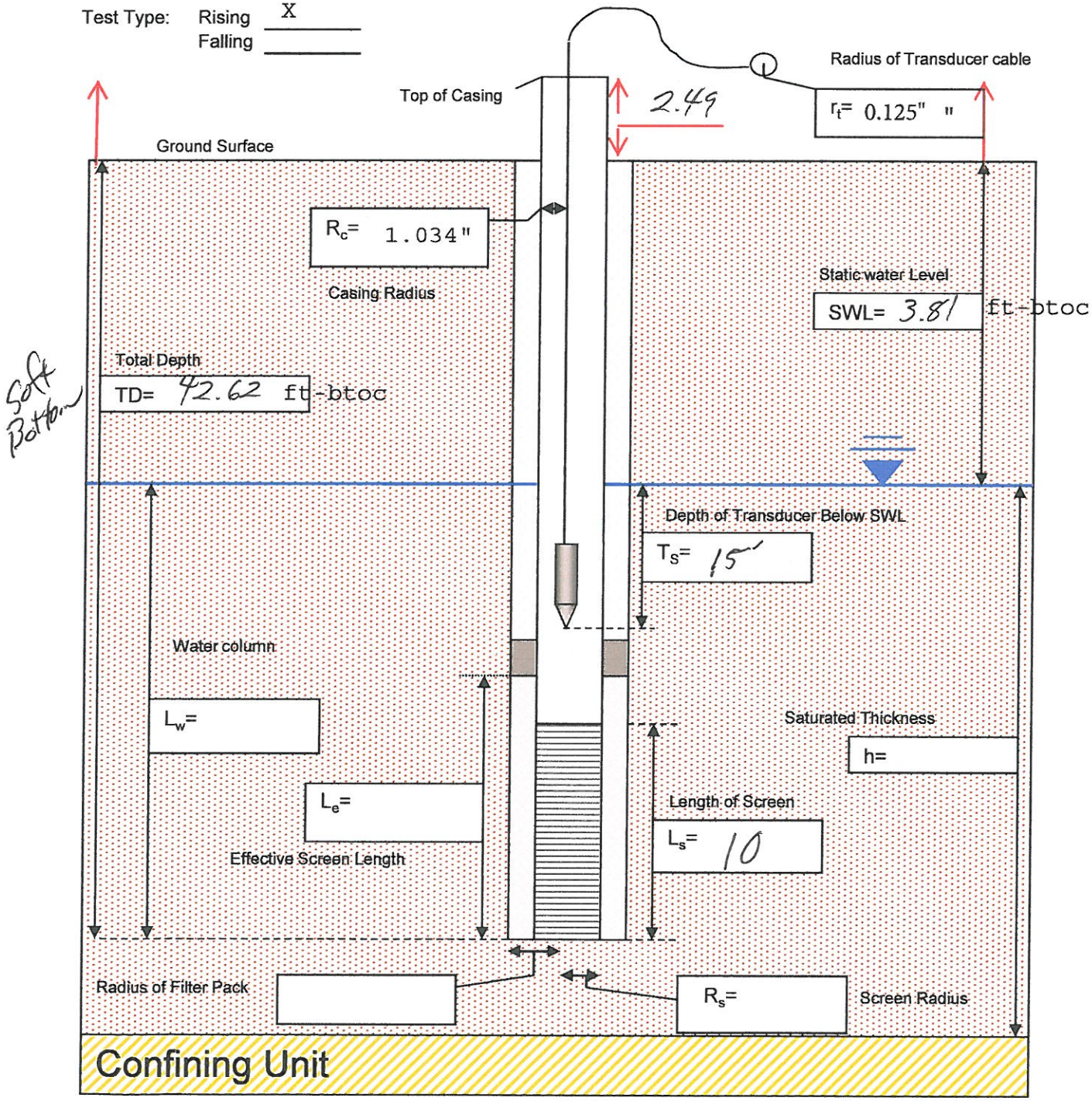
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWP-22 Prepared By: Robby Shealy Date: 8/29/14 Time: 1130

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer 1,000ml removed

Number of Tests: 2 Data File Name: MWP-22 Data File Location: Level Troll 700

Input Pressure: _____ Pressure Transducer SN: 116803 r_t: _____

Test ID: _____ T_S Baseline: 14.934 Pressure Reading: _____

H_o: _____ Test Start 1147 Test End 1206

Test ID: _____ T_S Baseline: ~~14.934~~ Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Test ID: _____ T_S Baseline: 14.931 Pressure Reading: _____

H_o: _____ Test Start 1227 Test End 1247

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

Slug Test Log

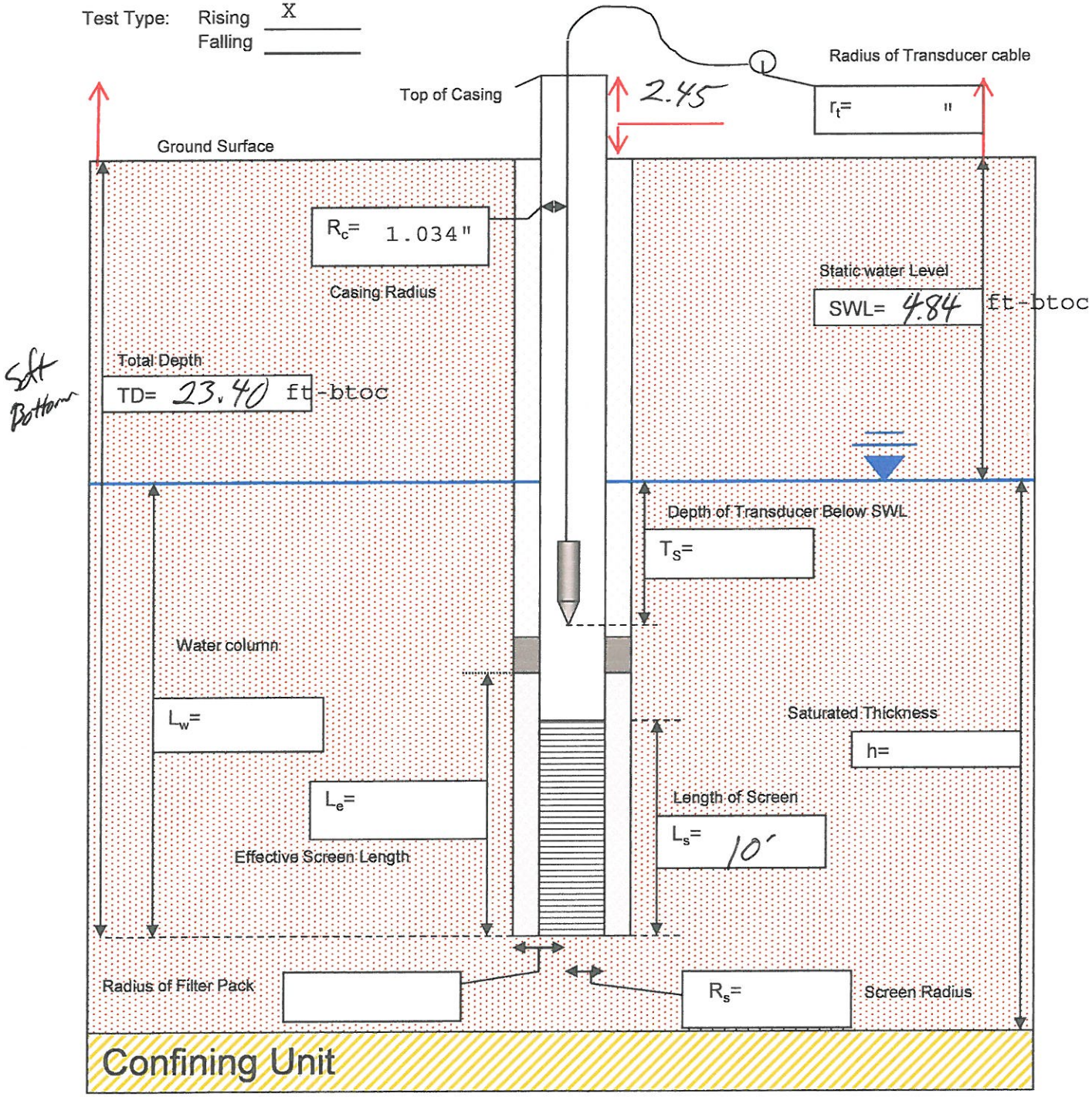
Actually Did MW-24 instead of MWD-24

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: ~~MWD-24~~ MW-24 changed file name ~~MW-24~~ Prepared By: Robby Shealy Date: 8/27/14 Time:

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer 1,000 ml

Number of Tests: _____ Data File Name: ~~MWP-24~~ MW-24 changed file name Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: _____ r_t: _____

Test ID: _____ T_S Baseline: 14.911 Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Test ID: _____ T_S Baseline: 14.890 Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Test ID: _____ T_S Baseline: 14.886 Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

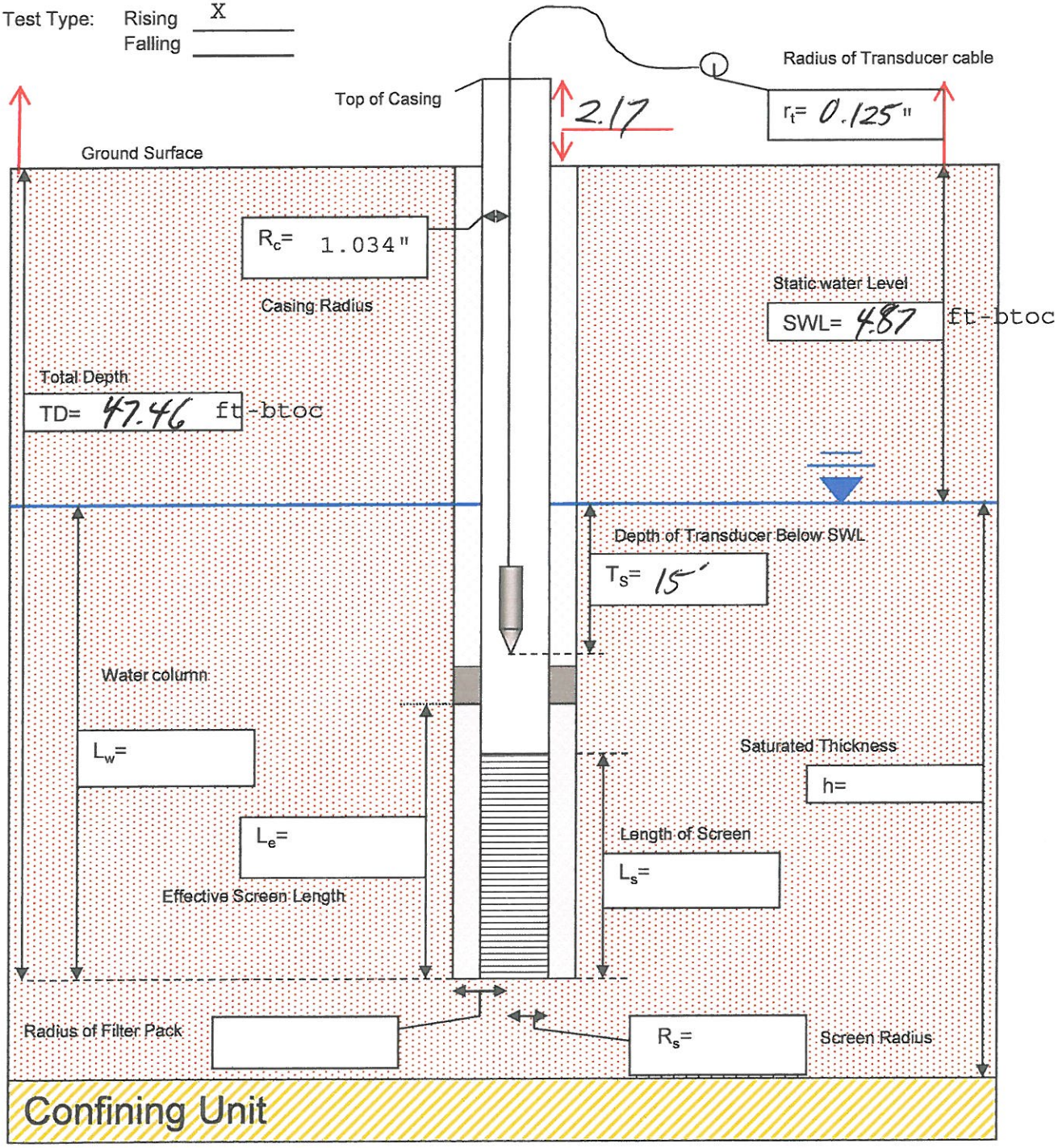
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWD-24 Prepared By: Robby Shealy Date: 8/29/14 Time: _____

Completed By: Robby Shealy

Test Type: Rising X
Falling _____



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer full @ 1,000 ml

Number of Tests: _____ Data File Name: MWD-24 Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: _____ r_t: _____

Test ID: T_S Baseline: 14.750 Pressure Reading: _____

_____ H_o: _____ Test Start 1724 Test End _____

Test ID: T_S Baseline: _____ Pressure Reading: _____

_____ H_o: _____ Test Start _____ Test End _____

Test ID: T_S Baseline: _____ Pressure Reading: _____

_____ H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

Cannot get bailer in well well is damaged

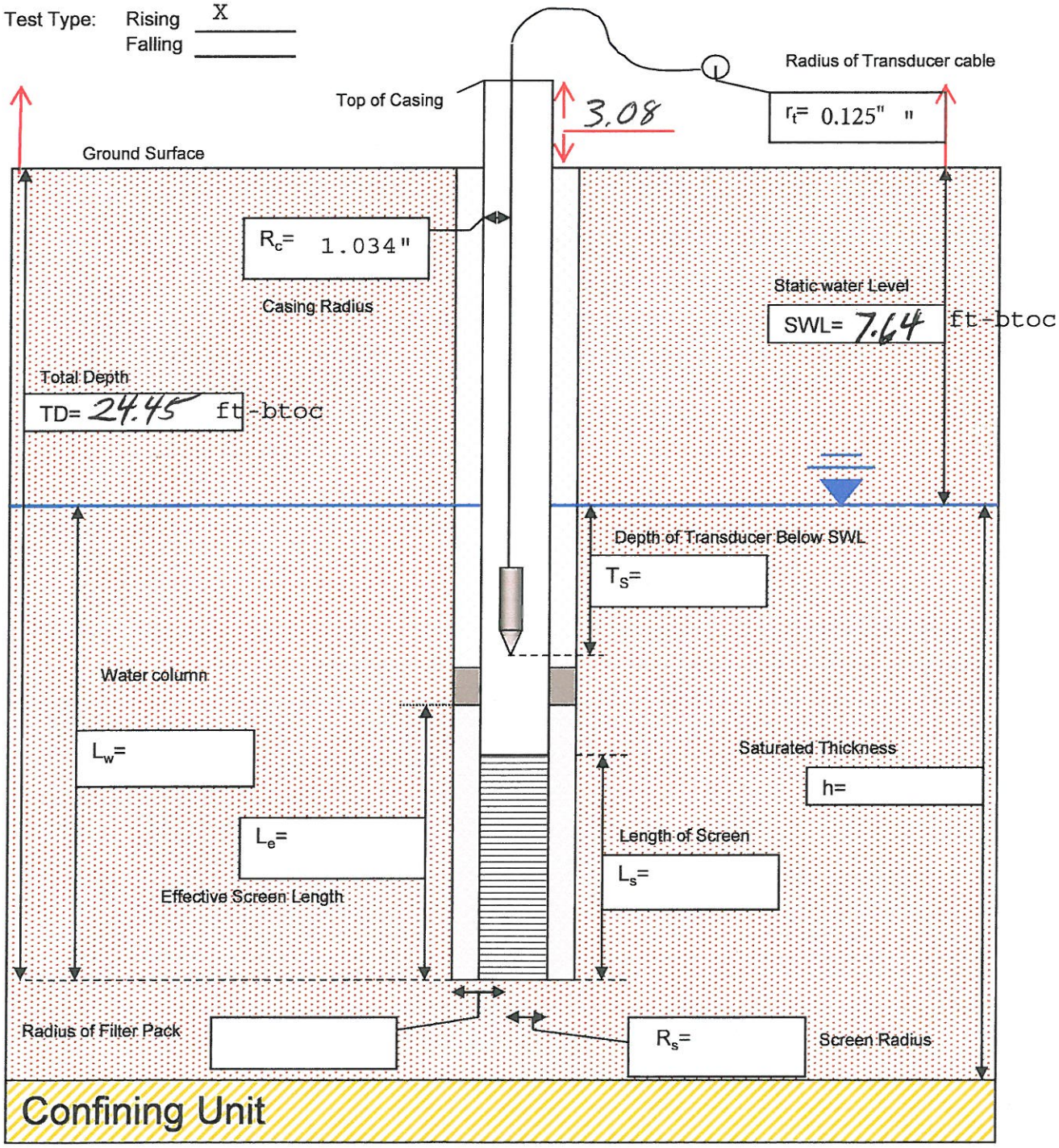
ARCADIS
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-28 Prepared By: Robby Shealy Date: 8/29/14 Time: _____

Completed By: Robby Shealy

Test Type: Rising X
Falling _____



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS

Number of Tests: _____ Data File Name: _____ Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: _____ r_t: _____

