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Hercules Incorporated

Voluntary Investigation and Remediation Plan – Semiannual Progress Report #2

Hercules Incorporated
3000 Louisville Road
Savannah, Georgia

March 15, 2014

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Voluntary Investigation and Remediation Plan – Semiannual Progress Report #2

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

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3.14.2014
Date

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Ashland Inc. Environmental Remediation / Hercules Inc. (Savannah) Georgia
Facility Name

Voluntary Investigation and Remediation Plan Semiannual Progress Report #2
Document Title

Georgia EPD HSI Site #10696

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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). Information and data contained in this VIRP are provided in a streamlined format and additional information, if required, can be provided to the Georgia Environmental Protection Division (EPD) upon request.

Hercules Incorporated (Hercules), a wholly owned subsidiary of Ashland Inc., owns and operates a facility in Savannah, Georgia that produces chemicals used in the paper processing industry. The Hercules facility is located at 3000 Louisville Road, Savannah, Georgia. 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 2-0734-01-001 and Parcel ID 2-0734-03-001), comprising of 28.42 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 has occurred since the original deed was filed. Data obtained during this review confirmed that Hercules retains ownership of land as shown in Figure 1 which provides the location of the Hercules land tracts superimposed on a topographic map of the area. The term “Site” is used throughout the remainder of this report to refer to land both owned by Hercules and included in the two tracts that comprise HSI Site ID 10696. 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 map updated to show 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 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 have been submitted between 2002 and 2009.

- A Corrective Action Plan (CAP) was submitted in 2008

- 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 was approved by EPD on March 15, 2013

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

During the various subsurface investigations, regulated substances have been detected in site groundwater and soil. In addition, trace concentrations of regulated substances have been detected in surface water and sediment samples collected from Dundee Canal downstream of the site. A list of regulated substances detected at the site along with the applicable delineation standards was provided in the VIRP. The EPD provided revised 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 clean-up standards. The approved RRSs are provided as Table 1.

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 seven wells for laboratory analysis of volatile organic compounds (VOCs) by USEPA Method 8260B and semivolatile organic compounds (SVOCs) by USEPA Method 8270C

3. Collected groundwater samples from 23 wells for bis(2-ethylhexyl) phthalate analysis.

Details of data collected and interpretations of those data are provided in the following sections.

3.1 Hydraulic Gradient

The static depth to water was measured in all accessible site wells on November 11, 2013. These measurements were used to develop a potentiometric surface contour map for the shallow water unit and to calculate a hydraulic gradient. The general groundwater flow direction based on these measurements was convergent toward Dundee Canal, which is consistent with historical data. The hydraulic gradient was calculated from potentiometric surface elevations of wells located perpendicular to groundwater flow from both sides of Dundee Canal. The average hydraulic gradient is 0.005 ft/ft, which is typical of shallow aquifers in the Coastal Plain depositional environment. The hydraulic gradient was calculated to be 0.004 ft/ft on the west side of Dundee Canal based on water level measurements from MW-F13 and MW-F17. On the east side of Dundee Canal, the hydraulic gradient is 0.005 ft/ft as calculated from monitoring wells MW-F9 and MW-F5. A summary of well construction details is included as Table 2. Water level elevations are included as Table 3 and a potentiometric surface contour map is provided as Figure 4.

3.2 Groundwater Sample Data Summary

Semiannual groundwater sampling was conducted in November 2013 and will continue until compliance with final cleanup standards is demonstrated for a period of two years or as to be determined by the director of the VRPA and to be agreed upon by Hercules. Semiannual monitoring consists of the collection of water-level

measurements from 37 onsite wells and the collection of groundwater samples from the following 7 monitoring wells: MW-F21, MW-F3R, MW-F5, MW-F7, MW-27, MW-29, and MWD-30. The samples are analyzed for VOCs by USEPA Method 8260B and SVOCs by USEPA Method 8270C.

Well purging and sampling methods will continue to utilize peristaltic pump and low-flow, low-purge volume sampling methodologies following the United States Environmental Protection Agency (USEPA) Region 4 Science and Ecosystem Support Division (SESD) operating procedures for groundwater sampling to ensure a representative sample is collected and to minimize the quantity of well purge water generated during sampling. The removal of several well volumes of well casing water was not required using this approach. The tubing intake was placed within the screened interval at the zone of sampling. Flow rates did not exceed the recharge rate of the aquifers monitored by measuring the top of the water column with a water level recorder while pumping. With respect to the groundwater chemistry, an adequate purge was achieved when the pH, specific conductance, and temperature of the groundwater have stabilized and the turbidity had either stabilized or was below 10 Nephelometric Turbidity Units (NTUs) (twice the Primary Drinking Water Standard of 5 NTUs). Every effort was made to achieve turbidity levels of less than 10 NTUs at sampling locations where metals analyses will be performed. Stabilization occurred when pH measurements remained constant within 0.1 Standard Unit, specific conductance varies no more than 10 percent, and the temperature was constant to within one degree C for at least three consecutive readings. Groundwater samples were collected following USEPA-accepted sampling methods when water quality parameters had been reached. Well purging and sampling logs from the November 2013 monitoring event are provided as Appendix B.

Analytical results from the November 2013 groundwater sampling event indicate a very limited distribution of constituents of concern (COCs) at the Site. Naphthalene was detected at a concentration of 85 µg/L at only one well, MW-F21, which exceeded the 20 µg/L Type 1 and Type 4 RRS. Benzene concentrations of 5.9 µg/L at this well also exceeded the 5 µg/L Type 1 RRS, but, were below the Type 4 RRS of 9 µg/L.

Groundwater samples were also collected from 23 wells which previously had a positive detections of bis(2-ethylhexyl) phthalate. The detections of bis(2-ethylhexyl) phthalate in groundwater were believed to be erroneous. The analytical results of this resampling effort indicate, as shown on Table 5a, that this compound was not detected at concentrations above the RRS in any well. This confirms that the positive historical

detections of bis(2-ethylhexyl) phthalate were not attributed to actual groundwater conditions and that no further sampling for this compound is warranted.

A summary of groundwater results from the November semiannual monitoring event for the shallow and deep aquifers is illustrated on Figures 5a and 5b, respectively. A figure illustrating the results of the bis(2-ethylhexyl) phthalate-only is provided as Figure 6. Analytical summary tables are provided as Table 5a and 5b. Laboratory analytical reports are included as Appendix C.

3.3 Delineation Status

3.3.1 Groundwater

Data from historical groundwater samples and data collected in November 2013 were compared to the Type 1 RRS. Only one well, MW-F21, has concentrations greater than the Type 1 RRS. This well is screened in the shallow aquifer. Nearby deep monitoring well MWD-30 had no detections of any analyzed VOCs or SVOCs. Therefore, groundwater delineation is complete for VOCs and SVOCs.

The regulated substance fluoride was detected historically but not analyzed for in the November 2013 semiannual monitoring event. The most elevated historical fluoride concentration was detected at MWD-F3 in 2000 at 750 µg/L; well below the Type 1 RRS of 4,000 µg/L. Therefore, fluoride delineation is considered complete.

4. Status of Proposed Future Work

The VIRP outlined a number of actions that have not yet been completed, but, are planned to be performed at the Site in the near future. These planned actions were proposed to address regulated substance delineation data gaps and collect the information needed to evaluate site risk and hazard to potentially-exposed present and potential future receptors. A list of planned actions is provided below and details of the data collection and evaluation efforts are provided in the VIRP.

- Discrete soil samples will be collected at historical locations where composite samples were historically obtained.
- Additional soil samples will be collected to delineate regulated substances (Acrolein, Aniline, and 1,1-Biphenyl) and to investigate the potential for impacts at potential historical source areas.

- Sediment and Surface Water samples will be collected.
- Slug tests will be performed on 10 wells to evaluate water-bearing zone hydraulic parameters.
- A Migration Pathway Assessment will be performed and potential receptors will be evaluated.
- A Human Health Risk Assessment and an Ecological Risk Assessment will be performed.
- Groundwater modeling will be completed, as needed, to demonstrate compliance with site-specific cleanup standards at the downgradient point of exposure.
- A vapor intrusion pathway risk evaluation will be completed to assess the potential exposure of site workers to constituents migrating from the subsurface into indoor air

The semiannual groundwater sampling program that began in November 2013 will continue until compliance with final cleanup standards is demonstrated for a period of two years or as to be determined by the director of the VRPA and to be agreed upon by Hercules. As indicated above, semiannual monitoring consists of the collection of water-level measurements from 37 onsite wells and the collection of groundwater samples from the following 7 monitoring wells: MW-F21, MW-F3R, MW-F5, MW-F7, MW-27, MW-29, and MWD-30. The samples are analyzed for VOCs by USEPA Method 8260B and SVOCs by USEPA Method 8270C.

One additional monitoring well, MW-F8, will be added to the semiannual monitoring network to monitor groundwater downgradient of the proposed engineering control for the soil impacts in the vicinity of the Former Fatty Acid 50s Tank Area. Groundwater samples from this well will be analyzed for ACM only.

5. Schedule

An updated project schedule for work elements outlined in the VIRP is provided on Figure 7.

6. Reporting

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

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

7. References

ARCADIS, 2011. Response to Georgia EPD Comments, EPD Comment Letter Dated October 25, 2010. February 2011.

ARCADIS, 2012. Voluntary Investigation and Remediation Plan, April 9, 2013.

Tables

Table 1
Delineation and Remediation Standards for Soil and Groundwater
VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

		Soil		Groundwater	
		EPD Approved	EPD Approved	EPD Approved	EPD Approved
	CAS	Type 1 RRS	Type 4 RRS	Type 1 RRS	Type 4 RRS
	Number	(mg/kg)	(mg/kg)	(mg/L)	(mg/L)
Volatile Organic Compounds					
Acetone	67-64-1	400	400	9	46
Acetonitrile	75-05-8	20	20	0.2	0.2
Acetophenone	98-86-2	400	400	4	10
Acrolein	107-02-8	0.1	70	0.7	0.7
Benzene	71-43-2	0.5	0.5	0.0054	0.0087
Biphenyl	92-52-4	1	1	0.01	0.01
Carbon disulfide	75-15-0	400	400	4	4
Chlorobenzene	108-90-7	10	10	0.1	0.14
trans-1,4-Dichlorobutene	110-57-6	0.11	0.1	0.002	0.001
1,2-Dichloropropane	78-87-5	0.5	0.2	0.005	0.002
1,4-Dichloro-2-butene	764-41-0	0.11	0.5	0.001	0.0074
Ethylbenzene	100-41-4	70	70	0.7	0.7
Ethyl Methacrylate	97-63-2	300	300	3	3
Isobutyl alcohol	78-83-1	1000	1000	10	31
Methyl ethyl ketone	78-93-3	200	200	2.3	12
Methyl isobutyl ketone	108-10-1	200	200	2	4.2
Styrene	100-42-5	14	14	0.5	2.6
Tetrachloroethene	127-18-4	0.5	0.5	0.019	0.098
Toluene	108-88-3	100	100	1	5.2
Xylenes (total)	1330-20-7	1000	1000	10	10
m-Xylene	108-38-3	20	20	0.58	0.29
o-Xylene	95-47-6	20	20	0.58	0.29
p-Xylene	106-42-3	20	20	0.58	0.29
m & p-Xylenes	179601-23-1	NA	NA	NA	NA
Semi Volatile Organic Compounds					
Aniline	62-53-3	2	2	0.11	0.5
Bis(2-ethylhexyl)phthalate	117-81-7	50	50	0.061	0.2
Butyl benzyl phthalate	85-68-7	50	218.54	3.129	15.061
Total Cresols	1319-77-3	3.8	8.1	1.6	10
m & p-Cresols	65794-96-9	NA	NA	NA	NA
m-Cresol	108-39-4	3.8	4.1	0.78	5.1
o-Cresol	95-48-7	3.8	4.1	0.78	5.1
p-Cresol	106-44-5	3.8	8	1.56	10
Dibenzofuran	132-64-9	1	1.9	0.016	0.01
2,4-Dimethylphenol	105-67-9	70	70	0.7	2
m-Dinitrobenzene	99-65-0	1.05	1.05	0.011	0.01
Di-n-octyl phthalate	117-84-0	70	70	0.7	0.7
1,4-Dioxane	123-91-1	7	7	0.07	0.07
Formaldehyde	50-00-0	100	100	1	20
N-Nitrosodi-n-butylamine	924-16-3	1	1	0.01	0.01
N-Nitroso-n-methylethylamine	10595-95-6	0.68	1	0.01	0.01
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	83-32-9	300	300	2	6.1
Acenaphthylene	208-96-8	130	130	0.1	0.01
Anthracene	120-12-7	500	1009	4.7	31
Benzo(a)anthracene	56-55-3	5	5	0.01	0.01
Benzo(a)pyrene	50-32-8	1.64	1.64	0.01	0.01
Benzo(b)fluoranthene	205-99-2	5	5	0.01	0.01
Benzo(g,h,i)perylene	191-24-2	500	500	0.01	0.01
Benzo(k)fluoranthene	207-08-9	13.7	46	0.012	0.039

Table 1
Delineation and Remediation Standards for Soil and Groundwater
VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

		Soil		Groundwater	
		EPD Approved	EPD Approved	EPD Approved	EPD Approved
	CAS	Type 1 RRS	Type 4 RRS	Type 1 RRS	Type 4 RRS
	Number	(mg/kg)	(mg/kg)	(mg/L)	(mg/L)
Chrysene	218-01-9	43	142	0.12	0.04
Dibenzo(a,h)anthracene	53-70-3	2	5	0.01	0.01
Fluoranthene	206-44-0	500	500	1	4.1
Fluorene	86-73-7	360	360	1	4.1
Indeno(1,2,3-cd)pyrene	193-39-5	5	15	0.01	0.01
Naphthalene	91-20-3	100	100	0.02	0.02
Phenanthrene	85-01-8	110	110	0.01	0.01
Pyrene	129-00-0	500	500	1	3.1
Dioxins					
2,3,7,8-TCDD TEQ	1746-01-6	1.15E-04	4.98E-03	0.00001	0.00001
Pesticides					
Endrin	72-20-8	10	10	0.0047	0.031
Endrin aldehyde	7421-93-4	10	10	0.0001	0.0001
4,4'-DDT	50-29-3	0.84	3	0.0025	0.0084
Methoxychlor	72-43-5	10	28	0.078	0.51
Parathion	56-38-2	20	20	0.2	0.61
Polychlorinated Biphenyls					
Aroclor 1254	11097-69-1	1.55	1.55	0.0005	0.0014
Aroclor 1260	11096-82-5	1.55	1.55	0.0005	0.0014
Total PCBs	1336-36-3	1.55	1.55	0.0005	0.0014
Inorganics					
Ammonia (as N)	7664-41-7	3000	3000	30	30
Asbestos *	1332-21-4	1	1	7	7
Fluoride	16984-48-8	NA	NA	4	4.1

Notes:
* Asbestos soil standards are reported in % and groundwater standards are reported in millions of fibers per liter.
CAS - Chemical Abstarct Services.
mg/kg - Milligrams per kilogram.
mg/L - Milligrams per liter.
NA - Not applicable.

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

Table 3
Groundwater Elevation Data
VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MWA	10/23/2000	NM	NM	5.71	NM	NM
MWB	10/23/2000	NM	NM	5.06	NM	NM
MWC	10/23/2000	NM	NM	5.53	NM	NM
MWD	10/23/2000	NM	NM	7.00	NM	NM
MW-F1	10/23/2000	8.10	10.62	4.94	5.68	2.42
	11/1/2000	8.10	10.62	4.98	5.64	2.46
	6/30/2004	8.10	10.62	4.35	6.27	1.83
	1/26/2011	8.10	10.62	4.14	6.48	1.62
	7/21/2011	7.13	9.55	4.39	5.16	1.97
	11/11/2013	7.13	9.55	5.11	4.44	2.69
MW-F2	11/1/2000	8.89	8.58	5.62	2.96	5.93
	6/30/2004	8.89	8.58	5.55	3.03	5.86
	11/19/2008	8.89	8.58	5.46	3.12	5.77
	1/26/2011	8.89	8.58	NM	NM	NM
	7/21/2011	7.70	7.51	5.46	2.05	5.65
	11/11/2013	7.70	7.51	6.13	1.38	6.32
MW-F3	10/23/2000	10.00	9.94	2.51	7.43	2.57
	11/1/2000	10.00	9.94	2.53	7.41	2.59
	7/3/2004	10.00	9.94	1.42	8.52	1.48
	8/16/2006	10.00	9.94	2.04	7.90	2.10
MW-F3R	11/19/2008	9.36	13.63	6.76	6.87	2.49
	1/26/2011	9.36	13.63	6.60	7.03	2.33
	7/21/2011	8.32	12.53	6.80	5.73	2.59
	11/11/2013	8.32	12.53	7.75	4.78	3.54
MW-F4	10/23/2000	9.60	12.09	5.99	6.10	3.50
	11/1/2000	9.60	12.09	6.04	6.05	3.55
MW-F5	10/23/2000	10.01	12.62	6.47	6.15	3.86
	11/1/2000	10.01	12.62	6.61	6.01	4.00
	7/2/2004	10.01	12.62	6.00	6.62	3.39
	8/16/2006	10.01	12.62	6.36	6.26	3.75
	7/30/2008	10.01	12.62	5.73	6.89	3.12
	11/19/2008	10.01	12.62	5.79	6.83	3.18
	1/26/2011	10.01	12.62	5.61	7.01	3.00
	7/21/2011	9.07	11.49	5.59	5.90	3.17
	11/11/2013	9.07	11.49	6.88	4.61	4.46
MW-F6	10/23/2000	10.10	10.03	3.89	6.14	3.96
	11/1/2000	10.10	10.03	3.99	6.04	4.06
	7/2/2004	10.10	10.03	3.40	6.63	3.47
	1/26/2011	10.10	10.03	2.79	7.24	2.86
	7/21/2011	8.97	8.59	2.91	5.68	3.29
	11/27/2013	8.97	8.59	3.80	4.79	4.18

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VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-F7	10/23/2000	11.59	14.03	6.18	7.85	3.74
	11/1/2000	11.59	14.03	6.29	7.74	3.85
	8/16/2006	11.59	14.03	6.00	8.03	3.56
	7/30/2008	11.59	14.03	5.58	8.45	3.14
	11/19/2008	11.59	14.03	4.76	9.27	2.32
	1/26/2011	11.59	14.03	4.65	9.38	2.21
	7/21/2011	10.70	13.23	5.16	8.07	2.63
	11/11/2013	10.70	13.23	6.61	6.62	4.08
MW-F8	10/23/2000	12.25	12.50	4.78	7.72	4.53
	11/1/2000	12.25	12.50	5.06	7.44	4.81
	1/26/2011	12.25	12.50	4.21	8.29	3.96
	7/21/2011	11.22	12.59	4.63	7.96	3.26
	11/11/2013	11.22	12.59	6.19	6.40	4.82
MW-F9	10/23/2000	13.00	12.84	4.72	8.12	4.88
	11/1/2000	13.00	12.84	4.85	7.99	5.01
	1/26/2011	13.00	12.84	NM	NM	NM
	7/21/2011	12.00	11.78	3.64	8.14	3.86
	11/11/2013	12.00	11.78	4.89	6.89	5.11
MW-F10	10/23/2000	10.56	10.50	4.32	6.18	4.38
	11/1/2000	10.56	10.50	4.39	6.11	4.45
	1/26/2011	10.56	10.50	NM	NM	NM
MW-F11	10/23/2000	9.83	9.30	3.19	6.11	3.72
	11/1/2000	9.83	9.30	3.23	6.07	3.76
	1/26/2011	9.83	9.30	2.32	6.98	2.85
	7/21/2011	8.80	8.58	2.22	6.36	2.44
	11/11/2013	8.80	8.58	2.97	5.61	3.19
MW-F12	10/23/2000	10.54	10.10	4.40	5.70	4.84
	11/1/2000	10.54	10.10	4.16	5.94	4.60
	7/3/2004	10.54	10.10	2.98	7.12	3.42
	1/26/2011	10.54	10.10	3.67	6.43	4.11
	7/21/2011	9.47	9.34	3.15	6.19	3.28
	11/11/2013	9.47	9.34	3.70	5.64	3.83
MW-F13	10/23/2000	16.34	19.46	10.35	9.11	7.23
	11/1/2000	16.34	19.46	10.82	8.64	7.70
	7/1/2004	16.34	19.46	12.45	7.01	9.33
	1/26/2011	16.34	19.46	10.30	9.16	7.18
	7/21/2011	15.66	18.47	11.09	7.38	8.28
	11/11/2013	15.66	18.47	11.88	6.59	9.07
MW-F14	10/23/2000	6.93	9.33	4.80	4.53	2.40
	11/1/2000	6.93	9.33	4.72	4.61	2.32
	7/1/2004	6.93	9.33	4.20	5.13	1.80
	8/16/2006	6.93	9.33	4.56	4.77	2.16
	1/26/2011	6.93	9.33	2.51	6.82	0.11
	7/21/2011	6.05	8.38	2.91	5.47	0.58
	11/11/2013	6.05	8.38	3.21	5.17	0.88

Table 3
Groundwater Elevation Data
VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-F15	10/23/2000	10.61	10.70	4.94	5.76	4.85
	11/1/2000	10.61	10.70	5.11	5.59	5.02
	1/26/2011	10.61	10.70	4.38	6.32	4.29
	7/21/2011	9.87	9.79	4.43	5.36	4.51
	11/11/2013	9.87	9.79	4.65	5.14	4.73
MW-F16	10/23/2000	6.83	9.46	4.17	5.29	1.54
	11/1/2000	6.83	9.46	4.50	4.96	1.87
	7/1/2004	6.83	9.46	3.15	6.31	0.52
	1/26/2011	6.83	9.46	2.19	7.27	-0.44
	7/21/2011	6.03	8.51	2.73	5.78	0.25
	11/11/2013	6.03	8.51	4.06	4.45	1.58
MW-F17	10/23/2000	9.59	12.34	6.45	5.89	3.70
	11/1/2000	9.59	12.34	6.54	5.80	3.79
	1/26/2011	9.59	12.34	5.46	6.88	2.71
	7/21/2011	8.93	11.36	5.68	5.68	3.25
	11/11/2013	8.93	11.36	6.42	4.94	3.99
	10/23/2000	8.60	11.46	5.17	6.29	2.31
	11/1/2000	8.60	11.46	5.50	5.96	2.64
	6/30/2004	8.60	11.46	4.59	6.87	1.73
	1/26/2011	8.60	11.46	4.61	6.85	1.75
	7/21/2011	7.68	10.47	4.75	5.72	1.96
MW-F19	11/11/2013	7.68	10.47	5.38	5.09	2.59
MW-F20	11/1/2000	10.07	9.89	3.90	5.99	4.08
	8/17/2006	10.07	9.89	3.71	6.18	3.89
	1/26/2011	10.07	9.89	NM	NM	NM
MW-F21	11/1/2000	11.11	13.54	7.02	6.52	4.59
	8/16/2006	11.11	13.54	6.27	7.27	3.84
	7/30/2008	11.11	13.54	5.94	7.60	3.51
	11/19/2008	11.11	13.54	5.67	7.87	3.24
	1/26/2011	11.11	13.54	5.77	7.77	3.34
	7/21/2011	9.96	12.46	5.68	6.78	3.18
	11/11/2013	9.96	12.46	7.08	5.38	4.58
MW-22	7/1/2004	8.69	7.80	3.15	4.65	4.04
	1/26/2011	8.69	7.80	2.24	5.56	3.13
	7/21/2011	7.36	10.06	2.90	7.16	0.20
	11/11/2013	7.36	10.06	9.35	0.71	6.65
MW-23	7/1/2004	7.31	9.64	6.30	3.34	3.97
	1/26/2011	7.31	9.64	5.70	3.94	3.37
	7/21/2011	7.08	9.40	6.12	3.28	3.80
	11/11/2013	7.08	9.40	6.89	2.51	4.57
MW-24	6/30/2004	8.02	10.52	4.80	5.72	2.30
	1/26/2011	8.02	10.52	4.62	5.90	2.12
	7/21/2011	7.71	10.23	4.85	5.38	2.33
	11/11/2013	7.71	10.23	5.55	4.68	3.03

Table 3
Groundwater Elevation Data
VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MW-25	7/1/2004	10.99	13.17	7.10	6.07	4.92
	1/26/2011	10.99	13.17	5.76	7.41	3.58
	7/21/2011	10.32	12.72	6.63	6.09	4.23
	11/11/2013	10.32	12.72	6.51	6.21	4.11
	1/26/2011	13.40	15.98	7.81	8.17	5.23
MW-26	7/21/2011	13.69	15.69	7.73	7.96	5.73
MW-27	8/16/2006	11.39	10.52	2.85	7.67	3.72
	11/19/2008	11.39	10.52	1.58	8.94	2.45
	1/26/2011	11.39	10.52	1.41	9.11	2.28
	7/21/2011	10.36	10.23	2.02	8.21	2.15
	11/11/2013	10.36	10.23	3.39	6.84	3.52
MW-28	1/26/2011	7.90	10.80	6.15	4.65	3.25
	7/21/2011	7.60	10.50	6.96	3.54	4.06
	11/11/2013	7.60	10.50	7.75	2.75	4.85
MW-29	11/19/2008	10.65	13.85	4.22	9.63	1.02
	1/26/2011	10.65	13.85	4.38	9.47	1.18
	7/21/2011	9.58	12.80	4.77	8.03	1.55
	11/11/2013	9.58	12.80	6.04	6.76	2.82
MW-32	11/19/2008	5.72	7.90	2.87	5.03	0.69
	1/26/2011	5.72	7.90	2.55	5.35	0.37
	7/21/2011	5.30	7.05	3.19	3.86	1.44
	11/11/2013	5.30	7.05	4.81	2.24	3.06
MWD-F1	10/23/2000	7.99	10.39	49.58	-39.19	47.18
	11/1/2000	7.99	10.39	41.98	-31.59	39.58
	6/30/2004	7.99	10.39	36.06	-25.67	33.66
	1/26/2011	7.99	10.39	33.00	-22.61	30.60
	7/21/2011	6.92	9.25	33.50	-24.25	31.17
	11/11/2013	6.92	9.25	31.82	-22.57	29.49
MWD-F2	10/23/2000	8.70	11.50	33.09	-21.59	30.29
	11/1/2000	8.70	11.50	28.30	-16.80	25.50
	6/30/2004	8.70	11.50	25.19	-13.69	22.39
	1/26/2011	8.70	11.50	23.40	-11.90	20.60
	7/21/2011	7.80	10.52	23.00	-12.48	20.28
	11/11/2013	7.80	10.52	22.45	-11.93	19.73
MWD-F3	10/23/2000	9.58	12.21	23.78	-11.57	21.15
	11/1/2000	9.58	12.21	21.87	-9.66	19.24
	1/26/2011	9.58	12.21	18.65	-6.44	16.02
	7/21/2011	8.77	11.23	18.55	-7.32	16.09
	11/11/2013	8.77	11.23	18.11	-6.88	15.65
MWD-22	7/1/2004	7.80	10.15	3.43	6.72	1.08
	1/26/2011	7.80	10.15	2.56	7.59	0.21
	7/21/2011	7.71	10.05	3.26	6.79	0.92
	11/11/2013	7.71	10.05	4.55	5.50	2.21
MWD-23	6/30/2004	7.13	9.46	7.10	2.36	4.77
	1/26/2011	7.13	9.46	6.60	2.86	4.27
	7/21/2011	6.83	9.27	7.04	2.23	4.60
	11/11/2013	6.83	9.27	8.23	1.04	5.79

Table 3
Groundwater Elevation Data
VIRP Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Well ID	Date of Measurement	Ground Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	GW Elevation (ft amsl)	Depth to Water Table (ft bgs)
MWD-24	1/26/2011	8.05	10.60	4.47	6.13	1.92
	7/21/2011	7.67	10.34	4.69	5.65	2.02
	11/11/2013	7.67	10.34	5.49	4.85	2.82
MWD-25	7/1/2004	10.89	8.11	6.05	2.06	8.83
	1/26/2011	10.89	8.11	5.44	2.67	8.22
	7/21/2011	10.26	12.58	5.64	6.94	3.32
	11/11/2013	10.26	12.58	7.35	5.23	5.03
MWD-27	8/16/2006	NM	10.40	3.74	6.66	NM
	1/26/2011	NM	10.40	2.55	7.85	NM
	7/21/2011	10.25	10.09	3.00	7.09	3.16
	11/11/2013	10.25	10.09	4.23	5.86	4.39
MWD-28	7/1/2004	8.22	11.09	6.60	4.49	3.73
	1/26/2011	8.22	11.09	5.15	5.94	2.28
	7/21/2011	7.27	10.66	5.54	5.12	2.15
MWD-29	11/19/2008	10.65	14.59	6.48	8.11	2.54
	1/26/2011	10.65	14.59	6.22	8.37	2.28
	7/21/2011	9.51	13.56	6.72	6.84	2.67
	11/11/2013	9.51	13.56	8.13	5.43	4.08
MWD-30	11/19/2008	11.11	14.48	7.75	6.73	4.38
	1/26/2011	11.11	14.48	7.85	6.63	4.48
	7/21/2011	10.06	13.41	8.11	5.30	4.76
	11/11/2013	10.06	13.41	9.21	4.20	5.86

Table 4
Planned Sampling Table
VIRP Semiannual Progress Report #2
Ashland - Hercules
3000 Louisville Road
Savannah, Georgia

Sample Info		Analyses		
Well ID	**Sample ID**	**VOCs**	**SVOCs**	**bis(2-ethylhexyl)phthalate**
	Sample Container	40mL VOA glass	1L Amber glass	1L Amber glass
	Preservative	HCl	None	None
	Analytical Method	8260B	8270C	8270C-bis(2-ethylhexyl)phthalate only
MW-F21	MW-F21 (MMDDYY)	X	X	
MW-F3R	MW-F3R (MMDDYY)	X	X	
MW-F5	MW-F5 (MMDDYY)	X	X	
MW-F7	MW-F7 (MMDDYY)	X	X	
MW-27	MW-27 (MMDDYY)	X	X	
MW-29	MW-29 (MMDDYY)	X	X	
MWD-30	MWD-30 (MMDDYY)	X	X	
MW-22	MW-22 (MMDDYY)			X
MW-23	MW-23 (MMDDYY)			X
MW-24	MW-24 (MMDDYY)			X
MW-25	MW-25 (MMDDYY)			X
MW-29	MW-29 (MMDDYY)			X
MWD-22	MWD-22 (MMDDYY)			X
MWD-23	MWD-23 (MMDDYY)			X
MWD-24	MWD-24 (MMDDYY)			X
MWD-25	MWD-25 (MMDDYY)			X
MWD-29	MWD-29 (MMDDYY)			X
MW-F1	MW-F1 (MMDDYY)			X
MW-F2	MW-F2 (MMDDYY)			X
MW-F3R	MW-F3R (MMDDYY)			X
MW-F5	MW-F5 (MMDDYY)			X
MW-F6	MW-F6 (MMDDYY)			X
MW-F8	MW-F8 (MMDDYY)			X
MW-F9	MW-F9 (MMDDYY)			X
MW-F11	MW-F11 (MMDDYY)			X
MW-F12	MW-F12 (MMDDYY)			X
MW-F13	MW-F13 (MMDDYY)			X
MW-F14	MW-F14 (MMDDYY)			X
MW-F16	MW-F16 (MMDDYY)			X
MW-F19	MW-F19 (MMDDYY)			X
Trip Blank	Trip Blank (MMDDYY)	X		

Table 5a
Groundwater Analytical Data
Voluntary Investigation and Remediation Plan
Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Location ID	**Type 1 RRS (ug/L)**	**Type 4 RRS (ug/L)**	**MW-22**	**MW-23**	**MW-24**	**MW-25**	**MW-29**	**MWD-22**	**MWD-23**	**MWD-24**	**MWD-25**	**MWD-29**	**MW-F1**
Sample Matrix			**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Sample Date			**11/25/2013**	**11/25/2013**	**11/26/2013**	**11/25/2013**	**11/26/2013**	**11/25/2013**	**11/25/2013**	**11/26/2013**	**11/25/2013**	**11/26/2013**	**11/26/2013**
Unit			**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**
Bis(2-Ethylhexyl)phthalate	61	200	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.9 U	< 2.0 U	< 2.0 U	< 2.0 U

Location ID	**Type 1 RRS (ug/L)**	**Type 4 RRS (ug/L)**	**MW-F11**	**MW-F12**	**MW-F13**	**MW-F14**	**MW-F16**	**MW-F19**	**MW-F2**	**MW-F3R**	**MW-F5**	**MW-F6**	**MW-F8**
Sample Matrix			**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**	**GW**
Sample Date			**11/26/2013**	**11/27/2013**	**11/25/2013**	**11/25/2013**	**11/25/2013**	**11/26/2013**	**11/25/2013**	**11/26/2013**	**11/26/2013**	**11/27/2013**	**11/26/2013**
Unit			**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**	**ug/l**
Bis(2-Ethylhexyl)phthalate	61	200	< 2.0 U	< 2.7 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.5 U	< 2.0 U

Location ID	**Type 1 RRS (ug/L)**	**Type 4 RRS (ug/L)**	**MW-F9**
Sample Matrix			**GW**
Sample Date			**11/26/2013**
Unit			**ug/l**
Bis(2-Ethylhexyl)phthalate	61	200	< 2.0 U

Notes
-- Not sampled
Bold values are above Type 1 RRS
Highlighted values are above Type 4 RRS
Wells sampled for only Bis(2-Ethylhexyl)phthalate were included during the November 2013 sampling event for verification but will not be sampled in subsequent semiannual monitoring events.