Test ID: T_S Baseline: _____ Pressure Reading: _____

_____ H_o: _____ Test Start _____ Test End _____

Test ID: T_S Baseline: _____ Pressure Reading: _____

_____ H_o: _____ Test Start _____ Test End _____

Test ID: T_S Baseline: _____ Pressure Reading: _____

_____ H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

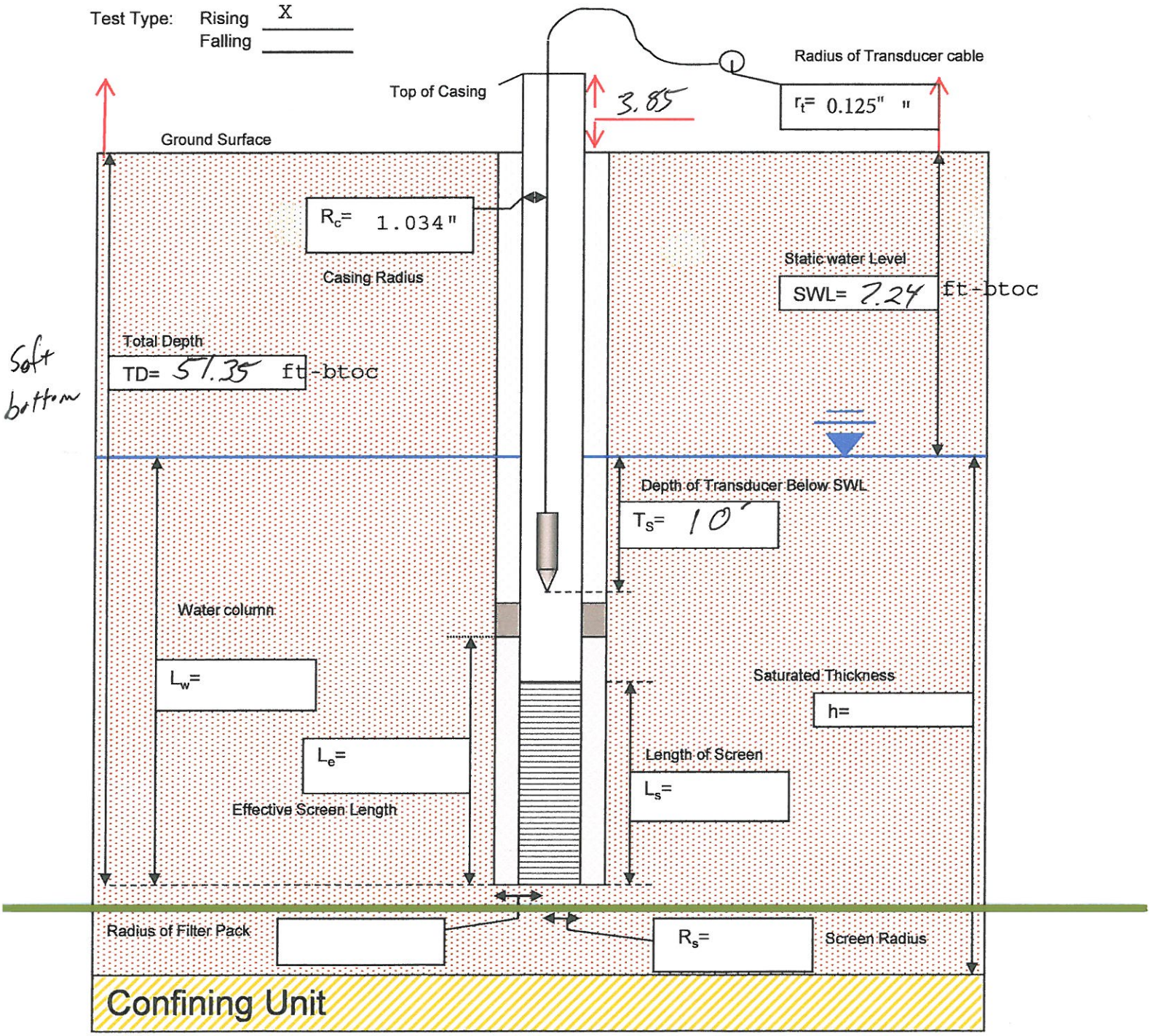
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWD-29 Prepared By: Robby Shealy Date: 8/29/14 Time: 1030

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer 1,000 ml

Number of Tests: _____ Data File Name: MWD-29 Data File Location: Level Troll 700

Input Pressure: _____ Pressure Transducer SN: 327622 r_t: _____

Test ID: _____ T_S Baseline: 14.833 Pressure Reading: _____

H_o: 14.807 finish Test Start 1041 Test End 1315

Test ID: _____ T_S Baseline: 14.818 Pressure Reading: _____

H_o: _____ Test Start 1332 Test End _____

Test ID: _____ T_S Baseline: _____ Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

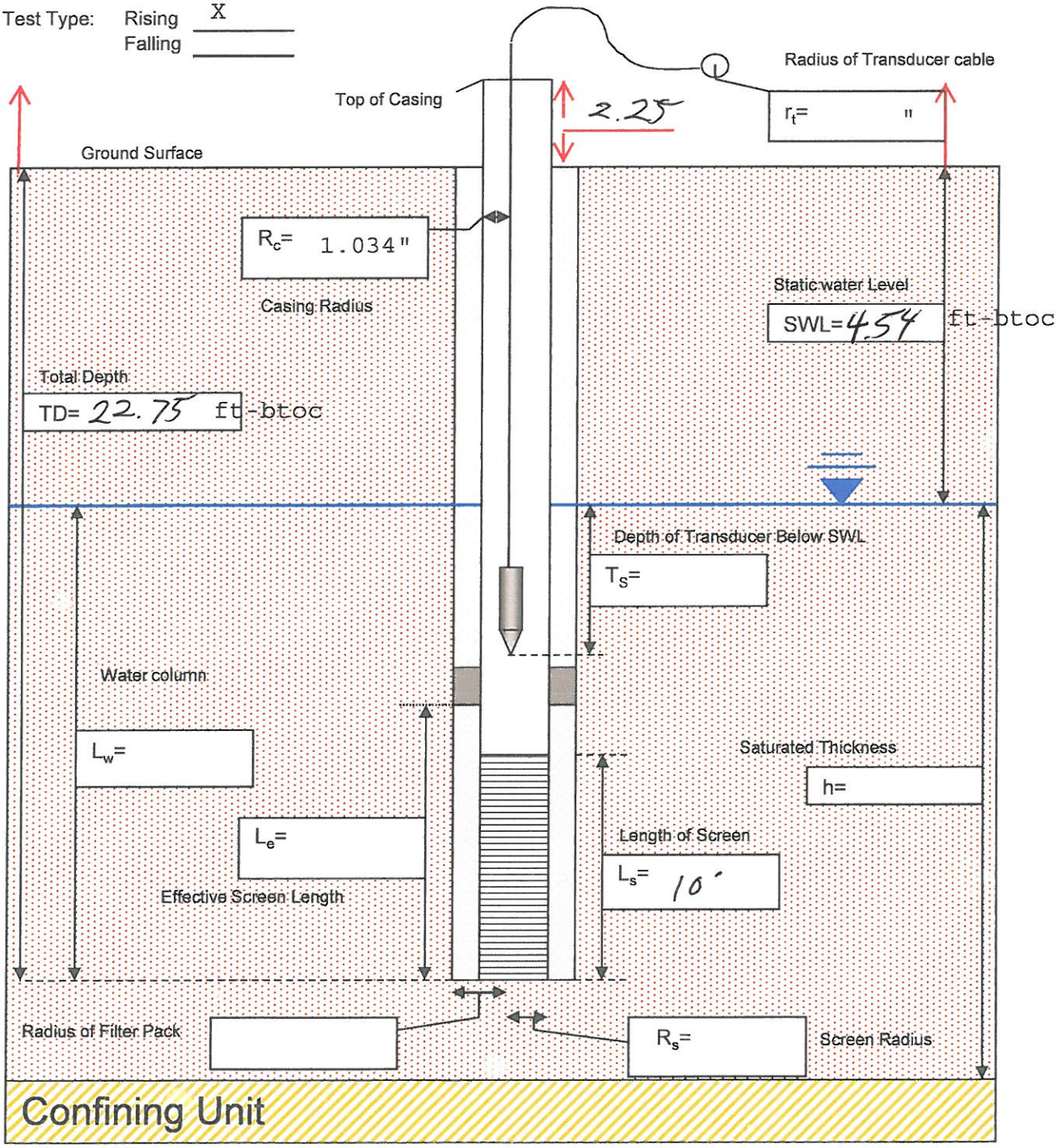
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F1 Prepared By: Robby Shealy Date: 8/27/14 Time: _____

Completed By: Robby Shealy

Test Type: Rising X
Falling _____



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer 1,000 ml

Number of Tests: 2 Data File Name: MW-F1 Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: _____ r_t: _____

Test ID: _____ T_S Baseline: 14.886 Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Test ID: _____ T_S Baseline: 14.881 Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Test ID: _____ T_S Baseline: _____ Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

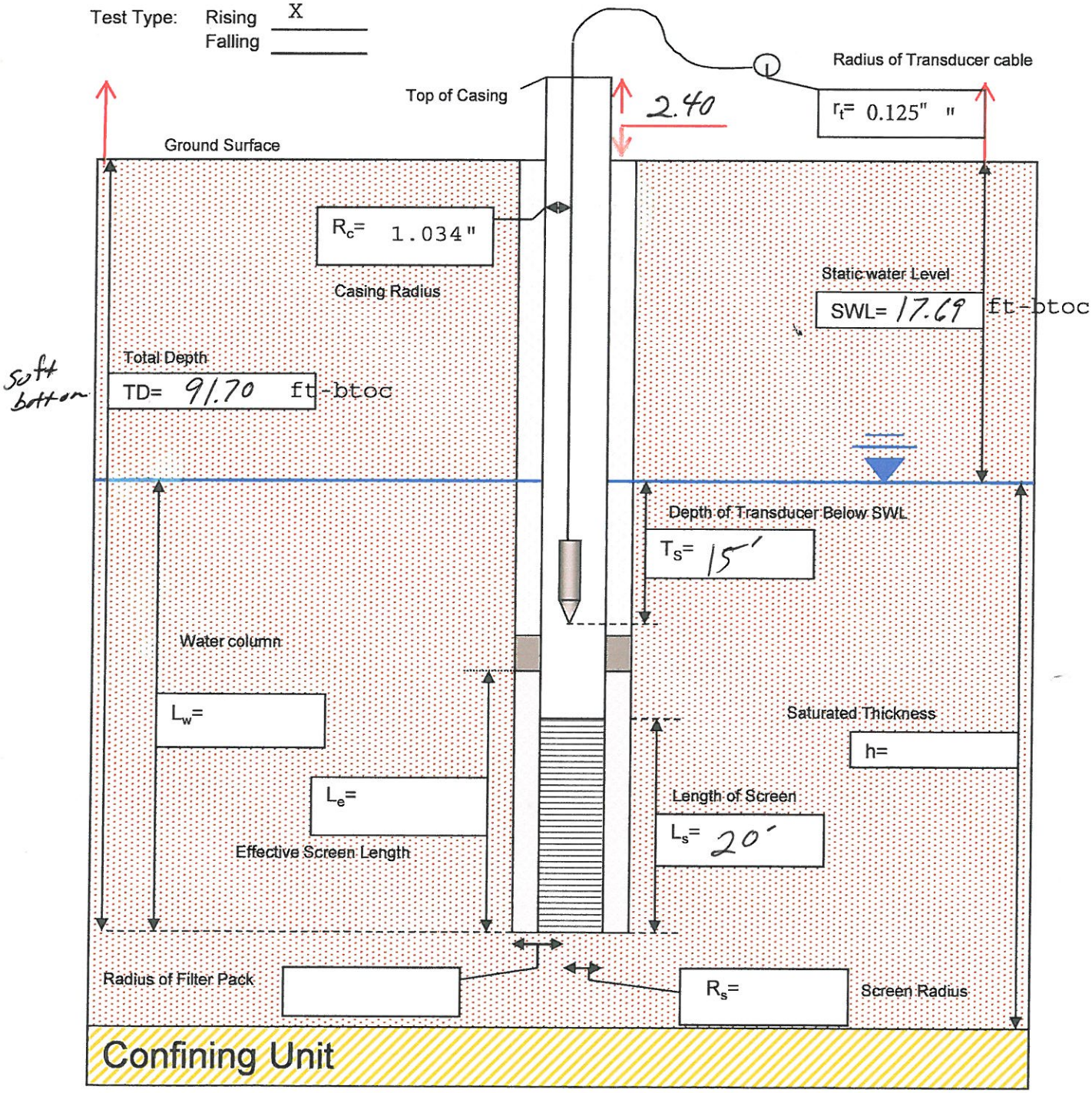
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MWD-F3 Prepared By: Robby Shealy Date: 8/29/14 Time: 0820

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer 1,000 ml

Number of Tests: _____ Data File Name: MWD-F3 Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: Level Troll 700 315825 r_t: _____

Test ID: _____ T_S Baseline: 14.858 Pressure Reading: _____

H_o: _____ Test Start 0955 Test End _____

Test ID: _____ T_S Baseline: _____ Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Test ID: _____ T_S Baseline: _____ Pressure Reading: _____

H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity 15.189

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS
Slug Test Log

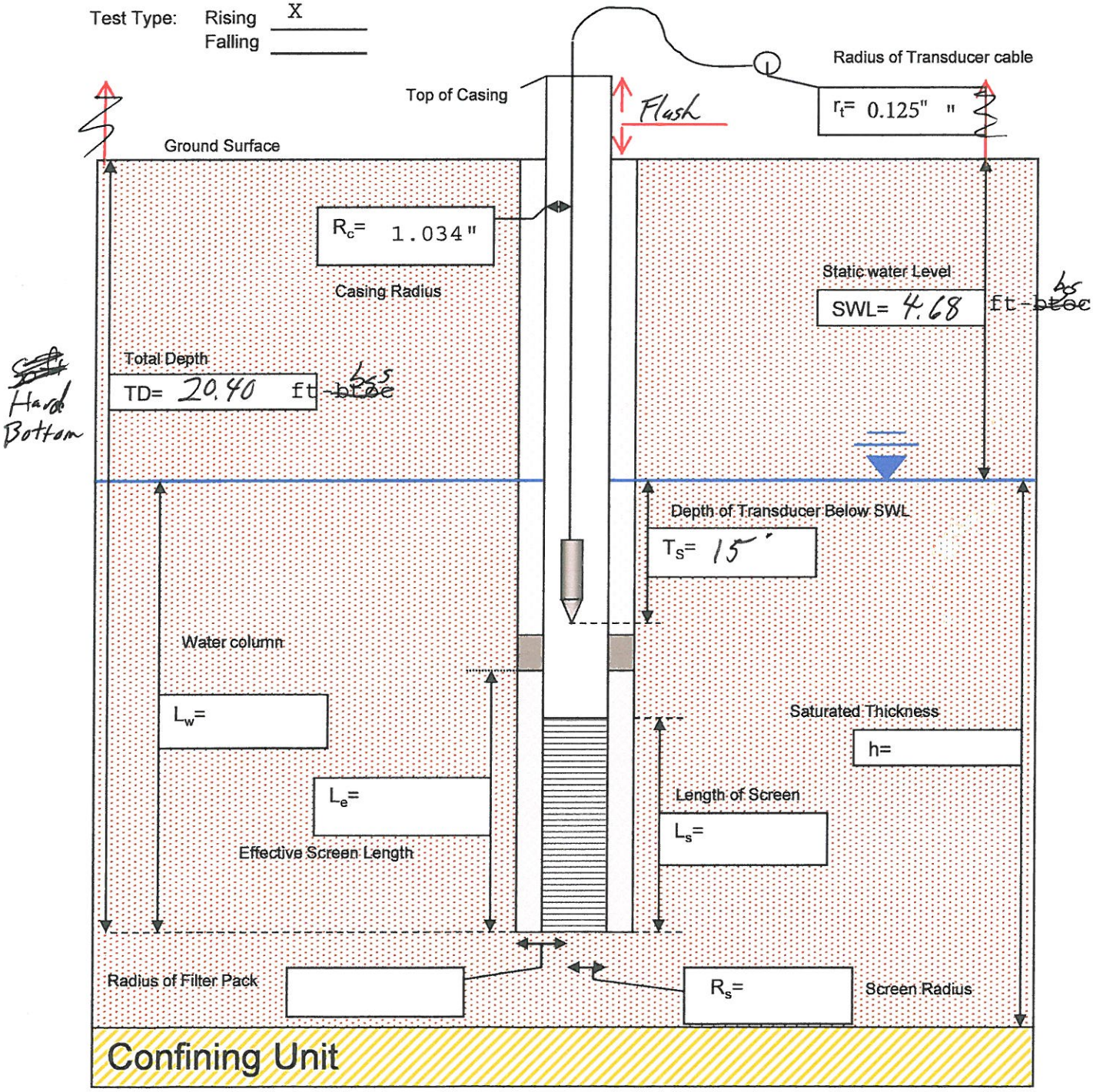
No Well Tag MW-F9

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F9 Prepared By: Robby Shealy Date: 8/29/14 Time: 0900

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS Using 3' bailer removing full 1,000ml out each time

Number of Tests: _____ Data File Name: MW-F9 Data File Location: _____

Input Pressure: _____ Pressure Transducer SN: _____ r_t: _____

Test ID: T_S Baseline: 14.888 Pressure Reading: _____

_____ H_o: _____ Test Start 0857 Test End 0907

Test ID: T_S Baseline: 14.888 Pressure Reading: _____

_____ H_o: _____ Test Start 0921 Test End 0934

Test ID: T_S Baseline: _____ Pressure Reading: _____

_____ H_o: _____ Test Start _____ Test End _____

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

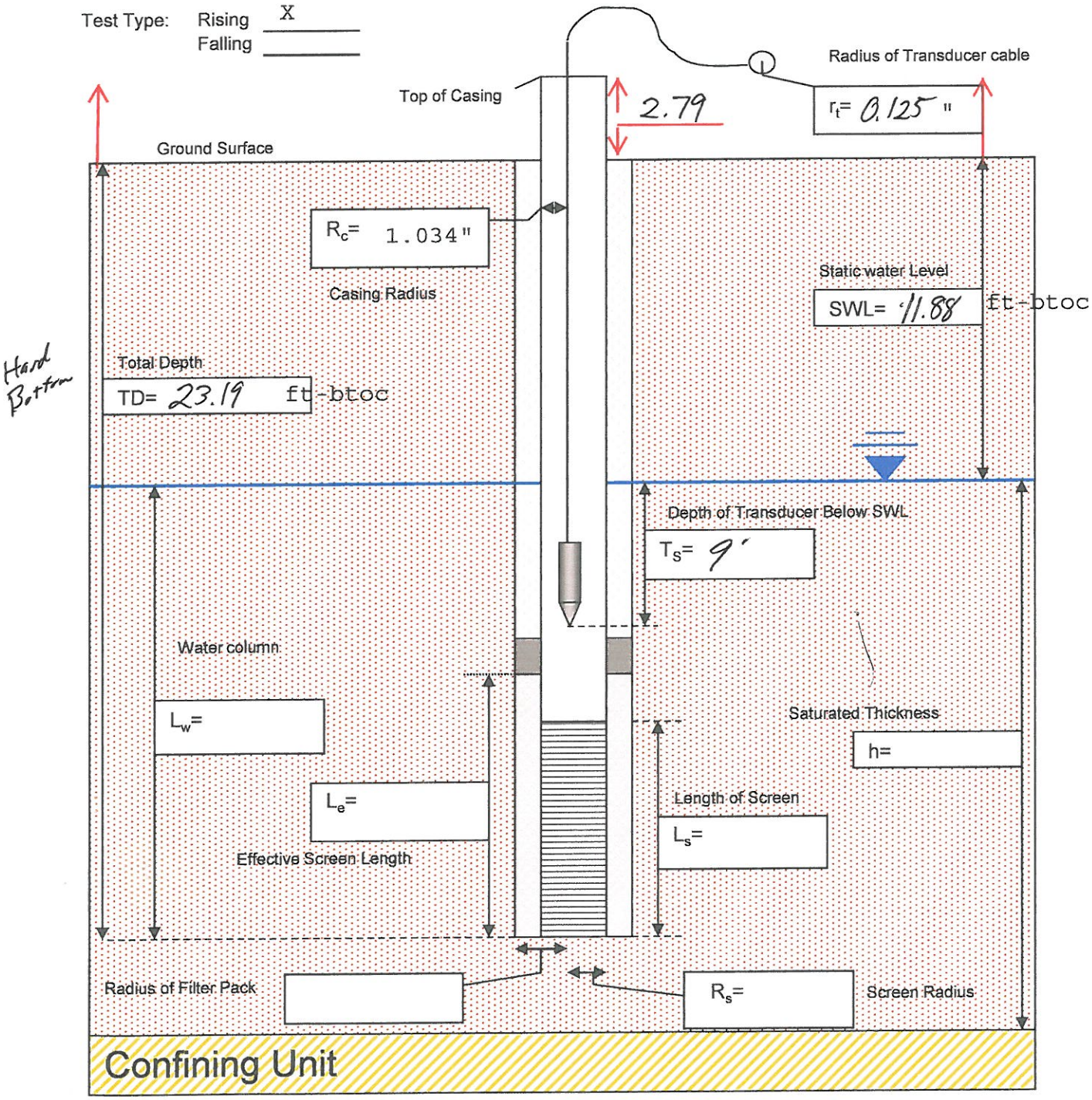
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F13 Prepared By: Robby Shealy Date: 8/29/14 Time: 1520