Table 5b
Groundwater Analytical Data
Voluntary Investigation and Remediation Plan
Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Location ID	Type 1 RRS (ug/L)	Type 4 RRS (ug/L)	MW-27	MW-29	MWD-30	MW-F21	MW-F3R	MW-F5	MW-F7
Sample Matrix			GW	GW	GW	GW	GW	GW	GW
Sample Date			11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/11/2013	11/12/2013
Unit			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOCs (8260)									
1,1,1,2-Tetrachloroethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,1-Trichloroethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2,2-Tetrachloroethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-Trichloroethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloroethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,2-Dichloropropane	5	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Butanone	2,300	12,000	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlor-1,3-Butadiene	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
2-Methyl-1-Propanol	10,000	31,000	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U
4-Methyl-2-Pentanone	2,000	4,200	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	9,000	46,000	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U	< 25 U
Acetonitrile	200	200	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U	< 40 U
Acrolein	700	700	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Acrylonitrile	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Allyl chloride	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	5	9	< 1.0 U	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 1.0 U	< 1.0 U
Bromodichloromethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Bromomethane	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon Disulfide	4,000	4,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Carbon Tetrachloride	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CFC-11	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
CFC-12	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorobenzene	100	140	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chlorodibromomethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloroethane	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroform	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Chloromethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,3-Dichloropropene	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dibromomethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Dichloromethane	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Ethyl Methacrylate	3,000	3,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	700	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Iodomethane	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Methyl Methacrylate	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Methyl N-Butyl Ketone	--	--	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methylacrylonitrile	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Pentachloroethane	--	--	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Propane Nitrile	--	--	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Styrene (Monomer)	500	2,600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	--	--	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.6
Toluene	1,000	5,200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Total Xylenes	10,000	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
trans-1,2-Dichloroethene	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,4-Dichlorobutene	2	1	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Tribromomethane	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl Acetate	--	--	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Vinyl Chloride	--	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

Table 5b
Groundwater Analytical Data
Voluntary Investigation and Remediation Plan
Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

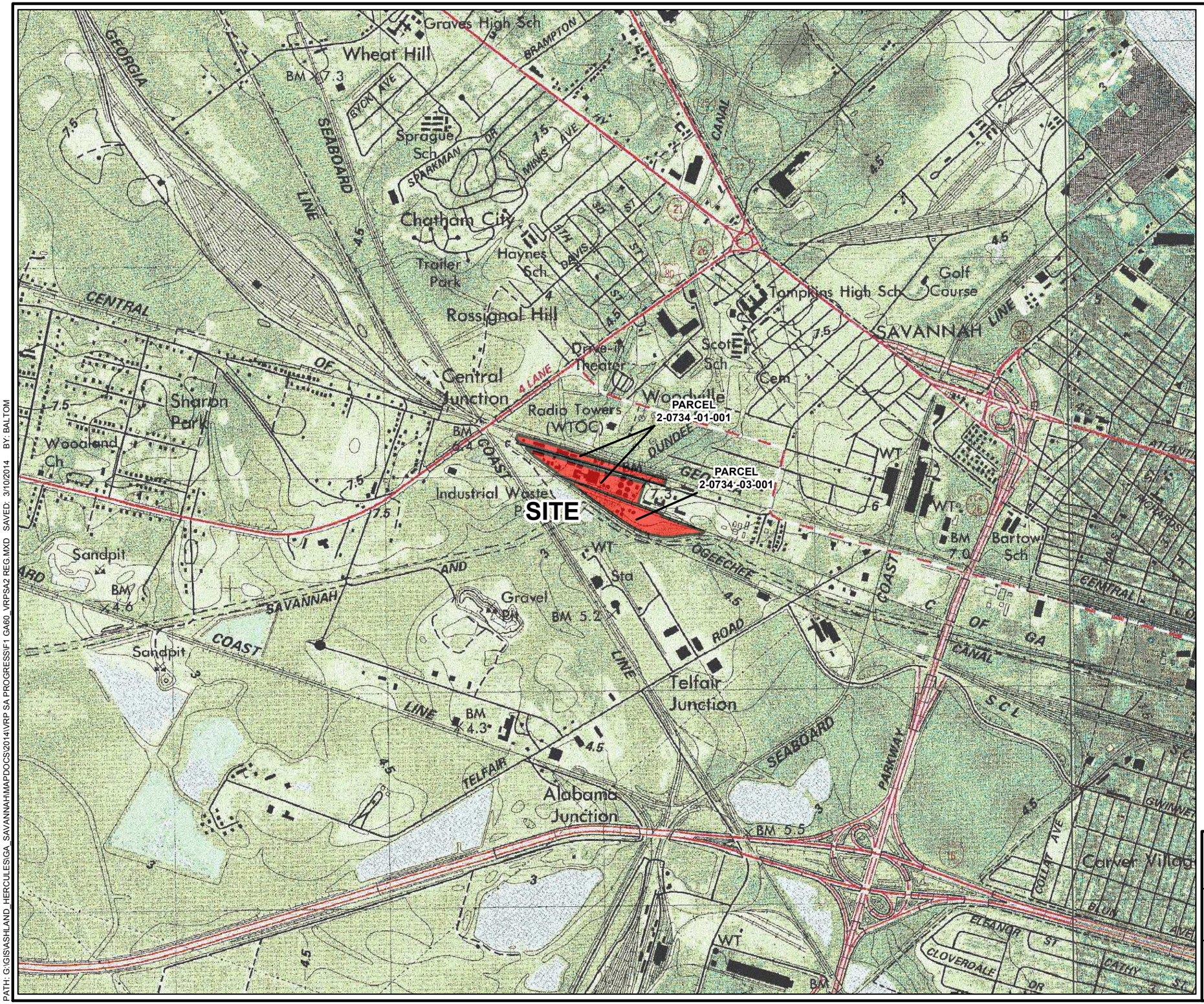
Location ID	Type 1 RRS (ug/L)	Type 4 RRS (ug/L)	MW-27	MW-29	MWD-30	MW-F21	MW-F3R	MW-F5	MW-F7
Sample Matrix			GW	GW	GW	GW	GW	GW	GW
Sample Date			11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/11/2013	11/12/2013
Unit			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
SVOCs (8270 C)									
1,2,4,5-Tetrachlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,2,4-Trichlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,2-Dichlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,3,5-Trinitrobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,3-Dichlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,3-Dinitrobenzene	11	10	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,4-Dichlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1,4-Dioxane	70	70	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
1,4-Naphthoquinone	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
1-Naphthylamine	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
2,2-Oxybis(1-Chloropropane)	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,3,4,6-Tetrachlorophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,4,5-Trichlorophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,4,6-Trichlorophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,4-Dichlorophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,4-Dimethylphenol	700	2,000	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
2,4-Dinitrophenol	--	--	< 9.8 U	< 11 U	< 9.9 U	< 99 U	< 9.9 U	< 9.7 U	< 10 U
2,4-Dinitrotoluene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,6-Dichlorophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2,6-Dinitrotoluene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2-Acetylaminofluorene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2-Chloronaphthalene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2-Chlorophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2-Methyl-4,6-Dinitrophenol	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
2-Methylnaphthalene	--	--	< 0.20 U	< 0.23 U	< 0.20 U	4	< 0.20 U	< 0.19 U	< 0.20 U
2-Methylphenol	780	5,100	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
2-Naphthylamine	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
2-Nitroaniline	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2-Nitrophenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
2-Picoline	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
3,3-Dichlorobenzidine	--	--	< 20 U	< 23 U	< 20 U	< 200 U	< 20 U	< 19 U	< 20 U
3,3-Dimethylbenzidine	--	--	< 20 U	< 23 U	< 20 U	< 200 U	< 20 U	< 19 U	< 20 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
3-Methylchloranthrene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
3-Nitroaniline	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
4-Aminobiphenyl	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
4-Bromophenyl Phenyl Ether	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
4-Chloro-3-Methylphenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
4-Chlorophenyl Phenyl Ether	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
4-Dimethylaminoazobenzene	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
4-Methylphenol	1,560	10,000	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
4-Nitroaniline	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
4-Nitrophenol	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
4-Nitroquinoline-N-Oxide	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
5-Nitro-o-Toluidine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
7,12-Dimethylbenz(A)Anthracene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Acenaphthene	2,000	6,100	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	0.54	7.5	< 0.20 U
Acenaphthylene	100	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Acetophenone	4,000	10,000	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Aniline	110	500	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Anthracene	4,700	31,000	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Aramite	--	--	< 1.5 U	< 1.7 U	< 1.5 U	< 15 U	< 1.5 U	< 1.5 U	< 1.5 U
Benzo(a)Anthracene	10	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Benzo(a)Pyrene	10	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Benzo(b)fluoranthene	10	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Benzo(g,h,i)Perylene	10	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Benzo(k)Fluoranthene	12	39	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Benzyl Alcohol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Benzyl Butyl Phthalate	3,129	15,061	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U

Table 5b
Groundwater Analytical Data
Voluntary Investigation and Remediation Plan
Semiannual Progress Report #2
Hercules Inc. - Savannah, GA

Location ID	Type 1 RRS (ug/L)	Type 4 RRS (ug/L)	MW-27	MW-29	MWD-30	MW-F21	MW-F3R	MW-F5	MW-F7
Sample Matrix			GW	GW	GW	GW	GW	GW	GW
Sample Date			11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/12/2013	11/11/2013	11/12/2013
Unit			ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Bis(2-Chloroethoxy)methane	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Bis(2-Chloroethyl)ether	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Chrysene	120	40	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Diallate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Dibenzo(a,h)Anthracene	10	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Dibenzofuran	16	10	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Diethyl Phthalate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Dimethoate	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Dimethyl Phthalate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Dimethylphenethylamine	--	--	< 9.8 U	< 11 U	< 9.9 U	< 99 U	< 9.9 U	< 9.7 U	< 10 U
Di-N-Butyl Phthalate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Di-n-Octyl Phthalate	700	700	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Dinoseb	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Disulfoton	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Ethyl Methanesulfonate	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Famphur	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Fluoranthene	1,000	4,100	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Fluorene	1,000	4,100	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Hexachloro-1,3-Butadiene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Hexachlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Hexachlorocyclopentadiene	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Hexachloroethane	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Hexachlorophene	--	--	< 490 U	< 570 U	< 500 U	< 4900 U	< 490 U	< 490 U	< 500 U
Hexachloropropene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Indeno(1,2,3-cd)Pyrene	10	10	0.33	0.37	< 0.20 U	< 2.0 U	0.33	0.32	< 0.20 U
Isosafrole	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Methapyrilene	--	--	< 200 U	< 230 U	< 200 U	< 2000 U	< 200 U	< 190 U	< 200 U
Methyl Methanesulfonate	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Methyl Parathion	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Naphthalene	20	20	< 0.20 U	< 0.23 U	< 0.20 U	**85**	< 0.20 U	< 0.19 U	< 0.20 U
Nitrobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitrosodiethylamine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitrosodimethylamine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitrosodi-N-Butylamine	10	10	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitrosodi-N-Propylamine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-nitrosodiphenylamine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitrosomorpholine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitroso-N-methylethylamine	10	10	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
N-Nitrosopiperidine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
N-Nitrosopyrrolidine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
O,O,O-Triethyl Phosphorothioate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
O,O-Diethyl O-Pyrazinyl Phosphorothioate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
o-Toluidine	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Parathion	200	610	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
p-Chloroaniline	--	--	< 2.0 U	< 2.3 U	< 2.0 U	< 20 U	< 2.0 U	< 1.9 U	< 2.0 U
Pentachlorobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Pentachloronitrobenzene	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Pentachlorophenol	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
Phenacetin	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Phenanthrene	10	10	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Phenol	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	1.5	< 0.97 U	< 1.0 U
Phorate	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
p-Phenylenediamine	--	--	< 200 U	< 230 U	< 200 U	< 2000 U	< 200 U	< 190 U	< 200 U
Propyzamide	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Pyrene	1,000	3,100	< 0.20 U	< 0.23 U	< 0.20 U	< 2.0 U	< 0.20 U	< 0.19 U	< 0.20 U
Pyridine	--	--	< 4.9 U	< 5.7 U	< 5.0 U	< 49 U	< 4.9 U	< 4.9 U	< 5.0 U
Safrole	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U
Sulfotep	--	--	< 0.98 U	< 1.1 U	< 0.99 U	< 9.9 U	< 0.99 U	< 0.97 U	< 1.0 U

Notes
-- Not sampled
Bold values are above Type 1 RRS
Highlighted values are above Type 4 RRS

Figures



LEGEND

HSI 10696 Site Boundary

PROJECTION: NAD83 State Plane Georgia East Feet

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

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

0 1,500 3,000

SCALE IN FEET

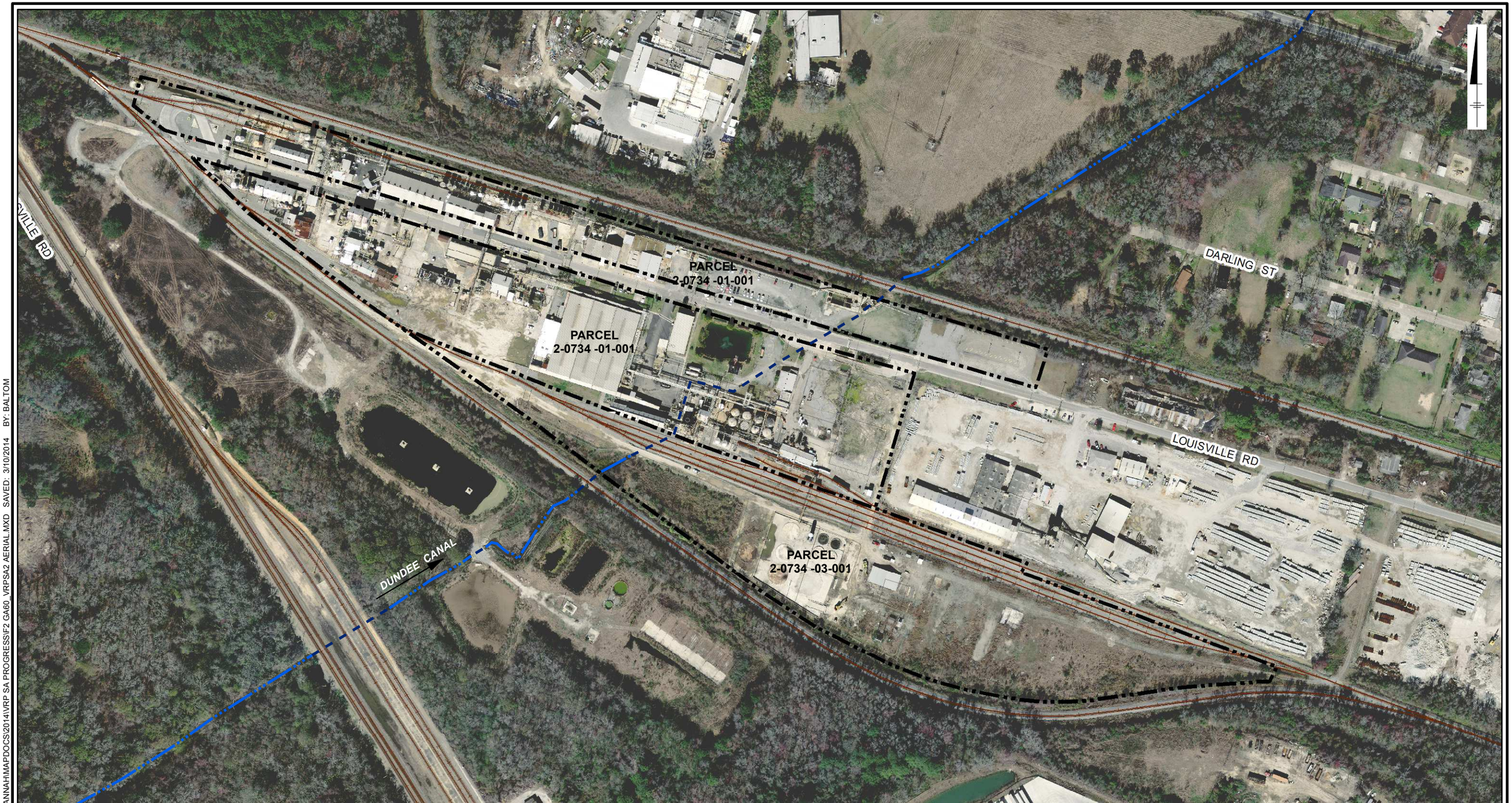
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #2

Site Location Map

ARCADIS

FIGURE
1

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: J.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F1 GA60_VRPSA2 REG.MXD SAVED: 3/10/2014 BY: BALTOM



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

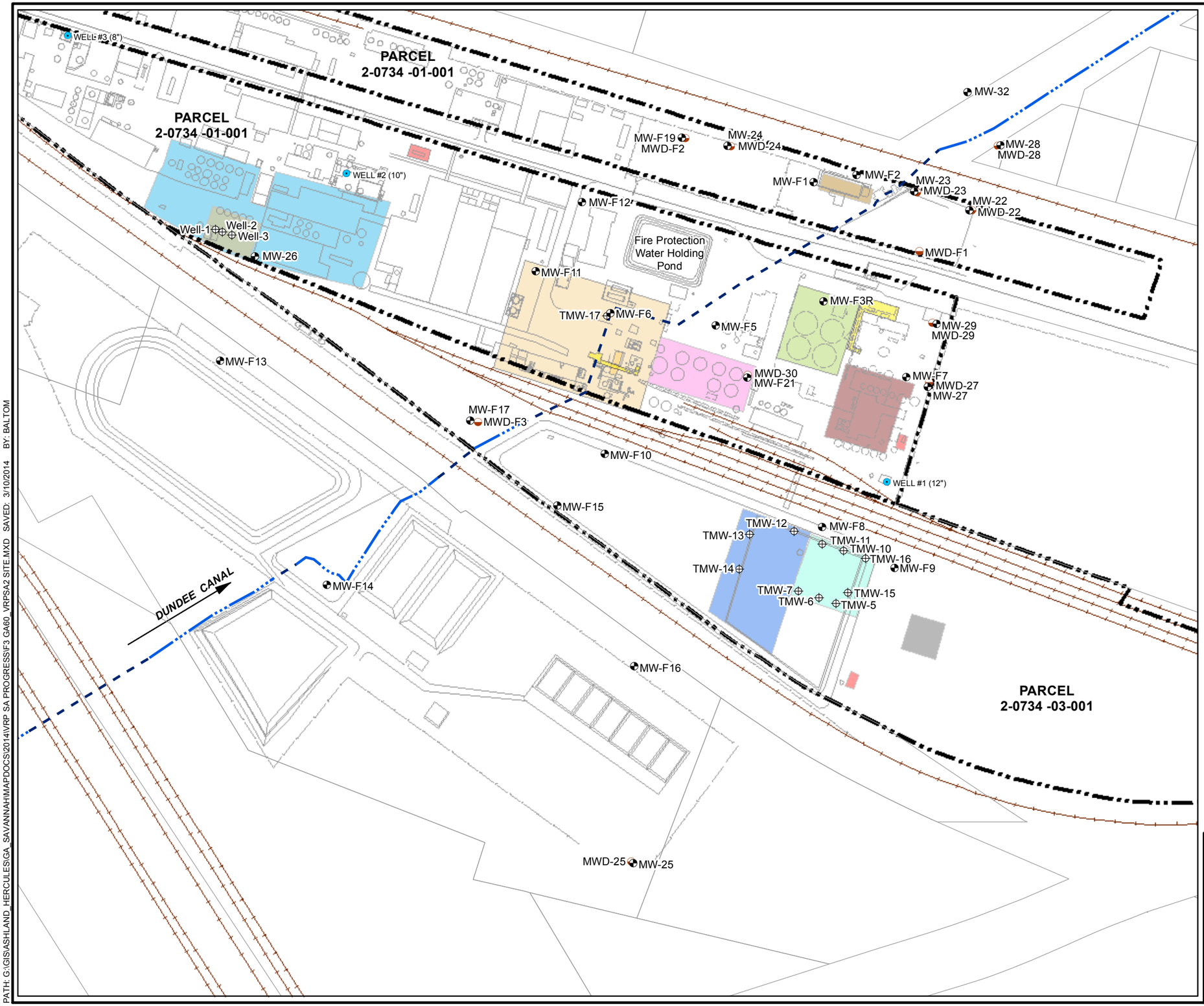
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #2

Site Layout – Aerial View

ARCADIS

FIGURE
2

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: J.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F2.GA60_VRPSA2.AERIAL.MXD SAVED: 3/10/2014 BY: BALTOM



LEGEND

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

0 160 320

SCALE IN FEET

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

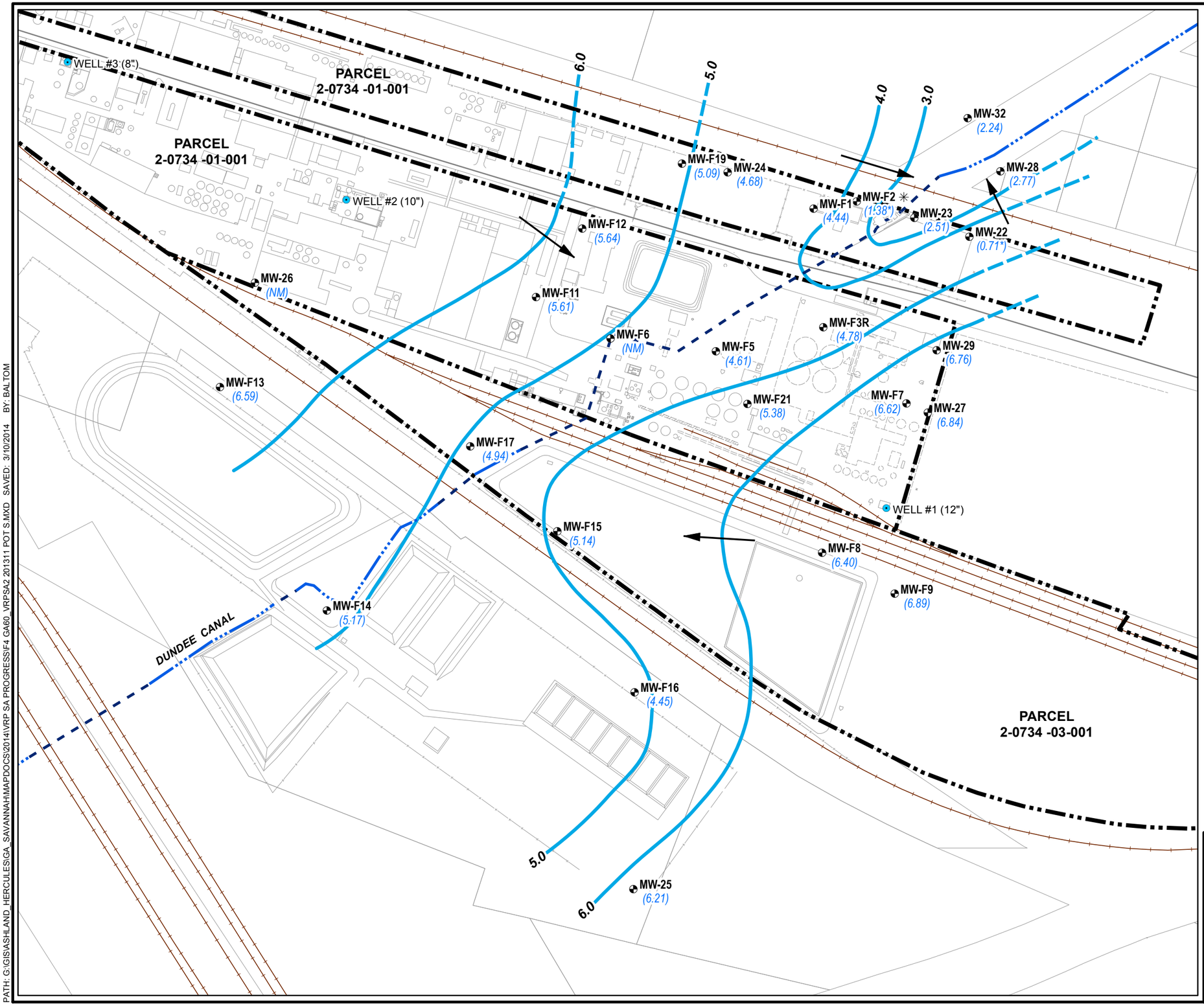
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #2

Site Map

ARCADIS

FIGURE
3

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: L.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F3 GA60_VRPSA2 SITE.MXD SAVED: 3/10/2014 BY: BALTOM



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- Production Well
- Dundee Canal (culverted section)
- Dundee Canal (open section)
- Groundwater Contour Line (ft amsl)
- (inferred where dashed)
- Groundwater Flow Direction
- (6.84) Groundwater Elevation (ft amsl) Measured November 11, 2013
- ✳ 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

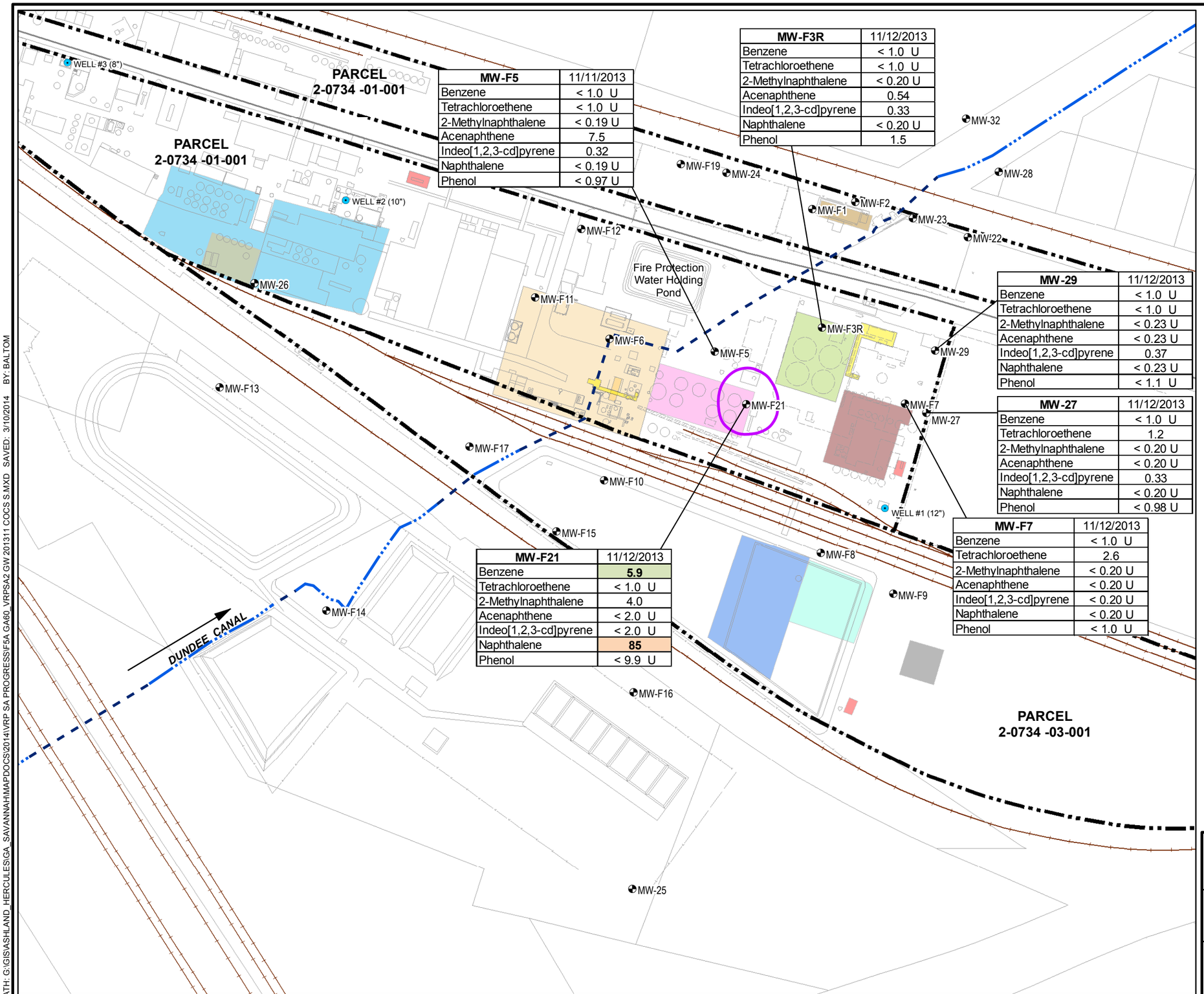
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #2

Shallow Potentiometric Surface Map
November 11, 2013

ARCADIS

FIGURE
4

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: J.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F4 GA60_VRPSA2 201311 POT S.MXD SAVED: 3/10/2014 BY: BALTOM



MW-F5	11/11/2013
Benzene	< 1.0 U
Tetrachloroethene	< 1.0 U
2-Methylnaphthalene	< 0.19 U
Acenaphthene	7.5
Indeo[1,2,3-cd]pyrene	0.32
Naphthalene	< 0.19 U
Phenol	< 0.97 U

MW-F3R	11/12/2013
Benzene	< 1.0 U
Tetrachloroethene	< 1.0 U
2-Methylnaphthalene	< 0.20 U
Acenaphthene	0.54
Indeo[1,2,3-cd]pyrene	0.33
Naphthalene	< 0.20 U
Phenol	1.5

MW-29	11/12/2013
Benzene	< 1.0 U
Tetrachloroethene	< 1.0 U
2-Methylnaphthalene	< 0.23 U
Acenaphthene	< 0.23 U
Indeo[1,2,3-cd]pyrene	0.37
Naphthalene	< 0.23 U
Phenol	< 1.1 U

MW-27	11/12/2013
Benzene	< 1.0 U
Tetrachloroethene	1.2
2-Methylnaphthalene	< 0.20 U
Acenaphthene	< 0.20 U
Indeo[1,2,3-cd]pyrene	0.33
Naphthalene	< 0.20 U
Phenol	< 0.98 U

MW-F7	11/12/2013
Benzene	< 1.0 U
Tetrachloroethene	2.6
2-Methylnaphthalene	< 0.20 U
Acenaphthene	< 0.20 U
Indeo[1,2,3-cd]pyrene	< 0.20 U
Naphthalene	< 0.20 U
Phenol	< 1.0 U

MW-F21	11/12/2013
Benzene	**5.9**
Tetrachloroethene	< 1.0 U
2-Methylnaphthalene	4.0
Acenaphthene	< 2.0 U
Indeo[1,2,3-cd]pyrene	< 2.0 U
Naphthalene	**85**
Phenol	< 9.9 U

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/Type 4 RRS Isocontour

Constituent	Type 1 RRS	Type 4 RRS
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Tetrachloroethene	5	98
Semi-Volatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	---	---
Acenaphthene	2,000	6,100
Indeo[1,2,3-cd]pyrene	10	10
Naphthalene	20	20
Phenol	---	---

NOTES:
1) Analytical results represent data from November 11-12, 2013, sampling event.
2) All concentrations reported in micrograms per liter (µg/L).
3) **BOLD**-Concentration exceeds Type I RRS.
4) **BOLD**-Concentration exceeds Type 4 RRS.

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

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

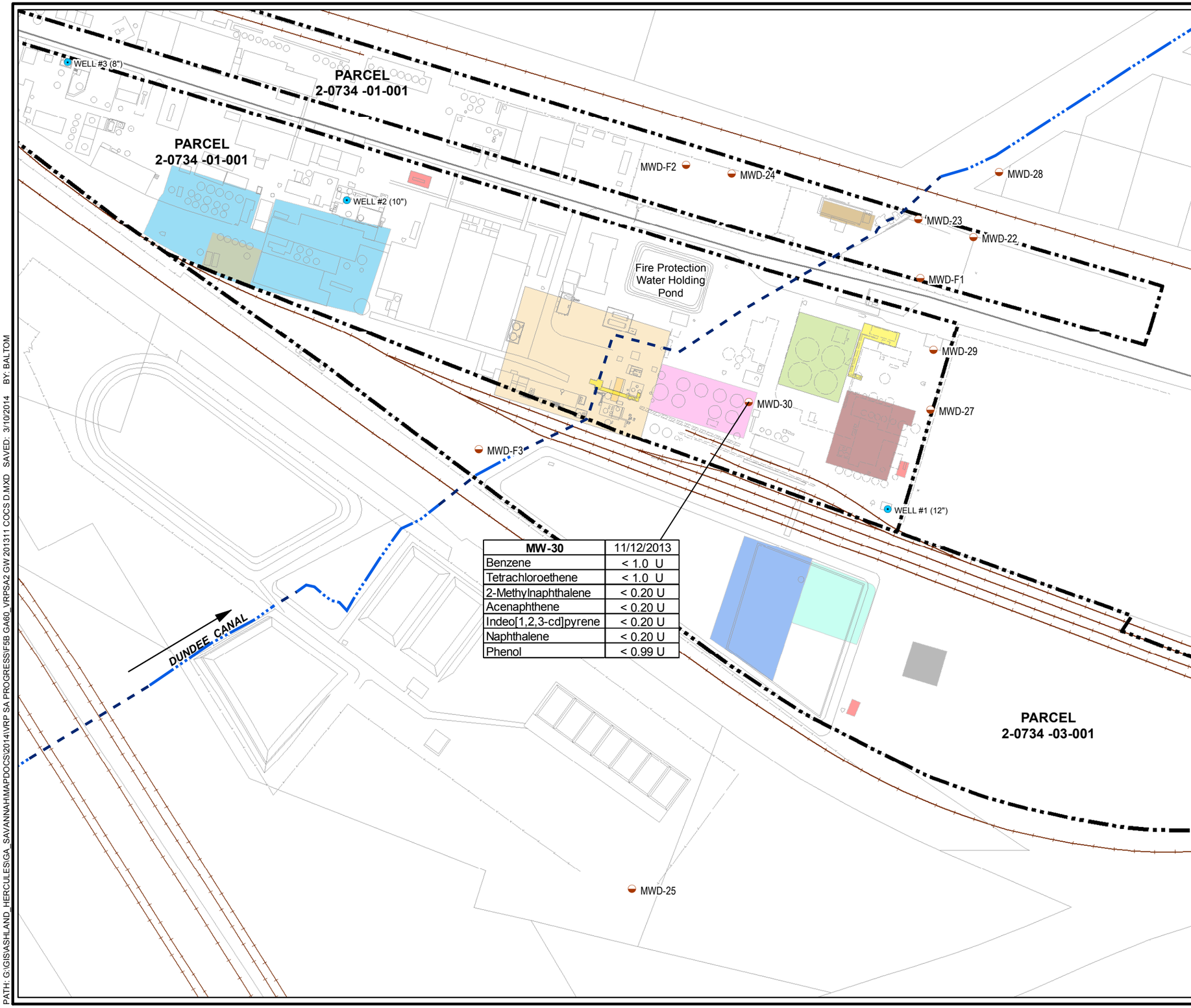
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #2

Constituents of Concern in Groundwater (Shallow Aquifer), November 2013

ARCADIS

FIGURE
5a

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: J.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F5A GA60_VRPSA2 GW 201311 COCS S.MXD SAVED: 3/10/2014 BY: BALTOM



MW-30	11/12/2013
Benzene	< 1.0 U
Tetrachloroethene	< 1.0 U
2-Methylnaphthalene	< 0.20 U
Acenaphthene	< 0.20 U
Indeo[1,2,3-cd]pyrene	< 0.20 U
Naphthalene	< 0.20 U
Phenol	< 0.99 U

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

Constituent	Type 1 RRS	Type 4 RRS
Volatile Organic Compounds (VOCs)		
Benzene	5	8.7
Tetrachloroethene	5	98
Semi-Volatile Organic Compounds (SVOCs)		
2-Methylnaphthalene	---	---
Acenaphthene	2,000	6,100
Indeo[1,2,3-cd]pyrene	10	10
Naphthalene	20	20
Phenol	---	---

NOTES:
1) Analytical results represent data from November 11-12, 2013, sampling event.
2) All concentrations reported in micrograms per liter (µg/L).

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

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

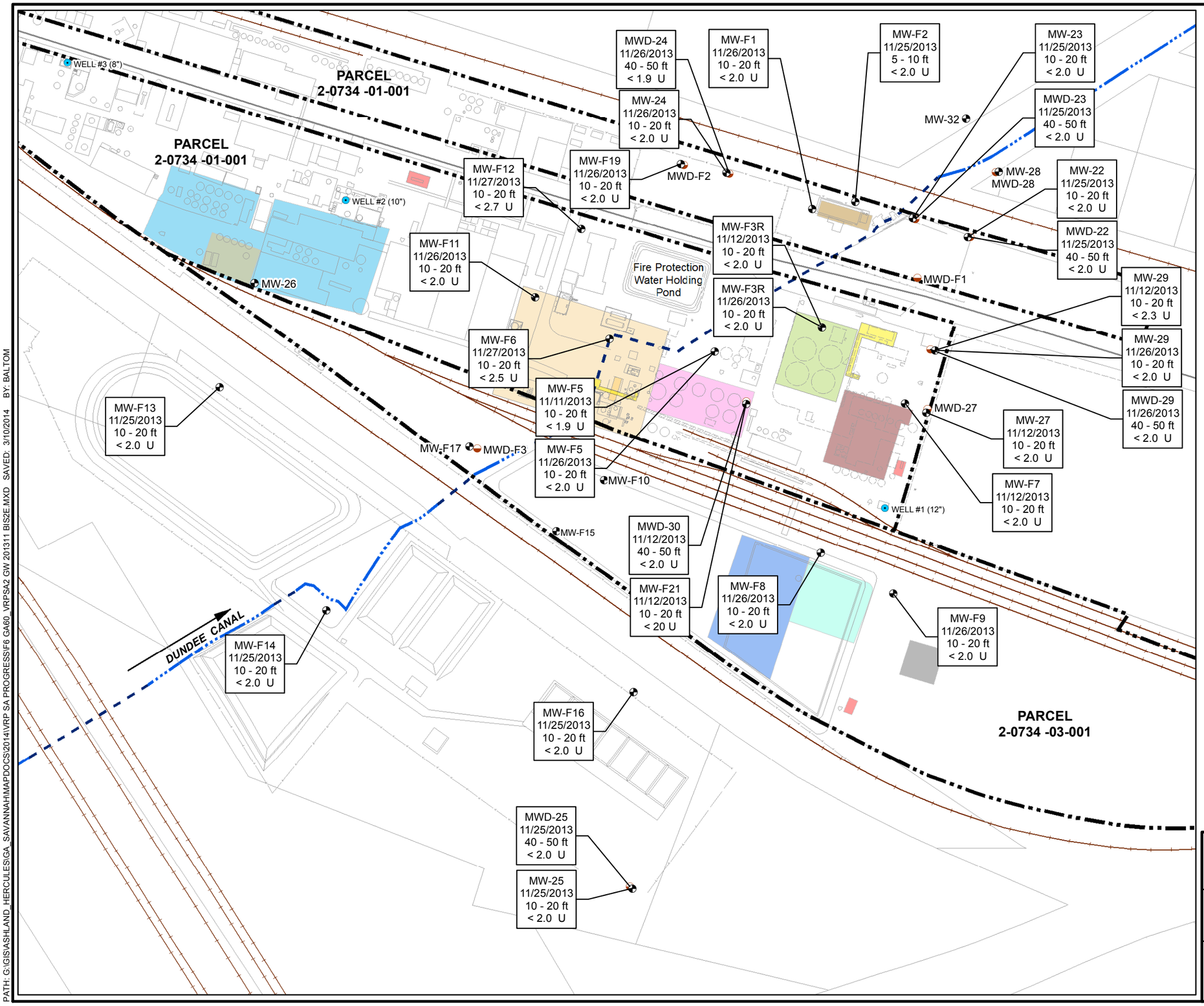
HERCULES INC. - SAVANNAH PLANT
SAVANNAH, GEORGIA (HSI #10696)
VOLUNTARY INVESTIGATION AND REMEDIATION PLAN
SEMIANNUAL PROGRESS REPORT #2

Constituents of Concern in Groundwater (Deep Aquifer), November 2013

ARCADIS

FIGURE
5b

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: J.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F5B GA60_VRPSA2 GW 201311 COCS D.MXD SAVED: 3/10/2014 BY: BALTOM



LEGEND

- HSI 10696 Site Boundary
- Monitoring Well (shallow)
- 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 November 11-26, 2013, sampling event.
2) Location IDs and data boxes are provided only for wells where the target constituent was analyzed.
3) The sample depth shown represents the approximate well screen interval in feet below ground surface.
4) All concentrations reported in micrograms per liter (µg/L).

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

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 #2

bis(2—Ethylhexyl)phthalate Groundwater Analytical Summary, November 2013

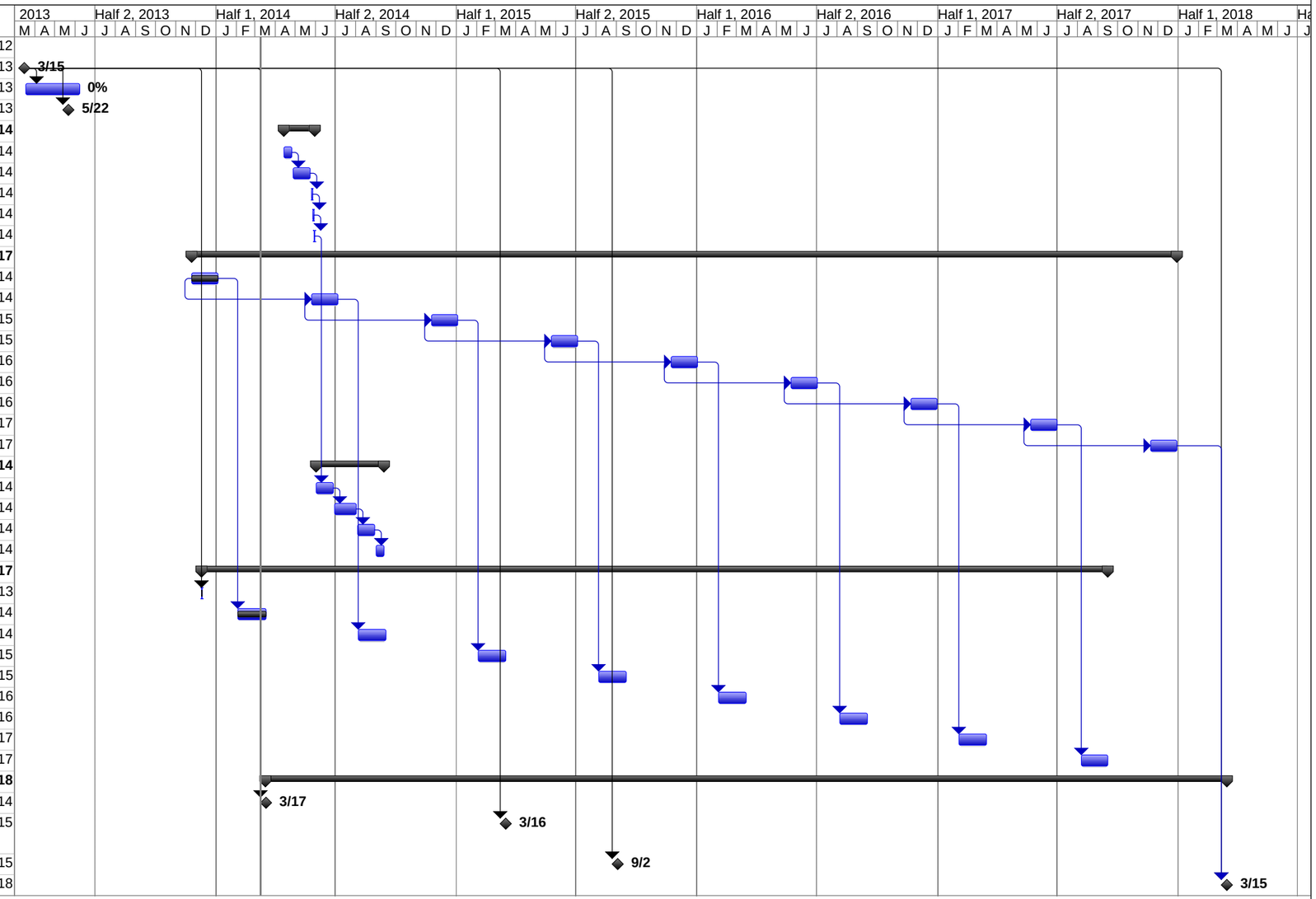
ARCADIS

FIGURE
6

CITY: KNOXVILLE DIV/GROUP: ENV/GIS LD: B.ALTOM PIC: J.REID PM: D.WILDERMAN TM: J.RAINES PROJECT: OH007000.GA60
PATH: G:\GIS\ASHLAND_HERCULES\GA_SAVANNAH\MAPDOCS\2014\VRP SA PROGRESS\F6 GA60_VRPSA2 GW 201311 BIS2E.MXD SAVED: 3/10/2014 BY: BALTOM

Figure 7
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**	**35 days**	**Mon 4/14/14**	**Fri 5/30/14**
6		Mobilize for data collection	10 days	Mon 4/14/14	Fri 4/25/14
7		Confirmatory soil sampling	20 days	Mon 4/28/14	Fri 5/23/14
8		Slug testing	2 days	Mon 5/26/14	Tue 5/27/14
9		Well gauging	2 days	Wed 5/28/14	Thu 5/29/14
10		Surface water/ sediment sampling	1 day	Fri 5/30/14	Fri 5/30/14
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**	**75 days**	**Mon 6/2/14**	**Fri 9/12/14**
22		Delineation assessment	20 days	Mon 6/2/14	Fri 6/27/14
23		Human health risk assessment	25 days	Mon 6/30/14	Fri 8/1/14
24		Ecological risk assessment	20 days	Mon 8/4/14	Fri 8/29/14
25		CSM update	10 days	Mon 9/1/14	Fri 9/12/14
26		**Reporting**	**984 days**	**Tue 12/10/13**	**Fri 9/15/17**
27	✓	Semiannual Progress Update #1	1 day	Tue 12/10/13	Tue 12/10/13
28	✓	Semiannual Progress Report #2	31 days	Mon 2/3/14	Mon 3/17/14
29		Semiannual Progress Report #3	30 days	Tue 8/5/14	Mon 9/15/14
30		Semiannual Progress Report #4	30 days	Tue 2/3/15	Mon 3/16/15
31		Semiannual Progress Report #5	30 days	Wed 8/5/15	Tue 9/15/15
32		Semiannual Progress Report #6	30 days	Wed 2/3/16	Tue 3/15/16
33		Semiannual Progress Report #7	30 days	Fri 8/5/16	Thu 9/15/16
34		Semiannual Progress Report #7	30 days	Thu 2/2/17	Wed 3/15/17
35		Semiannual Progress Report #7	30 days	Mon 8/7/17	Fri 9/15/17
36		**Required Performance Milestones**	**1044 days**	**Mon 3/17/14**	**Thu 3/15/18**
37	✓	Horizontal delineation complete (onsite)	1 day	Mon 3/17/14	Mon 3/17/14
38		Horizontal delineation complete (off-site)	1 day	Mon 3/16/15	Mon 3/16/15
39		Submit updated CSM	1 day	Wed 9/2/15	Wed 9/2/15
40		CSR submittal	1 day	Thu 3/15/18	Thu 3/15/18



Project: 2014_03_10_Savannah Herc
Date: Mon 3/10/14

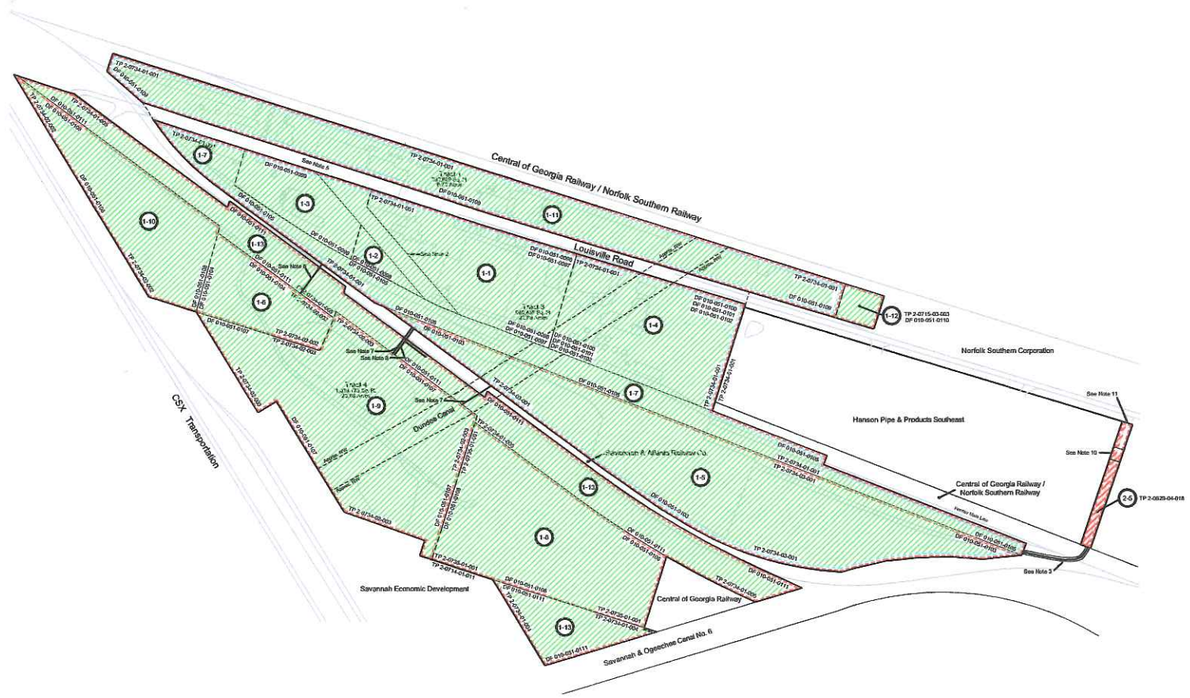
Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Progress	
Split		External Tasks		Inactive Summary		Manual Summary		Deadline	
Milestone		External Milestone		Manual Task		Start-only			
Summary		Inactive Task		Duration-only		Finish-only			

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 Sampling Logs

GROUNDWATER SAMPLING LOG

SITE NAME: Ashland Savannah		SITE LOCATION: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F1	SAMPLE ID: MW-F1 (112613)		DATE: 112613

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 5.24	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X 7 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 7	PURGING INITIATED AT: 758	PURGING ENDED AT: 822	TOTAL VOLUME PURGED (Liters): 3.5

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)
/	805	0.5	0.5	0.2	5.59	7.22	20.86	341	3.54	133.1	143.5
/	810	1.0	1.5	↓	5.55	7.24	21.11	340	3.48	72.5	143.5
/	815	1.0	2.5		5.51	7.14	21.14	343	3.42	34.0	140.4
/	820	1.0	3.5		5.50	7.19	21.17	351	3.10	26.2	135.3
/											
/											
/											
/											

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: [illegible]	SAMPLER(S) SIGNATURES: [illegible]	SAMPLING INITIATED AT: 822	SAMPLING ENDED AT: 828
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 9	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	
1	1 Ltr		BTS

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F2	SAMPLE ID: MW-F2 (112513)	DATE: 112513

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 5 feet to 10 feet	STATIC DEPTH TO WATER (feet): 5.81	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X 8 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 8	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 8	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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)
/	1340	0.5	0.5	0.08	5.90	6.69	23.13	0.532	3.49	1.71	23.7
/	1345	0.4	0.9	0.08	5.91	6.69	23.10	0.546	3.68	0.53	21.28
/	1350	0.4	1.3	0.08	5.91	6.72	23.11	0.551	3.69	0.78	21.37
/	1355	0.4	1.7	0.08	5.92	6.72	23.14	0.554	3.69	1.01	20.13
/											
/											
/											
/											

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: Heather Hyla	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1400	SAMPLING ENDED AT: 1412
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 8	SAMPLE PUMP FLOW RATE (L per minute): 0.1	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	
1			BTS

REMARKS: ~~OAP not found~~ waiting for lab bottles to sample

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F3R	SAMPLE ID: MW-F3R(112613)		DATE: 11/26/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 7.84	PURGE PUMP TYPE OR BAILER: Peristaltic Pump ~~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 liters/foot X 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1225	PURGING ENDED AT: 1251	TOTAL VOLUME PURGED (Liters): 5.2

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)
/	1230	0.6	0.6	0.14	7.81	7.52	12.51	896	1.67	*	-172.7
/	1235	0.7	1.3	0.14	8.14	7.10	12.68	895	2.61		-175.5
/	1240	0.8	2.1	0.16	8.27	7.12	21.55	893	2.37		-184.8
/	1245	1.1	3.2	0.22	8.30	7.12	21.59	829	2.37		-187.2
/											
/											
/											
/											

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: [illegible]	SAMPLER(S) SIGNATURES: [illegible]	SAMPLING INITIATED AT: 1251	SAMPLING ENDED AT: 1559
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 10	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	
1			BFS

REMARKS: Turbidity meter not working

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 Hercules Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO MW- F3R	SAMPLE ID: MW-(F3R)		DATE: 11-12-13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 7.82	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 30 feet) + 0.5 liters = liters 0.791

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	PURGING INITIATED AT: 8:50	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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	9:00	2	2	0.2	7.83	7.00	23.20	993	1.26	7.66	-42.0
1	9:03	0.6	2.6	0.2	7.84	6.99	23.04	995	1.01	7.98	-52.1
1	9:06	0.6	3.2	0.2	7.84	6.99	23.19	997	0.93	8.20	-55.4
1	9:09	0.6	3.8	0.2	7.84	6.98	22.93	998	1.19	6.83	-60.2
1											
1											
1											
1											

TUBING INSIDE DIA. CAPACITY (Liters/FL): 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: Andy Hzna / Antea	SAMPLER(S) SIGNATURES: Andy H	SAMPLING INITIATED AT: 0910	SAMPLING ENDED AT: 0930
PUMP OR TUBING DEPTH IN WELL (feet): 12	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	40mL	HCl	8260B
1	1L	None	8270C

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:		SITE LOCATION:	
WELL NO: MW-F5	SAMPLE ID: MW-F5 (112613)		DATE: 112613

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 3.3 feet to 13.3 feet	STATIC DEPTH TO WATER (feet): 7.04	PURGE PUMP TYPE OR BAILER: peristaltic ~~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 liters/foot X ~~12~~ 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1212	PURGING ENDED AT: 1243	TOTAL VOLUME PURGED (Liters): 4.6

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)
/	1219	1.0	1.0	0.15	7.06	7.06	22.60	710	8.22	13.2	39.5
/	1222	0.45	1.45	0.15	7.06	7.04	22.71	709	7.82	10.0	23.2
/	1225	0.45	1.90	0.15	7.06	7.03	22.69	707	7.57	9.91	1.9
/	1228	0.45	2.35	0.15	7.06	7.02	22.77	704	7.35	7.47	-21.1
/	1231	0.45	2.80	0.15	7.06	7.01	22.81	702	7.23	7.54	-37.7
/	1234	0.45	3.25	0.15	7.06	7.01	22.75	701	7.21	7.25	-42.1
/	1237	0.45	3.70	0.15	7.06	6.99	22.80	701	7.10	7.14	-60.4
/	1240	0.45	~~4.5~~ 4.1	0.15	7.06	6.99	22.87	699	6.98	7.29	-67.3
	1243	0.45	4.6	0.15	7.06	7.00	22.86	699	6.95	7.00	-72.2

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: Priya Vellathambi / Antea Group	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1244	SAMPLING ENDED AT: 1251
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.15	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	
1	1L	none	BTS

REMARKS: ORP won't stabilize

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 Hercules Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW- F5	SAMPLE ID: MW-(F5)		DATE: 11/11/12

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 6.95	PURGE PUMP TYPE OR BAILER: RP ~~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 20 feet) + 0.5 liters = liters 0.694

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	PURGING INITIATED AT: 1645	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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. (umhos/cm or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1	1700	2	2	0.13	7.02	7.00	22.65	758	0.88	8.56	-108.1
1	1703	0.39	2.39	0.13	7.02	6.99	22.71	761	0.84	8.82	-107.4
1	1706	0.39	2.78	0.13	7.03	6.99	22.71	762	0.79	8.70	-108.7
1	1709	0.39	3.07	0.13	7.03	6.99	22.76	762	0.74	5.83	-110.7
1											
1											
1											
1											

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: Andy Litzenat / Antea	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1710	SAMPLING ENDED AT: 1730
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute):	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	40mL	HCL	8260B
1	1L	None	8270C

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:		SITE LOCATION:
WELL NO: MW-F6	SAMPLE ID: MW-F6 (112713)	DATE: 112713

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.3~~ feet to 13.3 feet	STATIC DEPTH TO WATER (feet): 3.80	PURGE PUMP TYPE OR BAILER: para stalti ~~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 liters/foot X ~~12~~ 60 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1034	PURGING ENDED AT: 1050	TOTAL VOLUME PURGED (Liters): 4.6

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)
/	1038	1.0	1.0	0.3	3.93	6.88	23.19	498	1.63		-310.9
/	1041	0.9	1.9	0.3	3.93	6.85	23.19	499	0.94		-305.7
/	1044	0.9	2.8	0.3	3.93	6.83	23.24	501	0.72		-300.0
/	1047	0.9	3.7	0.3	3.94	6.82	23.22	502	0.59		-295.8
/	1050	0.9	4.6	0.3	3.94	6.80	23.28	502	0.52		290.6
/											
/											
/											

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: Priya Vellaithambi / Antea Group	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1051	SAMPLING ENDED AT: 1055
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.3	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	
1	1L	none	BIS

REMARKS: no turbidity readings due to equipment not working because of weather

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 Hercules Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW- F7	SAMPLE ID: MW-(F7)		DATE: 11-12-17

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 6.57	PURGE PUMP TYPE OR BAILER: P.P ~~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 + 0.097 liters/foot X 30 feet) + 0.5 liters = liters 0.791

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	PURGING INITIATED AT: 1115	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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	1125	1.0	1.0	0.1	6.70	4.77	23.12	396	0.57	6.35	333.4
1	1128	0.3	1.3	0.1	6.70	4.77	23.06	398	0.59	3.38	332.0
1	1131	0.3	1.6	0.1	6.71	4.77	23.00	400	0.61	3.14	330.3
1	1134	0.3	1.9	0.1	6.71	4.77	23.09	400	0.62	3.54	330.5
1											
1											
1											
1											

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: Andy Fitzner / Antea	SAMPLER(S) SIGNATURES: Andy Fitzner	SAMPLING INITIATED AT: 1135	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 12	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	40mL	HCL	8260B
1	1L	None	8270C

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 Schwamm		SITE LOCATION:	
WELL NO: MW-F8	SAMPLE ID: MW-F8 (112613		DATE: 11/26/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.3~~ 10 feet to ~~13.3~~ 20 feet	STATIC DEPTH TO WATER (feet): 6.42	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X ~~12~~ 9 feet) + 0.4 liters = ~~0.8~~ .05 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):
~~12~~ 9	12			

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)
/	9:05	0.6	0.6	0.15	6.52	5.74	20.35	249	0.77	30.5	-3.2
/	9:10	0.8	1.4	0.1	6.50	5.78	20.4	248	0.82	10.2	10.6
/	9:15	0.8	2.2	0.1	6.51	5.70	20.53	247	0.74	1.8	11.0
/	9:20	0.8	3.0	0.1	6.51	5.71	20.57	247	0.71	3.1	12.1
/											
/											
/											
/											

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: Northland Hydro	SAMPLER(S) ~~SIGNATURES~~: [illegible]	SAMPLING INITIATED AT: 9:22	SAMPLING ENDED AT: 9:29
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 9	SAMPLE PUMP FLOW RATE (L per minute): 0.15	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	
1	1 HR		BTS

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 Sawmill	SITE LOCATION:	
WELL NO: MW-F9	SAMPLE ID: MW-F9 (112613)	DATE: 11/26/13

PURGING DATA 5.53

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~2.5~~ 10 feet to ~~13.3~~ 20 feet	STATIC DEPTH TO WATER (feet): 5.20 5.20	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X ~~12~~ 7 feet) + 0.4 liters = ~~0.6~~ 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 7	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 7	PURGING INITIATED AT: 9:39	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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)
/	9:45	0.5	0.5	0.15	5.41	4.86	21.55	256	2.35	0.34	221.5
/	9:50	0.6	1.1	0.15	5.36	4.83	21.54	256	2.58	2.31	262.3
/	9:55	0.7	1.8	0.16	5.35	4.81	21.53	257	2.97	9.03	271.8
/	10:00	0.8	2.6	0.16	5.34	4.79	21.66	2.57	2.99	7.53	270.6
/											
/											
/											
/											

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: Hartford HydQ	SAMPLER(S) SIGNATURES: [illegible]	SAMPLING INITIATED AT: 10:02	SAMPLING ENDED AT: 1009
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 7	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	
1	1 LHR		BTS

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F11	SAMPLE ID: MW-F11(112613)		DATE: 11/26/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 3.10	PURGE PUMP TYPE OR BAILER: Peristaltic Pump ~~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 liters/foot X 6 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1428	PURGING ENDED AT: 1449	TOTAL VOLUME PURGED (Liters):

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)
/	1434	0.6	0.6	0.12	3.24	5.89	21.85	404	307	*	-156
/	1439	0.6	1.2	0.12	3.24	5.88	21.85	404	305		-165.4
/	1444	0.6	1.8	0.12	3.23	5.88	21.85	401	299		-169.3
/	1449	0.6	2.5	0.12	3.25	5.88	21.85	400	301		-173.0
/											
/											
/											
/											

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: Hartford Hydro	SAMPLER(S) SIGNATURES: [illegible]	SAMPLING INITIATED AT: 1451	SAMPLING ENDED AT: 1504
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 6	SAMPLE PUMP FLOW RATE (L per minute): 0.08	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	
1	1 Ltr	NA	BIS

REMARKS: Turbidity meter not working

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-Hercules	SITE LOCATION:	
WELL NO: MW-F12	SAMPLE ID: MWF12(112713)	DATE: 112713

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.3~~ feet to ~~13.3~~ feet	STATIC DEPTH TO WATER (feet): 3.75	PURGE PUMP TYPE OR BAILER: parastaltic ~~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 liters/foot X ~~12~~ 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1130	PURGING ENDED AT: 1208	TOTAL VOLUME PURGED (Liters): 2.5

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	1144	1.0	1.0	0.07	4.40	6.55	22.58	489	4.61		-151.1
1	1147	0.21	1.21	0.07	4.44	6.53	22.68	489	4.47		-151.4
1	1150	0.21	1.42	0.07	4.48	6.52	22.46	491	4.44		-152.7
1	1153	0.21	1.63	0.07	4.52	6.32	22.92	898	4.17		-153.6
1	1156	0.21	1.84	0.07	4.56	6.24	23.12	1,315	3.98		-157.4
1 1159	~~1209~~	0.22	2.06	0.07	4.60	6.26	22.99	1,394	3.98		-169.9
1	1202	0.22	2.28	0.07	4.64	6.26	23.12	1,409	3.80		-170.7
1	1205	0.22	2.5	0.07	4.68	6.25	23.18	1,413	3.70		-175.4

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: Priya Vellathambi / Andrea Garp	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: ~~1209~~ 1206 *	SAMPLING ENDED AT: 1220
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.07	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	
1	1L	none	BTS

REMARKS: no turbidity readings - equipment stopped working because of rain
pump at lowest setting ; * COC lists sample time as 1204

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F13	SAMPLE ID: MW-F13 (112513)		DATE: 11/25/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 25 feet	STATIC DEPTH TO WATER (feet): 12.22	PURGE PUMP TYPE OR BAILER: Peristaltic Pump ~~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 liters/foot X 1 feet) + 0 liters = 0.1 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12.15	PURGING INITIATED AT: 1235	PURGING ENDED AT: 1305	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)
/	1250	0.5	0.5	0.12	12.27	6.04	17.35	0.853	3.75	5.64	X
/	1255	0.6	1.1	↓	12.32	6.09	16.63	0.850	3.68	5.42	
/	1300	0.6	1.7		12.87	6.09	17.23	0.854	3.65	5.37	
/	1305	0.6	2.3		12.96	6.09	16.77	0.851	3.65	5.21	
/											
/											
/											
/											

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: Hunter Hall	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1558	SAMPLING ENDED AT: 1607
PUMP OR TUBING DEPTH IN WELL (feet): 12.15	SAMPLE PUMP FLOW RATE (L per minute): 0.1	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	

REMARKS: ORP not recorded due to field error. Had to record for lab Bottles to Sample

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F14	SAMPLE ID: MW-F14 (112513)		DATE: 11/25/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 3.35	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X 5.0 feet) + 0.4 liters = 0.5 liters

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

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)
/	1215	0.5	0.5	0.06	3.65	7.35	17.68	1.297	0.64	0.41	
/	1220	0.25	0.75	0.05	3.70	7.35	17.74	1.297	0.70	0.82	
/	1225	0.25	1.0	0.05	3.73	7.35	17.85	1.297	0.70	0.86	
/	1230	0.25	1.25	0.05	3.75	7.35	17.91	1.297	0.70	0.97	
/											
/											
/											
/											

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: Hartford Hills	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1652	SAMPLING ENDED AT: 17.04
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 5.0	SAMPLE PUMP FLOW RATE (L per minute): 0.1	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	
1			BIS

REMARKS: orp not recorded due to front over-side, used for lab bottles + sample

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-F16	SAMPLE ID: MW-F16 (112513)	DATE: 11/25/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 16 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.42	PURGE PUMP TYPE OR BAILER: 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 liters/foot X 15 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1142	PURGING ENDED AT: 1641	TOTAL VOLUME PURGED (Liters): 2.1

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)
/	1150	0.6	0.6	0.12	4.58	7.19	17.20	0.192	0.96	1.98	
/	1155	0.5	1.1	0.1	4.60	7.19	17.37	0.192	1.19	0.35	
/	1200	0.5	1.6	0.1	4.61	7.19	17.05	0.192	1.09	0.46	
/	1205	0.5	2.1	0.1	4.62	7.19	17.18	0.192	1.12	0.55	
/											
/											
/											
/											

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: Hurtt (B&W)	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1641	SAMPLING ENDED AT: 1648
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 15	SAMPLE PUMP FLOW RATE (L per minute): 0.1	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	
1			BIS

REMARKS: OAP not needed — waiting lab bottles to ship

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:	SITE LOCATION:	
WELL NO: MW-F19	SAMPLE ID: MW-F19(112613)	DATE: 112613

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.3~~ feet to ~~13.3~~ feet	STATIC DEPTH TO WATER (feet): 5.47	PURGE PUMP TYPE OR BAILER: parastaltic ~~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 liters/foot X ~~12~~ 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1049	PURGING ENDED AT: 1113	TOTAL VOLUME PURGED (Liters): 2.0

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)
/	1101	1.0	1.0	0.08	5.76	6.60	22.19	704	7.66	2.03	-40.9
/	1104	0.24	1.24	0.08	5.76	6.51	22.10	746	7.29	2.21	-50.8
/	1107	0.24	1.48	0.08	5.76	6.49	22.10	769	7.19	2.08	-54.9
/	1110	0.24	1.72	0.08	5.76	6.47	21.98	784	7.14	0.79	-59.5
/	1113	0.28	2.0	0.08	5.76	6.46	22.01	787	7.03	1.44	-62.9
/											
/											
/											

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: Priya Vellaithamby/Antea Group	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1114	SAMPLING ENDED AT: 1126
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.08	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	
1	1L	none	BIS

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 Hercules Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW- F21	SAMPLE ID: MW-(F21)		DATE: 11-12-17

PURGING DATA

WELL DIAMETER (Inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 7.35	PURGE PUMP TYPE OR BAILER: 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 30 feet) + 0.5 liters = liters 0.791

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15	PURGING INITIATED AT: 1245	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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. (~~umhos/cm~~ or µS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1	1255	1	1	0.1	7.75	5.84	24.59	836	0.78	9.57	-1.6
1	1258	0.3	1.3	0.1	7.82	5.83	24.64	829	0.69	4.18	-3.7
1	1301	0.3	1.6	0.1	7.87	5.82	24.61	821	0.68	5.32	-1.1
1	1304	0.3	1.9	0.1	7.91	5.83	24.70	817	0.63	5.87	-2.1
1											
1											
1											
1											

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: Andy Fitzner / Antea	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1305	SAMPLING ENDED AT: 1315
PUMP OR TUBING DEPTH IN WELL (feet): 15	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	40mL	HCL	8260 B
1	1L	None	8270 C

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:	SITE LOCATION:	
WELL NO: MW-22	SAMPLE ID: MW-22 (112513)	DATE: 112513

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.3~~ feet to ~~13.3~~ feet	STATIC DEPTH TO WATER (feet): 4.40	PURGE PUMP TYPE OR BAILER: parastaltic ~~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 liters/foot X 10 ~~12~~ feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~	PURGING INITIATED AT: 1621	PURGING ENDED AT: 1645	TOTAL VOLUME PURGED (Liters): 2.0

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)
/	1633	1.0	1.0	0.08	4.53	6.71	20.61	534	6.59	1.99	315.6
/	1636	0.25	1.25	0.08	4.53	6.67	20.71	533	2.44	1.46	309.0
/	1639	0.25	1.50	0.08	4.53	6.68	21.02	534	2.40	1.29	301.3
/	1642	0.25	1.75	0.08	4.54	6.67	20.97	534	2.32	1.23	267.2
/	1645	0.25	2.00	0.08	4.54	6.66	20.96	534	2.20	1.60	190.1
/											
/											
/											