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3 bailer 1,000ml

Number of Tests: 1 Data File Name: MW-F13 Data File Location:

Input Pressure: Pressure Transducer SN: 116803 r_t:

Test ID: T_S Baseline: 8.971 Pressure Reading:

H_o: Test Start 1552 Test End 1642

Test ID: T_S Baseline: Pressure Reading:

H_o: Test Start Test End

Test ID: T_S Baseline: Pressure Reading:

H_o: Test Start Test End

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

ARCADIS

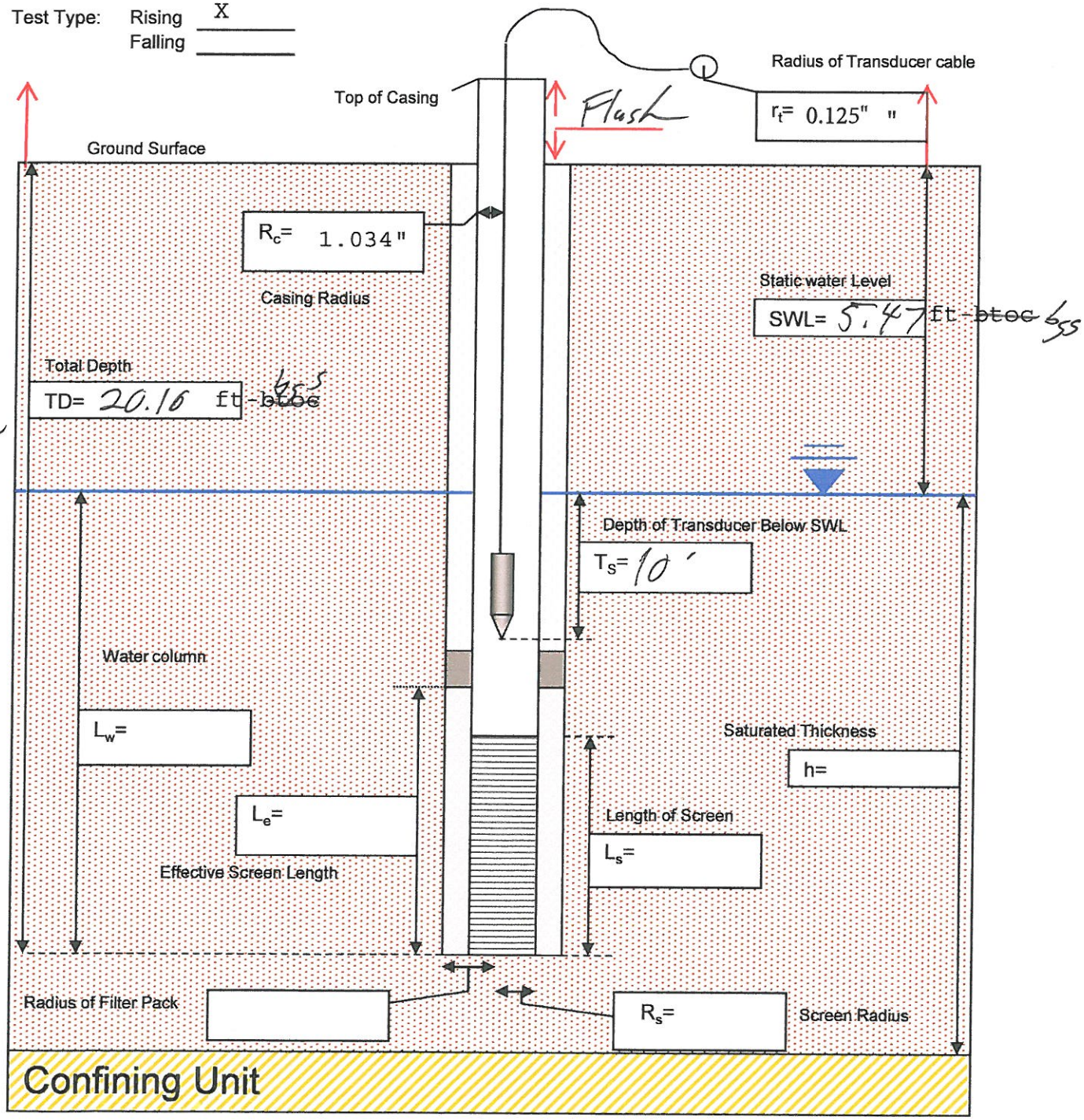
Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA06.00300 Page: 1 of 2

Well No: MW-F15 Prepared By: Robby Shealy Date: 8/29/14 Time: 1400

Completed By: Robby Shealy

Test Type: Rising X
Falling



ARCADIS

Slug Test Log

Site Name: Ashland Savannah Project No: OH007000.GA60 Page: 2 of 2

TESTS 3' bailer fall @ 1,000 ml

Number of Tests: 1 Data File Name: MW-F15 Data File Location:

Input Pressure: Pressure Transducer SN: r_t:

Test ID: T_S Baseline: 9.860 Pressure Reading:

H_o: 9.817 Test Start 1426 Test End 1442

Test ID: T_S Baseline: Pressure Reading:

H_o: Test Start Test End

Test ID: T_S Baseline: Pressure Reading:

H_o: Test Start Test End

Notes:

H_o	Initial change in head at instant the slug test is started
r_t	Radius of transducer cable
T_S	Depth of transducer below static water level

Theoretical Change in Head - 2.307 feet = 1 psi

(Feet)	(psi)	(Feet)	(psi)	(Feet)	(psi)
0.50	0.22	1.50	0.65	2.50	1.08
0.75	0.33	1.75	0.76	2.75	1.19
1.00	0.43	2.00	0.87	3.00	1.30
1.25	0.54	2.25	0.98	3.25	1.41

Well Parameters Required for Calculating Hydraulic Conductivity

L_e	Effective screen length, including the sand pack
L_s	True screen length
L_w	Length of water column in Well (TD-SWL)
R_s	Screen radius
R_b	Radius of filter Pack or borehole
R_c	Casing radius
r_t	Radius of the transducer cable
T_s	Depth the transducer is submerged below the SWL
SWL	Static water level
TD	Total depth of well/screen from reference point
h	Saturated thickness of aquifer
H_o	Initial head change at instant the slug test is started.
Aquifer Type	Confined or unconfined

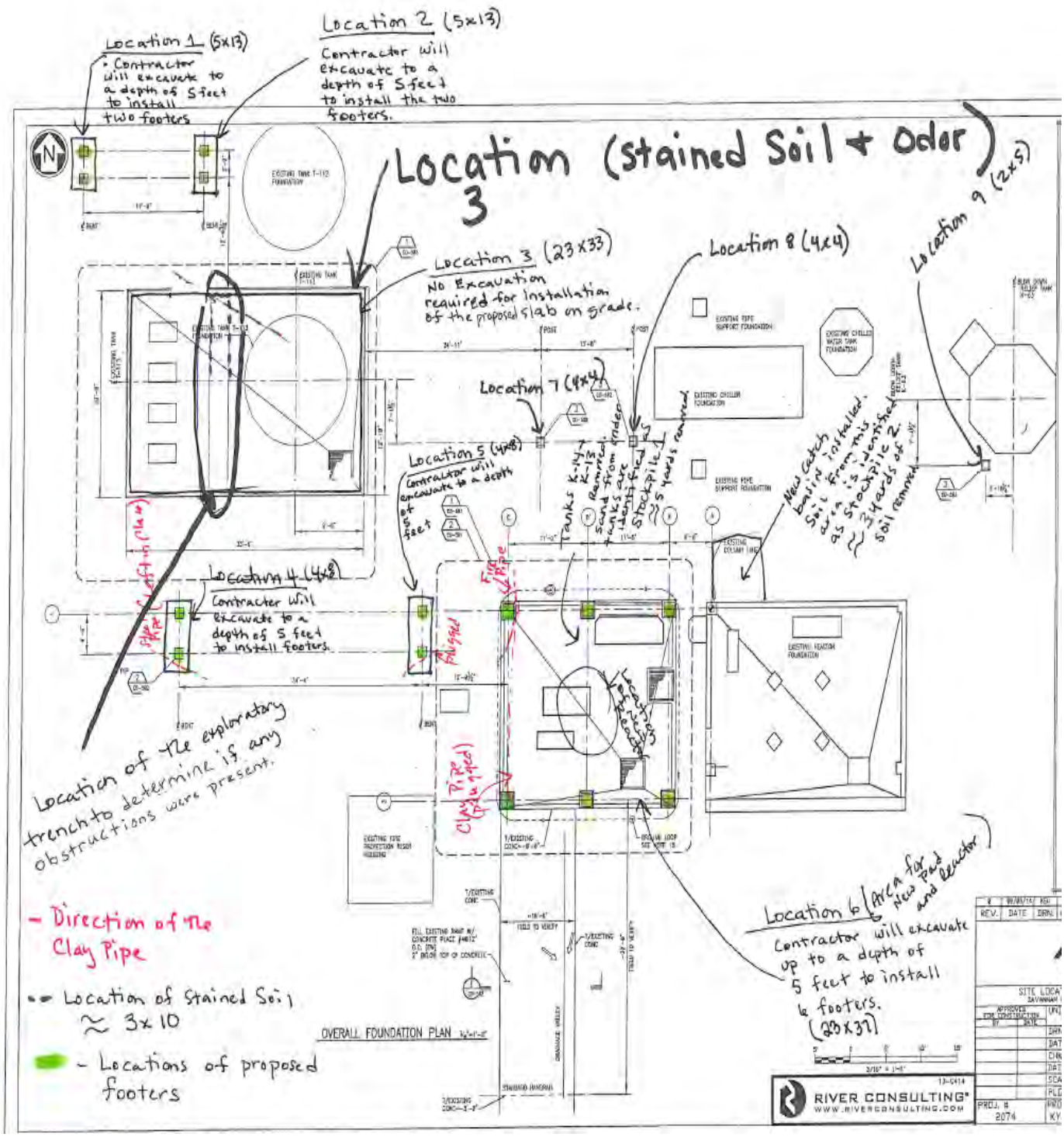
Appendix F

Kymene Reactor Support

Attachment #1. Kymene Reactor Photo Log

ARCADIS

Kymene Soil Excavation Photo Log
General Layout



Location 1: Facing north

Location 1: Facing south

Location 1: Facing east. Soil stability check prior to backfilling

Location 1: Facing south. Excavation and backfilling being completed.

Location 2: Facing east. Intact steel pipe (former wastewater drain)

Location 2: Facing east, view of capped pipe (former wastewater drain) after cut

Location 2: Facing west. Excavation completed and soil stability test being performed.

Location 2: Facing south, view of excavation and backfilling completed.

Location 2: Facing west, capped pipe

Location 2: View of locations #1 (foreground) and #2 (background), facing east

Location 3: Clay pipe discovered in north end of test pit running NW/SE

Location 3: Facing north, clay pipe at northern end

Location 3: Facing east, clay pipe

Location 3: Clay pipe at northern end of trench

Location 3: Soil staining with Dowtherm odor

Location 3: Pipe break illustrating soil staining

Location 3 Facing west. Excavation completed based on no odors, stains and PID readings.

Location 3: Facing north. Excavation and backfilling complete.

Location 3: Facing south, clay pipe within circle

Location 4: Facing south

Location 4: Facing south, railroad tie with creosote odor inside location 4

Location 4: Facing south. Excavation and backfilling completed. Location was not backfilled to the surface so extra H&S measures were added to prevent someone from falling in.

Location 5: Facing South

Location 5: Facing west (#5 in foreground, #4 in background)

Location 5: Facing South. Excavation being completed.

Location 5: Facing east, Excavation and backfilling completed

Location 6: Facing South

Location 6: Facing east, view of steel pipe (former wastewater drain)

Location 6: Facing South. Excavation and backfilling being completed.

Location 6: Facing east, view of excavation completed and backfilled.

Stockpiled 1: Excavated soil prior to ARCADIS Arrival from the catch basin **(3 yards of soil)**

Stockpiled 2: Excavated soil prior to ARCADIS arrival from under K-13 and K-14
(5 yards of soil)

Stockpiled 3 **(OVA reading greater than 50ppm**): Excavated soil Location 3 **(25 yards of soil)**

Stockpiled 4 **(OVA reading 0 to 5ppm**): Excavated soil Location 1, 2, 5, and 6 **(179 yards of soil)**

Stockpiled 5 **(OVA reading 5 to 50ppm**): Excavated soil Location 4 **(10 yards of soil)**

Appendix G

Risk Assessment Tables

Table G-1
Soil Samples Samples Not Used in Risk Assessment Dataset
Hercules Inc. - Savannah Plant
Savannah, Georgia

Location	Date	Sample ID	Depth	Reason Excluded
50-CC	1/19/2000	50-CC_1/19/00_(7-9)GRAB_NM	7 - 9	saturated
50-CC Composite	1/19/2000	50-CC COMPOSITE_1/19/00_(1-9)COMP_H_NM	1 - 9	composite
50-EC Composite	1/19/2000	50-EC COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-NC Composite	1/19/2000	50-NC COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-NE	1/19/2000	50-NE_1/19/00_(6-9)GRAB_NM	6 - 9	saturated
50-NE Composite	1/19/2000	50-NE COMPOSITE_1/19/00_(1-9)COMP_H_NM	1 - 9	composite
50-NW Composite	1/24/2000	50-NW COMPOSITE_1/24/00_(1-6)COMP_H_NM	1 - 6	composite
50-SC Composite	1/19/2000	50-SC COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-SE	1/19/2000	50-SE_1/19/00_(7-9)GRAB_NM	7 - 9	saturated
50-SE Composite	1/19/2000	50-SE COMPOSITE_1/19/00_(1-6)COMP_H_NM	1 - 6	composite
50-SW Composite	1/24/2000	50-SW COMPOSITE_1/24/00_(1-6)COMP_H_NM	1 - 6	composite
50-WC Composite	1/24/2000	50-WC COMPOSITE_1/24/00_(1-6)COMP_H_NM	1 - 6	composite
Confirmation_Samp	12/1/2000	CONFIRMATION_SAMPLE_12/1/00_(0-3)GRAB_NM	0 - 3	newer sample used
Confirmation_Samp	12/1/2000	CONFIRMATION_SAMPLE_12/1/00_(3-6)GRAB_NM	3 - 6	newer sample used
SB-36	11/8/2002	SB-36_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-36	11/8/2002	SB-36_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-37	11/8/2002	SB-37_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-37	11/8/2002	SB-37_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-38	11/8/2002	SB-38_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-38	11/8/2002	SB-38_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-39	11/8/2002	SB-39_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-39	11/8/2002	SB-39_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-40	11/8/2002	SB-40_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-40	11/8/2002	SB-40_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-41	11/8/2002	SB-41_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-41	11/8/2002	SB-41_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-42	11/8/2002	SB-42_11/8/02_(13-15)GRAB_NM	13 - 15	saturated
SB-42	11/8/2002	SB-42_11/8/02_(8-12)GRAB_NM	8 - 12	saturated
SB-F14/F12	10/20/2000	SB-F14/F12_10/20/00_(1-3)COMP_H_NM	1 - 3	composite
SB-F14/F12/F3	10/19/2000	SB-F14/F12/F3_10/19/00_(0-3)COMP_H_NM	0 - 3	composite
SB-F6/F4/F15/F27	10/20/2000	SB-F6/F4/F15/F27_10/20/00_(0.5-3)COMP_H	0.5 - 3	composite
SR-1	1/7/1998	SR-1_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-1	1/7/1998	SR-1_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-10	1/8/1998	SR-10_1/8/98_(10-10)GRAB_NM	10 - 10	saturated
SR-2	1/7/1998	SR-2_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-2	1/7/1998	SR-2_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-3	1/7/1998	SR-3_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-3	1/7/1998	SR-3_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-4	1/7/1998	SR-4_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-5	1/7/1998	SR-5_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-5	1/7/1998	SR-5_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-6	1/7/1998	SR-6_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SR-6	1/7/1998	SR-6_1/7/98_(15-15)GRAB_NM	15 - 15	saturated
SR-7	1/7/1998	SR-7_1/7/98_(10-10)GRAB_NM	10 - 10	saturated
SS-33	11/8/2002	SS-33_11/8/02_(0-2)GRAB_NM	0 - 2	outside VRP boundary