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: Priya Vellathamby	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1646	SAMPLING ENDED AT: 1658
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.08	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	
1	1L	none	BIS

RP won't stabilize

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		
Conductance:	± 3%	**Drawdown:**	0.33 ft or less

GROUNDWATER SAMPLING LOG

SITE NAME:	SITE LOCATION:	
WELL NO: ~~MW-22D~~ MWD-22	SAMPLE ID: ~~MW-22D~~ MWD-22 (112513)	DATE: 112513

PURGING DATA

WELL DIAMETER (inches): ~~2~~ 2	WELL SCREEN INTERVAL DEPTH: ~~33~~ 40 feet to ~~13.3~~ 30 feet	STATIC DEPTH TO WATER (feet): 4.65	PURGE PUMP TYPE OR BAILER: Peristaltic ~~Dedicated Bladder Pump~~

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) one well vol = 6.25 gal = 0.1 liters + (0.0054 liters/foot X 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~	PURGING INITIATED AT: 1525 PURGING ENDED AT: 1549	TOTAL VOLUME PURGED (Liters): 2.0

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)
/	1537	1.0	1.0	0.08	5.10	7.62	20.71	494	5.81	3.84	269.3
/	1540	0.25	1.25	0.08	5.04	7.57	19.69	498	7.01	3.39	280.7
/	1543	0.25	1.50	0.08	5.04	7.57	19.90	492	5.72	3.48	287.7
/	1546	0.25	1.75	0.08	5.05	7.56	20.27	492	5.57	2.98	290.4
/	1549	0.25	2.0	0.08	5.05	7.56	19.83	492	5.49	2.45	295.2
/											
/											
/											

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: Priya Vellathambi	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1550	SAMPLING ENDED AT: 1602
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~	SAMPLE PUMP FLOW RATE (L per minute): 0.08	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	
1	1L	none	BIS

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-23	SAMPLE ID: MW-23(1125 15)		DATE: 11/25/15

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 6.64	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X feet) + (liters = liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1509	PURGING ENDED AT: 1532	TOTAL VOLUME PURGED (Liters): 2.0

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)
/	1515	0.6	0.6	0.08	8.15	7.80	19.78	0.564	4.28	1.37	25.3
/	1520	0.4	1.0	0.08	8.21	7.87	19.02	0.556	4.28	1.72	27.0
/	1525	0.4	1.4	0.08	8.32	7.88	18.45	0.555	4.39	1.82	30.5
/	1530	0.4	1.8	0.08	8.40	7.88	18.39	0.555	4.41	1.86	31.1
/											
/											
/											
/											

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: Hunter Hight	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1532	SAMPLING ENDED AT: 1539
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 11	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	
1	1 LR		BIS

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MWD-23	SAMPLE ID: MWD-23 (11 25 15)		DATE: 11/25/15

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 40 feet to 48.98 feet	STATIC DEPTH TO WATER (feet): 8.46	PURGE PUMP TYPE OR BAILER: Peristaltic Pump ~~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 liters/foot X 11 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1324	PURGING ENDED AT: 1452	TOTAL VOLUME PURGED (Liters):

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)
/	1435	0.5	0.5	0.05	9.51	8.36	18.19	0.207	4.45	1.43	
/	1440	0.25	0.75	0.05	9.53	8.29	20.07	0.440	4.58	0.90	
/	1445	0.25	1.0	0.05	9.52	8.32	20.00	0.447	4.60	0.84	
/	1450	0.25	1.25	0.05	9.53	8.33	19.84	0.441	4.61	0.93	
/											
/											
/											
/											

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: Heather / HGA	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1452	SAMPLING ENDED AT: 1507
PUMP OR TUBING DEPTH IN WELL (feet): 11	SAMPLE PUMP FLOW RATE (L per minute): 0.07	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	
1	1 liter		BIS

REMARKS: ORP not Recorded due to field oversite

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:		SITE LOCATION:
WELL NO: MW-24	SAMPLE ID: MW~~D~~-24 (112613)	DATE: 112613

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~8.3~~ feet to 13.3 feet	STATIC DEPTH TO WATER (feet): 5.71	PURGE PUMP TYPE OR BAILER: peristaltic ~~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 liters/foot X ~~12~~ 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 0845	PURGING ENDED AT: 0908	TOTAL VOLUME PURGED (Liters): 3.0

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)
/	853	1.0	1.0	0.13	5.98	6.49	21.35	255	13.20	19.9	40.8
/	0856	0.39	1.39	0.13	5.98	6.45	21.47	252	8.99	20.2	46.8
/	0859	0.39	1.78	0.13	5.99	6.42	21.67	248	7.81	20.3	51.1
/	0902	0.40	2.18	0.13	6.00	6.39	21.84	247	7.43	20.0	50.7
/	0905	0.41	2.59	0.13	6.00	6.35	21.89	247	7.25	19.9	49.2
/	0908	0.41	3.0	0.13	6.00	6.31	21.95	248	7.13	19.1	44.5
/											
/											

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: Priya Vellathambi / Antea Group	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 0909	SAMPLING ENDED AT: 0917
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.13	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	
1	1L	none	BIS

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:		SITE LOCATION:
WELL NO: MWD-24	SAMPLE ID: MWD-24(112613)	DATE: 112613

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: ~~3.3~~ feet to ~~13.3~~ feet	STATIC DEPTH TO WATER (feet): 5.53	PURGE PUMP TYPE OR BAILER: peristaltic ~~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 liters/foot X ~~12~~ 10 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 0950	PURGING ENDED AT: 1005	TOTAL VOLUME PURGED (Liters): 2.50

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)
/	0956	1.0	1.0	0.17	6.79	7.96	22.48	562	6.99	2.30	57.9
/	0959	0.50	1.50	0.17	6.78	7.95	22.27	562	7.11	0.94	58.6
/	1002	0.50	2.00	0.17	6.79	7.91	22.17	562	7.08	0.86	61.7
/	1005	0.50	2.50	0.17	6.78	7.90	22.18	562	7.19	0.81	64.2
/											
/											
/											
/											

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: Priya Vellaithambi/Intea Corp	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1006	SAMPLING ENDED AT: 1012
PUMP OR TUBING DEPTH IN WELL (feet): 12	SAMPLE PUMP FLOW RATE (L per minute): 0.17	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	
1	1L	none	BIS

REMARKS: lowered pump setting due to high initial drawdown

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-25	SAMPLE ID: MW-25 (112513)		DATE: 11/25/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 12 feet to 22 feet	STATIC DEPTH TO WATER (feet): 6.71	PURGE PUMP TYPE OR BAILER: Peristaltic ~~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 liters/foot X 9 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12 9	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12 9	PURGING INITIATED AT: 1050	PURGING ENDED AT: 1110	TOTAL VOLUME PURGED (Liters): 2.0

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)
/	1055	0.6	0.6	0.1	7.48	8.02	15.87	0.001	5.42	0.44	
/	1100	0.4	1.0	0.1	7.47	8.02	14.70	0.001	5.51	0.23	
/	1105	0.5	1.5	0.1	7.49	7.95	13.46	0.001	5.45	0.17	
/	1110	0.5	2.0	0.1	7.50	7.95	13.71	0.001	5.48	0.21	
/								0.001			
/											
/											
/											

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: Hartford Hydr	SAMPLER(S) SIGNATURES: [illegible]	SAMPLING INITIATED AT: 1617	SAMPLING ENDED AT: 1627
PUMP OR TUBING DEPTH IN WELL (feet): 12 9	SAMPLE PUMP FLOW RATE (L per minute): 0.1	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	
1	1 HD		BIS

REMARKS: ORP not recorded, ~~[illegible]~~ wait for [illegible] bottles to sample

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MWD-25	SAMPLE ID: MWD-25 (112513)	DATE: 11/25/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 40 feet to 50 feet	STATIC DEPTH TO WATER (feet): 7.49	PURGE PUMP TYPE OR BAILER: Peristaltic Pump ~~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 liters/foot X 10 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 10	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 10	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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)
/	1120	0.5	0.5	0.07	7.89	7.46	15.51	0.002	5.15	95.2	*
/	1125	0.25	0.75	0.05	7.86	7.47	16.01	0.018	4.23	94.6	
/	1130	0.25	1.0	0.05	7.84	7.47	15.57	0.020	4.37	96.1	
/	1135	0.25	1.25	0.05	7.81	7.48	15.46	0.024	4.19	95.3	
/											
/											
/											
/											

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: [illegible]	SAMPLER(S) SIGNATURES: [illegible]	SAMPLING INITIATED AT: 1629	SAMPLING ENDED AT: 1638
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 10	SAMPLE PUMP FLOW RATE (L per minute): 0.1	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	
1			BIS

REMARKS: ORP not recorded due to field error, time to wait for cub Bitter to sample

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 Hercules Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW- 27	SAMPLE ID: MW-(27)		DATE: 11-12-13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 3.45	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 liters/foot X 30 feet) + 0.5 liters = liters 0.791

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1030	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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	1040	1	1	0.1	3.46	4.61	22.72	331	2.18	11.8	323.3
1	1043	0.3	1.3	0.1	3.46	4.61	22.56	331	2.15	11.3	323.4
1	1046	0.3	1.6	0.1	3.47	4.60	22.68	333	1.95	11.1	330.1
1	1049	0.3	1.9	0.1	3.47	4.60	22.68	336	1.79	11.0	327.3
1											
1											
1											
1											

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: Andy Friend / Antea	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1050	SAMPLING ENDED AT: 1103
PUMP OR TUBING DEPTH IN WELL (feet): 12	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	40mL	HCL	8260B
1	1L	None	8270C

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 Hercules Savannah		SITE LOCATION: Savannah, Ga.	
WELL NO: MW- 29	SAMPLE ID: MW-(29)		DATE: 11-12-13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 20 feet	STATIC DEPTH TO WATER (feet): 6.15	PURGE PUMP TYPE OR BAILER: P.P ~~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 liters/foot X 30 feet) + 0.5 liters = liters 0.791

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~15	PURGING INITIATED AT: 0940	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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 mS/cm)	DISS. OXYGEN (mg/L)	TURBIDITY (NTUs)	OXYGEN REDUCTION POTENTIAL (mV)
1	0950	1.0	1.0	0.1	6.19	4.77	22.17	427	0.73	8.49	279.3
1	0953	0.3	1.3	0.1	6.19	4.75	22.09	425	0.69	7.10	290.2
1	0956	0.3	1.6	0.1	6.19	4.74	22.13	424	0.66	5.04	299.4
1	0959	0.3	1.9	0.1	6.19	4.75	22.21	424	0.63	6.31	298.3
1											
1											
1											
1											

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: Andy Eitzner / Antea	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1000	SAMPLING ENDED AT: 1015
PUMP OR TUBING DEPTH IN WELL (feet): 12	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	40mL	HCL	8260 B
1	1L	None	8270 C

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MW-29	SAMPLE ID: MW-29 (42613)		DATE: 11/26/13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 10 feet to 12 feet	STATIC DEPTH TO WATER (feet): 6.21	PURGE PUMP TYPE OR BAILER: 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 liters/foot X 8.5 feet) + 0.4 liters = 0.5 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 8.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 8.5	PURGING INITIATED AT: 1026	PURGING ENDED AT: 1048	TOTAL VOLUME PURGED (Liters): 2.6

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)
/	1030	0.5	0.5	0.14	6.40	5.58	21.60	377	2.39	*	171.0
/	1035	0.7	1.2	0.14	6.34	5.58	21.04	377	2.38		158.6
/	1040	0.5	1.7	0.14	6.33	5.57	21.09	377	2.40		151.9
/	1045	0.7	2.4	0.14	6.33	5.55	21.18	377	2.37		152.7
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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: Hartford High	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1048	SAMPLING ENDED AT: 1054
PUMP OR TUBING DEPTH IN WELL (feet): ~~12~~ 8.5	SAMPLE PUMP FLOW RATE (L per minute): 0.17	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	
1			BIS

REMARKS: Turbidity meter not working

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: 3000 Louisville Rd, Savannah GA	
WELL NO: MWD-29	SAMPLE ID: MWD-29 (112613)		DATE: 112613)

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 5.0 feet to 50 feet	STATIC DEPTH TO WATER (feet): 8.13	PURGE PUMP TYPE OR BAILER: 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 liters/foot X 12 feet) + 0.4 liters = 0.6 liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12	PURGING INITIATED AT: 1105	PURGING ENDED AT: 1124	TOTAL VOLUME PURGED (Liters): 3.1

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)
/	1110	0.6	0.6	0.16	8.91	7.01	21.25	387	3.37	*	15.9
/	1115	0.7	1.3	0.16	9.13	7.03	21.27	386	3.37		-7.8
/	1120	1.0	2.0	0.2	9.57	7.01	21.29	387	3.37		-7.4
/	1125	1.0	3.0	0.2	9.73	7.01	21.25	387	3.31		-13.2
/											
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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: Hunter Nash	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1154	SAMPLING ENDED AT: 1205
PUMP OR TUBING DEPTH IN WELL (feet): 12	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	
1	1 HR		BIS

REMARKS: Turbidity meter not working

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 Hercules Savannah	SITE LOCATION: Savannah, Ga.	
WELL NO: MW-D-30	SAMPLE ID: MW-D-30	DATE: 11-12-13

PURGING DATA

WELL DIAMETER (inches): 2	WELL SCREEN INTERVAL DEPTH: 40 feet to 50 feet	STATIC DEPTH TO WATER (feet): 9.12	PURGE PUMP TYPE OR BAILER: 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 + .0097 liters/foot X 55 feet) + 0.5 liters = liters 1.03

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 45	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 45	PURGING INITIATED AT: 1200	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

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	1215	1.5	1.5	0.1	11.29	7.24	23.96	465	0.95	4.84	174.8
1	1218	0.3	1.8	0.1	11.32	7.26	24.06	465	0.93	2.79	165.0
1	1221	0.3	2.1	0.1	11.45	7.28	24.05	465	0.93	4.69	159.5
1	1224	0.3	2.4	0.1	11.51	7.31	24.01	466	0.91	5.28	157.1
1											
1											
1											
1											

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: Andy Litzenberg / Arcadis	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1225	SAMPLING ENDED AT: 1235
PUMP OR TUBING DEPTH IN WELL (feet): 45	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	40mL	HCL	8260 B
1	1L	None	8270 C

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

Florida HEALTH

State of Florida

Department of Health, Bureau of Public Health Laboratories

This is to certify that

E87358

TESTAMERICA LABORATORIES, INC.
2960 FOSTER CREIGHTON DRIVE
NASHVILLE, TN 37204

has complied with Florida Administrative Code 64E-1,
for the examination of environmental samples in the following categories

DRINKING WATER - GROUP II UNREGULATED CONTAMINANTS, DRINKING WATER - OTHER REGULATED CONTAMINANTS, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: August 08, 2013 Expiration Date: June 30, 2014

Victor Johnson

Victor Johnson, Director
Division of Emergency Preparedness and Community Support
DH Form 1697, 7/04
NON-TRANSFERABLE E87358-37-08/08/2013
Supersedes all previously issued certificates

Laboratory Scope of Accreditation

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,1,1-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,1,2,2-Tetrachloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,1,2-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,1-Dichloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,1-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,1-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,2,3-Trichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/20/2007
1,2,3-Trichloropropane	EPA 504.1	Group II Unregulated Contaminants	NELAP	8/8/2002
1,2,3-Trichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,2,4-Trichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,2,4-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 504.1	Synthetic Organic Contaminants	NELAP	5/23/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504.1	Synthetic Organic Contaminants	NELAP	5/23/2001
1,2-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,2-Dichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,2-Dichloropropane	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
1,3,5-Trichlorobenzene	NV05-145\524.2/GC-MS	Other Regulated Contaminants	NELAP	2/23/2012
1,3,5-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,3-Dichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,3-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
1,4-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
2,2-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
2-Chlorotoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
4-Chlorotoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
4-Isopropyltoluene	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/20/2007
Aluminum	EPA 200.7	Secondary Inorganic Contaiminants	NELAP	5/23/2001
Barium	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/23/2001
Benzene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Beryllium	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/23/2001
Bromobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Bromochloromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	8/8/2002
Bromodichloromethane	EPA 524.2	Group II Unregulated Contaminants,Other Regulated Contaminants	NELAP	5/23/2001
Bromoform	EPA 524.2	Group II Unregulated Contaminants,Other Regulated Contaminants	NELAP	5/23/2001

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/23/2001
Calcium	EPA 200.7	Primary Inorganic Contaminants	NELAP	8/8/2002
Carbon tetrachloride	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	8/8/2002
Chlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Chloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Chloroform	EPA 524.2	Group II Unregulated Contaminants,Other Regulated Contaminants	NELAP	5/23/2001
Chromium	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/23/2001
cis-1,2-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
cis-1,3-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Copper	EPA 200.7	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	5/23/2001
Cyanide	EPA 335.4	Primary Inorganic Contaminants	NELAP	5/23/2001
Dibromochloromethane	EPA 524.2	Group II Unregulated Contaminants,Other Regulated Contaminants	NELAP	5/23/2001
Dibromomethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Dichlorodifluoromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Dichloromethane (DCM, Methylene chloride)	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Ethane	RSK-175	Group II Unregulated Contaminants	NELAP	10/4/2011
Ethylbenzene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Ethylene	RSK-175	Group II Unregulated Contaminants	NELAP	10/4/2011
Ethyl-t-butylether (ETBE)	NV05-145\524.2/GC-MS	Other Regulated Contaminants	NELAP	2/23/2012
Fluoride	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	5/23/2001
Fluoride	SM 4110 B	Primary Inorganic Contaminants	NELAP	3/19/2007
Hexachlorobutadiene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Iron	EPA 200.7	Secondary Inorganic Contaminants	NELAP	5/23/2001
Isobutane	NV04-89\RSK-175/GC-FID	Other Regulated Contaminants	NELAP	2/23/2012
Isopropylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Magnesium	EPA 200.7	Primary Inorganic Contaminants	NELAP	8/8/2002
Manganese	EPA 200.7	Secondary Inorganic Contaminants	NELAP	5/23/2001
Mercury	EPA 245.1	Primary Inorganic Contaminants	NELAP	5/23/2001
Methane	RSK-175	Group II Unregulated Contaminants	NELAP	10/4/2011
Methyl bromide (Bromomethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Methyl chloride (Chloromethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Drinking Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl tert-butyl ether (MTBE)	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Naphthalene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
n-Butane	NV04-89\RSK-175/GC-FID	Other Regulated Contaminants	NELAP	2/23/2012
n-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
n-Hexane	NV04-89\RSK-175/GC-FID	Other Regulated Contaminants	NELAP	2/23/2012
Nickel	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/23/2001
Nitrate	EPA 300.0	Primary Inorganic Contaminants	NELAP	5/23/2001
Nitrate	EPA 353.2	Primary Inorganic Contaminants	NELAP	5/23/2001
Nitrate	SM 4110 B	Primary Inorganic Contaminants	NELAP	3/19/2007
Nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	5/23/2001
Nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	5/23/2001
Nitrite	SM 4110 B	Primary Inorganic Contaminants	NELAP	3/19/2007
n-Pentane	NV04-89\RSK-175/GC-FID	Other Regulated Contaminants	NELAP	2/23/2012
n-Propylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Propane	RSK-175	Group II Unregulated Contaminants	NELAP	10/4/2011
Residue-filterable (TDS)	SM 2540 C	Secondary Inorganic Contaminants	NELAP	10/8/2002
sec-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Silver	EPA 200.7	Secondary Inorganic Contaminants	NELAP	5/23/2001
Sodium	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/23/2001
Styrene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Sulfate	EPA 300.0	Secondary Inorganic Contaminants,Primary Inorganic Contaminants	NELAP	5/23/2001
Sulfate	SM 4110 B	Primary Inorganic Contaminants	NELAP	3/19/2007
T-amylmethylether (TAME)	NV05-145\524.2/GC-MS	Other Regulated Contaminants	NELAP	2/23/2012
tert-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Tetrachloroethylene (Perchloroethylene)	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Toluene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Total trihalomethanes	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
trans-1,2-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
trans-1,3-Dichloropropene	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Trichloroethene (Trichloroethylene)	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Trichlorofluoromethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	5/23/2001
Vinyl chloride	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Xylene (total)	EPA 524.2	Other Regulated Contaminants	NELAP	5/23/2001
Zinc	EPA 200.7	Secondary Inorganic Contaminants	NELAP	5/23/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,1-Trichloroethane	EPA 624	Volatile Organics	NELAP	5/23/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2,2-Tetrachloroethane	EPA 624	Volatile Organics	NELAP	5/23/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1,2-Trichloroethane	EPA 624	Volatile Organics	NELAP	5/23/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethane	EPA 624	Volatile Organics	NELAP	5/23/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloroethylene	EPA 624	Volatile Organics	NELAP	5/23/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/30/2009
1,2,4-Trichlorobenzene	EPA 625	Extractable Organics	NELAP	5/23/2001
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8011	Volatile Organics	NELAP	7/1/2003
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 602	Volatile Organics	NELAP	5/23/2001
1,2-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	5/23/2001
1,2-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	5/23/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Dichloroethane	EPA 624	Volatile Organics	NELAP	5/23/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Dichloropropane	EPA 624	Volatile Organics	NELAP	5/23/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,2-Diphenylhydrazine	NV04-27\625/GC-MS	Extractable Organics	NELAP	2/23/2012
1,3,5-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	2/23/2012

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TestAmerica Laboratories, Inc.
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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	10/25/2010
1,3-Dichlorobenzene	EPA 602	Volatile Organics	NELAP	5/23/2001
1,3-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	5/23/2001
1,3-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	5/23/2001
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,3-Dinitrobenzene (1,3-DNB)	EPA 8270	Extractable Organics	NELAP	10/25/2010
1,4-Dichlorobenzene	EPA 602	Volatile Organics	NELAP	5/23/2001
1,4-Dichlorobenzene	EPA 624	Volatile Organics	NELAP	5/23/2001
1,4-Dichlorobenzene	EPA 625	Extractable Organics	NELAP	5/23/2001
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	5/19/2005
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	7/30/2009
1-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/30/2009
1-Methylnaphthalene	EPA 8310	Extractable Organics	NELAP	7/30/2009
1-Methylnaphthalene	NV04-121\610/HPLC-UV	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
1-Methylnaphthalene	NV04-27\625/GC-MS	Extractable Organics	NELAP	2/23/2012
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	7/1/2003
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	7/30/2009
2,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	2/23/2012
2,4,5-T	EPA 8151	Extractable Organics	NELAP	7/1/2003
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4,6-Trichlorophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-D	EPA 8151	Extractable Organics	NELAP	7/1/2003
2,4-DB	EPA 8151	Extractable Organics	NELAP	7/1/2003
2,4-Dichlorophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dimethylphenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,4-Dinitrophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003

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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,4-Dinitrotoluene (2,4-DNT)	EPA 625	Extractable Organics	NELAP	5/23/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	7/30/2009
2,6-Dinitrotoluene (2,6-DNT)	EPA 625	Extractable Organics	NELAP	5/23/2001
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	7/30/2009
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloroethyl vinyl ether	EPA 624	Volatile Organics	NELAP	5/23/2001
2-Chloroethyl vinyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Chloronaphthalene	EPA 625	Extractable Organics	NELAP	5/23/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Hexanone	EPA 8260	Volatile Organics	NELAP	7/1/2003
2-Methyl-4,6-dinitrophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Methylnaphthalene	EPA 8310	Extractable Organics	NELAP	10/5/2010
2-Methylnaphthalene	NV04-121\610/HPLC-UV	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
2-Methylnaphthalene	NV04-27\625/GC-MS	Extractable Organics	NELAP	2/23/2012
2-Methylphenol (o-Cresol)	EPA 625	Extractable Organics	NELAP	5/19/2005
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Nitrophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	7/30/2009
3,3'-Dichlorobenzidine	EPA 625	Extractable Organics	NELAP	8/8/2002
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
3,3-Dimethyl-1-butanol	EPA 8260	Volatile Organics	NELAP	2/23/2012
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	7/30/2009
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	7/30/2009
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4,4'-DDD	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001

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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDE	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4,4'-DDT	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	7/30/2009
4-Bromophenyl phenyl ether	EPA 625	Extractable Organics	NELAP	5/23/2001
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloro-3-methylphenol	EPA 625	Extractable Organics	NELAP	5/23/2001
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorophenyl phenylether	EPA 625	Extractable Organics	NELAP	5/23/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	7/30/2009
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	7/1/2003
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
4-Nitrophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
6-Methylchrysene	EPA 8270	Extractable Organics	NELAP	2/23/2012
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	7/30/2009
a,a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
Acenaphthene	EPA 610	Extractable Organics	NELAP	5/23/2001
Acenaphthene	EPA 625	Extractable Organics	NELAP	5/23/2001
Acenaphthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 610	Extractable Organics	NELAP	5/23/2001
Acenaphthylene	EPA 625	Extractable Organics	NELAP	5/23/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Acenaphthylene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Acetaldehyde	EPA 8315	Extractable Organics	NELAP	7/30/2009
Acetone	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/30/2009
Acidity, as CaCO3	SM 2310 B	General Chemistry	NELAP	3/19/2007

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E87358
TestAmerica Laboratories, Inc.
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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Acrolein (Propenal)	EPA 624	Volatile Organics	NELAP	5/23/2001
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Acrylonitrile	EPA 624	Volatile Organics	NELAP	5/23/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	7/1/2003
Aldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Alkalinity as CaCO3	SM 2320 B	General Chemistry	NELAP	3/19/2007
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	5/19/2005
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
alpha-Terpineol	EPA 625	Extractable Organics	NELAP	2/23/2012
Aluminum	EPA 200.7	Metals	NELAP	5/23/2001
Aluminum	EPA 200.8	Metals	NELAP	7/30/2009
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	3/19/2007
Amenable cyanide	EPA 335.4	General Chemistry	NELAP	5/23/2001
Amenable cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN- G	General Chemistry	NELAP	3/19/2007
Ammonia as N	EPA 350.1	General Chemistry	NELAP	5/23/2001
Ammonia as N	SM 4500-NH3 G	General Chemistry	NELAP	3/19/2007
Aniline	EPA 625	Extractable Organics	NELAP	5/19/2005
Aniline	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 610	Extractable Organics	NELAP	5/23/2001
Anthracene	EPA 625	Extractable Organics	NELAP	5/23/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Antimony	EPA 200.7	Metals	NELAP	5/23/2001
Antimony	EPA 200.8	Metals	NELAP	7/30/2009
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	3/19/2007
Aramite	EPA 8270	Extractable Organics	NELAP	7/30/2009
Aroclor-1016 (PCB-1016)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1221 (PCB-1221)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Aroclor-1232 (PCB-1232)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1242 (PCB-1242)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1248 (PCB-1248)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1254 (PCB-1254)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Aroclor-1260 (PCB-1260)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Arsenic	EPA 200.7	Metals	NELAP	5/23/2001
Arsenic	EPA 200.8	Metals	NELAP	7/30/2009
Arsenic	EPA 6010	Metals	NELAP	5/23/2001
Arsenic	EPA 6020	Metals	NELAP	3/19/2007
Barium	EPA 200.7	Metals	NELAP	5/23/2001
Barium	EPA 200.8	Metals	NELAP	7/30/2009
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	3/19/2007
Benzene	EPA 602	Volatile Organics	NELAP	5/23/2001
Benzene	EPA 624	Volatile Organics	NELAP	5/23/2001
Benzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Benzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Benzidine	EPA 625	Extractable Organics	NELAP	8/8/2002
Benzidine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 610	Extractable Organics	NELAP	5/23/2001
Benzo(a)anthracene	EPA 625	Extractable Organics	NELAP	5/23/2001
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 610	Extractable Organics	NELAP	5/23/2001
Benzo(a)pyrene	EPA 625	Extractable Organics	NELAP	5/23/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(a)pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 610	Extractable Organics	NELAP	5/23/2001
Benzo(b)fluoranthene	EPA 625	Extractable Organics	NELAP	5/23/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(b)fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Benzo(g,h,i)perylene	EPA 610	Extractable Organics	NELAP	5/23/2001
Benzo(g,h,i)perylene	EPA 625	Extractable Organics	NELAP	5/23/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(g,h,i)perylene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 610	Extractable Organics	NELAP	5/23/2001
Benzo(k)fluoranthene	EPA 625	Extractable Organics	NELAP	5/23/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzo(k)fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Benzoic acid	EPA 8270	Extractable Organics	NELAP	7/1/2003
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Beryllium	EPA 200.7	Metals	NELAP	5/23/2001
Beryllium	EPA 200.8	Metals	NELAP	7/30/2009
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	3/19/2007
beta-BHC (beta-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	5/23/2001
bis(2-Chloroethoxy)methane	EPA 625	Extractable Organics	NELAP	5/23/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroethyl) ether	EPA 625	Extractable Organics	NELAP	5/23/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625	Extractable Organics	NELAP	5/23/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	7/1/2003
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 625	Extractable Organics	NELAP	5/23/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	7/1/2003
Boron	EPA 200.7	Metals	NELAP	5/23/2001
Boron	EPA 6010	Metals	NELAP	7/1/2003
Bromide	EPA 300.0	General Chemistry	NELAP	5/23/2001
Bromide	EPA 9056	General Chemistry	NELAP	7/1/2003
Bromide	SM 4110 B	General Chemistry	NELAP	3/19/2007
Bromobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromodichloromethane	EPA 624	Volatile Organics	NELAP	5/23/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Bromoform	EPA 624	Volatile Organics	NELAP	5/23/2001

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Bromoform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Butyl benzyl phthalate	EPA 625	Extractable Organics	NELAP	5/23/2001
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Cadmium	EPA 200.7	Metals	NELAP	5/23/2001
Cadmium	EPA 200.8	Metals	NELAP	7/30/2009
Cadmium	EPA 6010	Metals	NELAP	5/23/2001
Cadmium	EPA 6020	Metals	NELAP	3/19/2007
Calcium	EPA 200.7	Metals	NELAP	5/23/2001
Calcium	EPA 200.8	Metals	NELAP	2/23/2012
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	2/23/2012
Carbazole	EPA 625	Extractable Organics	NELAP	5/19/2005
Carbazole	EPA 8270	Extractable Organics	NELAP	7/1/2003
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbon tetrachloride	EPA 624	Volatile Organics	NELAP	5/23/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	5/23/2001
Chemical oxygen demand	EPA 410.4	General Chemistry	NELAP	5/23/2001
Chemical oxygen demand	SM 5220 D	General Chemistry	NELAP	3/19/2007
Chlordane (tech.)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Chloride	EPA 300.0	General Chemistry	NELAP	5/23/2001
Chloride	EPA 9056	General Chemistry	NELAP	7/1/2003
Chloride	EPA 9251	General Chemistry	NELAP	7/1/2003
Chloride	SM 4110 B	General Chemistry	NELAP	3/19/2007
Chloride	SM 4500-Cl^- E	General Chemistry	NELAP	3/19/2007
Chlorobenzene	EPA 602	Volatile Organics	NELAP	5/23/2001
Chlorobenzene	EPA 624	Volatile Organics	NELAP	5/23/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chlorobenzilate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Chloroethane	EPA 624	Volatile Organics	NELAP	5/23/2001
Chloroethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroform	EPA 624	Volatile Organics	NELAP	5/23/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	7/1/2003
Chloroprene	EPA 8260	Volatile Organics	NELAP	5/19/2005
Chromium	EPA 200.7	Metals	NELAP	5/23/2001

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TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chromium	EPA 200.8	Metals	NELAP	7/30/2009
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	3/19/2007
Chromium VI	EPA 7196	General Chemistry	NELAP	7/1/2003
Chromium VI	SM 3500-Cr B (20th/21st Ed.)/UV-VIS	General Chemistry	NELAP	3/19/2007
Chrysene	EPA 610	Extractable Organics	NELAP	5/23/2001
Chrysene	EPA 625	Extractable Organics	NELAP	5/23/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Chrysene	EPA 8310	Extractable Organics	NELAP	7/1/2003
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
cis-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	5/23/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Cobalt	EPA 200.7	Metals	NELAP	5/23/2001
Cobalt	EPA 200.8	Metals	NELAP	7/30/2009
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	3/19/2007
Conductivity	EPA 120.1	General Chemistry	NELAP	5/23/2001
Conductivity	EPA 9050	General Chemistry	NELAP	7/1/2003
Conductivity	SM 2510 B	General Chemistry	NELAP	3/19/2007
Copper	EPA 200.7	Metals	NELAP	5/23/2001
Copper	EPA 200.8	Metals	NELAP	7/30/2009
Copper	EPA 6010	Metals	NELAP	5/23/2001
Copper	EPA 6020	Metals	NELAP	3/19/2007
Corrosivity (pH)	EPA 9040	General Chemistry	NELAP	7/1/2003
Cyanide	EPA 335.4	General Chemistry	NELAP	5/23/2001
delta-BHC	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diallate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Dibenz(a,h)acridine	EPA 8270	Extractable Organics	NELAP	2/23/2012
Dibenz(a,h)anthracene	EPA 610	Extractable Organics	NELAP	5/23/2001
Dibenz(a,h)anthracene	EPA 625	Extractable Organics	NELAP	5/23/2001
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibenz(a,h)anthracene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dibromochloromethane	EPA 624	Volatile Organics	NELAP	5/23/2001
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003

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TestAmerica Laboratories, Inc.
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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Dibromomethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Dieldrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	MADEP-EPH (MA-EPH)	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	NV04-22\8270/GC-MS	Extractable Organics	NELAP	2/23/2012
Diesel range organics (DRO)	NWTPH-Dx	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	NWTPH-EPH	Extractable Organics	NELAP	7/30/2009
Diesel range organics (DRO)	OA-2	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	OK-DRO	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	TN-EPH	Extractable Organics	NELAP	7/1/2003
Diesel range organics (DRO)	WI-DRO	Extractable Organics	NELAP	7/1/2003
Diethyl ether	EPA 8260	Volatile Organics	NELAP	7/1/2003
Diethyl phthalate	EPA 625	Extractable Organics	NELAP	5/23/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dimethoate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Dimethyl phthalate	EPA 625	Extractable Organics	NELAP	5/23/2001
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-butyl phthalate	EPA 625	Extractable Organics	NELAP	5/23/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Di-n-octyl phthalate	EPA 625	Extractable Organics	NELAP	5/23/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	7/1/2003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8151	Extractable Organics	NELAP	7/1/2003
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Disulfoton	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	10/25/2010
Endosulfan I	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan II	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endosulfan sulfate	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Endrin aldehyde	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

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E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Ethane	RSK-175	Volatile Organics	NELAP	3/19/2007
Ethanol	EPA 8015	Extractable Organics	NELAP	7/1/2003
Ethanol	EPA 8260	Volatile Organics	NELAP	5/19/2005
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/30/2009
Ethylbenzene	EPA 602	Volatile Organics	NELAP	5/23/2001
Ethylbenzene	EPA 624	Volatile Organics	NELAP	5/23/2001
Ethylbenzene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Ethylene	RSK-175	Volatile Organics	NELAP	3/19/2007
Ethylene glycol	EPA 8015	Extractable Organics	NELAP	7/1/2003
Ethyl-t-butylether (ETBE)	EPA 8260	Volatile Organics	NELAP	2/23/2012
Ferrous iron	SM 3500-Fe B (20th/21st Ed.)/UV-VIS	General Chemistry	NELAP	3/19/2007
Fluoranthene	EPA 610	Extractable Organics	NELAP	5/23/2001
Fluoranthene	EPA 625	Extractable Organics	NELAP	5/23/2001
Fluoranthene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluoranthene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 610	Extractable Organics	NELAP	5/23/2001
Fluorene	EPA 625	Extractable Organics	NELAP	5/23/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Fluorene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Fluoride	EPA 300.0	General Chemistry	NELAP	5/23/2001
Fluoride	EPA 9056	General Chemistry	NELAP	7/1/2003
Fluoride	EPA 9214	General Chemistry	NELAP	7/1/2003
Fluoride	SM 4110 B	General Chemistry	NELAP	3/19/2007
Fluoride	SM 4500 F-C	General Chemistry	NELAP	3/19/2007
Formaldehyde	EPA 8315	Extractable Organics	NELAP	7/1/2003
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Gasoline range organics (GRO)	EPA 8015	Volatile Organics	NELAP	7/1/2007
Gasoline range organics (GRO)	MADEP-VPH (MA-VPH)	Volatile Organics	NELAP	7/1/2007
Gasoline range organics (GRO)	NV05-77\8260/GC-MS	Volatile Organics	NELAP	2/23/2012
Gasoline range organics (GRO)	NWTPH-Gx	Volatile Organics	NELAP	7/1/2007

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TestAmerica Laboratories, Inc.
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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Gasoline range organics (GRO)	NWTPH-VPH	Volatile Organics	NELAP	7/30/2009
Gasoline range organics (GRO)	OA-1	Volatile Organics	NELAP	7/1/2007
Gasoline range organics (GRO)	OK-GRO	Volatile Organics	NELAP	7/1/2007
Gasoline range organics (GRO)	WI-GRO	Volatile Organics	NELAP	7/1/2007
Heptachlor	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Heptachlor epoxide	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Hexachlorobenzene	EPA 625	Extractable Organics	NELAP	5/23/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 625	Extractable Organics	NELAP	5/23/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorocyclopentadiene	EPA 625	Extractable Organics	NELAP	5/23/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachloroethane	EPA 625	Extractable Organics	NELAP	5/23/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	7/1/2003
Hexachlorophene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Indene	EPA 8270	Extractable Organics	NELAP	2/23/2012
Indeno(1,2,3-cd)pyrene	EPA 610	Extractable Organics	NELAP	5/23/2001
Indeno(1,2,3-cd)pyrene	EPA 625	Extractable Organics	NELAP	5/23/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Indeno(1,2,3-cd)pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Iron	EPA 200.7	Metals	NELAP	5/23/2001
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	3/19/2007
Iron (limited CWA use only per EPA ATP)	EPA 200.8	Metals	NELAP	2/23/2012
Isobutane	NV04-89\RSK-175/GC-FID	Extractable Organics	NELAP	2/23/2012
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8015	Extractable Organics	NELAP	7/1/2003
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	5/19/2005
Isodrin	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Isophorone	EPA 625	Extractable Organics	NELAP	5/23/2001
Isophorone	EPA 8270	Extractable Organics	NELAP	7/1/2003
Isopropyl alcohol (2-Propanol)	EPA 8015	Extractable Organics	NELAP	7/1/2003

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Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Isopropyl alcohol (2-Propanol)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isopropyl ether	EPA 8021	Volatile Organics	NELAP	2/23/2012
Isopropyl ether	EPA 8260	Volatile Organics	NELAP	2/23/2012
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Isosafrole	EPA 8270	Extractable Organics	NELAP	7/30/2009
Kepone	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Kjeldahl nitrogen - total	EPA 351.2	General Chemistry	NELAP	5/23/2001
Lead	EPA 200.7	Metals	NELAP	5/23/2001
Lead	EPA 200.8	Metals	NELAP	7/30/2009
Lead	EPA 6010	Metals	NELAP	5/23/2001
Lead	EPA 6020	Metals	NELAP	3/19/2007
Lithium	EPA 200.7	Metals	NELAP	5/9/2011
Lithium	EPA 6010	Metals	NELAP	5/9/2011
m/p-Xylenes	EPA 8260	Volatile Organics	NELAP	7/30/2009
Magnesium	EPA 200.7	Metals	NELAP	5/23/2001
Magnesium	EPA 200.8	Metals	NELAP	2/23/2012
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	2/23/2012
Manganese	EPA 200.7	Metals	NELAP	5/23/2001
Manganese	EPA 200.8	Metals	NELAP	7/30/2009
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	3/19/2007
Mercury	EPA 245.1	Metals	NELAP	5/23/2001
Mercury	EPA 7470	Metals	NELAP	5/23/2001
Mercury	SM 3112 B	Metals	NELAP	3/19/2007
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	5/19/2005
Methane	RSK-175	Volatile Organics	NELAP	3/19/2007
Methanol	EPA 8015	Extractable Organics	NELAP	7/1/2003
Methapyrilene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Methoxychlor	EPA 608.2	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003
Methyl bromide (Bromomethane)	EPA 624	Volatile Organics	NELAP	5/23/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl chloride (Chloromethane)	EPA 624	Volatile Organics	NELAP	5/23/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	7/1/2003

Laboratory Scope of Accreditation

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/30/2009
Methyl parathion (Parathion, methyl)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Methyl tert-butyl ether (MTBE)	EPA 8021	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Methyl tert-butyl ether (MTBE)	NV05-124\602/GC-PID	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
Methylene chloride	EPA 624	Volatile Organics	NELAP	5/23/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Molybdenum	EPA 200.7	Metals	NELAP	5/23/2001
Molybdenum	EPA 200.8	Metals	NELAP	7/30/2009
Molybdenum	EPA 6010	Metals	NELAP	5/23/2001
Molybdenum	EPA 6020	Metals	NELAP	3/19/2007
Naphthalene	EPA 610	Extractable Organics	NELAP	5/23/2001
Naphthalene	EPA 625	Extractable Organics	NELAP	5/23/2001
Naphthalene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Naphthalene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Naphthalene	EPA 8310	Extractable Organics	NELAP	7/1/2003
n-Butane	NV04-89\RSK-175/GC-FID	Extractable Organics	NELAP	2/23/2012
n-Butyl alcohol	EPA 8015	Extractable Organics	NELAP	7/1/2003
n-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	7/1/2003
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
n-Decane	EPA 625	Extractable Organics	NELAP	2/23/2012
n-Hexane	NV04-89\RSK-175/GC-FID	Extractable Organics	NELAP	2/23/2012
Nickel	EPA 200.7	Metals	NELAP	5/23/2001
Nickel	EPA 200.8	Metals	NELAP	7/30/2009
Nickel	EPA 6010	Metals	NELAP	5/23/2001
Nickel	EPA 6020	Metals	NELAP	3/19/2007
Nitrate	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrate	SM 4110 B	General Chemistry	NELAP	3/19/2007
Nitrate as N	EPA 300.0	General Chemistry	NELAP	5/23/2001
Nitrate as N	EPA 353.2	General Chemistry	NELAP	5/23/2001
Nitrate as N	SM 4500-NO3 F	General Chemistry	NELAP	3/19/2007
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	5/23/2001
Nitrite	EPA 9056	General Chemistry	NELAP	7/1/2003
Nitrite	SM 4110 B	General Chemistry	NELAP	3/19/2007
Nitrite	SM 4500-NO3 F	General Chemistry	NELAP	3/19/2007

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TestAmerica Laboratories, Inc.
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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Nitrite as N	EPA 300.0	General Chemistry	NELAP	5/23/2001
Nitrite as N	EPA 353.2	General Chemistry	NELAP	5/23/2001
Nitrobenzene	EPA 625	Extractable Organics	NELAP	5/23/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosodimethylamine	EPA 625	Extractable Organics	NELAP	5/23/2001
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosodi-n-propylamine	EPA 625	Extractable Organics	NELAP	5/23/2001
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosodiphenylamine	EPA 625	Extractable Organics	NELAP	5/23/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	7/1/2003
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Octadecane	EPA 625	Extractable Organics	NELAP	2/23/2012
n-Pentane	NV04-89\RSK-175/GC-FID	Extractable Organics	NELAP	2/23/2012
n-Propanol	EPA 8015	Extractable Organics	NELAP	7/1/2003
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
o,o,o-Triethyl phosphorothioate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Oil & Grease	EPA 1664A	General Chemistry	NELAP	5/23/2001
Oil & Grease	EPA 9070	General Chemistry	NELAP	7/1/2003
Orthophosphate as P	SM 4500-P E	General Chemistry	NELAP	3/19/2007
o-Toluidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
Oxygen, dissolved	SM 4500-O G	General Chemistry	NELAP	3/19/2007
o-Xylene	EPA 8260	Volatile Organics	NELAP	7/30/2009
Parathion, ethyl	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	10/25/2010
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Pentachloronitrobenzene (Quintozene)	EPA 8270	Extractable Organics,Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Pentachlorophenol	EPA 625	Extractable Organics	NELAP	5/23/2001
Pentachlorophenol	EPA 8151	Extractable Organics	NELAP	7/1/2003
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
pH	EPA 9040	General Chemistry	NELAP	7/1/2003

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TestAmerica Laboratories, Inc.
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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
pH	SM 4500-H B	General Chemistry	NELAP	3/19/2007
Phenacetin	EPA 8270	Extractable Organics	NELAP	7/30/2009
Phenanthrene	EPA 610	Extractable Organics	NELAP	5/23/2001
Phenanthrene	EPA 625	Extractable Organics	NELAP	5/23/2001
Phenanthrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phenanthrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Phenol	EPA 625	Extractable Organics	NELAP	5/23/2001
Phenol	EPA 8270	Extractable Organics	NELAP	7/1/2003
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Phosphorus, total	EPA 365.4	General Chemistry	NELAP	5/23/2001
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Potassium	EPA 200.7	Metals	NELAP	9/4/2007
Potassium	EPA 200.8	Metals	NELAP	2/23/2012
Potassium	EPA 6010	Metals	NELAP	9/4/2007
Potassium	EPA 6020	Metals	NELAP	2/23/2012
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	7/30/2009
Propane	RSK-175	Volatile Organics	NELAP	10/4/2011
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Pyrene	EPA 610	Extractable Organics	NELAP	5/23/2001
Pyrene	EPA 625	Extractable Organics	NELAP	5/23/2001
Pyrene	EPA 8270	Extractable Organics	NELAP	7/1/2003
Pyrene	EPA 8310	Extractable Organics	NELAP	7/1/2003
Pyridine	EPA 8270	Extractable Organics	NELAP	7/1/2003
Quinoline	EPA 8270	Extractable Organics	NELAP	2/23/2012
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	3/19/2007
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	3/19/2007
Residue-settleable	SM 2540 F	General Chemistry	NELAP	3/19/2007
Residue-total	SM 2540 B	General Chemistry	NELAP	3/19/2007
Residue-volatile	EPA 160.4	General Chemistry	NELAP	5/23/2001
Safrole	EPA 8270	Extractable Organics	NELAP	7/30/2009
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Selenium	EPA 200.7	Metals	NELAP	5/23/2001
Selenium	EPA 200.8	Metals	NELAP	7/30/2009
Selenium	EPA 6010	Metals	NELAP	5/23/2001
Selenium	EPA 6020	Metals	NELAP	3/19/2007
Silica as SiO2	SM 4500-SiO2 C (20th/21st Ed.)/UV-VIS	General Chemistry	NELAP	3/19/2007

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E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Silver	EPA 200.7	Metals	NELAP	5/23/2001
Silver	EPA 200.8	Metals	NELAP	7/30/2009
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	3/19/2007
Silvex (2,4,5-TP)	EPA 8151	Extractable Organics	NELAP	7/1/2003
Sodium	EPA 200.7	Metals	NELAP	5/23/2001
Sodium	EPA 200.8	Metals	NELAP	2/23/2012
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	2/23/2012
Strontium	EPA 200.7	Metals	NELAP	5/9/2011
Strontium	EPA 6010	Metals	NELAP	7/1/2003
Styrene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Sulfate	ASTM D516-02	General Chemistry	NELAP	9/8/2008
Sulfate	ASTM D516-90	General Chemistry	NELAP	9/8/2008
Sulfate	EPA 300.0	General Chemistry	NELAP	5/23/2001
Sulfate	EPA 9038	General Chemistry	NELAP	7/1/2003
Sulfate	EPA 9056	General Chemistry	NELAP	7/1/2003
Sulfate	SM 4110 B	General Chemistry	NELAP	3/19/2007
Sulfide	EPA 9030/9034	General Chemistry	NELAP	7/1/2003
Sulfide	SM 4500-S D/UV-VIS	General Chemistry	NELAP	3/19/2007
Sulfide	SM 4500-S F (19th/20th/21st Ed.)/TITR	General Chemistry	NELAP	3/19/2007
Sulfite-SO3	SM 4500-SO3 B	General Chemistry	NELAP	3/19/2007
Sulfotepp	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Sulfur	NV06-17\200.7/ICP-AES	Metals	NELAP	5/9/2011
Sulfur	NV06-44\6010/ICP-AES	Metals	NELAP	5/9/2011
Surfactants - MBAS	SM 5540 C	General Chemistry	NELAP	3/19/2007
T-amylmethylether (TAME)	EPA 8260	Volatile Organics	NELAP	2/23/2012
tert-Amyl alcohol (2-methyl-2-butanol)	EPA 8260	Volatile Organics	NELAP	2/23/2012
tert-Butyl alcohol	EPA 8015	Extractable Organics	NELAP	7/1/2003
tert-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	7/1/2003
tert-Butyl formate	EPA 8260	Volatile Organics	NELAP	2/23/2012
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Tetrachloroethylene (Perchloroethylene)	EPA 624	Volatile Organics	NELAP	5/23/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Thallium	EPA 200.7	Metals	NELAP	5/23/2001
Thallium	EPA 200.8	Metals	NELAP	7/30/2009

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E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	3/19/2007
Thionazin (Zinophos)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Thiophenol (Benzenethiol)	EPA 8270	Extractable Organics	NELAP	2/23/2012
Tin	EPA 200.7	Metals	NELAP	5/23/2001
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	3/19/2007
Tin (limited CWA use only per EPA ATP)	EPA 200.8	Metals	NELAP	2/23/2012
Titanium	EPA 200.7	Metals	NELAP	5/23/2001
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	3/19/2007
Titanium (limited CWA use only per EPA ATP)	EPA 200.8	Metals	NELAP	2/23/2012
Toluene	EPA 602	Volatile Organics	NELAP	5/23/2001
Toluene	EPA 624	Volatile Organics	NELAP	5/23/2001
Toluene	EPA 8021	Volatile Organics	NELAP	7/1/2003
Toluene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Total cyanide	EPA 9012	General Chemistry	NELAP	7/1/2003
Total cyanide	SM 4500CN-E	General Chemistry	NELAP	3/19/2007
Total hardness as CaCO3	SM 2340 B	Metals	NELAP	5/23/2001
Total nitrate-nitrite	EPA 9056	General Chemistry	NELAP	3/19/2007
Total nitrate-nitrite	SM 4500-NO3 F	General Chemistry	NELAP	3/19/2007
Total organic carbon	EPA 9060	General Chemistry	NELAP	7/1/2003
Total organic carbon	SM 5310 B	General Chemistry	NELAP	3/19/2007
Total organic carbon	SM 5310 C	Extractable Organics	NELAP	7/30/2009
Total organic halides (TOX)	EPA 9020	General Chemistry	NELAP	7/1/2003
Total organic halides (TOX)	SM 5320 B	General Chemistry	NELAP	5/23/2001
Total Petroleum Hydrocarbons (TPH)	EPA 1664A	General Chemistry	NELAP	5/23/2001
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	7/1/2003
Total Petroleum Hydrocarbons (TPH)	TPHCWG Direct Method	Extractable Organics	NELAP	5/19/2005
Total Petroleum Hydrocarbons (TPH)	TX1005	Extractable Organics	NELAP	7/1/2003
Total Petroleum Hydrocarbons (TPH)	TX1006	Extractable Organics	NELAP	7/1/2003
Total phenolics	EPA 420.4	General Chemistry	NELAP	3/19/2007
Total phenolics	EPA 9066	General Chemistry	NELAP	7/1/2003
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	3/19/2007
Toxaphene (Chlorinated camphene)	EPA 608	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	7/1/2003

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E87358
TestAmerica Laboratories, Inc.
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Nashville, TN 37204

Matrix: Non-Potable Water

Analyte	Method/Tech	Category	Certification Type	Effective Date
trans-1,2-Dichloroethylene	EPA 624	Volatile Organics	NELAP	5/23/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,3-Dichloropropene	EPA 624	Volatile Organics	NELAP	5/23/2001
trans-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	7/1/2003
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichloroethene (Trichloroethylene)	EPA 624	Volatile Organics	NELAP	5/23/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Trichlorofluoromethane	EPA 624	Volatile Organics	NELAP	5/23/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	7/1/2003
Turbidity	EPA 180.1	General Chemistry	NELAP	5/23/2001
Turbidity	SM 2130 B	General Chemistry	NELAP	3/19/2007
Vanadium	EPA 200.7	Metals	NELAP	5/23/2001
Vanadium	EPA 200.8	Metals	NELAP	7/30/2009
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	3/19/2007
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	7/1/2003
Vinyl chloride	EPA 624	Volatile Organics	NELAP	5/23/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8021	Volatile Organics	NELAP	7/1/2003
Xylene (total)	EPA 8260	Volatile Organics	NELAP	7/1/2003
Xylene (total)	NV05-124\602/GC-PID	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
Xylene (total)	NV05-66\624/GC-MS	Volatile Organics	NELAP	2/23/2012
Zinc	EPA 200.7	Metals	NELAP	5/23/2001
Zinc	EPA 200.8	Metals	NELAP	7/30/2009
Zinc	EPA 6010	Metals	NELAP	5/23/2001
Zinc	EPA 6020	Metals	NELAP	3/19/2007

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E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
1,1,1,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,1,1-Trichloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,1,2,2-Tetrachloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,1,2-Trichloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,1-Dichloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,1-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,1-Dichloropropene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2,3-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2,3-Trichloropropane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2,4,5-Tetrachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/30/2009
1,2,4-Trichlorobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2,4-Trichlorobenzene	EPA 8270	Extractable Organics	NELAP	5/23/2001
1,2,4-Trimethylbenzene	EPA 8021	Volatile Organics	NELAP	5/23/2001
1,2,4-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	5/23/2001
1,2-Dichloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,2-Diphenylhydrazine	EPA 8270	Extractable Organics	NELAP	5/23/2001
1,3,5-Trimethylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,3,5-Trinitrobenzene (1,3,5-TNB)	EPA 8270	Extractable Organics	NELAP	7/30/2009
1,3-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,3-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	5/23/2001
1,3-Dichloropropane	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,3-Dinitrobenzene (1,3-DNB)	EPA 8270	Extractable Organics	NELAP	7/30/2009
1,4-Dichlorobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
1,4-Dichlorobenzene	EPA 8270	Extractable Organics	NELAP	5/23/2001
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8260	Volatile Organics	NELAP	5/19/2005
1,4-Naphthoquinone	EPA 8270	Extractable Organics	NELAP	7/30/2009
1-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	7/30/2009
1-Methylnaphthalene	EPA 8310	Extractable Organics	NELAP	7/30/2009
1-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
2,2-Dichloropropane	EPA 8260	Volatile Organics	NELAP	5/23/2001
2,3,4,6-Tetrachlorophenol	EPA 8270	Extractable Organics	NELAP	7/30/2009

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E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
2,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	2/23/2012
2,4,5-T	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
2,4,5-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2,4,6-Trichlorophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2,4-D	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
2,4-DB	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
2,4-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2,4-Dimethylphenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2,4-Dinitrophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270	Extractable Organics	NELAP	5/23/2001
2,6-Dichlorophenol	EPA 8270	Extractable Organics	NELAP	2/23/2012
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Acetylaminofluorene	EPA 8270	Extractable Organics	NELAP	7/30/2009
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260	Volatile Organics	NELAP	5/23/2001
2-Chloronaphthalene	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Chlorophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	5/23/2001
2-Hexanone	EPA 8260	Volatile Organics	NELAP	5/23/2001
2-Methyl-4,6-dinitrophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Methylnaphthalene	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Methylnaphthalene	EPA 8310	Extractable Organics	NELAP	7/30/2009
2-Methylphenol (o-Cresol)	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Naphthylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
2-Nitroaniline	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Nitrophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
2-Picoline (2-Methylpyridine)	EPA 8270	Extractable Organics	NELAP	2/23/2012
3,3'-Dichlorobenzidine	EPA 8270	Extractable Organics	NELAP	8/8/2002
3,3'-Dimethylbenzidine	EPA 8270	Extractable Organics	NELAP	2/23/2012
3/4-Methylphenols (m/p-Cresols)	EPA 8270	Extractable Organics	NELAP	7/30/2009
3-Methylcholanthrene	EPA 8270	Extractable Organics	NELAP	7/30/2009
3-Nitroaniline	EPA 8270	Extractable Organics	NELAP	5/23/2001
4,4'-DDD	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
4,4'-DDE	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
4,4'-DDT	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
4-Aminobiphenyl	EPA 8270	Extractable Organics	NELAP	7/30/2009
4-Bromophenyl phenyl ether	EPA 8270	Extractable Organics	NELAP	5/23/2001

Laboratory Scope of Accreditation

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State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
4-Chloro-3-methylphenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
4-Chloroaniline	EPA 8270	Extractable Organics	NELAP	5/23/2001
4-Chlorophenyl phenylether	EPA 8270	Extractable Organics	NELAP	5/23/2001
4-Chlorotoluene	EPA 8260	Volatile Organics	NELAP	5/23/2001
4-Dimethyl aminoazobenzene	EPA 8270	Extractable Organics	NELAP	7/30/2009
4-Methyl-2-pentanone (MIBK)	EPA 8260	Volatile Organics	NELAP	5/23/2001
4-Nitroaniline	EPA 8270	Extractable Organics	NELAP	5/23/2001
4-Nitrophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
5-Nitro-o-toluidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
7,12-Dimethylbenz(a) anthracene	EPA 8270	Extractable Organics	NELAP	7/30/2009
a,a-Dimethylphenethylamine	EPA 8270	Extractable Organics	NELAP	2/23/2012
Acenaphthene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Acenaphthene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Acenaphthylene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Acenaphthylene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Acetaldehyde	EPA 8315	Extractable Organics	NELAP	7/30/2009
Acetone	EPA 8260	Volatile Organics	NELAP	5/23/2001
Acetonitrile	EPA 8260	Volatile Organics	NELAP	10/8/2002
Acetophenone	EPA 8270	Extractable Organics	NELAP	7/30/2009
Acrolein (Propenal)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Acrylonitrile	EPA 8260	Volatile Organics	NELAP	5/23/2001
Aldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Allyl chloride (3-Chloropropene)	EPA 8260	Volatile Organics	NELAP	5/19/2005
alpha-BHC (alpha-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
alpha-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aluminum	EPA 6010	Metals	NELAP	5/23/2001
Aluminum	EPA 6020	Metals	NELAP	3/19/2007
Aniline	EPA 8270	Extractable Organics	NELAP	5/23/2001
Anthracene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Anthracene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Antimony	EPA 6010	Metals	NELAP	5/23/2001
Antimony	EPA 6020	Metals	NELAP	3/19/2007
Aramite	EPA 8270	Extractable Organics	NELAP	2/23/2012
Aroclor-1016 (PCB-1016)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1221 (PCB-1221)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1232 (PCB-1232)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Aroclor-1242 (PCB-1242)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1248 (PCB-1248)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1254 (PCB-1254)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Aroclor-1260 (PCB-1260)	EPA 8082	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Arsenic	EPA 6010	Metals	NELAP	5/23/2001
Arsenic	EPA 6020	Metals	NELAP	3/19/2007
Barium	EPA 6010	Metals	NELAP	5/23/2001
Barium	EPA 6020	Metals	NELAP	3/19/2007
Benzene	EPA 8021	Volatile Organics	NELAP	5/23/2001
Benzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Benzidine	EPA 8270	Extractable Organics	NELAP	8/8/2002
Benzo(a)anthracene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Benzo(a)anthracene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Benzo(a)pyrene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Benzo(a)pyrene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Benzo(b)fluoranthene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Benzo(b)fluoranthene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Benzo(g,h,i)perylene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Benzo(g,h,i)perylene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Benzo(k)fluoranthene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Benzo(k)fluoranthene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Benzoic acid	EPA 8270	Extractable Organics	NELAP	8/8/2002
Benzyl alcohol	EPA 8270	Extractable Organics	NELAP	5/23/2001
Beryllium	EPA 6010	Metals	NELAP	5/23/2001
Beryllium	EPA 6020	Metals	NELAP	3/19/2007
beta-BHC (beta-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
bis(2-Chloroethoxy)methane	EPA 8270	Extractable Organics	NELAP	5/23/2001
bis(2-Chloroethyl) ether	EPA 8270	Extractable Organics	NELAP	5/23/2001
bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 8270	Extractable Organics	NELAP	5/23/2001
bis(2-Ethylhexyl) phthalate (DEHP)	EPA 8270	Extractable Organics	NELAP	5/23/2001
Boron	EPA 6010	Metals	NELAP	5/23/2001
Bromide	EPA 9056	General Chemistry	NELAP	5/23/2001
Bromobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Bromochloromethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Bromodichloromethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Bromoform	EPA 8260	Volatile Organics	NELAP	5/23/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Butyl benzyl phthalate	EPA 8270	Extractable Organics	NELAP	5/23/2001
Cadmium	EPA 6010	Metals	NELAP	5/23/2001
Cadmium	EPA 6020	Metals	NELAP	3/19/2007
Calcium	EPA 6010	Metals	NELAP	5/23/2001
Calcium	EPA 6020	Metals	NELAP	2/23/2012
California Waste Extraction Test	CA W.E.T.	General Chemistry	NELAP	4/9/2003
Carbazole	EPA 8270	Extractable Organics	NELAP	5/23/2001
Carbon disulfide	EPA 8260	Volatile Organics	NELAP	5/23/2001
Carbon tetrachloride	EPA 8260	Volatile Organics	NELAP	5/23/2001
Cation exchange capacity	EPA 9081	General Chemistry	NELAP	5/23/2001
Chlordane (tech.)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Chloride	EPA 9056	General Chemistry	NELAP	5/23/2001
Chlorine	EPA 9076	General Chemistry	NELAP	5/23/2001
Chlorobenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Chlorobenzilate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Chloroethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Chloroform	EPA 8260	Volatile Organics	NELAP	5/23/2001
Chloroprene	EPA 8260	Volatile Organics	NELAP	5/19/2005
Chromium	EPA 6010	Metals	NELAP	5/23/2001
Chromium	EPA 6020	Metals	NELAP	3/19/2007
Chromium VI	EPA 7196	General Chemistry	NELAP	5/23/2001
Chrysene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Chrysene	EPA 8310	Extractable Organics	NELAP	5/23/2001
cis-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	5/23/2001
cis-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Cobalt	EPA 6010	Metals	NELAP	5/23/2001
Cobalt	EPA 6020	Metals	NELAP	3/19/2007
Copper	EPA 6010	Metals	NELAP	5/23/2001
Copper	EPA 6020	Metals	NELAP	3/19/2007
Corrosivity toward steel	EPA 1110	General Chemistry	NELAP	5/23/2001
delta-BHC	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Diallate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Dibenz(a,h)acridine	EPA 8270	Extractable Organics	NELAP	2/23/2012
Dibenz(a,h)anthracene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Dibenz(a,h)anthracene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Dibenzofuran	EPA 8270	Extractable Organics	NELAP	5/23/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Dibromochloromethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Dibromomethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Dichlorodifluoromethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Dieldrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Diesel range organics (DRO)	EPA 8015	Extractable Organics	NELAP	5/23/2001
Diesel range organics (DRO)	MADEP-EPH (MA-EPH)	Extractable Organics	NELAP	5/23/2001
Diesel range organics (DRO)	NV04-22\8270/GC-MS	Extractable Organics	NELAP	2/23/2012
Diesel range organics (DRO)	NWTPH-Dx	Extractable Organics	NELAP	10/8/2002
Diesel range organics (DRO)	NWTPH-EPH	Extractable Organics	NELAP	7/30/2009
Diesel range organics (DRO)	OA-2	Extractable Organics	NELAP	5/23/2001
Diesel range organics (DRO)	OK-DRO	Extractable Organics	NELAP	10/8/2002
Diesel range organics (DRO)	TN-EPH	Extractable Organics	NELAP	5/23/2001
Diesel range organics (DRO)	WI-DRO	Extractable Organics	NELAP	5/23/2001
Diethyl ether	EPA 8260	Volatile Organics	NELAP	5/23/2001
Diethyl phthalate	EPA 8270	Extractable Organics	NELAP	5/23/2001
Dimethoate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Dimethyl phthalate	EPA 8270	Extractable Organics	NELAP	5/23/2001
Di-n-butyl phthalate	EPA 8270	Extractable Organics	NELAP	5/23/2001
Di-n-octyl phthalate	EPA 8270	Extractable Organics	NELAP	5/23/2001
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
Disulfoton	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
Endosulfan I	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endosulfan II	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endosulfan sulfate	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endrin	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endrin aldehyde	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Endrin ketone	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Ethanol	EPA 8015	Volatile Organics	NELAP	5/23/2001
Ethanol	EPA 8260	Volatile Organics	NELAP	5/19/2005
Ethyl methacrylate	EPA 8260	Volatile Organics	NELAP	5/23/2001
Ethyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/30/2009
Ethylbenzene	EPA 8021	Volatile Organics	NELAP	5/23/2001
Ethylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Ethylene glycol	EPA 8015	Volatile Organics	NELAP	5/23/2001
Ethyl-t-butylether (ETBE)	EPA 8260	Volatile Organics	NELAP	2/23/2012
Extractable organic halides (EOX)	EPA 9023	General Chemistry	NELAP	5/23/2001

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Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Fluoranthene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Fluoranthene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Fluorene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Fluorene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Fluoride	EPA 9056	General Chemistry	NELAP	5/23/2001
Formaldehyde	EPA 8315	Extractable Organics	NELAP	5/23/2001
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
gamma-Chlordane	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Gasoline range organics (GRO)	EPA 8015	Extractable Organics	NELAP	5/23/2001
Gasoline range organics (GRO)	MADEP-VPH (MA-VPH)	Extractable Organics	NELAP	5/23/2001
Gasoline range organics (GRO)	NV05-77\8260/GC-MS	Volatile Organics	NELAP	2/23/2012
Gasoline range organics (GRO)	NWTPH-Gx	Extractable Organics	NELAP	10/8/2002
Gasoline range organics (GRO)	NWTPH-VPH	Volatile Organics	NELAP	7/30/2009
Gasoline range organics (GRO)	OA-1	Extractable Organics	NELAP	10/8/2002
Gasoline range organics (GRO)	OK-GRO	Extractable Organics	NELAP	10/8/2002
Gasoline range organics (GRO)	WI-GRO	Extractable Organics	NELAP	10/8/2002
Heptachlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Heptachlor epoxide	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Hexachlorobenzene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Hexachlorobutadiene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Hexachlorobutadiene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Hexachlorocyclopentadiene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Hexachloroethane	EPA 8270	Extractable Organics	NELAP	5/23/2001
Hexachlorophene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Hexachloropropene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Ignitability	EPA 1010	General Chemistry	NELAP	5/23/2001
Indeno(1,2,3-cd)pyrene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Indeno(1,2,3-cd)pyrene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Iodomethane (Methyl iodide)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Iron	EPA 6010	Metals	NELAP	5/23/2001
Iron	EPA 6020	Metals	NELAP	3/19/2007
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8015	Volatile Organics	NELAP	5/23/2001
Isobutyl alcohol (2-Methyl-1-propanol)	EPA 8260	Volatile Organics	NELAP	5/19/2005
Isodrin	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Isophorone	EPA 8270	Extractable Organics	NELAP	5/23/2001
Isopropyl alcohol (2-Propanol)	EPA 8015	Volatile Organics	NELAP	5/23/2001

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Analyte	Method/Tech	Category	Certification Type	Effective Date
Isopropyl alcohol (2-Propanol)	EPA 8260	Volatile Organics	NELAP	10/8/2002
Isopropyl ether	EPA 8260	Volatile Organics	NELAP	2/23/2012
Isopropylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Isosafrole	EPA 8270	Extractable Organics	NELAP	7/30/2009
Kepone	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Lead	EPA 6010	Metals	NELAP	5/23/2001
Lead	EPA 6020	Metals	NELAP	3/19/2007
Lithium	EPA 6010	Metals	NELAP	5/9/2011
m/p-Xylenes	EPA 8021	Volatile Organics	NELAP	7/30/2009
m/p-Xylenes	EPA 8260	Volatile Organics	NELAP	7/30/2009
Magnesium	EPA 6010	Metals	NELAP	5/23/2001
Magnesium	EPA 6020	Metals	NELAP	2/23/2012
Manganese	EPA 6010	Metals	NELAP	5/23/2001
Manganese	EPA 6020	Metals	NELAP	3/19/2007
Mercury	EPA 7471	Metals	NELAP	5/23/2001
Methacrylonitrile	EPA 8260	Volatile Organics	NELAP	5/19/2005
Methanol	EPA 8015	Volatile Organics	NELAP	5/23/2001
Methapyrilene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Methoxychlor	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Methyl bromide (Bromomethane)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Methyl chloride (Chloromethane)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Methyl methacrylate	EPA 8260	Volatile Organics	NELAP	10/8/2002
Methyl methanesulfonate	EPA 8270	Extractable Organics	NELAP	7/30/2009
Methyl parathion (Parathion, methyl)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	10/25/2010
Methyl tert-butyl ether (MTBE)	EPA 8021	Volatile Organics	NELAP	8/8/2002
Methyl tert-butyl ether (MTBE)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Methylene chloride	EPA 8260	Volatile Organics	NELAP	5/23/2001
Molybdenum	EPA 6010	Metals	NELAP	5/23/2001
Molybdenum	EPA 6020	Metals	NELAP	3/19/2007
Naphthalene	EPA 8021	Volatile Organics	NELAP	5/23/2001
Naphthalene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Naphthalene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Naphthalene	EPA 8310	Extractable Organics	NELAP	5/23/2001
n-Butyl alcohol	EPA 8015	Volatile Organics	NELAP	5/23/2001
n-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	10/8/2002
n-Butylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001