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136
		Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3
Constituent	**TEF**	**Units**																		
Aroclors																				
Aroclor 1016		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1221		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1232		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1242		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1248		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1254		ug/kg	< 40 U	100	14000	98	170	200	260	150	< 37 U	< 36 U	210	290	340	210	94	560	290	770
Aroclor 1260		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1262		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Aroclor 1268		ug/kg	< 40 U	< 38 U	< 40 U	< 41 U	< 40 U	< 170 U	< 38 U	< 38 U	< 37 U	< 36 U	< 36 U	< 38 U	< 38 U	< 41 U	< 38 U	< 42 U	< 40 U	< 36 U
Dioxins and Furans																				
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ of dioxins and furans		**pg/g**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Dioxin like PCBs																				
PCB-105	0.00003	pg/g	1800	1200	830	2600	3300	3000	28000	8600	19	10	6200	4300	4000	2000	3700	30000	18000	11000
PCB-114	0.00003	pg/g	59	38	29	< 100 U	< 85 U	130	1400	350	< 2.2 U	< 2.1 U	220	200	140	< 59 U	< 120 U	1500	600	340
PCB-118	0.00003	pg/g	3900	2900	2100	9400	11000	6900	71000	19000	46	29	15000	10000	9300	4600	9000	69000	46000	24000
PCB-123	0.00003	pg/g	85	44	41	220	180	90	< 1100 U	220	< 2.2 U	< 2.1 U	200	170	110	86	730	650	630	420
PCB-126	0.1	pg/g	130	< 42 U	< 29 U	< 120 U	< 100 U	< 97 U	2200	510	3.7	< 2.1 U	340	160	180	110	< 160 U	950	780	530
PCB-156/157	0.00003	pg/g	1400	620	460	2600	2700	1800	21000	3700	24	12	4000	1900	3500	1300	2200	14000	8100	4500
PCB-167	0.00003	pg/g	530	200	150	850	890	560	7100	1200	11	4.3	1300	590	1000	420	710	3800	2500	1500
PCB-169	0.03	pg/g	< 14 U	< 5.1 U	< 5.5 U	< 21 U	< 20 U	< 18 U	< 110 U	< 18 U	< 2.2 U	< 2.1 U	< 22 U	< 14 U	< 17 U	< 12 U	< 17 U	< 130 U	< 55 U	< 42 U
PCB-189	0.00003	pg/g	80	22	13	96	97	61	1100	120	2.9	< 2.1 U	160	73	160	63	98	480	270	140
PCB-77	0.0001	pg/g	52	66	< 3.4 U	130	130	74	< 120 U	< 33 U	< 2.2 U	< 2.1 U	270	130	76	55	90	1300	1000	1300
PCB-81	0.0003	pg/g	< 8.9 U	< 3.5 U	45	< 11 U	< 12 U	< 8.7 U	2600	1600	< 2.2 U	< 2.1 U	55	< 15 U	< 7.7 U	< 7.3 U	< 20 U	< 230 U	< 80 U	< 57 U
TEQ of dioxin like PCBs		**pg/g**	**13**	**0.14**	**0.10**	**0.41**	**0.48**	**0.33**	**224**	**52**	**0.37**	**0.0013**	**35**	**16**	**18**	**11.22**	**0.44**	**98.71**	**80.38**	**54.39**
TEQ of dioxins and furans and dioxin like PCBs		**pg/g**	**13**	**0.14**	**0.10**	**0.41**	**0.48**	**0.33**	**224**	**52**	**0.37**	**0.0013**	**35**	**16**	**18**	**11**	**0.44**	**99**	**80**	**54**

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136
		Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3
Constituent	**TEF**	**Units**																		
Non-Dioxin like PCBs																				
PCB-1		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	2500	4300	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-10		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-103		pg/g	< 53 U	< 43 U	< 25 U	< 110 U	< 99 U	< 89 U	< 1300 U	< 150 U	< 22 U	< 21 U	< 180 U	< 120 U	< 120 U	< 62 U	< 130 U	< 710 U	< 400 U	< 220 U
PCB-104		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-106		pg/g	< 51 U	< 38 U	< 23 U	< 99 U	< 87 U	< 79 U	< 1100 U	< 130 U	< 22 U	< 21 U	< 160 U	< 110 U	< 110 U	< 60 U	< 120 U	< 690 U	< 390 U	< 210 U
PCB-107/124		pg/g	190	120	79	640	640	290	3000	630	< 43 U	< 42 U	710	470	410	180	350	3000	1700	1100
PCB-109		pg/g	260	180	130	690	720	540	5100	1200	< 22 U	< 21 U	1200	720	800	310	680	4100	2600	1600
PCB-11		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	63	80	< 22 U
PCB-110/115		pg/g	5600	3600	1900	12000	14000	8900	130000	18000	120	60	26000	15000	19000	7900	14000	96000	54000	31000
PCB-111		pg/g	< 42 U	< 32 U	< 23 U	< 84 U	< 73 U	< 66 U	< 960 U	< 110 U	< 22 U	< 21 U	< 130 U	< 92 U	< 92 U	< 49 U	< 100 U	< 560 U	< 320 U	< 170 U
PCB-112		pg/g	< 40 U	< 33 U	< 23 U	< 87 U	< 76 U	< 69 U	< 990 U	< 120 U	< 22 U	< 21 U	< 140 U	< 96 U	< 95 U	< 47 U	< 97 U	< 540 U	< 310 U	< 170 U
PCB-115		pg/g	--	--	1900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12/13		pg/g	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	< 43 U	< 45 U	< 45 U	< 50 U	< 45 U	< 51 U	75	< 43 U
PCB-120		pg/g	< 45 U	< 34 U	< 23 U	< 88 U	< 77 U	< 70 U	< 1000 U	< 120 U	< 22 U	< 21 U	< 140 U	< 97 U	< 96 U	< 52 U	< 110 U	< 590 U	< 340 U	< 180 U
PCB-121		pg/g	< 42 U	< 32 U	< 23 U	< 85 U	< 75 U	< 67 U	< 970 U	< 120 U	< 22 U	< 21 U	< 130 U	< 94 U	< 93 U	< 49 U	< 100 U	< 560 U	< 320 U	< 170 U
PCB-122		pg/g	86	< 39 U	< 23 U	< 100 U	< 90 U	< 81 U	< 1200 U	230	< 22 U	< 21 U	< 160 U	160	< 110 U	< 62 U	< 130 U	960	450	370
PCB-127		pg/g	< 51 U	< 37 U	< 23 U	< 98 U	< 86 U	< 78 U	< 1100 U	< 130 U	< 22 U	< 21 U	< 150 U	< 110 U	< 110 U	< 60 U	< 120 U	< 680 U	< 390 U	< 210 U
PCB-128/166		pg/g	2700	800	710	3600	3500	2300	35000	4500	61	< 42 U	5900	2500	4100	1800	2900	16000	11000	6000
PCB-129/138/163		pg/g	13000	4300	3800	18000	18000	12000	160000	24000	290	99	30000	14000	22000	9500	15000	90000	56000	31000
PCB-130		pg/g	830	280	210	1100	1100	750	13000	1500	< 22 U	< 21 U	2100	900	1400	690	1100	6400	3800	2100
PCB-131		pg/g	110	38	31	< 57 U	92	130	2400	270	< 22 U	< 21 U	430	180	290	120	210	1400	740	660
PCB-132		pg/g	3000	1100	690	4000	4100	3000	57000	6100	50	24	9300	4200	6200	2700	4500	30000	16000	9300
PCB-133		pg/g	110	39	30	150	150	110	1900	230	< 22 U	< 21 U	310	120	200	96	160	810	510	410
PCB-134/143		pg/g	490	190	110	530	610	500	8900	920	< 43 U	< 42 U	1500	680	1000	460	730	4700	2300	2200
PCB-135/151		pg/g	1700	700	440	2200	2400	2000	33000	3600	< 43 U	< 42 U	5900	2500	3500	1600	2700	18000	8700	4100
PCB-136		pg/g	700	270	180	700	650	770	14000	1800	< 22 U	< 21 U	2500	1100	1500	680	1100	8500	4300	2300
PCB-137		pg/g	720	210	230	1000	1000	670	7700	1400	< 22 U	< 21 U	1800	790	1200	530	850	5300	3500	1800
PCB-139/140		pg/g	190	65	49	180	180	210	3100	420	< 43 U	< 42 U	540	220	350	160	260	1500	1100	570
PCB-14		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-141		pg/g	1300	560	400	2300	2500	1500	20000	2700	< 22 U	< 21 U	4200	2100	2900	1300	2100	13000	7500	4300
PCB-142		pg/g	< 49 U	< 22 U	< 23 U	< 52 U	< 55 U	< 51 U	< 780 U	< 82 U	< 22 U	< 21 U	< 76 U	< 33 U	< 83 U	< 25 U	190	< 330 U	< 190 U	< 110 U
PCB-144		pg/g	240	99	66	260	270	310	5100	550	< 22 U	< 21 U	280	420	560	240	400	1900	1200	550
PCB-145		pg/g	< 31 U	< 22 U	< 23 U	< 36 U	< 38 U	< 36 U	< 540 U	< 57 U	< 22 U	< 21 U	< 52 U	< 23 U	< 58 U	< 25 U	< 37 U	< 210 U	< 120 U	< 68 U
PCB-146		pg/g	1300	420	340	1600	1700	1200	19000	2500	35	< 21 U	3200	1300	2100	1000	1700	9500	5700	3100
PCB-147/149		pg/g	4700	2000	1200	5900	5700	5400	94000	11000	100	46	16000	7200	10000	4500	7600	51000	27000	15000
PCB-148		pg/g	< 43 U	< 22 U	< 23 U	< 48 U	< 51 U	< 48 U	< 720 U	< 76 U	< 22 U	< 21 U	< 70 U	< 30 U	< 77 U	< 25 U	< 51 U	< 290 U	< 170 U	< 94 U
PCB-15		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	23	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	200	41	45
PCB-150		pg/g	< 29 U	< 22 U	< 23 U	< 33 U	< 35 U	< 33 U	< 500 U	< 52 U	< 22 U	< 21 U	< 48 U	< 23 U	< 53 U	< 25 U	< 34 U	< 200 U	< 110 U	< 63 U
PCB-152		pg/g	< 30 U	< 22 U	< 23 U	< 35 U	< 37 U	< 35 U	< 530 U	< 55 U	< 22 U	< 21 U	< 51 U	< 23 U	< 56 U	< 25 U	< 35 U	< 200 U	< 120 U	< 65 U
PCB-153/168		pg/g	6000	2500	2100	9400	9700	6900	70000	13000	100	47	16000	7700	12000	4900	8100	52000	31000	16000
PCB-154		pg/g	< 39 U	< 22 U	< 23 U	< 42 U	60	69	950	< 67 U	< 22 U	< 21 U	130	65	100	< 25 U	< 45 U	< 260 U	290	530
PCB-155		pg/g	< 36 U	< 22 U	< 23 U	< 37 U	< 44 U	< 34 U	< 510 U	< 40 U	< 22 U	< 21 U	< 48 U	< 23 U	< 51 U	< 25 U	< 36 U	< 190 U	< 120 U	< 240 U
PCB-158		pg/g	1300	460	360	1900	1900	1200	18000	2400	26	< 21 U	3300	1500	2400	1000	1700	10000	6300	3500
PCB-159		pg/g	37	< 22 U	< 23 U	60	50	< 25 U	< 230 U	51	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	30	46	110	44	< 32 U
PCB-16		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	53	< 23 U	< 23 U	< 25 U	32	600	< 24 U	< 220 U
PCB-160		pg/g	< 39 U	< 22 U	< 23 U	< 41 U	< 44 U	< 41 U	< 630 U	< 66 U	< 22 U	< 21 U	< 61 U	< 26 U	< 67 U	< 25 U	< 45 U	< 260 U	< 150 U	< 84 U
PCB-161		pg/g	< 34 U	< 22 U	< 23 U	< 37 U	< 40 U	< 37 U	< 560 U	< 59 U	< 22 U	< 21 U	< 54 U	< 23 U	< 60 U	< 25 U	< 39 U	< 230 U	< 130 U	< 73 U
PCB-162		pg/g	77	23	< 23 U	98	95	59	380	120	< 22 U	< 21 U	24	< 23 U	33	58	88	270	180	120
PCB-164		pg/g	850	270	180	1100	1100	740	14000	1300	28	< 21 U	2000	840	1400	670	1000	5800	3500	2000
PCB-165		pg/g	< 39 U	< 22 U	< 23 U	< 43 U	< 46 U	< 43 U	< 650 U	< 68 U	< 22 U	< 21 U	< 63 U	< 27 U	< 69 U	< 25 U	< 45 U	< 260 U	< 150 U	< 84 U
PCB-17		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	44	< 23 U	< 23 U	< 25 U	24	450	33	< 220 U
PCB-170		pg/g	2000	530	350	2400	2300	1400	26000	2600	130	22	4000	1800	3200	1400	2300	12000	6100	3400
PCB-171/173		pg/g	550	160	120	680	650	410	7400	790	< 43 U	< 42 U	1300	540	920	420	680	4100	2000	1200
PCB-172		pg/g	260	82	54	360	330	200	3700	350	< 22 U	< 21 U	630	260	450	210	330	1800	630	320

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136
		Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3
Constituent	**TEF**	**Units**																		
PCB-174		pg/g	1300	460	300	1900	1800	1000	18000	1800	100	< 21 U	3700	1500	2300	1100	1800	12000	4400	2700
PCB-175		pg/g	49	< 22 U	< 23 U	65	64	43	760	77	< 22 U	< 21 U	150	56	88	42	69	450	180	130
PCB-176		pg/g	100	37	26	120	120	100	1700	170	< 22 U	< 21 U	380	150	200	95	160	1200	440	280
PCB-177		pg/g	760	240	190	1000	950	600	10000	1100	63	< 21 U	2100	810	1400	640	1000	6100	2600	1800
PCB-178		pg/g	150	70	52	260	250	150	2500	260	< 22 U	< 21 U	520	200	320	150	250	1800	570	430
PCB-179		pg/g	270	130	87	500	460	290	4600	510	< 22 U	< 21 U	1100	430	600	290	470	4100	1200	880
PCB-18/30		pg/g	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	110	< 45 U	< 45 U	< 50 U	< 45 U	1000	81	< 430 U
PCB-180/193		pg/g	2800	870	570	4000	3800	2100	36000	3800	250	< 42 U	6800	2900	4800	2200	3600	22000	8800	5200
PCB-181		pg/g	37	< 22 U	< 23 U	41	42	27	470	53	< 22 U	< 21 U	75	30	58	25	40	200	130	82
PCB-182		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	25	< 22 U
PCB-183		pg/g	670	210	160	840	800	500	8400	880	26	< 21 U	1600	680	1000	530	920	5900	2300	1500
PCB-184		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-185		pg/g	70	37	< 23 U	82	100	69	1600	150	< 22 U	< 21 U	370	130	220	93	110	990	350	190
PCB-186		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-187		pg/g	930	410	300	1600	1400	890	14000	1400	84	< 21 U	3000	1200	1900	930	1500	11000	3400	2300
PCB-188		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-19		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	190	< 24 U	< 22 U
PCB-190		pg/g	340	100	57	450	420	240	3900	410	< 22 U	< 21 U	720	320	580	240	370	2200	1000	510
PCB-191		pg/g	79	< 22 U	< 23 U	97	93	52	1000	83	< 22 U	< 21 U	160	72	130	61	93	460	230	130
PCB-192		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-194		pg/g	320	150	61	670	610	300	6500	410	61	< 21 U	750	400	650	300	530	3000	810	440
PCB-195		pg/g	110	46	23	210	180	94	1900	140	< 22 U	< 21 U	300	130	230	110	180	1200	320	160
PCB-196		pg/g	160	79	35	360	320	150	3400	210	24	< 21 U	520	210	360	170	310	2100	430	210
PCB-197		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	33	< 23 U	< 23 U	< 25 U	< 23 U	110	29	25
PCB-198/199		pg/g	300	190	84	750	630	310	6900	460	73	< 42 U	1100	400	790	400	690	5000	930	1000
PCB-2		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	880	3500	< 22 U	39	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-20/28		pg/g	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	71	< 43 U	< 42 U	44	59	< 45 U	< 50 U	87	1800	110	510
PCB-200		pg/g	35	24	< 23 U	100	86	41	890	53	< 22 U	< 21 U	160	60	100	44	79	600	110	140
PCB-201		pg/g	32	22	< 23 U	85	70	36	740	50	< 22 U	< 21 U	140	50	87	41	77	440	110	150
PCB-202		pg/g	41	45	< 23 U	130	120	59	1100	64	< 22 U	< 21 U	160	67	130	62	110	830	130	190
PCB-203		pg/g	200	120	49	500	430	210	4500	260	42	< 21 U	640	250	500	250	440	2600	570	580
PCB-204		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-205		pg/g	< 24 U	< 22 U	< 23 U	39	36	< 25 U	390	26	< 22 U	< 21 U	47	24	44	< 25 U	34	170	52	40
PCB-206		pg/g	130	75	44	370	270	160	3700	170	87	< 21 U	310	110	400	250	410	1400	330	700
PCB-207		pg/g	< 24 U	< 22 U	< 23 U	44	32	< 25 U	370	< 23 U	< 22 U	< 21 U	39	< 23 U	46	26	47	180	37	79
PCB-208		pg/g	27	24	< 23 U	80	60	46	770	42	37	< 21 U	76	24	100	76	110	330	72	160
PCB-21/33		pg/g	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	< 43 U	100	< 45 U	< 50 U	54	870	49	< 430 U
PCB-22		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	23	< 22 U	< 21 U	58	< 23 U	< 23 U	< 25 U	33	660	26	< 220 U
PCB-23		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 160 U	< 24 U	< 220 U
PCB-24		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 220 U
PCB-25		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	190	< 24 U	< 220 U
PCB-26/29		pg/g	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	< 46 U	< 43 U	< 42 U	< 43 U	< 45 U	< 45 U	< 50 U	< 45 U	520	79	< 430 U
PCB-27		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	130	< 24 U	< 220 U
PCB-3		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	260	770	< 22 U	31	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-31		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	25	< 25 U	500	150	< 22 U	< 21 U	< 22 U	84	< 23 U	26	98	1800	270	390
PCB-32		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	30	< 23 U	< 23 U	< 25 U	< 23 U	480	< 24 U	< 220 U
PCB-34		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 170 U	< 24 U	< 220 U
PCB-35		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	23	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	510	< 24 U	< 220 U
PCB-36		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	26	< 22 U	< 21 U	39	< 23 U	< 23 U	< 25 U	< 23 U	220	81	< 220 U
PCB-37		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	120	< 22 U	< 21 U	< 37 U	29	< 23 U	< 25 U	38	390	87	< 220 U
PCB-38		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 180 U	< 24 U	< 220 U
PCB-39		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	94	< 23 U	< 23 U	< 25 U	< 23 U	< 170 U	< 24 U	< 220 U
PCB-4		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 27 U	< 25 U	< 230 U	33	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	90	< 24 U	< 22 U
PCB-40/71		pg/g	< 48 U	< 44 U	< 47 U	56	56	60	1200	340	< 43 U	< 42 U	< 43 U	270	150	65	150	2600	690	< 43 U
PCB-41		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	120	< 24 U	< 22 U

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-116	SB-117	SB-122	SB-123	SB-123	SB-124	SB-126	SB-128	SB-129	SB-129	SB-130	SB-131	SB-132	SB-133	SB-134	SB-135	SB-136	SB-136
		Date	8/21/2014	8/20/2014	8/20/2014	8/19/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/21/2014	8/19/2014	8/19/2014	8/21/2014	8/21/2014	8/21/2014
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	1 - 3
Constituent	**TEF**	**Units**																		
PCB-42		pg/g	< 24 U	< 22 U	< 23 U	24	26	< 25 U	420	150	< 22 U	< 21 U	120	110	48	30	76	1200	370	< 22 U
PCB-43		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	23	< 23 U	< 23 U	< 25 U	< 23 U	160	< 24 U	< 22 U
PCB-44/47/65		pg/g	170	230	150	340	380	410	7500	2400	< 65 U	< 64 U	1600	1500	750	410	1100	11000	5000	1200
PCB-45		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	41	23	< 25 U	< 23 U	550	97	< 22 U
PCB-46		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	260	52	< 22 U
PCB-48		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	250	79	< 22 U	< 21 U	82	61	< 23 U	< 25 U	40	590	160	250
PCB-49/69		pg/g	80	150	82	180	200	220	3200	1200	< 43 U	< 42 U	810	700	270	200	520	4800	2700	750
PCB-5		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-50/53		pg/g	< 48 U	< 44 U	< 47 U	< 48 U	< 48 U	< 51 U	< 450 U	98	< 43 U	< 42 U	< 43 U	81	63	< 50 U	58	1000	340	97
PCB-51		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	140	34	< 22 U
PCB-52		pg/g	600	850	550	1400	1500	1500	24000	7100	< 22 U	< 21 U	5200	4200	3100	1300	3500	32000	13000	5400
PCB-54		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-55		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 160 U	< 61 U	< 34 U
PCB-56		pg/g	82	66	44	130	180	150	2000	740	< 22 U	< 21 U	420	440	200	120	260	2500	1100	< 37 U
PCB-57		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 28 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	100	200	< 150 U	< 60 U	< 34 U
PCB-58		pg/g	< 24 U	< 22 U	25	< 24 U	< 24 U	< 25 U	< 230 U	180	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 160 U	< 61 U	< 34 U
PCB-59/62/75		pg/g	< 72 U	< 66 U	< 70 U	< 72 U	< 72 U	< 76 U	< 680 U	< 69 U	< 65 U	< 64 U	< 65 U	< 68 U	< 68 U	< 75 U	< 68 U	290	< 72 U	< 65 U
PCB-6		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	40	< 24 U	< 22 U
PCB-60		pg/g	< 24 U	22	< 23 U	39	37	51	650	270	< 22 U	< 21 U	160	180	64	44	94	880	420	< 36 U
PCB-61/70/74/76		pg/g	640	620	560	1600	2000	1400	20000	7900	< 87 U	< 85 U	2800	4000	1700	1100	2800	22000	11000	< 87 U
PCB-63		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 26 U	< 22 U	< 21 U	30	36	< 23 U	< 25 U	< 23 U	210	98	< 31 U
PCB-64		pg/g	64	52	52	140	120	170	2300	650	< 22 U	< 21 U	< 22 U	490	380	150	310	3500	1800	65
PCB-66		pg/g	130	200	150	400	500	400	5000	2200	< 22 U	< 21 U	1100	1200	470	320	680	5700	3500	< 38 U
PCB-67		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 140 U	< 56 U	< 31 U
PCB-68		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 140 U	< 54 U	< 30 U
PCB-7		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-72		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 26 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 150 U	< 59 U	< 32 U
PCB-73		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 38 U	< 24 U	< 22 U
PCB-78		pg/g	27	< 22 U	< 23 U	41	43	44	< 230 U	55	< 22 U	< 21 U	84	< 23 U	< 23 U	28	43	< 180 U	< 69 U	< 38 U
PCB-79		pg/g	46	< 22 U	24	< 24 U	< 24 U	< 25 U	1100	230	< 22 U	< 21 U	260	200	160	69	150	980	500	< 33 U
PCB-8		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	25	150	25	37
PCB-80		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 25 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 150 U	< 57 U	< 32 U
PCB-82		pg/g	360	280	140	650	950	590	8600	1900	< 22 U	< 21 U	1500	1300	1400	530	1100	9800	3600	2400
PCB-83		pg/g	99	< 59 U	< 34 U	200	280	180	4000	770	< 22 U	< 21 U	650	320	470	200	380	3500	1300	< 340 U
PCB-84		pg/g	600	500	340	840	910	1000	22000	3700	< 22 U	< 21 U	2600	2700	3100	1100	2200	21000	7200	650
PCB-85/116/117		pg/g	770	500	330	1200	1200	1400	11000	2800	< 65 U	< 64 U	2600	1800	1900	870	1400	11000	8400	4000
PCB-86/87/97/108/119/125		pg/g	1800	1700	1000	4000	4600	3600	49000	10000	< 130 U	< 130 U	11000	7400	7000	2900	6100	54000	21000	13000
PCB-88/91		pg/g	380	270	160	370	350	610	11000	1700	< 43 U	< 42 U	1700	1300	1400	590	1100	8300	4300	1200
PCB-89		pg/g	< 64 U	< 51 U	< 29 U	< 130 U	< 120 U	< 110 U	< 1500 U	< 180 U	< 22 U	< 21 U	< 210 U	< 150 U	< 150 U	< 75 U	< 150 U	< 850 U	< 490 U	< 270 U
PCB-9		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	< 230 U	< 23 U	< 22 U	< 21 U	< 22 U	< 23 U	< 23 U	< 25 U	< 23 U	< 26 U	< 24 U	< 22 U
PCB-90/101/113		pg/g	2500	2700	1500	5900	7200	5300	69000	14000	< 65 U	< 64 U	15000	10000	9700	4300	8900	73000	30000	18000
PCB-92		pg/g	500	510	290	1400	1600	1200	14000	2400	< 22 U	< 21 U	1900	2000	2200	920	1700	12000	5400	< 250 U
PCB-93/100		pg/g	< 57 U	< 46 U	< 47 U	< 120 U	< 110 U	< 95 U	< 1400 U	< 160 U	< 43 U	< 42 U	< 190 U	< 130 U	< 130 U	< 67 U	< 140 U	< 760 U	< 440 U	< 240 U
PCB-94		pg/g	< 61 U	< 48 U	< 28 U	< 130 U	< 110 U	< 100 U	< 1400 U	< 170 U	< 22 U	< 21 U	< 200 U	< 140 U	< 140 U	< 71 U	< 150 U	< 810 U	< 460 U	< 250 U
PCB-95		pg/g	1800	1800	1000	3400	3300	3700	63000	8100	33	31	5500	7800	8000	3200	6200	42000	19000	620
PCB-96		pg/g	< 24 U	< 22 U	< 23 U	< 24 U	< 24 U	< 25 U	330	53	< 22 U	< 21 U	67	42	36	< 25 U	30	350	160	49
PCB-98/102		pg/g	< 53 U	< 44 U	< 47 U	< 110 U	< 96 U	< 87 U	1300	< 150 U	< 43 U	< 42 U	< 170 U	170	180	< 63 U	< 130 U	1500	640	630
PCB-99		pg/g	1700	1300	740	2100	2300	3200	27000	6600	< 22 U	< 21 U	6600	4600	4400	2200	4200	32000	20000	10000
PCB-209 (Decachlorobiphenyl)		pg/g	< 24 U	< 22 U	--	32	< 24 U	90	--	--	100	< 21 U	96	< 23 U	130	170	160	130	50	75
Total Non-Dioxin like PCBs		pg/g	**69558**	**34085**	**24834**	**109583**	**114397**	**84300**	**1238710**	**199393**	**1920**	**399**	**226578**	**130681**	**162340**	**71521**	**128015**	**903923**	**450647**	**223904**

PCB = Polychlorinated Biphenyl.
TEF = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxicity equivalence factor.
TEQ = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxic equivalence.
The non-residential RRS for 2,3,7,8-Tetrachlorodibenzo-p-dioxin TEQ is 0.00044 mg/kg.

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-137	SB-F1	SB-F12	SB-F14	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
		Date	8/21/2014	10/19/2000	8/20/2014	8/20/2014	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
Constituent	**TEF**	**Units**													
Aroclors															
Aroclor 1016		ug/kg	< 41 U	< 38 U	< 36 U	< 38 U	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1221		ug/kg	< 41 U	< 78 U	< 36 U	< 38 U	--	< 80 U	--	--	--	--	< 84 U	< 72 U	< 77 U
Aroclor 1232		ug/kg	< 41 U	< 38 U	< 36 U	< 38 U	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1242		ug/kg	< 41 U	< 38 U	< 36 U	< 38 U	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1248		ug/kg	< 41 U	< 38 U	< 36 U	< 38 U	--	< 39 U	--	--	--	--	< 41 U	< 36 U	< 38 U
Aroclor 1254		ug/kg	1700	< 38 U	< 36 U	560	--	< 39 U	--	--	--	--	780	55	180
Aroclor 1260		ug/kg	< 41 U	< 38 U	< 36 U	< 38 U	--	< 39 U	--	--	--	--	250	< 36 U	94
Aroclor 1262		ug/kg	< 41 U	--	< 36 U	< 38 U	--	--	--	--	--	--	--	--	--
Aroclor 1268		ug/kg	< 41 U	--	< 36 U	< 38 U	--	--	--	--	--	--	--	--	--
Dioxins and Furans															
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01	pg/g	--	7.85	--	--	--	3.21	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.01	pg/g	--	101	--	--	--	39.9	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01	pg/g	--	0.5	--	--	--	0.284	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1	pg/g	--	0.567	--	--	--	0.433	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	--	13.4	--	--	--	1.68	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	--	0.469	--	--	--	0.265	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	--	0.712	--	--	--	< 0.82 U	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1	pg/g	--	0.129	--	--	--	0.12	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.1	pg/g	--	6.75	--	--	--	1.15	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.03	pg/g	--	0.165	--	--	--	0.154	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1	pg/g	--	0.893	--	--	--	< 0.262 U	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1	pg/g	--	0.588	--	--	--	0.297	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran	0.3	pg/g	--	0.628	--	--	--	0.388	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.1	pg/g	--	1.13	--	--	--	0.618	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1	pg/g	--	0.142	< 1.1 U	< 1.1 U	< 1.2 U	0.106	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	--	--	--
Heptachlorodibenzofurans	0.01	pg/g	--	26.8	--	--	--	10.9	--	--	--	--	--	--	--
Heptachlorodibenzo-p-dioxins	0.01	pg/g	--	244	--	--	--	121	--	--	--	--	--	--	--
Hexachlorodibenzofurans	0.1	pg/g	--	11.6	< 5.3 U	11	75	4.54	39	23	25	< 5.8 U	--	--	--
Hexachlorodibenzo-p-dioxins	0.1	pg/g	--	115	< 5.3 U	18	900	19.7	74	110	44	12	--	--	--
Octachlorodibenzofuran	0.0003	pg/g	--	17.8	--	--	--	10.7	--	--	--	--	--	--	--
Octachlorodibenzo-p-dioxin	0.0003	pg/g	--	1800	--	--	--	4640	--	--	--	--	--	--	--
Pentachlorodibenzofurans, Total	0.03	pg/g	--	8.77	< 5.3 U	9.3	30	3.52	19	17	16	< 5.8 U	--	--	--
Pentachlorodibenzo-p-dioxins, Total	1	pg/g	--	9.92	< 5.3 U	< 5.7 U	51	1.75	5.8	5.9	< 5.7 U	< 5.8 U	--	--	--
Tetrachlorodibenzofurans, Total	0.1	pg/g	--	8.27	< 1.1 U	12	17	3.77	11	11	9.2	< 1.2 U	--	--	--
Tetrachlorodibenzo-p-dioxins, Total	1	pg/g	--	3.77	< 1.1 U	1.1	9.2	0.303	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	--	--	--
TEQ of dioxins and furans		**pg/g**	**--**	**27.4**	**--**	**5.5**	**160**	**4.96**	**19**	**21**	**8.3**	**1.2**	**--**	**--**	**--**
Dioxin like PCBs															
PCB-105	0.00003	pg/g	50000	--	180	32000	--	--	--	--	--	--	--	--	--
PCB-114	0.00003	pg/g	2200	--	8.2	1000	--	--	--	--	--	--	--	--	--
PCB-118	0.00003	pg/g	120000	--	470	79000	--	--	--	--	--	--	--	--	--
PCB-123	0.00003	pg/g	1400	--	5.3	800	--	--	--	--	--	--	--	--	--
PCB-126	0.1	pg/g	1300	--	< 7.1 U	1100	--	--	--	--	--	--	--	--	--
PCB-156/157	0.00003	pg/g	25000	--	91	13000	--	--	--	--	--	--	--	--	--
PCB-167	0.00003	pg/g	7000	--	28	3900	--	--	--	--	--	--	--	--	--
PCB-169	0.03	pg/g	< 180 U	--	< 2.2 U	< 110 U	--	--	--	--	--	--	--	--	--
PCB-189	0.00003	pg/g	840	--	3.6	410	--	--	--	--	--	--	--	--	--
PCB-77	0.0001	pg/g	1100	--	7.2	1500	--	--	--	--	--	--	--	--	--
PCB-81	0.0003	pg/g	< 280 U	--	< 2.2 U	< 120 U	--	--	--	--	--	--	--	--	--
TEQ of dioxin like PCBs		**pg/g**	**136.30**		**0.02**	**113.66**									
TEQ of dioxins and furans and dioxin like PCBs		**pg/g**	**136**	**27**	**0.02**	**119**	**160**	**5.0**	**19**	**21**	**8.3**	**1.2**	**--**	**--**	**--**

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-137	SB-F1	SB-F12	SB-F14	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
		Date	8/21/2014	10/19/2000	8/20/2014	8/20/2014	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
Constituent	**TEF**	**Units**													
Non-Dioxin like PCBs															
PCB-1		pg/g	< 25 U	--	< 22 U	34	--	--	--	--	--	--	--	--	--
PCB-10		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-103		pg/g	< 840 U	--	< 22 U	< 600 U	--	--	--	--	--	--	--	--	--
PCB-104		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-106		pg/g	< 820 U	--	< 22 U	< 580 U	--	--	--	--	--	--	--	--	--
PCB-107/124		pg/g	4600	--	< 43 U	3100	--	--	--	--	--	--	--	--	--
PCB-109		pg/g	6900	--	29	5400	--	--	--	--	--	--	--	--	--
PCB-11		pg/g	52	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-110/115		pg/g	170000	--	630	98000	--	--	--	--	--	--	--	--	--
PCB-111		pg/g	< 670 U	--	< 22 U	< 470 U	--	--	--	--	--	--	--	--	--
PCB-112		pg/g	< 640 U	--	< 22 U	< 460 U	--	--	--	--	--	--	--	--	--
PCB-115		pg/g	--	--	--	--	--	--	--	--	--	--	--	--	--
PCB-12/13		pg/g	< 49 U	--	< 43 U	< 45 U	--	--	--	--	--	--	--	--	--
PCB-120		pg/g	< 710 U	--	< 22 U	< 500 U	--	--	--	--	--	--	--	--	--
PCB-121		pg/g	< 660 U	--	< 22 U	< 470 U	--	--	--	--	--	--	--	--	--
PCB-122		pg/g	2000	--	< 22 U	1100	--	--	--	--	--	--	--	--	--
PCB-127		pg/g	< 820 U	--	< 22 U	< 580 U	--	--	--	--	--	--	--	--	--
PCB-128/166		pg/g	29000	--	110	16000	--	--	--	--	--	--	--	--	--
PCB-129/138/163		pg/g	160000	--	640	93000	--	--	--	--	--	--	--	--	--
PCB-130		pg/g	11000	--	43	6500	--	--	--	--	--	--	--	--	--
PCB-131		pg/g	2400	--	< 22 U	1200	--	--	--	--	--	--	--	--	--
PCB-132		pg/g	51000	--	190	26000	--	--	--	--	--	--	--	--	--
PCB-133		pg/g	1500	--	< 22 U	960	--	--	--	--	--	--	--	--	--
PCB-134/143		pg/g	8200	--	< 43 U	4500	--	--	--	--	--	--	--	--	--
PCB-135/151		pg/g	28000	--	110	18000	--	--	--	--	--	--	--	--	--
PCB-136		pg/g	12000	--	48	6900	--	--	--	--	--	--	--	--	--
PCB-137		pg/g	9900	--	33	4800	--	--	--	--	--	--	--	--	--
PCB-139/140		pg/g	2600	--	< 43 U	1400	--	--	--	--	--	--	--	--	--
PCB-14		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-141		pg/g	26000	--	93	12000	--	--	--	--	--	--	--	--	--
PCB-142		pg/g	< 350 U	--	< 22 U	< 320 U	--	--	--	--	--	--	--	--	--
PCB-144		pg/g	< 310 U	--	< 22 U	1800	--	--	--	--	--	--	--	--	--
PCB-145		pg/g	< 220 U	--	< 22 U	< 210 U	--	--	--	--	--	--	--	--	--
PCB-146		pg/g	16000	--	65	9900	--	--	--	--	--	--	--	--	--
PCB-147/149		pg/g	83000	--	330	48000	--	--	--	--	--	--	--	--	--
PCB-148		pg/g	< 310 U	--	< 22 U	< 290 U	--	--	--	--	--	--	--	--	--
PCB-15		pg/g	100	--	< 22 U	98	--	--	--	--	--	--	--	--	--
PCB-150		pg/g	< 210 U	--	< 22 U	< 190 U	--	--	--	--	--	--	--	--	--
PCB-152		pg/g	< 210 U	--	< 22 U	< 200 U	--	--	--	--	--	--	--	--	--
PCB-153/168		pg/g	91000	--	360	54000	--	--	--	--	--	--	--	--	--
PCB-154		pg/g	730	--	< 22 U	570	--	--	--	--	--	--	--	--	--
PCB-155		pg/g	< 240 U	--	< 22 U	< 200 U	--	--	--	--	--	--	--	--	--
PCB-158		pg/g	18000	--	70	9600	--	--	--	--	--	--	--	--	--
PCB-159		pg/g	< 150 U	--	< 22 U	< 80 U	--	--	--	--	--	--	--	--	--
PCB-16		pg/g	220	--	< 22 U	240	--	--	--	--	--	--	--	--	--
PCB-160		pg/g	< 270 U	--	< 22 U	< 250 U	--	--	--	--	--	--	--	--	--
PCB-161		pg/g	< 240 U	--	< 22 U	< 220 U	--	--	--	--	--	--	--	--	--
PCB-162		pg/g	490	--	< 22 U	210	--	--	--	--	--	--	--	--	--
PCB-164		pg/g	10000	--	41	5700	--	--	--	--	--	--	--	--	--
PCB-165		pg/g	< 280 U	--	< 22 U	< 260 U	--	--	--	--	--	--	--	--	--
PCB-17		pg/g	180	--	< 22 U	380	--	--	--	--	--	--	--	--	--
PCB-170		pg/g	20000	--	86	11000	--	--	--	--	--	--	--	--	--
PCB-171/173		pg/g	5900	--	< 43 U	3300	--	--	--	--	--	--	--	--	--
PCB-172		pg/g	2700	--	< 22 U	1500	--	--	--	--	--	--	--	--	--