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Nickel	EPA 6010	Metals	NELAP	5/23/2001
Nickel	EPA 6020	Metals	NELAP	3/19/2007
Nitrate	EPA 9056	General Chemistry	NELAP	5/23/2001
Nitrite	EPA 9056	General Chemistry	NELAP	5/23/2001
Nitrobenzene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Nitroquinoline-1-oxide	EPA 8270	Extractable Organics	NELAP	2/23/2012
n-Nitrosodiethylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosodimethylamine	EPA 8270	Extractable Organics	NELAP	5/23/2001
n-Nitroso-di-n-butylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosodi-n-propylamine	EPA 8270	Extractable Organics	NELAP	5/23/2001
n-Nitrosodiphenylamine	EPA 8270	Extractable Organics	NELAP	5/23/2001
n-Nitrosomethylethylamine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosomorpholine	EPA 8270	Extractable Organics	NELAP	2/23/2012
n-Nitrosopiperidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Nitrosopyrrolidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
n-Propanol	EPA 8015	Volatile Organics	NELAP	5/23/2001
n-Propylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
o,o,o-Triethyl phosphorothioate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Oil & Grease	EPA 9071	General Chemistry	NELAP	5/23/2001
o-Toluidine	EPA 8270	Extractable Organics	NELAP	7/30/2009
o-Xylene	EPA 8021	Volatile Organics	NELAP	5/19/2005
o-Xylene	EPA 8260	Volatile Organics	NELAP	5/19/2005
Paint Filter Liquids Test	EPA 9095	General Chemistry	NELAP	5/23/2001
Parathion, ethyl	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	10/25/2010
Pentachlorobenzene	EPA 8270	Extractable Organics	NELAP	7/30/2009
Pentachloronitrobenzene (Quintozene)	EPA 8270	Extractable Organics,Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Pentachlorophenol	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Pentachlorophenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
pH	EPA 9045	General Chemistry	NELAP	5/23/2001
Phenacetin	EPA 8270	Extractable Organics	NELAP	7/30/2009
Phenanthrene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Phenanthrene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Phenol	EPA 8270	Extractable Organics	NELAP	5/23/2001
Phorate	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
p-Isopropyltoluene	EPA 8260	Volatile Organics	NELAP	5/23/2001

Laboratory Scope of Accreditation

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Potassium	EPA 6010	Metals	NELAP	5/23/2001
Potassium	EPA 6020	Metals	NELAP	2/23/2012
Pronamide (Kerb)	EPA 8270	Extractable Organics	NELAP	7/30/2009
Propionitrile (Ethyl cyanide)	EPA 8260	Volatile Organics	NELAP	10/8/2002
Pyrene	EPA 8270	Extractable Organics	NELAP	5/23/2001
Pyrene	EPA 8310	Extractable Organics	NELAP	5/23/2001
Pyridine	EPA 8270	Extractable Organics	NELAP	5/23/2001
Safrole	EPA 8270	Extractable Organics	NELAP	7/30/2009
sec-Butylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Selenium	EPA 6010	Metals	NELAP	5/23/2001
Selenium	EPA 6020	Metals	NELAP	3/19/2007
Silver	EPA 6010	Metals	NELAP	5/23/2001
Silver	EPA 6020	Metals	NELAP	3/19/2007
Silvex (2,4,5-TP)	EPA 8151	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Sodium	EPA 6010	Metals	NELAP	5/23/2001
Sodium	EPA 6020	Metals	NELAP	2/23/2012
Strontium	EPA 6010	Metals	NELAP	5/23/2001
Styrene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Sulfate	EPA 9056	General Chemistry	NELAP	5/23/2001
Sulfide	EPA 9030/9034	General Chemistry	NELAP	5/23/2001
Sulfotepp	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	2/23/2012
Sulfur	NV06-44\6010/ICP-AES	Metals	NELAP	5/9/2011
Synthetic Precipitation Leaching Procedure	EPA 1312	General Chemistry	NELAP	5/23/2001
T-amylmethylether (TAME)	EPA 8260	Volatile Organics	NELAP	2/23/2012
tert-Amyl alcohol (2-methyl-2-butanol)	EPA 8260	Volatile Organics	NELAP	2/23/2012
tert-Butyl alcohol	EPA 8015	Volatile Organics	NELAP	5/23/2001
tert-Butyl alcohol	EPA 8260	Volatile Organics	NELAP	8/8/2002
tert-Butyl formate	EPA 8260	Volatile Organics	NELAP	2/23/2012
tert-Butylbenzene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Tetrachloroethylene (Perchloroethylene)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Thallium	EPA 6010	Metals	NELAP	5/23/2001
Thallium	EPA 6020	Metals	NELAP	3/19/2007
Thionazin (Zinophos)	EPA 8270	Pesticides-Herbicides-PCB's	NELAP	7/30/2009
Thiophenol (Benzenethiol)	EPA 8270	Extractable Organics	NELAP	2/23/2012
Tin	EPA 6010	Metals	NELAP	5/23/2001
Tin	EPA 6020	Metals	NELAP	3/19/2007

Attachment to Certificate #: E87358-37, expiration date June 30, 2014. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E87358 **EPA Lab Code: TN00032** **(615) 726-0177**

E87358
TestAmerica Laboratories, Inc.
2960 Foster Creighton Drive
Nashville, TN 37204

Matrix: Solid and Chemical Materials

Analyte	Method/Tech	Category	Certification Type	Effective Date
Titanium	EPA 6010	Metals	NELAP	5/23/2001
Titanium	EPA 6020	Metals	NELAP	3/19/2007
Toluene	EPA 8021	Volatile Organics	NELAP	5/23/2001
Toluene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Total cyanide	EPA 9012	General Chemistry	NELAP	5/23/2001
Total Petroleum Hydrocarbons (TPH)	8015 AZ	Extractable Organics	NELAP	5/23/2001
Total Petroleum Hydrocarbons (TPH)	FL-PRO	Extractable Organics	NELAP	5/23/2001
Total Petroleum Hydrocarbons (TPH)	TPHCWG Direct Method	Extractable Organics	NELAP	5/19/2005
Total Petroleum Hydrocarbons (TPH)	TX1005	Extractable Organics	NELAP	5/23/2001
Total Petroleum Hydrocarbons (TPH)	TX1006	Extractable Organics	NELAP	10/8/2002
Total phenolics	EPA 9066	General Chemistry	NELAP	5/23/2001
Toxaphene (Chlorinated camphene)	EPA 8081	Pesticides-Herbicides-PCB's	NELAP	5/23/2001
Toxicity Characteristic Leaching Procedure	EPA 1311	General Chemistry	NELAP	5/23/2001
trans-1,2-Dichloroethylene	EPA 8260	Volatile Organics	NELAP	5/23/2001
trans-1,3-Dichloropropene	EPA 8260	Volatile Organics	NELAP	5/23/2001
trans-1,4-Dichloro-2-butene	EPA 8260	Volatile Organics	NELAP	5/23/2001
Trichloroethene (Trichloroethylene)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Trichlorofluoromethane	EPA 8260	Volatile Organics	NELAP	5/23/2001
Vanadium	EPA 6010	Metals	NELAP	5/23/2001
Vanadium	EPA 6020	Metals	NELAP	3/19/2007
Vinyl acetate	EPA 8260	Volatile Organics	NELAP	5/23/2001
Vinyl chloride	EPA 8260	Volatile Organics	NELAP	5/23/2001
Xylene (total)	EPA 8021	Volatile Organics	NELAP	5/23/2001
Xylene (total)	EPA 8260	Volatile Organics	NELAP	5/23/2001
Zinc	EPA 6010	Metals	NELAP	5/23/2001
Zinc	EPA 6020	Metals	NELAP	3/19/2007

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: 680-96098-1
Client Project/Site: Hercules Savannah / Remediation

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

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
11/26/2013 10:19:33 AM

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 / Remediation

TestAmerica Job ID: 680-96098-1

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.
*	LCS or LCSD exceeds the control limits
X	Surrogate is outside control limits
*	RPD of the LCS and LCSD exceeds the control limits
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

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
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 / Remediation

TestAmerica Job ID: 680-96098-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL SAV

Protocol References:

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

Laboratory References:

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

Sample Summary

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

TestAmerica Job ID: 680-96098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-96098-1	MW-F5	Water	11/11/13 17:10	11/12/13 16:17
680-96098-2	MW-F3R	Water	11/12/13 09:10	11/12/13 16:17
680-96098-3	MW-29	Water	11/12/13 10:00	11/12/13 16:17
680-96098-4	MW-27	Water	11/12/13 10:50	11/12/13 16:17
680-96098-5	MW-F7	Water	11/12/13 11:35	11/12/13 16:17
680-96098-6	MWD-30	Water	11/12/13 12:25	11/12/13 16:17
680-96098-7	MW-F21	Water	11/12/13 13:05	11/12/13 16:17
680-96098-8	Trip Blank	Water	11/12/13 00:00	11/12/13 16:17

Job ID: 680-96098-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah / Remediation

Report Number: 680-96098-1

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 some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 11/12/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples MW-F5 (680-96098-1), MW-F3R (680-96098-2), MW-29 (680-96098-3), MW-27 (680-96098-4), MW-F7 (680-96098-5), MWD-30 (680-96098-6), MW-F21 (680-96098-7) and Trip Blank (680-96098-8) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/22/2013.

Chloromethane failed the recovery criteria low for LCS 680-304567/4. Chloromethane failed the recovery criteria low for LCSD 680-304567/5. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples MW-F5 (680-96098-1), MW-F3R (680-96098-2), MW-29 (680-96098-3), MW-27 (680-96098-4), MW-F7 (680-96098-5), MWD-30 (680-96098-6) and MW-F21 (680-96098-7) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 11/14/2013 and 11/19/2013 and analyzed on 11/19/2013 and 11/21/2013.

2-Fluorobiphenyl, Nitrobenzene-d5 (Surr) and Terphenyl-d14 (Surr) failed the surrogate recovery criteria low for MW-29 (680-96098-3). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

Due to the level of dilution required for the following sample(s), surrogate recoveries are not reported: MW-F21 (680-96098-7).

Pyridine failed the recovery criteria low for LCS 680-303187/9-A. 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Methylnaphthalene, Hexachlorobutadiene and Hexachloroethane failed the recovery criteria low for LCSD 680-303187/10-A. Aniline and Pyridine exceeded the RPD limit.

Sample MW-F21 (680-96098-7)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Job ID: 680-96098-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F5

Lab Sample ID: 680-96098-1

Date Collected: 11/11/13 17:10

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Styrene	1.0	U	1.0		ug/L			11/22/13 14:35	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Acrolein	20	U	20		ug/L			11/22/13 14:35	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 14:35	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Propionitrile	20	U	20		ug/L			11/22/13 14:35	1
Acrylonitrile	20	U	20		ug/L			11/22/13 14:35	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 14:35	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 14:35	1
Toluene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 14:35	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 14:35	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 14:35	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 14:35	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 14:35	1
2-Hexanone	10	U	10		ug/L			11/22/13 14:35	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Acetone	25	U	25		ug/L			11/22/13 14:35	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 14:35	1
Benzene	1.0	U	1.0		ug/L			11/22/13 14:35	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 14:35	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 14:35	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 14:35	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 14:35	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 14:35	1
Acetonitrile	40	U	40		ug/L			11/22/13 14:35	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 14:35	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 14:35	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 14:35	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 14:35	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 14:35	1
Isobutanol	40	U	40		ug/L			11/22/13 14:35	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 14:35	1
2-Butanone	10	U	10		ug/L			11/22/13 14:35	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 14:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 14:35	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 14:35	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F5

Date Collected: 11/11/13 17:10
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*70 - 130*		*11/22/13 14:35*	*1*
Dibromofluoromethane	*98*		*70 - 130*		*11/22/13 14:35*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/22/13 14:35*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Nitrophenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Benzyl alcohol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosopiperidine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Bromophenyl phenyl ether	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,4-Dimethylphenol	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosomethylethylamine	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,4-Dichlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Chloroaniline	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
p-Phenylene diamine	190	U	190		ug/L		11/14/13 15:32	11/19/13 05:11	1
bis (2-chloroisopropyl) ether	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Phenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Picoline	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Pyridine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Bis(2-chloroethyl)ether	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Bis(2-chloroethoxy)methane	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Bis(2-ethylhexyl) phthalate	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Di-n-octyl phthalate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Hexachlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
3,3'-Dimethylbenzidine	19	U	19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Anthracene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Isosafrole	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,2,4-Trichlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,4-Dichlorophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,4-Dinitrotoluene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
alpha,alpha-Dimethyl phenethylamine	9.7	U	9.7		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,4-Dioxane	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
o,o',o''-Triethylphosphorothioate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Pyrene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,4-Naphthoquinone	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Dimethyl phthalate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Dibenzofuran	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
1-Naphthylamine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Aramite, Total	1.5	U	1.5		ug/L		11/14/13 15:32	11/19/13 05:11	1
Hexachloropropene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Benzo[g,h,i]perylene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Indeno[1,2,3-cd]pyrene	**0.32**		0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Benzo[b]fluoranthene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Fluoranthene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Benzo[k]fluoranthene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Acenaphthylene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1

Client Sample ID: MW-F5

Lab Sample ID: 680-96098-1

Date Collected: 11/11/13 17:10

Matrix: Water

Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Diallate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Pronamide	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Thionazin	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Methyl parathion	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Phorate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Disulfoton	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Sulfotepp	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Benzo[a]pyrene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,4-Dinitrophenol	9.7	U	9.7		ug/L		11/14/13 15:32	11/19/13 05:11	1
Famphur	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
4,6-Dinitro-2-methylphenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Dibenz(a,h)anthracene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Acetylaminofluorene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,3-Dichlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosodiethylamine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Ethyl Parathion	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
3-Methylcholanthrene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Benzo[a]anthracene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Nitroquinoline-1-oxide	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
7,12-Dimethylbenz(a)anthracene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,3,4,6-Tetrachlorophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Chloro-3-methylphenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosomorpholine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
p-Dimethylamino azobenzene	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Dimethoate	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,6-Dinitrotoluene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Pentachlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosodi-n-propylamine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Phenacetin	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Ethyl methanesulfonate	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Aniline	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosodimethylamine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Methyl methanesulfonate	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Hexachloroethane	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Chlorophenyl phenyl ether	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Hexachlorophene	490	U	490		ug/L		11/14/13 15:32	11/19/13 05:11	1
Hexachlorocyclopentadiene	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Isophorone	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Pentachloronitrobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Acenaphthene	**7.5**		0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Diethyl phthalate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Di-n-butyl phthalate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Phenanthrene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
Butyl benzyl phthalate	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosodiphenylamine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Fluorene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,6-Dichlorophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Hexachlorobutadiene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1

Client Sample ID: MW-F5
Date Collected: 11/11/13 17:10
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-1
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,4,6-Trichlorophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Nitroaniline	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Nitrophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Dinoseb	1.9	U *	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Naphthalene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Methylnaphthalene	0.19	U	0.19		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Chloronaphthalene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Naphthylamine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
Methapyrilene	190	U	190		ug/L		11/14/13 15:32	11/19/13 05:11	1
3,3'-Dichlorobenzidine	19	U	19		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosodi-n-butylamine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
4-Aminobiphenyl	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitrosopyrrolidine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Safrole, Total	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Methylphenol	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,2-Dichlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Toluidine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2-Chlorophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,2,4,5-Tetrachlorobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
2,4,5-Trichlorophenol	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Acetophenone	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
Nitrobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
3-Nitroaniline	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,3,5-Trinitrobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
N-Nitro-o-toluidine	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
1,3-Dinitrobenzene	0.97	U	0.97		ug/L		11/14/13 15:32	11/19/13 05:11	1
3 & 4 Methylphenol	1.9	U	1.9		ug/L		11/14/13 15:32	11/19/13 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*41*		*27 - 130*	*11/14/13 15:32*	*11/19/13 05:11*	*1*
Nitrobenzene-d5 (Surr)	*47*		*32 - 130*	*11/14/13 15:32*	*11/19/13 05:11*	*1*
Terphenyl-d14 (Surr)	*52*		*36 - 130*	*11/14/13 15:32*	*11/19/13 05:11*	*1*
2,4,6-Tribromophenol (Surr)	*52*		*30 - 130*	*11/14/13 15:32*	*11/19/13 05:11*	*1*
2-Fluorophenol (Surr)	*45*		*25 - 130*	*11/14/13 15:32*	*11/19/13 05:11*	*1*
2-Fluorobiphenyl	*42*		*34 - 130*	*11/14/13 15:32*	*11/19/13 05:11*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F3R

Lab Sample ID: 680-96098-2

Date Collected: 11/12/13 09:10

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Styrene	1.0	U	1.0		ug/L			11/22/13 15:05	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Acrolein	20	U	20		ug/L			11/22/13 15:05	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 15:05	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Propionitrile	20	U	20		ug/L			11/22/13 15:05	1
Acrylonitrile	20	U	20		ug/L			11/22/13 15:05	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 15:05	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 15:05	1
Toluene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 15:05	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 15:05	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 15:05	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 15:05	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 15:05	1
2-Hexanone	10	U	10		ug/L			11/22/13 15:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Acetone	25	U	25		ug/L			11/22/13 15:05	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 15:05	1
Benzene	1.0	U	1.0		ug/L			11/22/13 15:05	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 15:05	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 15:05	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 15:05	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 15:05	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 15:05	1
Acetonitrile	40	U	40		ug/L			11/22/13 15:05	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 15:05	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 15:05	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 15:05	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 15:05	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 15:05	1
Isobutanol	40	U	40		ug/L			11/22/13 15:05	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 15:05	1
2-Butanone	10	U	10		ug/L			11/22/13 15:05	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 15:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 15:05	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 15:05	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F3R

Date Collected: 11/12/13 09:10
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*70 - 130*		*11/22/13 15:05*	*1*
Dibromofluoromethane	*100*		*70 - 130*		*11/22/13 15:05*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/22/13 15:05*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Nitrophenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Benzyl alcohol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosopiperidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Bromophenyl phenyl ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,4-Dichlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Chloroaniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
p-Phenylene diamine	200	U	200		ug/L		11/14/13 15:32	11/19/13 05:36	1
bis (2-chloroisopropyl) ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Phenol	**1.5**		0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Picoline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
Pyridine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Bis(2-chloroethyl)ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Bis(2-chloroethoxy)methane	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
Di-n-octyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Hexachlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Isosafrole	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,2,4-Trichlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,4-Dichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,4-Dinitrotoluene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
alpha,alpha-Dimethyl phenethylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
o,o',o''-Triethylphosphorothioate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,4-Naphthoquinone	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Dimethyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Dibenzofuran	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
1-Naphthylamine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Aramite, Total	1.5	U	1.5		ug/L		11/14/13 15:32	11/19/13 05:36	1
Hexachloropropene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Indeno[1,2,3-cd]pyrene	**0.33**		0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Acenaphthylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1

Client Sample ID: MW-F3R

Date Collected: 11/12/13 09:10
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-2
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Diallate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Pronamide	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Thionazin	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Methyl parathion	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Phorate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Disulfoton	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Sulfotepp	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,4-Dinitrophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Famphur	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
4,6-Dinitro-2-methylphenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Acetylaminofluorene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,3-Dichlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosodiethylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
3-Methylcholanthrene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
7,12-Dimethylbenz(a)anthracene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,3,4,6-Tetrachlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Chloro-3-methylphenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosomorpholine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
p-Dimethylamino azobenzene	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Dimethoate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,6-Dinitrotoluene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Pentachlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosodi-n-propylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Phenacetin	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
Aniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosodimethylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
Hexachloroethane	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Chlorophenyl phenyl ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Hexachlorophene	490	U	490		ug/L		11/14/13 15:32	11/19/13 05:36	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
Isophorone	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Pentachloronitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Acenaphthene	**0.54**		0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Diethyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Di-n-butyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Phenanthrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
Butyl benzyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosodiphenylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Fluorene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,6-Dichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Hexachlorobutadiene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F3R

Lab Sample ID: 680-96098-2

Date Collected: 11/12/13 09:10
Matrix: Water
Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,4,6-Trichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Nitroaniline	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Nitrophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Dinoseb	2.0	U *	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
Naphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Chloronaphthalene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Naphthylamine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
Methapyrilene	200	U	200		ug/L		11/14/13 15:32	11/19/13 05:36	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosodi-n-butylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
4-Aminobiphenyl	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitrosopyrrolidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Safrole, Total	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,2-Dichlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Toluidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2-Chlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,2,4,5-Tetrachlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
2,4,5-Trichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Acetophenone	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
Nitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
3-Nitroaniline	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,3,5-Trinitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
N-Nitro-o-toluidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
1,3-Dinitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 05:36	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 05:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*44*		*27 - 130*	*11/14/13 15:32*	*11/19/13 05:36*	*1*
Nitrobenzene-d5 (Surr)	*44*		*32 - 130*	*11/14/13 15:32*	*11/19/13 05:36*	*1*
Terphenyl-d14 (Surr)	*54*		*36 - 130*	*11/14/13 15:32*	*11/19/13 05:36*	*1*
2,4,6-Tribromophenol (Surr)	*58*		*30 - 130*	*11/14/13 15:32*	*11/19/13 05:36*	*1*
2-Fluorophenol (Surr)	*39*		*25 - 130*	*11/14/13 15:32*	*11/19/13 05:36*	*1*
2-Fluorobiphenyl	*44*		*34 - 130*	*11/14/13 15:32*	*11/19/13 05:36*	*1*

Client Sample ID: MW-29
Date Collected: 11/12/13 10:00
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Styrene	1.0	U	1.0		ug/L			11/22/13 15:36	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Acrolein	20	U	20		ug/L			11/22/13 15:36	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 15:36	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Propionitrile	20	U	20		ug/L			11/22/13 15:36	1
Acrylonitrile	20	U	20		ug/L			11/22/13 15:36	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 15:36	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 15:36	1
Toluene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 15:36	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 15:36	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 15:36	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 15:36	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 15:36	1
2-Hexanone	10	U	10		ug/L			11/22/13 15:36	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Acetone	25	U	25		ug/L			11/22/13 15:36	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 15:36	1
Benzene	1.0	U	1.0		ug/L			11/22/13 15:36	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 15:36	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 15:36	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 15:36	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 15:36	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 15:36	1
Acetonitrile	40	U	40		ug/L			11/22/13 15:36	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 15:36	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 15:36	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 15:36	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 15:36	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 15:36	1
Isobutanol	40	U	40		ug/L			11/22/13 15:36	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 15:36	1
2-Butanone	10	U	10		ug/L			11/22/13 15:36	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 15:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 15:36	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 15:36	1

Client Sample ID: MW-29

Date Collected: 11/12/13 10:00
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*11/22/13 15:36*	*1*
Dibromofluoromethane	*97*		*70 - 130*		*11/22/13 15:36*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/22/13 15:36*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Nitrophenol	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Benzyl alcohol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosopiperidine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Bromophenyl phenyl ether	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,4-Dimethylphenol	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosomethylethylamine	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,4-Dichlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Chloroaniline	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
p-Phenylene diamine	230	U	230		ug/L		11/19/13 15:23	11/21/13 21:37	1
bis (2-chloroisopropyl) ether	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Phenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Picoline	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
Pyridine	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Bis(2-chloroethyl)ether	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Bis(2-chloroethoxy)methane	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Bis(2-ethylhexyl) phthalate	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
Di-n-octyl phthalate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Hexachlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
3,3'-Dimethylbenzidine	23	U	23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Anthracene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Isosafrole	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,2,4-Trichlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,4-Dichlorophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,4-Dinitrotoluene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
alpha,alpha-Dimethyl phenethylamine	11	U	11		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,4-Dioxane	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
o,o',o''-Triethylphosphorothioate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Pyrene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,4-Naphthoquinone	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Dimethyl phthalate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Dibenzofuran	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
1-Naphthylamine	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Aramite, Total	1.7	U	1.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Hexachloropropene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Benzo[g,h,i]perylene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Indeno[1,2,3-cd]pyrene	**0.37**		0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Benzo[b]fluoranthene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Fluoranthene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Benzo[k]fluoranthene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Acenaphthylene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1

Client Sample ID: MW-29
Date Collected: 11/12/13 10:00
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-3
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Diallate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Pronamide	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Thionazin	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Methyl parathion	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Phorate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Disulfoton	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Sulfotepp	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Benzo[a]pyrene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,4-Dinitrophenol	11	U	11		ug/L		11/19/13 15:23	11/21/13 21:37	1
Famphur	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
4,6-Dinitro-2-methylphenol	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Dibenz(a,h)anthracene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Acetylaminofluorene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,3-Dichlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosodiethylamine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Ethyl Parathion	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
3-Methylcholanthrene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Benzo[a]anthracene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Nitroquinoline-1-oxide	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
7,12-Dimethylbenz(a)anthracene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,3,4,6-Tetrachlorophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Chloro-3-methylphenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosomorpholine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
p-Dimethylamino azobenzene	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Dimethoate	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,6-Dinitrotoluene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Pentachlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosodi-n-propylamine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Phenacetin	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Ethyl methanesulfonate	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
Aniline	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosodimethylamine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Methyl methanesulfonate	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
Hexachloroethane	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Chlorophenyl phenyl ether	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Hexachlorophene	570	U	570		ug/L		11/19/13 15:23	11/21/13 21:37	1
Hexachlorocyclopentadiene	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
Isophorone	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Pentachloronitrobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Acenaphthene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Diethyl phthalate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Di-n-butyl phthalate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Phenanthrene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
Butyl benzyl phthalate	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosodiphenylamine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Fluorene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,6-Dichlorophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Hexachlorobutadiene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-29

Lab Sample ID: 680-96098-3

Date Collected: 11/12/13 10:00
Matrix: Water
Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,4,6-Trichlorophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Nitroaniline	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Nitrophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Dinoseb	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
Naphthalene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Methylnaphthalene	0.23	U	0.23		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Chloronaphthalene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Naphthylamine	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
Methapyrilene	230	U	230		ug/L		11/19/13 15:23	11/21/13 21:37	1
3,3'-Dichlorobenzidine	23	U	23		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosodi-n-butylamine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
4-Aminobiphenyl	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitrosopyrrolidine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Safrole, Total	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Methylphenol	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,2-Dichlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Toluidine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2-Chlorophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,2,4,5-Tetrachlorobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
2,4,5-Trichlorophenol	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Acetophenone	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
Nitrobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
3-Nitroaniline	5.7	U	5.7		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,3,5-Trinitrobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
N-Nitro-o-toluidine	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
1,3-Dinitrobenzene	1.1	U	1.1		ug/L		11/19/13 15:23	11/21/13 21:37	1
3 & 4 Methylphenol	2.3	U	2.3		ug/L		11/19/13 15:23	11/21/13 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*30*		*27 - 130*	*11/19/13 15:23*	*11/21/13 21:37*	*1*
Nitrobenzene-d5 (Surr)	*30*	*X*	*32 - 130*	*11/19/13 15:23*	*11/21/13 21:37*	*1*
Terphenyl-d14 (Surr)	*34*	*X*	*36 - 130*	*11/19/13 15:23*	*11/21/13 21:37*	*1*
2,4,6-Tribromophenol (Surr)	*37*		*30 - 130*	*11/19/13 15:23*	*11/21/13 21:37*	*1*
2-Fluorophenol (Surr)	*33*		*25 - 130*	*11/19/13 15:23*	*11/21/13 21:37*	*1*
2-Fluorobiphenyl	*29*	*X*	*34 - 130*	*11/19/13 15:23*	*11/21/13 21:37*	*1*

Client Sample ID: MW-27

Lab Sample ID: 680-96098-4

Date Collected: 11/12/13 10:50

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 16:06	1
Styrene	1.0	U	1.0		ug/L			11/22/13 16:06	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 16:06	1
Acrolein	20	U	20		ug/L			11/22/13 16:06	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 16:06	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Propionitrile	20	U	20		ug/L			11/22/13 16:06	1
Acrylonitrile	20	U	20		ug/L			11/22/13 16:06	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 16:06	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 16:06	1
Toluene	1.0	U	1.0		ug/L			11/22/13 16:06	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 16:06	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 16:06	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 16:06	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 16:06	1
Tetrachloroethene	**1.2**		1.0		ug/L			11/22/13 16:06	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 16:06	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 16:06	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 16:06	1
2-Hexanone	10	U	10		ug/L			11/22/13 16:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Acetone	25	U	25		ug/L			11/22/13 16:06	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 16:06	1
Benzene	1.0	U	1.0		ug/L			11/22/13 16:06	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 16:06	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 16:06	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 16:06	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 16:06	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 16:06	1
Acetonitrile	40	U	40		ug/L			11/22/13 16:06	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 16:06	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 16:06	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 16:06	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 16:06	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 16:06	1
Isobutanol	40	U	40		ug/L			11/22/13 16:06	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 16:06	1
2-Butanone	10	U	10		ug/L			11/22/13 16:06	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 16:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 16:06	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 16:06	1

Client Sample ID: MW-27

Lab Sample ID: 680-96098-4

Date Collected: 11/12/13 10:50

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*		*11/22/13 16:06*	*1*
Dibromofluoromethane	*97*		*70 - 130*		*11/22/13 16:06*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*11/22/13 16:06*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Nitrophenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
Benzyl alcohol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosopiperidine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Bromophenyl phenyl ether	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,4-Dichlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Chloroaniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
p-Phenylene diamine	200	U	200		ug/L		11/14/13 15:32	11/19/13 06:26	1
bis (2-chloroisopropyl) ether	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Phenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Picoline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
Pyridine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
Bis(2-chloroethyl)ether	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Bis(2-chloroethoxy)methane	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
Di-n-octyl phthalate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Hexachlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Isosafrole	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,2,4-Trichlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,4-Dichlorophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,4-Dinitrotoluene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
alpha,alpha-Dimethyl phenethylamine	9.8	U	9.8		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
o,o',o''-Triethylphosphorothioate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,4-Naphthoquinone	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Dimethyl phthalate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Dibenzofuran	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
1-Naphthylamine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
Aramite, Total	1.5	U	1.5		ug/L		11/14/13 15:32	11/19/13 06:26	1
Hexachloropropene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Indeno[1,2,3-cd]pyrene	**0.33**		0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Acenaphthylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1

Client Sample ID: MW-27

Lab Sample ID: 680-96098-4

Date Collected: 11/12/13 10:50

Matrix: Water

Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Diallate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Pronamide	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Thionazin	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Methyl parathion	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Phorate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Disulfoton	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Sulfotepp	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,4-Dinitrophenol	9.8	U	9.8		ug/L		11/14/13 15:32	11/19/13 06:26	1
Famphur	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
4,6-Dinitro-2-methylphenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Acetylaminofluorene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,3-Dichlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosodiethylamine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
3-Methylcholanthrene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
7,12-Dimethylbenz(a)anthracene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,3,4,6-Tetrachlorophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Chloro-3-methylphenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosomorpholine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
p-Dimethylamino azobenzene	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
Dimethoate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,6-Dinitrotoluene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Pentachlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosodi-n-propylamine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Phenacetin	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
Aniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosodimethylamine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
Hexachloroethane	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Chlorophenyl phenyl ether	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Hexachlorophene	490	U	490		ug/L		11/14/13 15:32	11/19/13 06:26	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
Isophorone	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Pentachloronitrobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Acenaphthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Diethyl phthalate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Di-n-butyl phthalate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Phenanthrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
Butyl benzyl phthalate	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosodiphenylamine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Fluorene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,6-Dichlorophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Hexachlorobutadiene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-27

Lab Sample ID: 680-96098-4

Date Collected: 11/12/13 10:50
Matrix: Water
Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,4,6-Trichlorophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Nitroaniline	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Nitrophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Dinoseb	2.0	U *	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
Naphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Chloronaphthalene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Naphthylamine	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
Methapyrilene	200	U	200		ug/L		11/14/13 15:32	11/19/13 06:26	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosodi-n-butylamine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
4-Aminobiphenyl	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitrosopyrrolidine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Safrole, Total	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,2-Dichlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Toluidine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2-Chlorophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,2,4,5-Tetrachlorobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
2,4,5-Trichlorophenol	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Acetophenone	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
Nitrobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
3-Nitroaniline	4.9	U	4.9		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,3,5-Trinitrobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
N-Nitro-o-toluidine	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
1,3-Dinitrobenzene	0.98	U	0.98		ug/L		11/14/13 15:32	11/19/13 06:26	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*40*		*27 - 130*	*11/14/13 15:32*	*11/19/13 06:26*	*1*
Nitrobenzene-d5 (Surr)	*45*		*32 - 130*	*11/14/13 15:32*	*11/19/13 06:26*	*1*
Terphenyl-d14 (Surr)	*49*		*36 - 130*	*11/14/13 15:32*	*11/19/13 06:26*	*1*
2,4,6-Tribromophenol (Surr)	*48*		*30 - 130*	*11/14/13 15:32*	*11/19/13 06:26*	*1*
2-Fluorophenol (Surr)	*45*		*25 - 130*	*11/14/13 15:32*	*11/19/13 06:26*	*1*
2-Fluorobiphenyl	*40*		*34 - 130*	*11/14/13 15:32*	*11/19/13 06:26*	*1*