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-137	SB-F1	SB-F12	SB-F14	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
		Date	8/21/2014	10/19/2000	8/20/2014	8/20/2014	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
Constituent	**TEF**	**Units**													
PCB-174		pg/g	15000	--	70	8700	--	--	--	--	--	--	--	--	--
PCB-175		pg/g	610	--	< 22 U	360	--	--	--	--	--	--	--	--	--
PCB-176		pg/g	1400	--	< 22 U	870	--	--	--	--	--	--	--	--	--
PCB-177		pg/g	8300	--	38	5100	--	--	--	--	--	--	--	--	--
PCB-178		pg/g	2000	--	< 22 U	1500	--	--	--	--	--	--	--	--	--
PCB-179		pg/g	3900	--	< 22 U	2600	--	--	--	--	--	--	--	--	--
PCB-18/30		pg/g	430	--	< 43 U	440	--	--	--	--	--	--	--	--	--
PCB-180/193		pg/g	29000	--	140	17000	--	--	--	--	--	--	--	--	--
PCB-181		pg/g	400	--	< 22 U	200	--	--	--	--	--	--	--	--	--
PCB-182		pg/g	91	--	< 22 U	67	--	--	--	--	--	--	--	--	--
PCB-183		pg/g	7700	--	36	4200	--	--	--	--	--	--	--	--	--
PCB-184		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-185		pg/g	980	--	< 22 U	570	--	--	--	--	--	--	--	--	--
PCB-186		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-187		pg/g	12000	--	53	7900	--	--	--	--	--	--	--	--	--
PCB-188		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-19		pg/g	110	--	< 22 U	150	--	--	--	--	--	--	--	--	--
PCB-190		pg/g	3500	--	< 22 U	1800	--	--	--	--	--	--	--	--	--
PCB-191		pg/g	850	--	< 22 U	420	--	--	--	--	--	--	--	--	--
PCB-192		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-194		pg/g	3200	--	< 22 U	1700	--	--	--	--	--	--	--	--	--
PCB-195		pg/g	1200	--	< 22 U	690	--	--	--	--	--	--	--	--	--
PCB-196		pg/g	1900	--	< 22 U	1300	--	--	--	--	--	--	--	--	--
PCB-197		pg/g	120	--	< 22 U	77	--	--	--	--	--	--	--	--	--
PCB-198/199		pg/g	4100	--	< 43 U	3000	--	--	--	--	--	--	--	--	--
PCB-2		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-20/28		pg/g	720	--	< 43 U	1500	--	--	--	--	--	--	--	--	--
PCB-200		pg/g	450	--	< 22 U	380	--	--	--	--	--	--	--	--	--
PCB-201		pg/g	460	--	< 22 U	370	--	--	--	--	--	--	--	--	--
PCB-202		pg/g	640	--	< 22 U	530	--	--	--	--	--	--	--	--	--
PCB-203		pg/g	2600	--	< 22 U	1900	--	--	--	--	--	--	--	--	--
PCB-204		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-205		pg/g	190	--	< 22 U	120	--	--	--	--	--	--	--	--	--
PCB-206		pg/g	2400	--	< 22 U	1200	--	--	--	--	--	--	--	--	--
PCB-207		pg/g	210	--	< 22 U	150	--	--	--	--	--	--	--	--	--
PCB-208		pg/g	640	--	< 22 U	330	--	--	--	--	--	--	--	--	--
PCB-21/33		pg/g	300	--	< 43 U	680	--	--	--	--	--	--	--	--	--
PCB-22		pg/g	220	--	< 22 U	280	--	--	--	--	--	--	--	--	--
PCB-23		pg/g	< 27 U	--	< 22 U	< 40 U	--	--	--	--	--	--	--	--	--
PCB-24		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-25		pg/g	75	--	< 22 U	150	--	--	--	--	--	--	--	--	--
PCB-26/29		pg/g	110	--	< 43 U	110	--	--	--	--	--	--	--	--	--
PCB-27		pg/g	47	--	< 22 U	55	--	--	--	--	--	--	--	--	--
PCB-3		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-31		pg/g	880	--	< 22 U	1200	--	--	--	--	--	--	--	--	--
PCB-32		pg/g	180	--	< 22 U	870	--	--	--	--	--	--	--	--	--
PCB-34		pg/g	< 28 U	--	< 22 U	< 42 U	--	--	--	--	--	--	--	--	--
PCB-35		pg/g	41	--	< 22 U	50	--	--	--	--	--	--	--	--	--
PCB-36		pg/g	330	--	< 22 U	400	--	--	--	--	--	--	--	--	--
PCB-37		pg/g	310	--	< 22 U	340	--	--	--	--	--	--	--	--	--
PCB-38		pg/g	< 30 U	--	< 22 U	< 46 U	--	--	--	--	--	--	--	--	--
PCB-39		pg/g	< 29 U	--	< 22 U	< 43 U	--	--	--	--	--	--	--	--	--
PCB-4		pg/g	69	--	< 22 U	110	--	--	--	--	--	--	--	--	--
PCB-40/71		pg/g	3300	--	< 43 U	3800	--	--	--	--	--	--	--	--	--
PCB-41		pg/g	160	--	< 22 U	67	--	--	--	--	--	--	--	--	--

Table G-2
Soil Dioxins, Furans, and Polycyclic Biphenyls
Hercules Inc. - Savannah Plant
Savannah, Georgia

		Well	SB-137	SB-F1	SB-F12	SB-F14	SB-F15	SB-F19	SB-F27	SB-F27	SB-F4	SB-F6	SS-88	SS-90	SS-95
		Date	8/21/2014	10/19/2000	8/20/2014	8/20/2014	8/19/2014	10/17/2000	8/19/2014	8/19/2014	8/19/2014	8/19/2014	11/6/2008	11/6/2008	11/6/2008
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N
		Depth	0 - 1	1 - 3	0 - 1	0 - 1	0 - 1	0 - 3	0 - 1	1 - 3	0 - 1	0 - 1	0 - 2	0 - 2	0 - 2
Constituent	**TEF**	**Units**													
PCB-42		pg/g	1700	--	< 22 U	2100	--	--	--	--	--	--	--	--	--
PCB-43		pg/g	210	--	< 22 U	140	--	--	--	--	--	--	--	--	--
PCB-44/47/65		pg/g	20000	--	96	19000	--	--	--	--	--	--	--	--	--
PCB-45		pg/g	520	--	< 22 U	89	--	--	--	--	--	--	--	--	--
PCB-46		pg/g	210	--	< 22 U	540	--	--	--	--	--	--	--	--	--
PCB-48		pg/g	740	--	< 22 U	380	--	--	--	--	--	--	--	--	--
PCB-49/69		pg/g	9300	--	70	12000	--	--	--	--	--	--	--	--	--
PCB-5		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-50/53		pg/g	1100	--	< 43 U	2500	--	--	--	--	--	--	--	--	--
PCB-51		pg/g	95	--	< 22 U	1400	--	--	--	--	--	--	--	--	--
PCB-52		pg/g	58000	--	200	38000	--	--	--	--	--	--	--	--	--
PCB-54		pg/g	< 25 U	--	< 22 U	170	--	--	--	--	--	--	--	--	--
PCB-55		pg/g	< 260 U	--	< 22 U	< 99 U	--	--	--	--	--	--	--	--	--
PCB-56		pg/g	4000	--	< 22 U	2800	--	--	--	--	--	--	--	--	--
PCB-57		pg/g	< 250 U	--	< 22 U	< 97 U	--	--	--	--	--	--	--	--	--
PCB-58		pg/g	< 260 U	--	< 22 U	< 98 U	--	--	--	--	--	--	--	--	--
PCB-59/62/75		pg/g	310	--	< 65 U	370	--	--	--	--	--	--	--	--	--
PCB-6		pg/g	< 25 U	--	< 22 U	34	--	--	--	--	--	--	--	--	--
PCB-60		pg/g	1500	--	< 22 U	850	--	--	--	--	--	--	--	--	--
PCB-61/70/74/76		pg/g	40000	--	150	31000	--	--	--	--	--	--	--	--	--
PCB-63		pg/g	< 240 U	--	< 22 U	140	--	--	--	--	--	--	--	--	--
PCB-64		pg/g	5500	--	< 22 U	2200	--	--	--	--	--	--	--	--	--
PCB-66		pg/g	12000	--	59	13000	--	--	--	--	--	--	--	--	--
PCB-67		pg/g	< 240 U	--	< 22 U	< 91 U	--	--	--	--	--	--	--	--	--
PCB-68		pg/g	< 230 U	--	< 22 U	160	--	--	--	--	--	--	--	--	--
PCB-7		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-72		pg/g	< 250 U	--	< 22 U	230	--	--	--	--	--	--	--	--	--
PCB-73		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-78		pg/g	< 290 U	--	< 22 U	< 110 U	--	--	--	--	--	--	--	--	--
PCB-79		pg/g	2000	--	< 22 U	950	--	--	--	--	--	--	--	--	--
PCB-8		pg/g	100	--	< 22 U	170	--	--	--	--	--	--	--	--	--
PCB-80		pg/g	< 240 U	--	< 22 U	< 92 U	--	--	--	--	--	--	--	--	--
PCB-82		pg/g	17000	--	58	8100	--	--	--	--	--	--	--	--	--
PCB-83		pg/g	5900	--	22	2600	--	--	--	--	--	--	--	--	--
PCB-84		pg/g	34000	--	120	18000	--	--	--	--	--	--	--	--	--
PCB-85/116/117		pg/g	19000	--	65	12000	--	--	--	--	--	--	--	--	--
PCB-86/87/97/108/119/125		pg/g	94000	--	340	50000	--	--	--	--	--	--	--	--	--
PCB-88/91		pg/g	13000	--	51	9500	--	--	--	--	--	--	--	--	--
PCB-89		pg/g	< 1000 U	--	< 22 U	< 720 U	--	--	--	--	--	--	--	--	--
PCB-9		pg/g	< 25 U	--	< 22 U	< 23 U	--	--	--	--	--	--	--	--	--
PCB-90/101/113		pg/g	130000	--	500	77000	--	--	--	--	--	--	--	--	--
PCB-92		pg/g	23000	--	96	15000	--	--	--	--	--	--	--	--	--
PCB-93/100		pg/g	< 910 U	--	< 43 U	< 650 U	--	--	--	--	--	--	--	--	--
PCB-94		pg/g	< 970 U	--	< 22 U	< 680 U	--	--	--	--	--	--	--	--	--
PCB-95		pg/g	95000	--	250	54000	--	--	--	--	--	--	--	--	--
PCB-96		pg/g	460	--	< 22 U	330	--	--	--	--	--	--	--	--	--
PCB-98/102		pg/g	2400	--	< 43 U	< 600 U	--	--	--	--	--	--	--	--	--
PCB-99		pg/g	58000	--	220	37000	--	--	--	--	--	--	--	--	--
PCB-209 (Decachlorobiphenyl)		pg/g	670	--	< 22 U	370	--	--	--	--	--	--	--	--	--
Total Non-Dioxin like PCBs		pg/g	**1534310**	**--**	**5512**	**930551**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**

PCB = Polychlorinated Biphenyl.
TEF = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxicity equivalence factor.
TEQ = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxic equivalence.
The non-residential RRS for 2,3,7,8-Tetrachlorodibenzo-p-dioxin TEQ is 0.0(

Table G-3
Sediment Dioxins and Furans
Hercules, In.- Savannah Plant
Savannah, Georgia

			Sample ID	SED-1	SED-2	SED-3
			Date	8/28/2014	8/28/2014	8/28/2014
			Sample Type	SED	SED	SED
Constituent	**CAS**	**TEF**	**Units**			
Dioxins and Furans						
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	1	mg/kg	< 0.0000015 Uq	< 0.0000019 Uq	< 0.0000014 Uq
Hexachlorodibenzofurans	55684-94-1	0.1	mg/kg	0.000013	0.000077 q	0.000034
Hexachlorodibenzo-p-dioxins	34465-46-8	0.1	mg/kg	0.000056	0.00032	0.00013
Pentachlorodibenzofurans, Total	30402-15-4	0.03	mg/kg	< 0.0000073 Uq	0.000028 q	0.000015 q
Pentachlorodibenzo-p-dioxins, Total	36088-22-9	1	mg/kg	< 0.0000073 Uq	0.00002 q	0.000011 q
Tetrachlorodibenzofuran	30402-14-3	0.1	mg/kg	0.0000045 q	0.000015 q	0.0000061 q
Tetrachlorodibenzo-p-dioxins, Total	41903-57-5	1	mg/kg	0.0000018 q	0.0000042 q	0.0000049 q
TEQ of dioxins and furans				**0.000009**	**0.00007**	**0.00003**

TEF = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxicity equivalence factor.
TEQ = 2,3,7,8-Tetrachlorodibenzo-p-dioxin toxic equivalence.
The non-residential RRS for 2,3,7,8-Tetrachlorodibenzo-p-dioxin TEQ is 0.00044 mg/kg.

Table G-4
Comparison of Maximum Concentrations Detected in Soil to Risk Reduction Standards
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Depth interval)	Soil Risk Reduction Standard (RRS) [b]		Maximum Greater than RRS? [c]	
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/kg)	-	Maximum (mg/kg)	Minimum (mg/kg)	-	Maximum (mg/kg)		Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)
Volatile Organic Compounds															
Acetone	66	-	113	58	0.029	-	37	0.048	-	10	DS-14(2 - 4)	400	400	no	no
Acetonitrile	1	-	85	1	0.12	-	150	0.075	-	0.075	DS-18(0 - 2)	20	20	no	no
Benzene	14	-	137	10	0.0029	-	3.7	0.00085	-	0.097	SB-99(4 - 6)	0.5	0.5	no	no
Biphenyl	11	-	134	8	0.35	-	490	0.021	-	4400	SB-128(0 - 1)	1	1	YES	YES
Carbon disulfide	9	-	113	8	0.0029	-	3.7	0.0011	-	0.0083	DS-9(2 - 4)	400	400	no	no
Chlorobenzene	1	-	76	1	0.0029	-	3.7	0.0011	-	0.0011	DS-16(0 - 2)	10	10	no	no
trans-1,4-Dichlorobutene	1	-	85	1	0.0058	-	7.4	0.02	-	0.02	DS-15(0 - 2)	0.11	0.14	no	no
Ethylbenzene	22	-	135	16	0.0029	-	3.7	0.00087	-	10	SB-99(2 - 4)	70	70	no	no
Ethyl Methacrylate	1	-	85	1	0.0029	-	3.7	0.89	-	0.89	GP-16(0 - 2)	300	300	no	no
Isobutyl alcohol	1	-	85	1	0.12	-	150	0.17	-	0.17	DS-13(0 - 2)	1000	1000	no	no
Methyl ethyl ketone	37	-	118	31	0.014	-	19	0.0026	-	0.051	SS-55(1 - 2)	200	200	no	no
Methyl isobutyl ketone	4	-	85	5	0.014	-	19	0.0043	-	0.0099	DS-14(0 - 2)	200	200	no	no
Styrene	1	-	85	1	0.0029	-	3.7	0.0029	-	0.0029	DS-6(2 - 4)	14	14	no	no
Toluene	37	-	135	27	0.0029	-	3.7	0.00068	-	8.9	SB-99(2 - 4)	100	100	no	no
Xylenes (total)	37	-	135	27	0.0058	-	7.4	0.0029	-	83	SB-99(2 - 4)	1000	1000	no	no
m-Xylene	5	-	28	18	0.0055	-	0.007	0.016	-	0.024	SS-31(0 - 2)	20	20	no	no
o-Xylene	2	-	28	7	0.0055	-	0.007	0.0084	-	0.0099	SS-52(1 - 2)	20	20	no	no
Semi Volatile Organic Compounds															
Aniline	1	-	121	1	0.36	-	980	3.3	-	3.3	SB-F3(0 - 2)	2	2	YES	YES
Bis(2-ethylhexyl)phthalate	12	-	113	11	0.35	-	490	0.06	-	2.2	SS-32(0 - 2)	50	50	no	no
Butyl benzyl phthalate	2	-	85	2	0.35	-	490	0.047	-	0.072	DS-10(0 - 2)	50	218.54	no	no
Dibenzofuran	2	-	85	2	0.35	-	490	0.019	-	0.024	DS-10(0 - 2)	1	1.9	no	no
Di-n-octyl phthalate	1	-	85	1	0.35	-	490	0.062	-	0.062	DS-10(0 - 2)	70	70	no	no
Formaldehyde	28	-	29	97	0.11	-	0.11	0.1	-	54	SS-82(0 - 2)	100	100	no	no
Polycyclic Aromatic Hydrocarbons															
Acenaphthene	3	-	85	4	0.35	-	490	0.019	-	0.073	DS-1(2 - 4)	300	300	no	no
Acenaphthylene	6	-	85	7	0.36	-	490	0.019	-	0.18	DS-1(0 - 2)	130	130	no	no
Anthracene	8	-	85	9	0.36	-	490	0.037	-	0.21	DS-3(0 - 2)	500	1009	no	no
Benzo(a)anthracene	7	-	85	8	0.36	-	490	0.07	-	0.4	DS-10(0 - 2)	5	5	no	no
Benzo(a)pyrene	8	-	115	7	0.075	-	490	0.063	-	0.72	SS-62(1 - 2)	1.64	1.64	no	no
Benzo(b)fluoranthene	12	-	85	14	0.36	-	490	0.047	-	0.77	DS-7(0 - 2)	5	5	no	no
Benzo(g,h,i)perylene	9	-	85	11	0.36	-	490	0.032	-	0.58	DS-17(2 - 4)	500	500	no	no
Benzo(k)fluoranthene	2	-	85	2	0.35	-	490	0.29	-	0.45	DS-7(0 - 2)	13.7	46	no	no
Chrysene	9	-	85	11	0.36	-	490	0.1	-	0.65	DS-7(0 - 2)	43	141	no	no
Dibenzo(a,h)anthracene	2	-	85	2	0.35	-	490	0.23	-	0.56	DS-17(2 - 4)	2	5	no	no
Fluoranthene	19	-	85	22	0.36	-	490	0.042	-	1.5	DS-10(0 - 2)	500	500	no	no
Fluorene	3	-	85	4	0.35	-	490	0.04	-	0.045	DS-4(2 - 4)	360	360	no	no
Indeno(1,2,3-cd)pyrene	8	-	85	9	0.36	-	490	0.045	-	0.51	DS-17(2 - 4)	5	15	no	no
Naphthalene	1	-	113	1	0.0029	-	490	2.6	-	2.6	SB-126(0 - 1)	100	100	no	no
Phenanthrene	15	-	85	18	0.36	-	490	0.021	-	0.46	SS-1(0 - 2)	110	110	no	no

Table G-4
Comparison of Maximum Concentrations Detected in Soil to Risk Reduction Standards
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Depth interval)	Soil Risk Reduction Standard (RRS) [b]		Maximum Greater than RRS? [c]	
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/kg)	-	Maximum (mg/kg)	Minimum (mg/kg)	-	Maximum (mg/kg)		Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)
Pyrene	17	-	85	20	0.36	-	490	0.019	-	1	DS-4(2 - 4)	500	500	no	no
Pesticides															
Parathion	2	-	81	2	0.35	-	490	1.4	-	2.1	SB-F6(1 - 3)	20	20	no	no
Dioxins and Furnas															
TCDD TEQ of dioxins and furans	7	-	8	88	–	-	–	1.20E-06	-	1.60E-04	SB-F15 (0-1) (2014)	0.000115	0.00044	YES	no
TCDD TEQ of dioxin like PCBs	21	-	21	100	–	-	–	1.30E-09	-	2.24E-04	SB-126 (0-1)	0.000115	0.00044	YES	no
TCCD TEQ of dioxins and furans and dioxin like PCBs	28	-	28	100	–	-	–	1.30E-09	-	2.24E-04	SB-126 (0-1)	0.000115	0.00044	YES	no
Polychlorinated Biphenyls															
Total Non-Dioxin like PCBs	21	-	21	100	–	-	–	0.000399	-	1.53	SB-137 (0-1)	1.55	1.55	no	no
Aroclors															
Aroclor 1254	20	-	26	77	0.036	-	0.04	0.055	-	14	SB-122(0 - 1)	1.55	1.55	YES	YES
Aroclor 1260	2	-	26	8	0.036	-	0.17	0.094	-	0.25	SS-88(0 - 2)	1.55	1.55	no	no

– Not applicable.
mg/kg Milligram per kilogram.
PCBs Polychlorinated biphenyls.
TCDD TEQ 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) toxic equivalence.

[a] Data for all detected regulated substances are presented.
Data from all vadose zone soil samples were included with the exception of samples saturated samples and composite samples. Samples excluded are presented in table X.
[b] Soil Risk Reduction Standards (RRSs) provided by GAEPD (GAEPD 2014).
The Soil Risk Reduction Standard (RRS) for the Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.
The Soil Risk Reduction Standard (RRS) for Non-Residential Scenario is the minimum of the Type 3 RRS and the Type 4 RRS.
[c] Constituents with maximum concentrations greater than residential RRS are identified for further evaluation.

Table G-5
Comparison of Maximum Concentrations Detected in Groundwater to Risk Reduction Standards
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substances [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	Groundwater Type 1 RRS [b]	Maximum Greater than Type 1 RRS? [c]
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/L)	-	Maximum (mg/L)	Minimum (mg/L)	-	Maximum (mg/L)		(mg/L)	(Yes/no)
Volatile Organic Compounds													
Acetone	2	-	21	10	0.01	-	0.025	0.018	-	0.020	MW-F21(11/3/2014)	4	no
Benzene	2	-	21	10	0.001	-	0.001	0.0059	-	0.0074	MW-F21(5/22/2014)	0.0050	YES
Tetrachloroethene	6	-	21	29	0.001	-	0.001	0.0012	-	0.0033	MW-F7(5/22/2014)	0.0050	no
Semi Volatile Organic Compounds													
Bis(2-ethylhexyl)phthalate	2	-	42	5	0.0019	-	0.052	0.0038	-	0.0061	MW-27(5/22/2014)	0.01	no
1,4-Dioxane	1	-	19	5	0.0019	-	0.021	0.011	-	0.011	MW-F21(5/22/2014)	0.07	no
Polycyclic Aromatic Hydrocarbons													
Acenaphthene	6	-	19	32	0.00019	-	0.002	0.00054	-	0.012	MW-F5(11/3/2014)	2	no
Indeno(1,2,3-cd)pyrene	4	-	19	21	0.00019	-	0.0021	0.00031	-	0.00033	MW-27(11/12/2013), MW-F3R(11/12/2013)	0.01	no
Naphthalene	2	-	19	11	0.00019	-	0.00025	0.085	-	0.14	MW-F21(11/3/2014)	0.02	YES

mg/L Milligram per liter.

[a] Data for all regulated substances detected in the last two years (2013-2014).
[b] Groundwater Type 1 Risk Reduction Standard (RRS) provided by GAEPD (GAEPD 2014).
[c] Constituents with maximum concentrations greater than the Type 1 RRS are identified for further evaluation.

Table G-6
Comparison of Maximum Concentrations Detected in Sediment to Risk Reduction Standards
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	Soil Risk Reduction Standard (RRS) [b]		Maximum Greater than RRS? [c]	
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/kg)	-	Maximum (mg/kg)	Minimum (mg/kg)	-	Maximum (mg/kg)		Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)
Acetone	1	-	3	33	0.048	-	0.056	0.1	-	0.1	SED-2 (8/28/2014)	400	400	no	no
2,3,7,8-TCDD TEQ	3	-	3	100	--	-	--	0.000009	-	0.00007	SED-2 (8/28/2014)	0.000115	0.00044	no	no

– Not applicable.
mg/kg Milligram per kilogram.
TCDD TEQ 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) toxic equivalence.

[a] Only detected constituents are presented.
[b] Soil Risk Reduction Standards (RRSs) provided by GAEPD (GAEPD 2014).
The Soil Risk Reduction Standard (RRS) for the Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.
The Soil Risk Reduction Standard (RRS) for Non-Residential Scenario is the minimum of the Type 3 RRS and the Type 4 RRS.
[c] Constituents with maximum concentrations greater than residential RRS are identified for further evaluation.

Table G-7
Comparison of Maximum Concentrations Detected in Surface Water to Georgia In stream Criteria
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	Georgia In-stream Standard [b]	Groundwater Type 1 RRS [c]	Maximum Greater than Groundwater Type 1 RRS?
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/L)	-	Maximum (mg/L)	Minimum (mg/L)	-	Maximum (mg/L)		(mg/L)	(mg/L)	(Yes/no)
Ammonia (as N)	3	-	3	100	--	-	--	0.13	-	0.32	SW-01 (8/28/2014)	--	30	no
Fluoride	3	-	3	100	--	-	--	0.16	-	0.53	SW-03 (8/28/2014)	--	4	no
N-Nitrosodi-n-butylamine	1	-	3	33	0.00098	-	0.001	0.078	-	0.078	SW-02 (8/28/2014)	--	0.01	YES

– Not applicable.
mg/L Milligram per liter.

[a] Only detected constituents are presented.
[b] Georgia's Water Quality Standards. 391-3-6. Water Use Classifications and Water Quality Standards (GAEPD 2011).
[c] Groundwater Type 1 Risk Reduction Standard (RRS) provided by GAEPD (GAEPD 2014).

Table G-8
Selection of Constituents of Potential Concern for Soil
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substance [a]	Frequency of Detection				Detected Concentration			Exposure Point Concentration (EPC) [b]		Soil Risk Reduction Standard (RRS) [c]		EPC Greater than RRS? [d]	
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/kg)	-	Maximum (mg/kg)	(mg/kg)		Residential (mg/kg)	Non-Residential (mg/kg)	Residential (Yes/no)	Non-Residential (Yes/no)
Volatile Organic Compounds													
Biphenyl	11	-	134	8	0.021	-	4400	96.209		1	1	YES	YES
Semi Volatile Organic Compounds													
Aniline	1	-	121	1	3.3	-	3.3	3.3	max	2	2	YES	YES
Aroclors													
Aroclor 1254	20	-	26	77	0.055	-	14	3.74		1.55	1.55	YES	YES

COPC Constituent of potential concern.
FOD Frequency of detection.
max Maximum used as the exposure point concentration.
mg/kg Milligram per kilogram.

[a] Data for all regulated substances present at maximum concentrations above the Type 1 RRS (Table G-4).
[b] The exposure point concentration (EPC) is the upper confidence limit on the average (UCL) or the maximum concentration where the UCL was incalculable.
The UCLs were calculated using ProUCL (4.1.00). The UCL used is the one recommended by ProUCL (4.1.00).
EPCs marked with "max" are based on the maximum detected concentration.
[c] Soil Risk Reduction Standards (RRSs) provided by GAEPD (GAEPD 2014).
The Soil Risk Reduction Standard (RRS) for the Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.
The Soil Risk Reduction Standard (RRS) for Non-Residential Scenario is the minimum of the Type 3 RRS and the Type 4 RRS.
[d] Constituents present with EPCs greater than RRSs were selected as constituents of potential concern (COPCs).

Table G-9
Selection of Constituents of Potential Concern for Groundwater
Hercules Inc. - Savannah Plant
Savannah, Georgia

Constituent [a]	Detected Concentrations			Exposure Point Concentration [b]		Groundwater RRS [c]		EPC Greater than RRS? [d]		Vapor Intrusion Screening Level [e]	Vapor Intrusion COPC? [f]
	Minimum (mg/L)	-	Maximum (mg/L)	(mg/L)		Residential (mg/L)	Non-Residential (mg/L)	Residential (Yes/no)	Non-Residential (Yes/no)	Commercial (mg/L)	Commercial (Yes/no)
Acetone	0.018	-	0.02	0.02	max	8	46	no	no	95,000	no
Benzene	0.0059	-	0.0074	0.0061		0.0054	0.0087	YES	no	0.069	no
Naphthalene	0.085	-	0.14	0.099		0.02	0.02	YES	YES	0.2	no
Tetrachloroethene	0.0012	-	0.0033	0.00167		0.019	0.098	no	no	0.24	no

– Not detected/ not analyzed.
COPC Constituent of potential concern.
FOD Frequency of detection.
mg/L Milligram per liter.

[a] Data for all regulated substances present at maximum concentrations above the Type 1 RRS (Table G-5).
[b] The exposure point concentration (EPC) is the upper confidence limit on the average (UCL) or the maximum concentration where the UCL was incalculable.
The UCLs were calculated using ProUCL (4.1.00). The UCL used is the one recommended by ProUCL (4.1.00).
EPCs marked with "max" are based on the maximum detected concentration.
[c] The Groundwater Risk Reduction Standards (RRS) for Residential Scenario is the maximum of the Type 1 RRS and the Type 2 RRS.
The Groundwater Risk Reduction Standards (RRS) for Residential Scenario is the maximum of the Type 3 and the Type 4 RRS.
[d] Constituents with EPCs greater than RRSs are identified for further evaluation.
[e] Screening levels from United States Environmental Protection Agency Vapor Intrusion Screening Levels (VISL; USEPA 2014).
Based on target hazard quotients of 1 and lifetime cancer risk of $1x10^{-5}$ (consistent with risk reduction standard methods).
[f] Constituents with concentrations greater than the VISLs were considered COPCs for the vapor intrusion pathway.

Table G-10
Toxicity Values
Hercules Inc. - Savannah Plant
Savannah, Georgia

Constituent	ABS_{GI} [a]	Oral RfD (mg/kg/day) [b]				Dermal RfD (mg/kg/day) [c]		Inhalation RfC (mg/m^3) [b]				Oral CSF $(mg/kg/day)^{-1}$ [b]		Dermal CSF $(mg/kg/day)^{-1}$ [c]	Inhalation Unit Risk $(\mu g/m^3)^{-1}$ [b]	
		Subchronic		Chronic		Subchronic	Chronic	Subchronic		Chronic						
		Value	[ref]	Value	[ref]	Value	Value	Value	[ref]	Value	[ref]	Value	[ref]	Value	Value	[ref]
Biphenyl	1	5.00E-01	c	5.00E-01	I	5.0E-01	5.0E-01	4.00E-03	X	4.00E-04	X	8.00E-03	I	8.0E-03	NA	
Aniline	1	7.0E-03	c	7.0E-03	P	7.0E-03	7.0E-03	1.0E-02	H	1.0E-03	I	5.7E-03	I	5.7E-03	1.6E-06	C
Aroclor 1254	1	5.00E-05	H	2.00E-05	I	5.0E-05	2.0E-05	NA		NA		2.00E+00	S	2.0E+00	5.70E-04	S

References [ref]:

C	CalEPA, Toxicity Criteria database (CalEPA 2015).
H	USEPA, Health Effects Summary Table (HEAST) (USEPA 2015d).
I	USEPA, Integrated Risk Information System (IRIS) (USEPA 2015b).
P	Provisional Peer Reviewed Toxicity Values (PPRTV) (USEPA 2015c).
S	USEPA RSLs user guide (Section 5; USEPA 2015a).
X	Provisional Peer Reviewed Toxicity Values Appendix (PPRTV) (USEPA 2015c).

c	Chronic criteria used as subchronic.
mg/kg/day	Milligram per kilogram per day.
mg/m^3	Milligram per cubic meter.
$(mg/kg/day)^{-1}$	Inverse milligram per kilogram per day (risk per unit dose).
$(\mu g/m^3)^{-1}$	Inverse microgram per cubic meter.

[b]	ABS_{GI} = Gastrointestinal track absorption factor; from USEPA 2015a or set at a default of 1.
[b]	Toxicity values were obtained per USEPA hierarchy (USEPA 2003).
[c]	RfD (dermal) = RfD (oral) × ABS_{GI}.
	CSF (dermal) = CSF (oral) / ABS_{GI}.

Table G-11
Risk and Hazard Calculations for a Hypothetical Site Worker Receptor for Exposure to Soil
Hercules Inc. - Savannah Plant
Savannah, Georgia

Constituent	EPCs (mg/kg)	ABSd [a]	VF or PEF [a] (m^3/kg)	CANCER RISK Route-Specific Risk Oral	Dermal	Inhalation	Calculated Risk	Percent Total ELCR	NON-CANCER HAZARD Route-Specific Hazard Oral	Dermal	Inhalation	Calculated Hazard	Percent Total HI
				ELCRo	ELCRd	ELCRi	ELCR		HQo	HQd	HQi	HI	
Biphenyl	96.2	0	1.10E+05 V	2.1E-07	–	NA	2.1E-07	6%	1.5E-04	–	4.5E-01	4.5E-01	66%
Aniline	3.3	0.1	1.36E+09 P	5.2E-09	2.2E-09	2.8E-13	7.3E-09	<1%	3.6E-04	1.5E-04	5.0E-07	5.2E-04	<1%
Aroclor 1254	3.74	0.14	1.36E+09 P	2.1E-06	1.2E-06	1.1E-10	3.3E-06	94%	1.4E-01	8.4E-02	NA	2.3E-01	34%
Total Risk or Hazard				Total ELCR			3E-06	100%	Total HI			0.7	100%

[a] The dermal absoprtion factors (ABSd), the volatilization factor [VF], and the particulate emission factor [PEF] is from USEPA (USEPA 2015a).

–	Not applicable.	HQ	Hazard quotient.	NA	Toxicity value not available or not applicable.
ELCR	Excess lifetime cancer risk.	m^3/kg	Cubic meter per kilogram.	PEF	Particulate emission factor.
EPCs	Exposure point concentration in soil.	mg/kg	Milligram per kilogram.	VF	Volatilization factor.
HI	Hazard index (sum of the HQs).				

Equations:

ELCRo = (EPCs × 1 × 100 × 225 × 25 × CSFo) / (1,000,000 × 80 × 25,550)
ELCRd = (EPCs × 3,470 × 0.12 × ABSd × 225 × 25 × CSFa) / (1,000,000 × 80 × 25,550)
ELCRi = (EPCs × 8 × 0.042 ×225 × 25 × IUR × 1000) / ([VF or PEF] × 25,550)

HQo = (EPCs × 1 × 100 × 225 × 25) / (1,000,000 × 80 × 9,125 × RfDo)
HQd = (EPCs × 3,470 × 0.12 × ABSd × 225 × 25) / (1,000,000 × 80 × 9,125 × RfDa)
HQi = (EPCs × 8 × 0.042 × 225 × 25) / ([VF or PEF] × 9,125 × RfC)

Constituent-specific toxicity values (chronic non-cancer values and cancer values) are presented in Table G-10.
Variables used in equations including receptor exposure parameter are presented below.

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	ATc	25,550	days	USEPA 2014d
Averaging time, non -cancer	ATnc	9,125	days	USEPA 2014d
Body weight	BW	80	kg	USEPA 2014d
Exposure time	ET	8	hrs/day	Professional Judgment
Exposure frequency	EF	225	days/ year	USEPA 2014d
Exposure duration	ED	25	years	USEPA 2014d
Conversion factor (days/hr)	CF	0.0417	days/hr	
Ingestion rate of soil	IRs	100	mg/day	USEPA 2014d
Soil-to-skin adherence rate	SAR	0.12	mg/cm²/day	USEPA 2004
Skin surface area (soil)	SSAs	3,470	cm²	USEPA 2014d

Table G-12
Risk and Hazard Calculations for a Hypothetical Construction Worker Receptor for Exposure to Soil
Hercules Inc. - Savannah Plant
Savannah, Georgia

Constituent	EPCs (mg/kg)	ABSd [a]	VF *or* PEF [a] (m^3/kg)	CANCER RISK Route-Specific Risk Oral	Dermal	Inhalation	Calculated Risk	Percent Total ELCR	NON-CANCER HAZARD Route-Specific Hazard Oral	Dermal	Inhalation	Calculated Hazard	Percent Total HI
				ELCRo	ELCRd	ELCRi	ELCR		HQo	HQd	HQi	HI	
Biphenyl	96.2	0	1.10E+05 V	1.6E-08	–	NA	1.6E-08	7%	5.7E-04	–	5.2E-02	5.3E-02	14%
Aniline	3.3	0.1	1.36E+09 P	3.9E-10	1.2E-10	6.6E-15	5.2E-10	<1%	1.4E-03	4.4E-04	5.8E-08	1.8E-03	<1%
Aroclor 1254	3.74	0.14	1.36E+09 P	1.6E-07	6.9E-08	2.7E-12	2.3E-07	93%	2.2E-01	9.7E-02	NA	3.2E-01	85%
Total Risk or Hazard				Total ELCR			2E-07	100%	Total HI			0.4	100%

[a] The dermal absoprtion factors (ABSd), the volatilization factor [VF], and the particulate emission factor [PEF] is from USEPA (USEPA 2015a).