Client Sample ID: MW-F7

Lab Sample ID: 680-96098-5

Date Collected: 11/12/13 11:35

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 16:37	1
Styrene	1.0	U	1.0		ug/L			11/22/13 16:37	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 16:37	1
Acrolein	20	U	20		ug/L			11/22/13 16:37	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 16:37	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Propionitrile	20	U	20		ug/L			11/22/13 16:37	1
Acrylonitrile	20	U	20		ug/L			11/22/13 16:37	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 16:37	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 16:37	1
Toluene	1.0	U	1.0		ug/L			11/22/13 16:37	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 16:37	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 16:37	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 16:37	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 16:37	1
Tetrachloroethene	**2.6**		1.0		ug/L			11/22/13 16:37	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 16:37	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 16:37	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 16:37	1
2-Hexanone	10	U	10		ug/L			11/22/13 16:37	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Acetone	25	U	25		ug/L			11/22/13 16:37	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 16:37	1
Benzene	1.0	U	1.0		ug/L			11/22/13 16:37	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 16:37	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 16:37	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 16:37	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 16:37	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 16:37	1
Acetonitrile	40	U	40		ug/L			11/22/13 16:37	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 16:37	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 16:37	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 16:37	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 16:37	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 16:37	1
Isobutanol	40	U	40		ug/L			11/22/13 16:37	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 16:37	1
2-Butanone	10	U	10		ug/L			11/22/13 16:37	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 16:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 16:37	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 16:37	1

Client Sample ID: MW-F7

Date Collected: 11/12/13 11:35
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*11/22/13 16:37*	*1*
Dibromofluoromethane	*99*		*70 - 130*		*11/22/13 16:37*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*11/22/13 16:37*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Nitrophenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,4-Dichlorobenzene	1.0	U *	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Chloroaniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
p-Phenylene diamine	200	U	200		ug/L		11/14/13 15:32	11/19/13 06:52	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Phenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Picoline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Pyridine	5.0	U *	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Isosafrole	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,2,4-Trichlorobenzene	1.0	U *	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,4-Naphthoquinone	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Dibenzofuran	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Aramite, Total	1.5	U	1.5		ug/L		11/14/13 15:32	11/19/13 06:52	1
Hexachloropropene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Acenaphthylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1

Client Sample ID: MW-F7
Date Collected: 11/12/13 11:35
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-5
Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Diallate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Pronamide	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Thionazin	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Methyl parathion	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Phorate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Disulfoton	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Sulfotepp	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,4-Dinitrophenol	10	U	10		ug/L		11/14/13 15:32	11/19/13 06:52	1
Famphur	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,3-Dichlorobenzene	1.0	U *	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Dimethoate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Phenacetin	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Aniline	2.0	U *	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Hexachloroethane	1.0	U *	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Hexachlorophene	500	U	500		ug/L		11/14/13 15:32	11/19/13 06:52	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Isophorone	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Acenaphthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Phenanthrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Fluorene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Hexachlorobutadiene	1.0	U *	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F7

Lab Sample ID: 680-96098-5

Date Collected: 11/12/13 11:35
Matrix: Water
Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Dinoseb	2.0	U *	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Naphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Methylnaphthalene	0.20	U *	0.20		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Methapyrilene	200	U	200		ug/L		11/14/13 15:32	11/19/13 06:52	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Safrole, Total	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,2-Dichlorobenzene	1.0	U *	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Toluidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Acetophenone	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
Nitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 06:52	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 06:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*46*		*27 - 130*	*11/14/13 15:32*	*11/19/13 06:52*	*1*
Nitrobenzene-d5 (Surr)	*49*		*32 - 130*	*11/14/13 15:32*	*11/19/13 06:52*	*1*
Terphenyl-d14 (Surr)	*53*		*36 - 130*	*11/14/13 15:32*	*11/19/13 06:52*	*1*
2,4,6-Tribromophenol (Surr)	*52*		*30 - 130*	*11/14/13 15:32*	*11/19/13 06:52*	*1*
2-Fluorophenol (Surr)	*49*		*25 - 130*	*11/14/13 15:32*	*11/19/13 06:52*	*1*
2-Fluorobiphenyl	*44*		*34 - 130*	*11/14/13 15:32*	*11/19/13 06:52*	*1*

Client Sample ID: MWD-30

Lab Sample ID: 680-96098-6

Date Collected: 11/12/13 12:25

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Styrene	1.0	U	1.0		ug/L			11/22/13 17:07	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Acrolein	20	U	20		ug/L			11/22/13 17:07	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 17:07	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Propionitrile	20	U	20		ug/L			11/22/13 17:07	1
Acrylonitrile	20	U	20		ug/L			11/22/13 17:07	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 17:07	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 17:07	1
Toluene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 17:07	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 17:07	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 17:07	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 17:07	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 17:07	1
2-Hexanone	10	U	10		ug/L			11/22/13 17:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Acetone	25	U	25		ug/L			11/22/13 17:07	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 17:07	1
Benzene	1.0	U	1.0		ug/L			11/22/13 17:07	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 17:07	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 17:07	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 17:07	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 17:07	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 17:07	1
Acetonitrile	40	U	40		ug/L			11/22/13 17:07	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 17:07	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 17:07	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 17:07	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 17:07	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 17:07	1
Isobutanol	40	U	40		ug/L			11/22/13 17:07	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 17:07	1
2-Butanone	10	U	10		ug/L			11/22/13 17:07	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 17:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 17:07	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 17:07	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MWD-30

Date Collected: 11/12/13 12:25
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*70 - 130*		*11/22/13 17:07*	*1*
Dibromofluoromethane	*98*		*70 - 130*		*11/22/13 17:07*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/22/13 17:07*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Nitrophenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Benzyl alcohol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosopiperidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Bromophenyl phenyl ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,4-Dichlorobenzene	0.99	U *	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Chloroaniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
p-Phenylene diamine	200	U	200		ug/L		11/14/13 15:32	11/19/13 07:17	1
bis (2-chloroisopropyl) ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Phenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Picoline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Pyridine	5.0	U *	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Bis(2-chloroethyl)ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Bis(2-chloroethoxy)methane	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Di-n-octyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Hexachlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Isosafrole	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,2,4-Trichlorobenzene	0.99	U *	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,4-Dichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,4-Dinitrotoluene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
alpha,alpha-Dimethyl phenethylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
o,o',o''-Triethylphosphorothioate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,4-Naphthoquinone	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Dimethyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Dibenzofuran	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Aramite, Total	1.5	U	1.5		ug/L		11/14/13 15:32	11/19/13 07:17	1
Hexachloropropene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Acenaphthylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1

Client Sample ID: MWD-30

Lab Sample ID: 680-96098-6

Date Collected: 11/12/13 12:25

Matrix: Water

Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Diallate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Pronamide	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Thionazin	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Methyl parathion	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Phorate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Disulfoton	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Sulfotepp	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,4-Dinitrophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 07:17	1
Famphur	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Acetylaminofluorene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,3-Dichlorobenzene	0.99	U *	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosodiethylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
3-Methylcholanthrene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
7,12-Dimethylbenz(a)anthracene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,3,4,6-Tetrachlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Chloro-3-methylphenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosomorpholine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Dimethoate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,6-Dinitrotoluene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Pentachlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosodi-n-propylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Phenacetin	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Aniline	2.0	U *	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosodimethylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Hexachloroethane	0.99	U *	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Chlorophenyl phenyl ether	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Hexachlorophene	500	U	500		ug/L		11/14/13 15:32	11/19/13 07:17	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Isophorone	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Pentachloronitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Acenaphthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Diethyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Di-n-butyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Phenanthrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
Butyl benzyl phthalate	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosodiphenylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Fluorene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,6-Dichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Hexachlorobutadiene	0.99	U *	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MWD-30

Lab Sample ID: 680-96098-6

Date Collected: 11/12/13 12:25
Matrix: Water
Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,4,6-Trichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Nitroaniline	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Nitrophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Dinoseb	2.0	U *	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Naphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Methylnaphthalene	0.20	U *	0.20		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Chloronaphthalene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
Methapyrilene	200	U	200		ug/L		11/14/13 15:32	11/19/13 07:17	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosodi-n-butylamine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitrosopyrrolidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Safrole, Total	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,2-Dichlorobenzene	0.99	U *	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Toluidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2-Chlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,2,4,5-Tetrachlorobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
2,4,5-Trichlorophenol	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Acetophenone	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
Nitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,3,5-Trinitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
N-Nitro-o-toluidine	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
1,3-Dinitrobenzene	0.99	U	0.99		ug/L		11/14/13 15:32	11/19/13 07:17	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 07:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*43*		*27 - 130*	*11/14/13 15:32*	*11/19/13 07:17*	*1*
Nitrobenzene-d5 (Surr)	*47*		*32 - 130*	*11/14/13 15:32*	*11/19/13 07:17*	*1*
Terphenyl-d14 (Surr)	*56*		*36 - 130*	*11/14/13 15:32*	*11/19/13 07:17*	*1*
2,4,6-Tribromophenol (Surr)	*53*		*30 - 130*	*11/14/13 15:32*	*11/19/13 07:17*	*1*
2-Fluorophenol (Surr)	*42*		*25 - 130*	*11/14/13 15:32*	*11/19/13 07:17*	*1*
2-Fluorobiphenyl	*45*		*34 - 130*	*11/14/13 15:32*	*11/19/13 07:17*	*1*

Client Sample ID: MW-F21

Lab Sample ID: 680-96098-7

Date Collected: 11/12/13 13:05

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Styrene	1.0	U	1.0		ug/L			11/22/13 17:37	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Acrolein	20	U	20		ug/L			11/22/13 17:37	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 17:37	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Propionitrile	20	U	20		ug/L			11/22/13 17:37	1
Acrylonitrile	20	U	20		ug/L			11/22/13 17:37	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 17:37	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 17:37	1
Toluene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 17:37	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 17:37	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 17:37	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 17:37	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 17:37	1
2-Hexanone	10	U	10		ug/L			11/22/13 17:37	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Acetone	25	U	25		ug/L			11/22/13 17:37	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 17:37	1
Benzene	**5.9**		1.0		ug/L			11/22/13 17:37	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 17:37	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 17:37	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 17:37	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 17:37	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 17:37	1
Acetonitrile	40	U	40		ug/L			11/22/13 17:37	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 17:37	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 17:37	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 17:37	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 17:37	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 17:37	1
Isobutanol	40	U	40		ug/L			11/22/13 17:37	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 17:37	1
2-Butanone	10	U	10		ug/L			11/22/13 17:37	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 17:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 17:37	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 17:37	1

Client Sample ID: MW-F21

Lab Sample ID: 680-96098-7

Date Collected: 11/12/13 13:05

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*70 - 130*		*11/22/13 17:37*	*1*
Dibromofluoromethane	*99*		*70 - 130*		*11/22/13 17:37*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*11/22/13 17:37*	*1*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Nitrophenol	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
Benzyl alcohol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosopiperidine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Bromophenyl phenyl ether	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,4-Dimethylphenol	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosomethylethylamine	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,4-Dichlorobenzene	9.9	U *	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Chloroaniline	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
p-Phenylene diamine	2000	U	2000		ug/L		11/14/13 15:32	11/19/13 20:51	10
bis (2-chloroisopropyl) ether	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Phenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Picoline	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
Pyridine	49	U *	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
Bis(2-chloroethyl)ether	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Bis(2-chloroethoxy)methane	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Bis(2-ethylhexyl) phthalate	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
Di-n-octyl phthalate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Hexachlorobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
3,3'-Dimethylbenzidine	200	U	200		ug/L		11/14/13 15:32	11/19/13 20:51	10
Anthracene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Isosafrole	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,2,4-Trichlorobenzene	9.9	U *	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,4-Dichlorophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,4-Dinitrotoluene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
alpha,alpha-Dimethyl phenethylamine	99	U	99		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,4-Dioxane	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
o,o',o''-Triethylphosphorothioate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Pyrene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,4-Naphthoquinone	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Dimethyl phthalate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Dibenzofuran	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
1-Naphthylamine	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
Aramite, Total	15	U	15		ug/L		11/14/13 15:32	11/19/13 20:51	10
Hexachloropropene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Benzo[g,h,i]perylene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Indeno[1,2,3-cd]pyrene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Benzo[b]fluoranthene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Fluoranthene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Benzo[k]fluoranthene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Acenaphthylene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10

Client Sample ID: MW-F21

Lab Sample ID: 680-96098-7

Date Collected: 11/12/13 13:05

Matrix: Water

Date Received: 11/12/13 16:17

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Diallate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Pronamide	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Thionazin	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Methyl parathion	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Phorate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Disulfoton	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Sulfotepp	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Benzo[a]pyrene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,4-Dinitrophenol	99	U	99		ug/L		11/14/13 15:32	11/19/13 20:51	10
Famphur	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
4,6-Dinitro-2-methylphenol	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
Dibenz(a,h)anthracene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Acetylaminofluorene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,3-Dichlorobenzene	9.9	U *	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosodiethylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Ethyl Parathion	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
3-Methylcholanthrene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Benzo[a]anthracene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Nitroquinoline-1-oxide	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
7,12-Dimethylbenz(a)anthracene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,3,4,6-Tetrachlorophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Chloro-3-methylphenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosomorpholine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
p-Dimethylamino azobenzene	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
Dimethoate	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,6-Dinitrotoluene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Pentachlorobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosodi-n-propylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Phenacetin	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Ethyl methanesulfonate	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
Aniline	20	U *	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosodimethylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Methyl methanesulfonate	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
Hexachloroethane	9.9	U *	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Chlorophenyl phenyl ether	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Hexachlorophene	4900	U	4900		ug/L		11/14/13 15:32	11/19/13 20:51	10
Hexachlorocyclopentadiene	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
Isophorone	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Pentachloronitrobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Acenaphthene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Diethyl phthalate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Di-n-butyl phthalate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Phenanthrene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
Butyl benzyl phthalate	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosodiphenylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Fluorene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,6-Dichlorophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Hexachlorobutadiene	9.9	U *	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F21

Date Collected: 11/12/13 13:05
Date Received: 11/12/13 16:17

Lab Sample ID: 680-96098-7

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,4,6-Trichlorophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Nitroaniline	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Nitrophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Dinoseb	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
Naphthalene	**85**		2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Methylnaphthalene	**4.0**	*	2.0		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Chloronaphthalene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Naphthylamine	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
Methapyrilene	2000	U	2000		ug/L		11/14/13 15:32	11/19/13 20:51	10
3,3'-Dichlorobenzidine	200	U	200		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosodi-n-butylamine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
4-Aminobiphenyl	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitrosopyrrolidine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Safrole, Total	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Methylphenol	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,2-Dichlorobenzene	9.9	U *	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Toluidine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2-Chlorophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,2,4,5-Tetrachlorobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
2,4,5-Trichlorophenol	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Acetophenone	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
Nitrobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
3-Nitroaniline	49	U	49		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,3,5-Trinitrobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
N-Nitro-o-toluidine	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
1,3-Dinitrobenzene	9.9	U	9.9		ug/L		11/14/13 15:32	11/19/13 20:51	10
3 & 4 Methylphenol	20	U	20		ug/L		11/14/13 15:32	11/19/13 20:51	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*0*	*D*	*27 - 130*	*11/14/13 15:32*	*11/19/13 20:51*	*10*
Nitrobenzene-d5 (Surr)	*0*	*D*	*32 - 130*	*11/14/13 15:32*	*11/19/13 20:51*	*10*
Terphenyl-d14 (Surr)	*0*	*D*	*36 - 130*	*11/14/13 15:32*	*11/19/13 20:51*	*10*
2,4,6-Tribromophenol (Surr)	*0*	*D*	*30 - 130*	*11/14/13 15:32*	*11/19/13 20:51*	*10*
2-Fluorophenol (Surr)	*0*	*D*	*25 - 130*	*11/14/13 15:32*	*11/19/13 20:51*	*10*
2-Fluorobiphenyl	*0*	*D*	*34 - 130*	*11/14/13 15:32*	*11/19/13 20:51*	*10*

Client Sample ID: Trip Blank

Lab Sample ID: 680-96098-8

Date Collected: 11/12/13 00:00

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Styrene	1.0	U	1.0		ug/L			11/22/13 14:05	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Acrolein	20	U	20		ug/L			11/22/13 14:05	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 14:05	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Propionitrile	20	U	20		ug/L			11/22/13 14:05	1
Acrylonitrile	20	U	20		ug/L			11/22/13 14:05	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 14:05	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 14:05	1
Toluene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 14:05	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 14:05	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 14:05	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 14:05	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 14:05	1
2-Hexanone	10	U	10		ug/L			11/22/13 14:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Acetone	25	U	25		ug/L			11/22/13 14:05	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 14:05	1
Benzene	1.0	U	1.0		ug/L			11/22/13 14:05	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 14:05	1
Chloromethane	1.0	U *	1.0		ug/L			11/22/13 14:05	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 14:05	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 14:05	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 14:05	1
Acetonitrile	40	U	40		ug/L			11/22/13 14:05	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 14:05	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 14:05	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 14:05	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 14:05	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 14:05	1
Isobutanol	40	U	40		ug/L			11/22/13 14:05	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 14:05	1
2-Butanone	10	U	10		ug/L			11/22/13 14:05	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 14:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 14:05	1
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 14:05	1

Client Sample Results

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-96098-8

Date Collected: 11/12/13 00:00

Matrix: Water

Date Received: 11/12/13 16:17

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*70 - 130*		*11/22/13 14:05*	*1*
Dibromofluoromethane	*98*		*70 - 130*		*11/22/13 14:05*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/22/13 14:05*	*1*

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

Lab Sample ID: MB 680-304567/8
Matrix: Water
Analysis Batch: 304567

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Styrene	1.0	U	1.0		ug/L			11/22/13 12:34	1
cis-1,3-Dichloropropene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Acrolein	20	U	20		ug/L			11/22/13 12:34	1
Allyl chloride	1.0	U	1.0		ug/L			11/22/13 12:34	1
1,2-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Propionitrile	20	U	20		ug/L			11/22/13 12:34	1
Acrylonitrile	20	U	20		ug/L			11/22/13 12:34	1
Vinyl acetate	2.0	U	2.0		ug/L			11/22/13 12:34	1
4-Methyl-2-pentanone	10	U	10		ug/L			11/22/13 12:34	1
Toluene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Chlorobenzene	1.0	U	1.0		ug/L			11/22/13 12:34	1
trans-1,4-Dichloro-2-butene	2.0	U	2.0		ug/L			11/22/13 12:34	1
Dibromochloromethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Methacrylonitrile	20	U	20		ug/L			11/22/13 12:34	1
Chloroprene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Tetrachloroethene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Xylenes, Total	2.0	U	2.0		ug/L			11/22/13 12:34	1
trans-1,2-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Carbon tetrachloride	1.0	U	1.0		ug/L			11/22/13 12:34	1
2-Hexanone	10	U	10		ug/L			11/22/13 12:34	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Acetone	25	U	25		ug/L			11/22/13 12:34	1
Chloroform	1.0	U	1.0		ug/L			11/22/13 12:34	1
Benzene	1.0	U	1.0		ug/L			11/22/13 12:34	1
1,1,1-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Bromomethane	5.0	U	5.0		ug/L			11/22/13 12:34	1
Chloromethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Iodomethane	5.0	U	5.0		ug/L			11/22/13 12:34	1
Dibromomethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Chloroethane	5.0	U	5.0		ug/L			11/22/13 12:34	1
Vinyl chloride	1.0	U	1.0		ug/L			11/22/13 12:34	1
Acetonitrile	40	U	40		ug/L			11/22/13 12:34	1
Methylene Chloride	5.0	U	5.0		ug/L			11/22/13 12:34	1
Carbon disulfide	2.0	U	2.0		ug/L			11/22/13 12:34	1
Bromoform	1.0	U	1.0		ug/L			11/22/13 12:34	1
Bromodichloromethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
1,1-Dichloroethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
1,1-Dichloroethene	1.0	U	1.0		ug/L			11/22/13 12:34	1
Trichlorofluoromethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Dichlorodifluoromethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Pentachloroethane	5.0	U	5.0		ug/L			11/22/13 12:34	1
Isobutanol	40	U	40		ug/L			11/22/13 12:34	1
1,2-Dichloropropane	1.0	U	1.0		ug/L			11/22/13 12:34	1
2-Butanone	10	U	10		ug/L			11/22/13 12:34	1
1,1,2-Trichloroethane	1.0	U	1.0		ug/L			11/22/13 12:34	1
Trichloroethene	1.0	U	1.0		ug/L			11/22/13 12:34	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0		ug/L			11/22/13 12:34	1

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

Lab Sample ID: MB 680-304567/8
Matrix: Water
Analysis Batch: 304567

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	1.0	U	1.0		ug/L			11/22/13 12:34	1
Ethyl methacrylate	1.0	U	1.0		ug/L			11/22/13 12:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*70 - 130*		*11/22/13 12:34*	*1*
Dibromofluoromethane	*96*		*70 - 130*		*11/22/13 12:34*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*11/22/13 12:34*	*1*

Lab Sample ID: LCS 680-304567/4
Matrix: Water
Analysis Batch: 304567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	50.0	53.5		ug/L		107	78 - 125
Styrene	50.0	53.6		ug/L		107	75 - 129
cis-1,3-Dichloropropene	50.0	56.1		ug/L		112	73 - 128
1,2-Dichloroethane	50.0	55.7		ug/L		111	75 - 120
4-Methyl-2-pentanone	100	111		ug/L		111	51 - 143
Toluene	50.0	53.3		ug/L		107	77 - 125
Chlorobenzene	50.0	51.3		ug/L		103	79 - 120
Dibromochloromethane	50.0	52.7		ug/L		105	63 - 134
Tetrachloroethene	50.0	43.0		ug/L		86	77 - 128
Xylenes, Total	150	158		ug/L		105	80 - 124
trans-1,2-Dichloroethene	50.0	49.1		ug/L		98	78 - 130
Carbon tetrachloride	50.0	53.7		ug/L		107	70 - 131
2-Hexanone	100	110		ug/L		110	52 - 149
1,1,1,2-Tetrachloroethane	50.0	51.0		ug/L		102	68 - 132
Acetone	100	98.2		ug/L		98	39 - 162
Chloroform	50.0	50.6		ug/L		101	76 - 128
Benzene	50.0	50.7		ug/L		101	74 - 123
1,1,1-Trichloroethane	50.0	49.3		ug/L		99	76 - 126
Bromomethane	50.0	38.7		ug/L		77	10 - 171
Chloromethane	50.0	22.1	*	ug/L		44	47 - 151
Dibromomethane	50.0	52.2		ug/L		104	75 - 122
Chloroethane	50.0	44.1		ug/L		88	47 - 148
Vinyl chloride	50.0	51.8		ug/L		104	58 - 141
Methylene Chloride	50.0	50.9		ug/L		102	79 - 124
Carbon disulfide	50.0	53.7		ug/L		107	63 - 142
Bromoform	50.0	51.2		ug/L		102	60 - 134
Bromodichloromethane	50.0	55.1		ug/L		110	72 - 129
1,1-Dichloroethane	50.0	45.5		ug/L		91	69 - 132
1,1-Dichloroethene	50.0	51.3		ug/L		103	73 - 134
Trichlorofluoromethane	50.0	47.4		ug/L		95	66 - 144
Dichlorodifluoromethane	50.0	52.9		ug/L		106	41 - 165
1,2-Dichloropropane	50.0	53.5		ug/L		107	71 - 126
2-Butanone	100	98.8		ug/L		99	55 - 142
1,1,2-Trichloroethane	50.0	53.8		ug/L		108	69 - 127
Trichloroethene	50.0	50.0		ug/L		100	80 - 120

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

Lab Sample ID: LCS 680-304567/4
Matrix: Water
Analysis Batch: 304567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	50.0	48.5		ug/L		97	71 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 130*
Dibromofluoromethane	*97*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 680-304567/5
Matrix: Water
Analysis Batch: 304567

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	54.3		ug/L		109	78 - 125	1	30
Styrene	50.0	55.2		ug/L		110	75 - 129	3	30
cis-1,3-Dichloropropene	50.0	55.4		ug/L		111	73 - 128	1	30
1,2-Dichloroethane	50.0	54.2		ug/L		108	75 - 120	3	30
4-Methyl-2-pentanone	100	108		ug/L		108	51 - 143	3	30
Toluene	50.0	52.1		ug/L		104	77 - 125	2	30
Chlorobenzene	50.0	50.5		ug/L		101	79 - 120	2	30
Dibromochloromethane	50.0	51.6		ug/L		103	63 - 134	2	50
Tetrachloroethene	50.0	43.3		ug/L		87	77 - 128	1	30
Xylenes, Total	150	163		ug/L		108	80 - 124	3	30
trans-1,2-Dichloroethene	50.0	49.6		ug/L		99	78 - 130	1	30
Carbon tetrachloride	50.0	54.4		ug/L		109	70 - 131	1	30
2-Hexanone	100	107		ug/L		107	52 - 149	3	30
1,1,1,2-Tetrachloroethane	50.0	49.8		ug/L		100	68 - 132	2	30
Acetone	100	93.8		ug/L		94	39 - 162	5	50
Chloroform	50.0	50.1		ug/L		100	76 - 128	1	30
Benzene	50.0	50.9		ug/L		102	74 - 123	0	30
1,1,1-Trichloroethane	50.0	49.2		ug/L		98	76 - 126	0	30
Bromomethane	50.0	43.2		ug/L		86	10 - 171	11	50
Chloromethane	50.0	20.3	*	ug/L		41	47 - 151	9	30
Dibromomethane	50.0	51.2		ug/L		102	75 - 122	2	30
Chloroethane	50.0	46.5		ug/L		93	47 - 148	5	40
Vinyl chloride	50.0	53.3		ug/L		107	58 - 141	3	30
Methylene Chloride	50.0	50.0		ug/L		100	79 - 124	2	30
Carbon disulfide	50.0	55.0		ug/L		110	63 - 142	2	30
Bromoform	50.0	50.0		ug/L		100	60 - 134	3	30
Bromodichloromethane	50.0	53.4		ug/L		107	72 - 129	3	30
1,1-Dichloroethane	50.0	46.6		ug/L		93	69 - 132	2	30
1,1-Dichloroethene	50.0	51.4		ug/L		103	73 - 134	0	30
Trichlorofluoromethane	50.0	56.8		ug/L		114	66 - 144	18	30
Dichlorodifluoromethane	50.0	52.8		ug/L		106	41 - 165	0	50
1,2-Dichloropropane	50.0	53.1		ug/L		106	71 - 126	1	30
2-Butanone	100	98.2		ug/L		98	55 - 142	1	30
1,1,2-Trichloroethane	50.0	52.4		ug/L		105	69 - 127	3	30
Trichloroethene	50.0	50.5		ug/L		101	80 - 120	1	30
1,1,2,2-Tetrachloroethane	50.0	48.7		ug/L		97	71 - 127	1	30

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

Lab Sample ID: LCSD 680-304567/5
Matrix: Water
Analysis Batch: 304567

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 130*
Dibromofluoromethane	*98*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 680-303187/8-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Nitrophenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Chloroaniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
p-Phenylene diamine	200	U	200		ug/L		11/14/13 15:32	11/19/13 03:04	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Phenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Picoline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Pyridine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Isosafrole	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,4-Naphthoquinone	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Dibenzofuran	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Aramite, Total	1.5	U	1.5		ug/L		11/14/13 15:32	11/19/13 03:04	1
Hexachloropropene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 680-303187/8-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Acenaphthylene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Chrysene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Diallate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Pronamide	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Thionazin	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Methyl parathion	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Phorate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Disulfoton	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Sulfotepp	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,4-Dinitrophenol	10	U	10		ug/L		11/14/13 15:32	11/19/13 03:04	1
Famphur	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Dimethoate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Phenacetin	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Aniline	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Hexachloroethane	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Hexachlorophene	500	U	500		ug/L		11/14/13 15:32	11/19/13 03:04	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Isophorone	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Acenaphthene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Phenanthrene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 680-303187/8-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Fluorene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Dinoseb	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Naphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Methapyrilene	200	U	200		ug/L		11/14/13 15:32	11/19/13 03:04	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Safrole, Total	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Toluidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Acetophenone	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
Nitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/14/13 15:32	11/19/13 03:04	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/14/13 15:32	11/19/13 03:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*54*		*27 - 130*	*11/14/13 15:32*	*11/19/13 03:04*	*1*
Nitrobenzene-d5 (Surr)	*56*		*32 - 130*	*11/14/13 15:32*	*11/19/13 03:04*	*1*
Terphenyl-d14 (Surr)	*67*		*36 - 130*	*11/14/13 15:32*	*11/19/13 03:04*	*1*
2,4,6-Tribromophenol (Surr)	*58*		*30 - 130*	*11/14/13 15:32*	*11/19/13 03:04*	*1*
2-Fluorophenol (Surr)	*62*		*25 - 130*	*11/14/13 15:32*	*11/19/13 03:04*	*1*
2-Fluorobiphenyl	*53*		*34 - 130*	*11/14/13 15:32*	*11/19/13 03:04*	*1*

Lab Sample ID: LCS 680-303187/11-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	10.0	7.91		ug/L		79	10 - 130

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 680-303187/11-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	10.0	4.80		ug/L		48	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*52*		*27 - 130*
Nitrobenzene-d5 (Surr)	*51*		*32 - 130*
Terphenyl-d14 (Surr)	*65*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*63*		*30 - 130*
2-Fluorophenol (Surr)	*52*		*25 - 130*
2-Fluorobiphenyl	*54*		*34 - 130*

Lab Sample ID: LCS 680-303187/9-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	10.0	10.4		ug/L		104	31 - 147
4-Nitrophenol	10.0	8.75		ug/L		88	36 - 132
Benzyl alcohol	10.0	8.23		ug/L		82	34 - 130
4-Bromophenyl phenyl ether	10.0	8.94		ug/L		89	44 - 130
2,4-Dimethylphenol	10.0	7.48		ug/L		75	41 - 130
1,4-Dichlorobenzene	10.0	4.04		ug/L		40	34 - 130
4-Chloroaniline	10.0	6.86		ug/L		69	17 - 130
bis (2-chloroisopropyl) ether	10.0	7.93		ug/L		79	39 - 130
Phenol	10.0	7.71		ug/L		77	44 - 130
Pyridine	10.0	5.0	U *	ug/L		5	10 - 130
Bis(2-chloroethyl)ether	10.0	8.10		ug/L		81	36 - 130
Bis(2-chloroethoxy)methane	10.0	8.83		ug/L		88	47 - 130
Bis(2-ethylhexyl) phthalate	10.0	10.1		ug/L		101	10 - 158
Di-n-octyl phthalate	10.0	9.47		ug/L		95	19 - 130
Hexachlorobenzene	10.0	8.19		ug/L		82	49 - 130
Anthracene	10.0	8.43		ug/L		84	58 - 130
1,2,4-Trichlorobenzene	10.0	4.38		ug/L		44	39 - 130
2,4-Dichlorophenol	10.0	8.61		ug/L		86	58 - 130
2,4-Dinitrotoluene	10.0	8.62		ug/L		86	57 - 130
1,4-Dioxane	10.0	6.26		ug/L		63	10 - 130
Pyrene	10.0	8.26		ug/L		83	47 - 143
Dimethyl phthalate	10.0	8.75		ug/L		88	58 - 130
Dibenzofuran	10.0	7.89		ug/L		79	56 - 130
Benzo[g,h,i]perylene	10.0	8.38		ug/L		84	27 - 134
Indeno[1,2,3-cd]pyrene	10.0	7.11		ug/L		71	12 - 130
Benzo[b]fluoranthene	10.0	8.55		ug/L		85	41 - 140
Fluoranthene	10.0	8.74		ug/L		87	46 - 136
Benzo[k]fluoranthene	10.0	7.95		ug/L		79	45 - 140
Acenaphthylene	10.0	8.41		ug/L		84	45 - 130
Chrysene	10.0	8.44		ug/L		84	40 - 142
Benzo[a]pyrene	10.0	7.92		ug/L		79	45 - 151
2,4-Dinitrophenol	10.0	11.7		ug/L		117	10 - 200
4,6-Dinitro-2-methylphenol	10.0	10.8		ug/L		108	10 - 182

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 680-303187/9-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	10.0	8.03		ug/L		80	38 - 130
1,3-Dichlorobenzene	10.0	3.88		ug/L		39	31 - 130
Benzo[a]anthracene	10.0	8.23		ug/L		82	42 - 143
4-Chloro-3-methylphenol	10.0	9.07		ug/L		91	54 - 130
2,6-Dinitrotoluene	10.0	8.31		ug/L		83	53 - 130
N-Nitrosodi-n-propylamine	10.0	8.55		ug/L		86	42 - 130
Aniline	10.0	2.0	U	ug/L		14	10 - 130
N-Nitrosodimethylamine	10.0	8.04		ug/L		80	29 - 130
Hexachloroethane	10.0	3.34		ug/L		33	32 - 130
4-Chlorophenyl phenyl ether	10.0	8.56		ug/L		86	52 - 130
Hexachlorocyclopentadiene	10.0	3.36		ug/L		34	16 - 130
Isophorone	10.0	8.03		ug/L		80	45 - 130
Acenaphthene	10.0	7.32		ug/L		73	42 - 130
Diethyl phthalate	10.0	8.78		ug/L		88	60 - 130
Di-n-butyl phthalate	10.0	9.12		ug/L		91	59 - 130
Phenanthrene	10.0	7.99		ug/L		80	45 - 134
Butyl benzyl phthalate	10.0	9.34		ug/L		93	60 - 130
N-Nitrosodiphenylamine	10.0	8.88		ug/L		89	38 - 130
Fluorene	10.0	8.12		ug/L		81	48 - 130
Hexachlorobutadiene	10.0	3.73		ug/L		37	36 - 130
Pentachlorophenol	10.0	9.86		ug/L		99	12 - 156
2,4,6-Trichlorophenol	10.0	9.25		ug/L		92	61 - 130
2-Nitroaniline	10.0	9.06		ug/L		91	48 - 130
2-Nitrophenol	10.0	8.97		ug/L		90	49 - 130
Naphthalene	10.0	5.71		ug/L		57	35 - 130
2-Methylnaphthalene	10.0	6.11		ug/L		61	51 - 130
2-Chloronaphthalene	10.0	6.64		ug/L		66	48 - 130
3,3'-Dichlorobenzidine	10.0	20	U	ug/L		59	10 - 158
2-Methylphenol	10.0	8.19		ug/L		82	49 - 130
1,2-Dichlorobenzene	10.0	4.23		ug/L		42	36 - 130
2-Chlorophenol	10.0	8.05		ug/L		81	45 - 130
2,4,5-Trichlorophenol	10.0	9.63		ug/L		96	61 - 130
Acetophenone	10.0	7.53		ug/L		75	45 - 130
Nitrobenzene	10.0	7.96		ug/L		80	45 - 130
3-Nitroaniline	10.0	9.98		ug/L		100	18 - 147
3 & 4 Methylphenol	10.0	8.39		ug/L		84	55 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*55*		*27 - 130*
Nitrobenzene-d5 (Surr)	*57*		*32 - 130*
Terphenyl-d14 (Surr)	*57*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*60*		*30 - 130*
2-Fluorophenol (Surr)	*62*		*25 - 130*
2-Fluorobiphenyl	*53*		*34 - 130*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 680-303187/10-A
Matrix: Water
Analysis Batch: 303850