–	Not applicable.	HQ	Hazard quotient.	NA	Toxicity value not available or not applicable.
ELCR	Excess lifetime cancer risk.	m^3/kg	Cubic meter per kilogram.	PEF	Particulate emission factor.
EPCs	Exposure point concentration in soil.	mg/kg	Milligram per kilogram.	VF	Volatilization factor.
HI	Hazard index (sum of the HQs).				

Equations:

ELCRo = (EPCs × 1 × 330 × 5 × 26 × CSFo) / (1,000,000 × 80 × 25,550)
ELCRd = (EPCs × 3,470 × 0.3 × ABSd × 5 × 26 × CSFa) / (1,000,000 × 80 × 25,550)
ELCRi = (EPCs × 8 × 0.042 × 5 × 26 × IUR × 1000) / ([VF or PEF] × 25,550)

HQo = (EPCs × 1 × 330 × 5 × 26) / (1,000,000 × 80 × 182 × RfDo)
HQd = (EPCs × 3,470 × 0.3 × ABSd × 5 × 26) / (1,000,000 × 80 × 182 × RfDa)
HQi = (EPCs × 8 × 0.042 × 5 × 26) / ([VF or PEF] × 182 × RfC)

Constituent-specific toxicity values (subchronic non-cancer values and cancer values) are presented in Table G-10.
Variables used in equations including receptor exposure parameter are presented below.

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	ATc	25,550	days	USEPA 2014d
Averaging time, non -cancer	ATnc	182	days	
Body weight	BW	80	kg	USEPA 2014d
Exposure time	ET	8	hrs/day	USEPA 2014d
Exposure frequency	EFsc	5	days/week	
Exposure duration	EDsc	26	weeks	Professional Judgment
Conversion factor (days/hr)	CF	0.0417	days/hr	
Ingestion rate of soil	IRs	330	mg/day	USEPA 2014d
Soil-to-skin adherence rate	SAR	0.3	mg/cm²/day	USEPA 2004
Skin surface area (soil)	SSAs	3,470	cm²	USEPA 2014d

Table G-13
Threatened and Endangered Species
Hercules Inc. - Savannah Plant
Savannah, Georgia

Group	Common Name	Species	Status	Notes
Amphibians	Frosted flatwoods salamander	*Ambystoma cingulatum*	Threatened	The small open channel section of Dundee Canal at southern survey boundary provides suitable habitat. This species determined as absent from the survey area due to heavy presence of predatory fish within canal waters & lack of sufficient cover within/surrounding the fire water pond.
Birds	Red-cockaded woodpecker	*Picoides borealis*	Endangered	No suitable nesting/foraging habitat observed within or adjacent to site.
Birds	Wood stork	*Mycteria americana*	Threatened	No suitable migratory 'stop-over' or foraging habitat observed within site.
Birds	Piping Plover	*Charadrius melodus*	Threatened	No suitable nesting/foraging habitat observed within/adjacent to site.
Flowering Plants	Pondberry	*Lindera melissifolia*	Endangered	The potential wetland area associated with the small open channel section of Dundee Canal at southern survey boundary may provide suitable habitat. A formal field survey of this area would need to be performed to establish presence/absence potential.
Mammals	West Indian Manatee	*Trichechus manatus*	Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Hawksbill sea turtle		Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Leatherback sea turtle	*Dermochelys coriacea*	Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Kemp's ridley sea turtle	*Lepidochelys kempii*	Endangered	No suitable habitat observed within/adjacent to site.
Reptiles	Green sea turtle	*Chelonia mydas*	Threatened	No suitable habitat observed within/adjacent to site.
Reptiles	Loggerhead sea turtle	*Caretta caretta*	Threatened	No suitable habitat observed within/adjacent to site.
Reptiles	Gopher tortoise	*Gopherus polyphemus*	Candidate	No ESA protection provided to candidate species. Suitable habitat observed within the site, but the perimeter fencing of site currently prevents occurrence of this species within the survey area.
IPAC Listed Species - Not Listed by Official USFWS ECOS List for Chatham County, GA				
Birds IPAC	Red Knot	*Calidris canutus rufa*	Threatened	This species nests north of the Artic Circle. No suitable breeding or nonbreeding habitat observed within/adjacent to site.
Reptiles IPAC	Eastern Indigo snake	*Drymarchon corais couperi*	Threatened	Preferred habitat not observed within/adjacent to site. This species' presence is highly correlated to presence of gopher tortoise burrows.
Fishes IPAC	Atlantic sturgeon	*Acipenser oxyrinchus oxyrinchus*	Endangered	No suitable habitat observed within/adjacent to site.
Fishes IPAC	Shortnose sturgeon	*Acipenser brevirostrum*	Endangered	No suitable habitat observed within/adjacent to site.
Mammals IPAC	North Atlantic Right Whale	*Eubalaena glacialis*	Endangered	No suitable habitat observed within/adjacent to site.

IPAC Information, Planning and Conservation System
USFWS United States Fish and Wildlife Service
ECOS Environmental Conservation Online System
ESA Endangered Species Act

Table G-14
Selection of Constituents of Potential Ecological Concern for Sediment
Hercules Inc. - Savannah Plant
Savannah, Georgia

Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	Ecological Screening Value (ESV) [b]		Maximum Greater than ESV? [c]	Alternative Screening Value (ASV) [d]	Maximum Greater than ASV? [e]
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/kg)	-	Maximum (mg/kg)	Minimum (mg/kg)	-	Maximum (mg/kg)		(mg/kg)	source	(Yes/no)	(mg/kg)	(Yes/no)
Acetone	1	-	3	33	0.048	-	0.056	0.1	-	0.1	SED-2 (8/28/2014)	0.0099	R5	YES	1.7	no
2,3,7,8-TCDD TEQ	3	-	3	100	--	-	--	0.000009	-	0.00007	SED-2 (8/28/2014)	0.0000025	R4	YES	0.0125	no

– Not applicable.
mg/kg Milligram per kilogram.
TCDD TEQ 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) toxic equivalence.

[a] Only detected constituents are presented.
[b] Ecological Screening Values (ESVs) were identified from the following sources in order of priority:
United States Environmental Protection Agency (USEPA) Region 4 Ecological Screening Values (R4; USEPA 2001).
United States Environmental Protection Agency (USEPA) Region 5 Ecological Screening Values (R5; USEPA 2003a).
United States Environmental Protection Agency (USEPA) Region 3 Ecological Screening Values (R3; USEPA 2006).
[c] Constituents with maximum concentrations greater than the ESV are identified as potential COPECs for further evaluation.
[d] The ASV for acetone was calculated using the modified equilibrium partitioning approach developed by USEPA (2008) using the Region 5 water quality criterion (USEPA 2003).
ASV for TCDD TEQ is the Probable Effects Levels (PEL) calculated by the Water Quality Guidelines Task Group of Environment Canada (EC; 2015).
[e] Constituents with maximum concentrations greater than the ASV are identified as refined COPECs.

Table G-15
Selection of Constituents of Potential Ecological Concern for Surface Water
Hercules Inc. - Savannah Plant
Savannah, Georgia

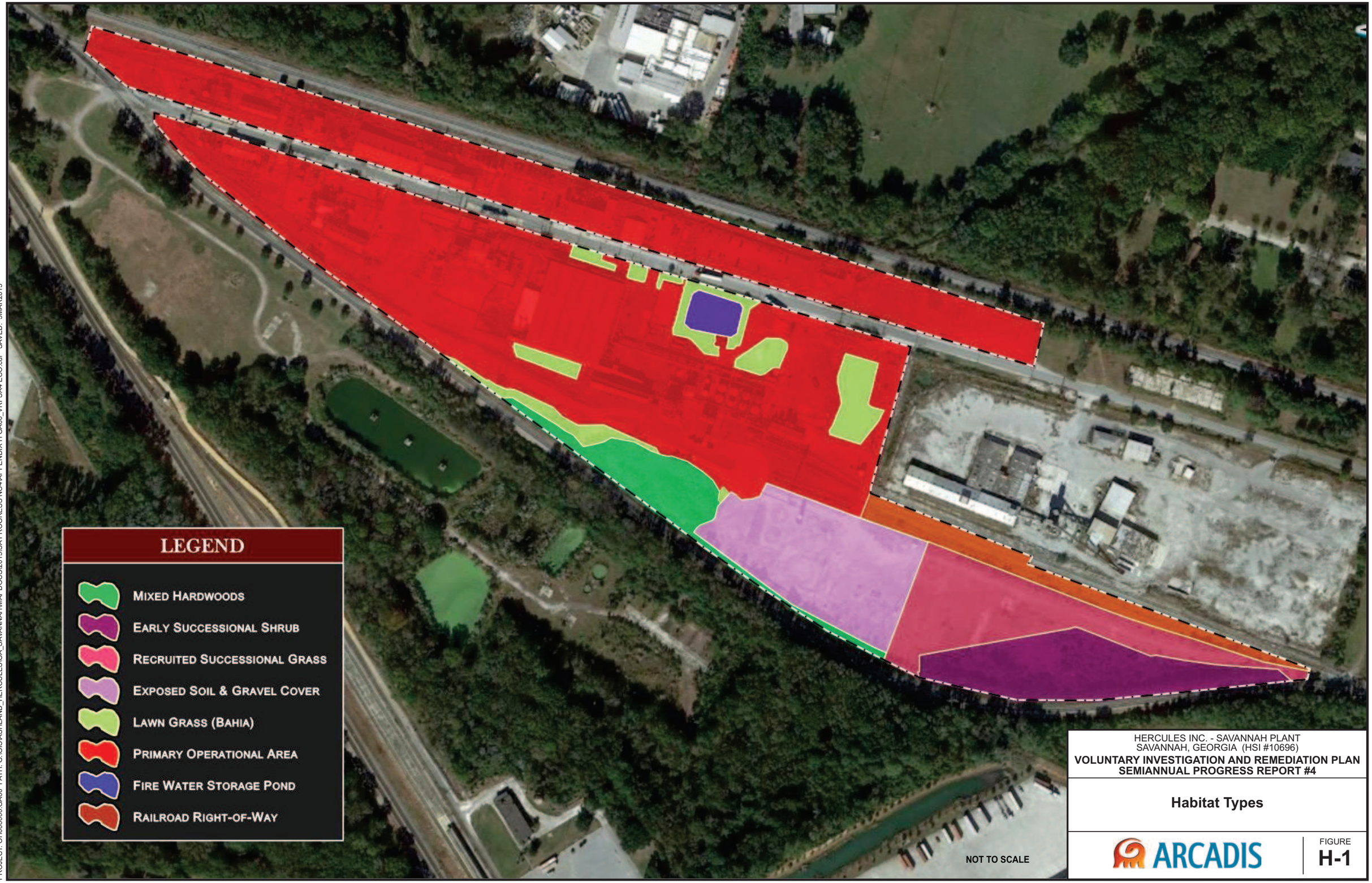
Regulated Substance [a]	Frequency of Detection				Detection Limit			Detected Concentration			Maximum Concentration: Location (Date)	Ecological Screening Value (ESV) [b]		Maximum Greater than ESV? [c]	Alternative Screening Value (ASV) [d]	Maximum Greater than ASV? [e]
	Number of Detections		Number of Samples	(%) FOD	Minimum (mg/L)	-	Maximum (mg/L)	Minimum (mg/L)	-	Maximum (mg/L)		(mg/L)	source	(Yes/no)	(mg/L)	(Yes/no)
Ammonia (as N)	3	-	3	100	--	-	--	0.13	-	0.32	SW-01 (8/28/2014)	0.019	R3	YES	1.9	no
Fluoride	3	-	3	100	--	-	--	0.16	-	0.53	SW-03 (8/28/2014)	1.08	R3	no	–	–
N-Nitrosodi-n-butylamine	1	-	3	33	0.00098	-	0.001	0.078	-	0.078	SW-02 (8/28/2014)	–		–	–	–

– Not applicable.
mg/L Milligram per liter.

[a] Only detected constituents are presented.
[b] Ecological Screening Values (ESVs) were identified from the following sources in order of priority:
Georgia's Water Quality Standards. 391-3-6. Water Use Classifications and Water Quality Standards (GAEPD 2011).
United States Environmental Protection Agency (USEPA) Region 4 Ecological Screening Values (R4; USEPA 2001).
United States Environmental Protection Agency (USEPA) Region 5 Ecological Screening Values (R5; USEPA 2003a).
United States Environmental Protection Agency (USEPA) Region 3 Ecological Screening Values (R3; USEPA 2006).
[c] Constituents with maximum concentrations greater than the ESV are identified as potential COPECs for further evaluation.
[d] The ASV for ammonia is the United States Environmental Protection Agency Chronic Aquatic Life Ambient Water Quality Criterion at a pH of 7 and a water temperature of 20°C (USEPA 2013).
[e] Constituents with maximum concentrations greater than the ASV are identified as refined COPECs.

Appendix H

Habitat Assessment Figures and Photo Log



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

VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Habitat Types

ARCADIS

FIGURE
H-1

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: T.SCHLEKAT BY: BALTOM
PROJECT: OH008000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\APPENDIX H GA60_VRPSA4 ECO.cdr SAVED: 5MAR2015

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

VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

National Wetlands Inventory

ARCADIS

FIGURE
H-2

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: T.SCHLEKAT BY: BALTOM
PROJECT: OH008000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\APPENDIX H GA60_VRPSA4 ECO.cdr SAVED: 5MAR2015

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

VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #4

Dundee Canal

ARCADIS

FIGURE
H-3

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: T.SCHLEKAT BY: BALTOM
PROJECT: OH008000.GA60 PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2015\SA PROGRESS NO4\APPENDIX H GA60_VRPSA4 ECO.cdr SAVED: 5MAR2015

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No. 1

Date: 08/26/14

Description:

Snails observed at the Dundee Canal/Process Water Outfall. These snails belong to the Lymnaeidae family, and the species is likely *Lymnaea columella.*

ARCADIS

PHOTO LOG

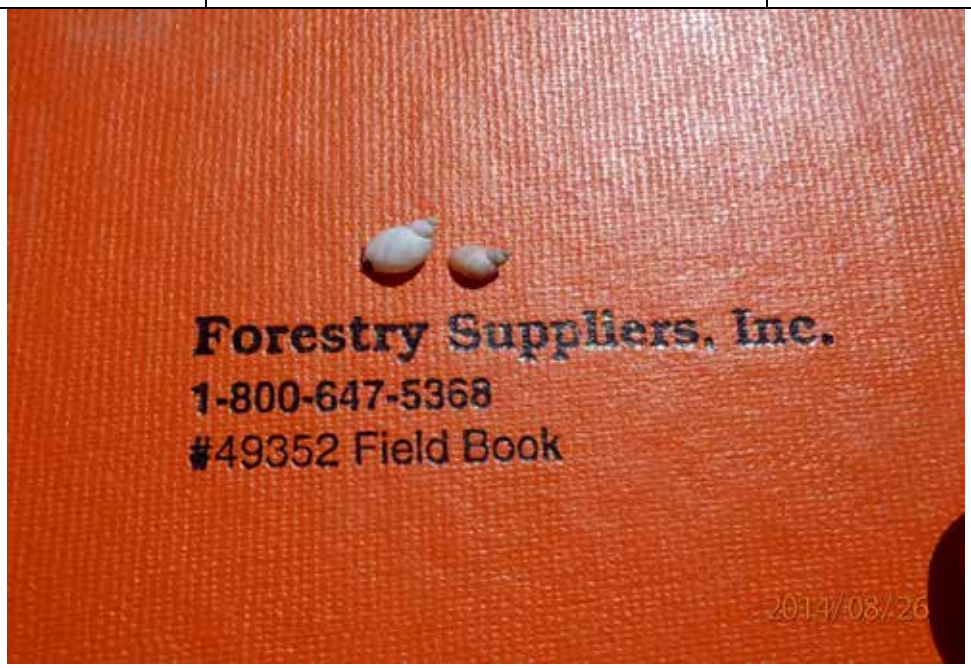
Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No. 2

Date: 08/26/14

Description:

Example specimens of observed Lymnaeidae snails



ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
3	08/26/14

Description:

View of conditions inside the Dundee Canal/Process Water mixing/outfall structure. Flora dominated by duck potato (*Sagittaria lancifolia*). Two manual gates can also be seen.

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
4	08/26/14

Description:

Example of bream bead observed w/in the Dundee Canal/Process Water mixing/outfall structure

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
5	08/26/14

Description:

View of the Process Water outfall into the Dundee Canal/Process Water mixing/outfall structure

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
6	08/26/14

Description:

NW overview of the fire water pond located *S* of the main gate to facility

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
7	08/26/14

Description:

Example view of fire pond water conditions & the two pond drainage/overflow culvert inlets that discharge to Dundee Canal

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
8	08/26/14

Description:

Example of signage provided to grate-covered access structures (total of 3) of the subsurface Dundee Canal/stormwater conveyance pipe

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
9	08/26/14

Description:

Looking *NE* along downstream segment of the subsurface Dundee Canal/stormwater pipe from near midpoint of drainage pipe system. View is looking toward the WWTF & Dundee Canal/Process Water outfall.

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No.	Date:
10	08/26/14

Description:

Looking *W* over the loading dock area catch basin that drains to the Dundee Canal pipe ~225 LF downstream of the Dundee Canal pipe/culvert inlet. Box structure receiving stormwater from this area is equipped with a manual valve maintained in the closed position.

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No. 11

Date: 08/26/14

Description:

View of subsurface Dundee Canal pipe box structure mentioned by Photo 129

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No. 12

Date: 08/26/14

Description:

Example of water conditions w/in Dundee Canal pipe box structure mentioned by Photo 129

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No. 13 | **Date:** 08/26/14

Description:

View of water condition at the Dundee Canal inlet pipe

ARCADIS

PHOTO LOG

Project Name:	Location:	Project No.
Louisville Road Habitat Assessment Photo Log	Savannah, GA	OH008000.GA60

Photo No. 14 | **Date:** 08/26/14

Description:

SW view of conditions at the Dundee Canal inlet pipe located outside the southern facility fence line