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 303187

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitroaniline	10.0	9.08		ug/L		91	31 - 147	13	50
4-Nitrophenol	10.0	7.40		ug/L		74	36 - 132	17	50
Benzyl alcohol	10.0	6.54		ug/L		65	34 - 130	23	50
4-Bromophenyl phenyl ether	10.0	7.34		ug/L		73	44 - 130	20	50
2,4-Dimethylphenol	10.0	5.81		ug/L		58	41 - 130	25	50
1,4-Dichlorobenzene	10.0	2.64	*	ug/L		26	34 - 130	42	50
4-Chloroaniline	10.0	6.44		ug/L		64	17 - 130	6	50
bis (2-chloroisopropyl) ether	10.0	6.25		ug/L		63	39 - 130	24	50
Phenol	10.0	6.42		ug/L		64	44 - 130	18	50
Pyridine	10.0	5.22	*	ug/L		52	10 - 130	164	50
Bis(2-chloroethyl)ether	10.0	6.59		ug/L		66	36 - 130	21	50
Bis(2-chloroethoxy)methane	10.0	7.21		ug/L		72	47 - 130	20	50
Bis(2-ethylhexyl) phthalate	10.0	8.45		ug/L		85	10 - 158	17	50
Di-n-octyl phthalate	10.0	8.06		ug/L		81	19 - 130	16	50
Hexachlorobenzene	10.0	6.81		ug/L		68	49 - 130	18	50
Anthracene	10.0	7.12		ug/L		71	58 - 130	17	50
1,2,4-Trichlorobenzene	10.0	3.05	*	ug/L		30	39 - 130	36	50
2,4-Dichlorophenol	10.0	6.99		ug/L		70	58 - 130	21	50
2,4-Dinitrotoluene	10.0	7.35		ug/L		74	57 - 130	16	50
1,4-Dioxane	10.0	5.25		ug/L		52	10 - 130	18	50
Pyrene	10.0	6.87		ug/L		69	47 - 143	18	50
Dimethyl phthalate	10.0	7.30		ug/L		73	58 - 130	18	50
Dibenzofuran	10.0	6.38		ug/L		64	56 - 130	21	50
Benzo[g,h,i]perylene	10.0	6.78		ug/L		68	27 - 134	21	50
Indeno[1,2,3-cd]pyrene	10.0	5.80		ug/L		58	12 - 130	20	50
Benzo[b]fluoranthene	10.0	7.16		ug/L		72	41 - 140	18	50
Fluoranthene	10.0	7.60		ug/L		76	46 - 136	14	50
Benzo[k]fluoranthene	10.0	6.94		ug/L		69	45 - 140	14	50
Acenaphthylene	10.0	6.73		ug/L		67	45 - 130	22	50
Chrysene	10.0	7.22		ug/L		72	40 - 142	16	50
Benzo[a]pyrene	10.0	6.55		ug/L		66	45 - 151	19	50
2,4-Dinitrophenol	10.0	11.0		ug/L		110	10 - 200	6	50
4,6-Dinitro-2-methylphenol	10.0	9.37		ug/L		94	10 - 182	14	50
Dibenz(a,h)anthracene	10.0	6.67		ug/L		67	38 - 130	18	50
1,3-Dichlorobenzene	10.0	2.53	*	ug/L		25	31 - 130	42	50
Benzo[a]anthracene	10.0	7.03		ug/L		70	42 - 143	16	50
4-Chloro-3-methylphenol	10.0	7.33		ug/L		73	54 - 130	21	50
2,6-Dinitrotoluene	10.0	6.87		ug/L		69	53 - 130	19	50
N-Nitrosodi-n-propylamine	10.0	6.94		ug/L		69	42 - 130	21	50
Aniline	10.0	5.87	*	ug/L		59	10 - 130	121	50
N-Nitrosodimethylamine	10.0	6.62		ug/L		66	29 - 130	19	50
Hexachloroethane	10.0	2.11	*	ug/L		21	32 - 130	45	50
4-Chlorophenyl phenyl ether	10.0	7.03		ug/L		70	52 - 130	20	50
Hexachlorocyclopentadiene	10.0	2.17		ug/L		22	16 - 130	43	50
Isophorone	10.0	6.53		ug/L		65	45 - 130	21	50
Acenaphthene	10.0	5.83		ug/L		58	42 - 130	23	50
Diethyl phthalate	10.0	7.60		ug/L		76	60 - 130	14	50
Di-n-butyl phthalate	10.0	7.94		ug/L		79	59 - 130	14	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 680-303187/10-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 303850 — **Prep Batch: 303187**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene	10.0	6.69		ug/L		67	45 - 134	18	50
Butyl benzyl phthalate	10.0	7.86		ug/L		79	60 - 130	17	50
N-Nitrosodiphenylamine	10.0	7.25		ug/L		73	38 - 130	20	50
Fluorene	10.0	6.78		ug/L		68	48 - 130	18	50
Hexachlorobutadiene	10.0	2.46	*	ug/L		25	36 - 130	41	50
Pentachlorophenol	10.0	8.15		ug/L		81	12 - 156	19	50
2,4,6-Trichlorophenol	10.0	7.37		ug/L		74	61 - 130	23	50
2-Nitroaniline	10.0	7.29		ug/L		73	48 - 130	22	50
2-Nitrophenol	10.0	7.39		ug/L		74	49 - 130	19	50
Naphthalene	10.0	4.21		ug/L		42	35 - 130	30	50
2-Methylnaphthalene	10.0	4.57	*	ug/L		46	51 - 130	29	50
2-Chloronaphthalene	10.0	4.92		ug/L		49	48 - 130	30	50
3,3'-Dichlorobenzidine	10.0	20	U	ug/L		77	10 - 158	27	50
2-Methylphenol	10.0	6.57		ug/L		66	49 - 130	22	50
1,2-Dichlorobenzene	10.0	2.84	*	ug/L		28	36 - 130	39	50
2-Chlorophenol	10.0	6.52		ug/L		65	45 - 130	21	50
2,4,5-Trichlorophenol	10.0	7.73		ug/L		77	61 - 130	22	50
Acetophenone	10.0	6.20		ug/L		62	45 - 130	19	50
Nitrobenzene	10.0	6.44		ug/L		64	45 - 130	21	50
3-Nitroaniline	10.0	8.17		ug/L		82	18 - 147	20	50
3 & 4 Methylphenol	10.0	6.64		ug/L		66	55 - 130	23	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*52*		*27 - 130*
Nitrobenzene-d5 (Surr)	*56*		*32 - 130*
Terphenyl-d14 (Surr)	*57*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*63*		*30 - 130*
2-Fluorophenol (Surr)	*60*		*25 - 130*
2-Fluorobiphenyl	*52*		*34 - 130*

Lab Sample ID: LCSD 680-303187/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 303850 — **Prep Batch: 303187**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,4,6-Tetrachlorophenol	10.0	8.89		ug/L		89	10 - 130	12	50
1,2,4,5-Tetrachlorobenzene	10.0	4.57		ug/L		46	10 - 130	5	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*52*		*27 - 130*
Nitrobenzene-d5 (Surr)	*51*		*32 - 130*
Terphenyl-d14 (Surr)	*60*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*62*		*30 - 130*
2-Fluorophenol (Surr)	*58*		*25 - 130*
2-Fluorobiphenyl	*51*		*34 - 130*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 680-303951/8-A
Matrix: Water
Analysis Batch: 304381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Nitrophenol	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Benzyl alcohol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosopiperidine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Bromophenyl phenyl ether	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,4-Dimethylphenol	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosomethylethylamine	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,4-Dichlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Chloroaniline	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
p-Phenylene diamine	200	U	200		ug/L		11/19/13 15:23	11/21/13 19:31	1
bis (2-chloroisopropyl) ether	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Phenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Picoline	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Pyridine	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Bis(2-chloroethyl)ether	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Bis(2-chloroethoxy)methane	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Di-n-octyl phthalate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Hexachlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
3,3'-Dimethylbenzidine	20	U	20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Anthracene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Isosafrole	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,2,4-Trichlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,4-Dichlorophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,4-Dinitrotoluene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
alpha,alpha-Dimethyl phenethylamine	10	U	10		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,4-Dioxane	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
o,o',o''-Triethylphosphorothioate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Pyrene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,4-Naphthoquinone	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Dimethyl phthalate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Dibenzofuran	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1-Naphthylamine	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Aramite, Total	1.5	U	1.5		ug/L		11/19/13 15:23	11/21/13 19:31	1
Hexachloropropene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Benzo[g,h,i]perylene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Indeno[1,2,3-cd]pyrene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Benzo[b]fluoranthene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Fluoranthene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Benzo[k]fluoranthene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Acenaphthylene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Chrysene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Diallate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Pronamide	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Thionazin	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Methyl parathion	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Phorate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Disulfoton	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 680-303951/8-A
Matrix: Water
Analysis Batch: 304381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfotepp	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Benzo[a]pyrene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,4-Dinitrophenol	10	U	10		ug/L		11/19/13 15:23	11/21/13 19:31	1
Famphur	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4,6-Dinitro-2-methylphenol	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Dibenz(a,h)anthracene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Acetylaminofluorene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,3-Dichlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosodiethylamine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Ethyl Parathion	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
3-Methylcholanthrene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Benzo[a]anthracene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Nitroquinoline-1-oxide	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
7,12-Dimethylbenz(a)anthracene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,3,4,6-Tetrachlorophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Chloro-3-methylphenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosomorpholine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
p-Dimethylamino azobenzene	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Dimethoate	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,6-Dinitrotoluene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Pentachlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosodi-n-propylamine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Phenacetin	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Ethyl methanesulfonate	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Aniline	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosodimethylamine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Methyl methanesulfonate	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Hexachloroethane	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Chlorophenyl phenyl ether	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Hexachlorophene	500	U	500		ug/L		11/19/13 15:23	11/21/13 19:31	1
Hexachlorocyclopentadiene	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Isophorone	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Pentachloronitrobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Acenaphthene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Diethyl phthalate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Di-n-butyl phthalate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Phenanthrene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
Butyl benzyl phthalate	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosodiphenylamine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Fluorene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,6-Dichlorophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Hexachlorobutadiene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Pentachlorophenol	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,4,6-Trichlorophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Nitroaniline	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Nitrophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Dinoseb	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Naphthalene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 680-303951/8-A
Matrix: Water
Analysis Batch: 304381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 303951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.20	U	0.20		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Chloronaphthalene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Naphthylamine	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Methapyrilene	200	U	200		ug/L		11/19/13 15:23	11/21/13 19:31	1
3,3'-Dichlorobenzidine	20	U	20		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosodi-n-butylamine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
4-Aminobiphenyl	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitrosopyrrolidine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Safrole, Total	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Methylphenol	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,2-Dichlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Toluidine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2-Chlorophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,2,4,5-Tetrachlorobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
2,4,5-Trichlorophenol	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Acetophenone	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
Nitrobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
3-Nitroaniline	5.0	U	5.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,3,5-Trinitrobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
N-Nitro-o-toluidine	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
1,3-Dinitrobenzene	1.0	U	1.0		ug/L		11/19/13 15:23	11/21/13 19:31	1
3 & 4 Methylphenol	2.0	U	2.0		ug/L		11/19/13 15:23	11/21/13 19:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5 (Surr)	*65*		*27 - 130*	*11/19/13 15:23*	*11/21/13 19:31*	*1*
Nitrobenzene-d5 (Surr)	*69*		*32 - 130*	*11/19/13 15:23*	*11/21/13 19:31*	*1*
Terphenyl-d14 (Surr)	*83*		*36 - 130*	*11/19/13 15:23*	*11/21/13 19:31*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*30 - 130*	*11/19/13 15:23*	*11/21/13 19:31*	*1*
2-Fluorophenol (Surr)	*71*		*25 - 130*	*11/19/13 15:23*	*11/21/13 19:31*	*1*
2-Fluorobiphenyl	*66*		*34 - 130*	*11/19/13 15:23*	*11/21/13 19:31*	*1*

Lab Sample ID: LCS 680-303951/11-A
Matrix: Water
Analysis Batch: 304381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,4,6-Tetrachlorophenol	10.0	9.47		ug/L		95	10 - 130
1,2,4,5-Tetrachlorobenzene	10.0	6.24		ug/L		62	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*66*		*27 - 130*
Nitrobenzene-d5 (Surr)	*69*		*32 - 130*
Terphenyl-d14 (Surr)	*83*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*95*		*30 - 130*
2-Fluorophenol (Surr)	*75*		*25 - 130*
2-Fluorobiphenyl	*71*		*34 - 130*

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 680-303951/9-A
Matrix: Water
Analysis Batch: 304381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	10.0	14.4		ug/L		144	31 - 147
4-Nitrophenol	10.0	9.44		ug/L		94	36 - 132
Benzyl alcohol	10.0	8.71		ug/L		87	34 - 130
4-Bromophenyl phenyl ether	10.0	9.86		ug/L		99	44 - 130
2,4-Dimethylphenol	10.0	6.09		ug/L		61	41 - 130
1,4-Dichlorobenzene	10.0	6.41		ug/L		64	34 - 130
4-Chloroaniline	10.0	8.28		ug/L		83	17 - 130
bis (2-chloroisopropyl) ether	10.0	7.81		ug/L		78	39 - 130
Phenol	10.0	8.22		ug/L		82	44 - 130
Pyridine	10.0	7.57		ug/L		76	10 - 130
Bis(2-chloroethyl)ether	10.0	8.13		ug/L		81	36 - 130
Bis(2-chloroethoxy)methane	10.0	8.65		ug/L		86	47 - 130
Bis(2-ethylhexyl) phthalate	10.0	10.4		ug/L		104	10 - 158
Di-n-octyl phthalate	10.0	10.0		ug/L		100	19 - 130
Hexachlorobenzene	10.0	9.07		ug/L		91	49 - 130
Anthracene	10.0	8.85		ug/L		88	58 - 130
1,2,4-Trichlorobenzene	10.0	6.49		ug/L		65	39 - 130
2,4-Dichlorophenol	10.0	9.23		ug/L		92	58 - 130
2,4-Dinitrotoluene	10.0	9.84		ug/L		98	57 - 130
1,4-Dioxane	10.0	7.30		ug/L		73	10 - 130
Pyrene	10.0	8.86		ug/L		89	47 - 143
Dimethyl phthalate	10.0	9.65		ug/L		97	58 - 130
Dibenzofuran	10.0	8.95		ug/L		90	56 - 130
Benzo[g,h,i]perylene	10.0	7.49		ug/L		75	27 - 134
Indeno[1,2,3-cd]pyrene	10.0	6.01		ug/L		60	12 - 130
Benzo[b]fluoranthene	10.0	10.3		ug/L		103	41 - 140
Fluoranthene	10.0	9.27		ug/L		93	46 - 136
Benzo[k]fluoranthene	10.0	9.33		ug/L		93	45 - 140
Acenaphthylene	10.0	9.36		ug/L		94	45 - 130
Chrysene	10.0	9.37		ug/L		94	40 - 142
Benzo[a]pyrene	10.0	8.37		ug/L		84	45 - 151
2,4-Dinitrophenol	10.0	12.1		ug/L		121	10 - 200
4,6-Dinitro-2-methylphenol	10.0	9.78		ug/L		98	10 - 182
Dibenz(a,h)anthracene	10.0	8.03		ug/L		80	38 - 130
1,3-Dichlorobenzene	10.0	6.30		ug/L		63	31 - 130
Benzo[a]anthracene	10.0	9.34		ug/L		93	42 - 143
4-Chloro-3-methylphenol	10.0	9.58		ug/L		96	54 - 130
2,6-Dinitrotoluene	10.0	9.25		ug/L		93	53 - 130
N-Nitrosodi-n-propylamine	10.0	8.42		ug/L		84	42 - 130
Aniline	10.0	7.55		ug/L		76	10 - 130
N-Nitrosodimethylamine	10.0	9.01		ug/L		90	29 - 130
Hexachloroethane	10.0	5.87		ug/L		59	32 - 130
4-Chlorophenyl phenyl ether	10.0	9.66		ug/L		97	52 - 130
Hexachlorocyclopentadiene	10.0	2.0	U	ug/L		20	16 - 130
Isophorone	10.0	8.01		ug/L		80	45 - 130
Acenaphthene	10.0	8.07		ug/L		81	42 - 130
Diethyl phthalate	10.0	9.59		ug/L		96	60 - 130
Di-n-butyl phthalate	10.0	9.31		ug/L		93	59 - 130

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 680-303951/9-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304381 — **Prep Batch: 303951**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenanthrene	10.0	8.36		ug/L		84	45 - 134
Butyl benzyl phthalate	10.0	9.92		ug/L		99	60 - 130
N-Nitrosodiphenylamine	10.0	9.17		ug/L		92	38 - 130
Fluorene	10.0	8.94		ug/L		89	48 - 130
Hexachlorobutadiene	10.0	6.70		ug/L		67	36 - 130
Pentachlorophenol	10.0	10.2		ug/L		102	12 - 156
2,4,6-Trichlorophenol	10.0	10.4		ug/L		104	61 - 130
2-Nitroaniline	10.0	9.82		ug/L		98	48 - 130
2-Nitrophenol	10.0	9.55		ug/L		96	49 - 130
Naphthalene	10.0	6.79		ug/L		68	35 - 130
2-Methylnaphthalene	10.0	7.29		ug/L		73	51 - 130
2-Chloronaphthalene	10.0	7.76		ug/L		78	48 - 130
3,3'-Dichlorobenzidine	10.0	20	U	ug/L		113	10 - 158
2-Methylphenol	10.0	8.24		ug/L		82	49 - 130
1,2-Dichlorobenzene	10.0	6.44		ug/L		64	36 - 130
2-Chlorophenol	10.0	8.39		ug/L		84	45 - 130
2,4,5-Trichlorophenol	10.0	10.8		ug/L		108	61 - 130
Acetophenone	10.0	7.35		ug/L		73	45 - 130
Nitrobenzene	10.0	8.12		ug/L		81	45 - 130
3-Nitroaniline	10.0	12.7		ug/L		127	18 - 147
3 & 4 Methylphenol	10.0	8.37		ug/L		84	55 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*69*		*27 - 130*
Nitrobenzene-d5 (Surr)	*72*		*32 - 130*
Terphenyl-d14 (Surr)	*84*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*97*		*30 - 130*
2-Fluorophenol (Surr)	*78*		*25 - 130*
2-Fluorobiphenyl	*71*		*34 - 130*

Lab Sample ID: LCSD 680-303951/10-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304381 — **Prep Batch: 303951**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitroaniline	10.0	14.2		ug/L		142	31 - 147	1	50
4-Nitrophenol	10.0	9.44		ug/L		94	36 - 132	0	50
Benzyl alcohol	10.0	8.81		ug/L		88	34 - 130	1	50
4-Bromophenyl phenyl ether	10.0	9.80		ug/L		98	44 - 130	1	50
2,4-Dimethylphenol	10.0	5.98		ug/L		60	41 - 130	2	50
1,4-Dichlorobenzene	10.0	6.48		ug/L		65	34 - 130	1	50
4-Chloroaniline	10.0	8.24		ug/L		82	17 - 130	0	50
bis (2-chloroisopropyl) ether	10.0	8.01		ug/L		80	39 - 130	3	50
Phenol	10.0	8.24		ug/L		82	44 - 130	0	50
Pyridine	10.0	6.70		ug/L		67	10 - 130	12	50
Bis(2-chloroethyl)ether	10.0	8.16		ug/L		82	36 - 130	0	50
Bis(2-chloroethoxy)methane	10.0	8.89		ug/L		89	47 - 130	3	50
Bis(2-ethylhexyl) phthalate	10.0	10.5		ug/L		105	10 - 158	1	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 680-303951/10-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304381 — **Prep Batch: 303951**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-octyl phthalate	10.0	10.3		ug/L		103	19 - 130	3	50
Hexachlorobenzene	10.0	8.97		ug/L		90	49 - 130	1	50
Anthracene	10.0	8.77		ug/L		88	58 - 130	1	50
1,2,4-Trichlorobenzene	10.0	6.86		ug/L		69	39 - 130	5	50
2,4-Dichlorophenol	10.0	9.29		ug/L		93	58 - 130	1	50
2,4-Dinitrotoluene	10.0	9.67		ug/L		97	57 - 130	2	50
1,4-Dioxane	10.0	6.84		ug/L		68	10 - 130	6	50
Pyrene	10.0	8.87		ug/L		89	47 - 143	0	50
Dimethyl phthalate	10.0	9.42		ug/L		94	58 - 130	2	50
Dibenzofuran	10.0	8.87		ug/L		89	56 - 130	1	50
Benzo[g,h,i]perylene	10.0	7.50		ug/L		75	27 - 134	0	50
Indeno[1,2,3-cd]pyrene	10.0	6.14		ug/L		61	12 - 130	2	50
Benzo[b]fluoranthene	10.0	9.62		ug/L		96	41 - 140	7	50
Fluoranthene	10.0	9.36		ug/L		94	46 - 136	1	50
Benzo[k]fluoranthene	10.0	10.3		ug/L		103	45 - 140	10	50
Acenaphthylene	10.0	9.40		ug/L		94	45 - 130	0	50
Chrysene	10.0	9.66		ug/L		97	40 - 142	3	50
Benzo[a]pyrene	10.0	8.55		ug/L		86	45 - 151	2	50
2,4-Dinitrophenol	10.0	11.6		ug/L		116	10 - 200	5	50
4,6-Dinitro-2-methylphenol	10.0	9.62		ug/L		96	10 - 182	2	50
Dibenz(a,h)anthracene	10.0	8.08		ug/L		81	38 - 130	1	50
1,3-Dichlorobenzene	10.0	6.34		ug/L		63	31 - 130	1	50
Benzo[a]anthracene	10.0	9.49		ug/L		95	42 - 143	2	50
4-Chloro-3-methylphenol	10.0	9.29		ug/L		93	54 - 130	3	50
2,6-Dinitrotoluene	10.0	9.19		ug/L		92	53 - 130	1	50
N-Nitrosodi-n-propylamine	10.0	8.60		ug/L		86	42 - 130	2	50
Aniline	10.0	7.32		ug/L		73	10 - 130	3	50
N-Nitrosodimethylamine	10.0	8.59		ug/L		86	29 - 130	5	50
Hexachloroethane	10.0	5.95		ug/L		60	32 - 130	1	50
4-Chlorophenyl phenyl ether	10.0	9.66		ug/L		97	52 - 130	0	50
Hexachlorocyclopentadiene	10.0	2.0	U	ug/L		20	16 - 130	0	50
Isophorone	10.0	8.09		ug/L		81	45 - 130	1	50
Acenaphthene	10.0	8.08		ug/L		81	42 - 130	0	50
Diethyl phthalate	10.0	9.37		ug/L		94	60 - 130	2	50
Di-n-butyl phthalate	10.0	9.28		ug/L		93	59 - 130	0	50
Phenanthrene	10.0	8.32		ug/L		83	45 - 134	0	50
Butyl benzyl phthalate	10.0	9.75		ug/L		97	60 - 130	2	50
N-Nitrosodiphenylamine	10.0	9.15		ug/L		91	38 - 130	0	50
Fluorene	10.0	8.83		ug/L		88	48 - 130	1	50
Hexachlorobutadiene	10.0	7.22		ug/L		72	36 - 130	8	50
Pentachlorophenol	10.0	10.2		ug/L		102	12 - 156	0	50
2,4,6-Trichlorophenol	10.0	10.4		ug/L		104	61 - 130	1	50
2-Nitroaniline	10.0	9.57		ug/L		96	48 - 130	3	50
2-Nitrophenol	10.0	9.83		ug/L		98	49 - 130	3	50
Naphthalene	10.0	7.14		ug/L		71	35 - 130	5	50
2-Methylnaphthalene	10.0	7.55		ug/L		76	51 - 130	4	50
2-Chloronaphthalene	10.0	7.98		ug/L		80	48 - 130	3	50
3,3'-Dichlorobenzidine	10.0	20	U	ug/L		115	10 - 158	2	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 680-303951/10-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304381 — **Prep Batch: 303951**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylphenol			10.0	8.50		ug/L		85	49 - 130	3	50
1,2-Dichlorobenzene			10.0	6.49		ug/L		65	36 - 130	1	50
2-Chlorophenol			10.0	8.54		ug/L		85	45 - 130	2	50
2,4,5-Trichlorophenol			10.0	10.5		ug/L		105	61 - 130	3	50
Acetophenone			10.0	7.60		ug/L		76	45 - 130	3	50
Nitrobenzene			10.0	8.31		ug/L		83	45 - 130	2	50
3-Nitroaniline			10.0	12.4		ug/L		124	18 - 147	2	50
3 & 4 Methylphenol			10.0	8.47		ug/L		85	55 - 130	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*69*		*27 - 130*
Nitrobenzene-d5 (Surr)	*73*		*32 - 130*
Terphenyl-d14 (Surr)	*83*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*94*		*30 - 130*
2-Fluorophenol (Surr)	*77*		*25 - 130*
2-Fluorobiphenyl	*72*		*34 - 130*

Lab Sample ID: LCSD 680-303951/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 304381 — **Prep Batch: 303951**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,4,6-Tetrachlorophenol			10.0	9.74		ug/L		97	10 - 130	3	50
1,2,4,5-Tetrachlorobenzene			10.0	6.53		ug/L		65	10 - 130	5	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Phenol-d5 (Surr)	*63*		*27 - 130*
Nitrobenzene-d5 (Surr)	*68*		*32 - 130*
Terphenyl-d14 (Surr)	*83*		*36 - 130*
2,4,6-Tribromophenol (Surr)	*90*		*30 - 130*
2-Fluorophenol (Surr)	*67*		*25 - 130*
2-Fluorobiphenyl	*69*		*34 - 130*

QC Association Summary

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

TestAmerica Job ID: 680-96098-1

GC/MS VOA

Analysis Batch: 304567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96098-1	MW-F5	Total/NA	Water	8260B	
680-96098-2	MW-F3R	Total/NA	Water	8260B	
680-96098-3	MW-29	Total/NA	Water	8260B	
680-96098-4	MW-27	Total/NA	Water	8260B	
680-96098-5	MW-F7	Total/NA	Water	8260B	
680-96098-6	MWD-30	Total/NA	Water	8260B	
680-96098-7	MW-F21	Total/NA	Water	8260B	
680-96098-8	Trip Blank	Total/NA	Water	8260B	
LCS 680-304567/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-304567/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-304567/8	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 303187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96098-1	MW-F5	Total/NA	Water	3520C	
680-96098-2	MW-F3R	Total/NA	Water	3520C	
680-96098-4	MW-27	Total/NA	Water	3520C	
680-96098-5	MW-F7	Total/NA	Water	3520C	
680-96098-6	MWD-30	Total/NA	Water	3520C	
680-96098-7	MW-F21	Total/NA	Water	3520C	
LCS 680-303187/11-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-303187/9-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-303187/10-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 680-303187/12-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-303187/8-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 303850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96098-1	MW-F5	Total/NA	Water	8270C LL	303187
680-96098-2	MW-F3R	Total/NA	Water	8270C LL	303187
680-96098-4	MW-27	Total/NA	Water	8270C LL	303187
680-96098-5	MW-F7	Total/NA	Water	8270C LL	303187
680-96098-6	MWD-30	Total/NA	Water	8270C LL	303187
LCS 680-303187/11-A	Lab Control Sample	Total/NA	Water	8270C LL	303187
LCS 680-303187/9-A	Lab Control Sample	Total/NA	Water	8270C LL	303187
LCSD 680-303187/10-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	303187
LCSD 680-303187/12-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	303187
MB 680-303187/8-A	Method Blank	Total/NA	Water	8270C LL	303187

Analysis Batch: 303948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96098-7	MW-F21	Total/NA	Water	8270C LL	303187

Prep Batch: 303951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96098-3	MW-29	Total/NA	Water	3520C	
LCS 680-303951/11-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 680-303951/9-A	Lab Control Sample	Total/NA	Water	3520C	

GC/MS Semi VOA (Continued)

Prep Batch: 303951 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-303951/10-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 680-303951/12-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-303951/8-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 304381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96098-3	MW-29	Total/NA	Water	8270C LL	303951
LCS 680-303951/11-A	Lab Control Sample	Total/NA	Water	8270C LL	303951
LCS 680-303951/9-A	Lab Control Sample	Total/NA	Water	8270C LL	303951
LCSD 680-303951/10-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	303951
LCSD 680-303951/12-A	Lab Control Sample Dup	Total/NA	Water	8270C LL	303951
MB 680-303951/8-A	Method Blank	Total/NA	Water	8270C LL	303951

Lab Chronicle

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MW-F5

Lab Sample ID: 680-96098-1
Date Collected: 11/11/13 17:10
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 14:35	JD1	TAL SAV
Total/NA	Prep	3520C			513.2 mL	0.50 mL	303187	11/14/13 15:32	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		1	513.2 mL	0.50 mL	303850	11/19/13 05:11	JPM	TAL SAV

Client Sample ID: MW-F3R

Lab Sample ID: 680-96098-2
Date Collected: 11/12/13 09:10
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 15:05	JD1	TAL SAV
Total/NA	Prep	3520C			507.2 mL	0.50 mL	303187	11/14/13 15:32	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		1	507.2 mL	0.50 mL	303850	11/19/13 05:36	JPM	TAL SAV

Client Sample ID: MW-29

Lab Sample ID: 680-96098-3
Date Collected: 11/12/13 10:00
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 15:36	JD1	TAL SAV
Total/NA	Prep	3520C			435.4 mL	0.50 mL	303951	11/19/13 15:23	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		1	435.4 mL	0.50 mL	304381	11/21/13 21:37	JPM	TAL SAV

Client Sample ID: MW-27

Lab Sample ID: 680-96098-4
Date Collected: 11/12/13 10:50
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 16:06	JD1	TAL SAV
Total/NA	Prep	3520C			508.9 mL	0.50 mL	303187	11/14/13 15:32	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		1	508.9 mL	0.50 mL	303850	11/19/13 06:26	JPM	TAL SAV

Client Sample ID: MW-F7

Lab Sample ID: 680-96098-5
Date Collected: 11/12/13 11:35
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 16:37	JD1	TAL SAV
Total/NA	Prep	3520C			501.3 mL	0.50 mL	303187	11/14/13 15:32	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		1	501.3 mL	0.50 mL	303850	11/19/13 06:52	JPM	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-96098-1

Client Sample ID: MWD-30

Lab Sample ID: 680-96098-6

Date Collected: 11/12/13 12:25
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 17:07	JD1	TAL SAV
Total/NA	Prep	3520C			504.5 mL	0.50 mL	303187	11/14/13 15:32	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		1	504.5 mL	0.50 mL	303850	11/19/13 07:17	JPM	TAL SAV

Client Sample ID: MW-F21

Lab Sample ID: 680-96098-7

Date Collected: 11/12/13 13:05
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 17:37	JD1	TAL SAV
Total/NA	Prep	3520C			506.1 mL	0.50 mL	303187	11/14/13 15:32	RNJ	TAL SAV
Total/NA	Analysis	8270C LL		10	506.1 mL	0.50 mL	303948	11/19/13 20:51	JPM	TAL SAV

Client Sample ID: Trip Blank

Lab Sample ID: 680-96098-8

Date Collected: 11/12/13 00:00
Matrix: Water
Date Received: 11/12/13 16:17

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	304567	11/22/13 14:05	JD1	TAL SAV

Laboratory References:

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

Serial Number 81442

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE: Ashland Savannah Process Plant	PROJECT NO.: OH004000, 10300	PROJECT LOCATION (STATE): GA	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER:	P.O. NUMBER: NA	CONTRACT NO.: NA	STANDARD REPORT DELIVERY ●
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770.428.9009	CLIENT FAX: 770.428.9009	DATE DUE:
CLIENT NAME: Arcadis	CLIENT E-MAIL: david.wilderman@arcadis-us.com		EXPEDITED REPORT DELIVERY (SURCHARGE) ○
CLIENT ADDRESS: 1000 Cobb Place Blvd. Bldg 500A, Kennesaw, GA			DATE DUE:
COMPANY CONTRACTING THIS WORK (if applicable):			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: 8260 B voc; 8270 C SVOC

PRESERVATIVE: HCl; None

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	8260 B voc	8270 C SVOC	REMARKS
11/12/13	1710	MW-F5	G	X				3	1	
11/12/13	0910	MW-F3R								
	1000	MW-29								
	1050	MW-27								
	1135	MW-F7								
	1225	MWD-30								
11/12/13	1305	MW-F21	G	X				3	1	
11/12/13		Trip Blank	G	X				1		

680-96098 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	11/12/13	1617						
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]	11/12/13	16:17	YES ○ NO ○			1.8°C

TAL 8240-880 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-96098-1

Login Number: 96098
List Number: 1
Creator: Banda, Christy S

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?	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").	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 / Remediation

TestAmerica Job ID: 680-96098-1

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	06-30-14
Arkansas DEQ	State Program	6	88-0692	02-01-14
California	NELAP	9	3217CA	07-31-14
Colorado	State Program	8	N/A	12-31-13 *
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13 *
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13 *
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13 *
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13 *
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-14 *
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13 *
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14 *
South Carolina	State Program	4	98001	06-30-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13 *
West Virginia DEP	State Program	3	94	06-30-14
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14

* Expired certification is currently pending renewal and is 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: 680-96575-1
Client Project/Site: Hercules Savannah / Remediation

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

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
12/17/2013 6:13:45 PM

Kathryn Smith, Project Manager II
(912)354-7858
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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 / Remediation

TestAmerica Job ID: 680-96575-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
H	Sample was prepped or analyzed beyond the specified holding time
*	ISTD response or retention time outside acceptable 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
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 / Remediation

TestAmerica Job ID: 680-96575-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	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 / Remediation

TestAmerica Job ID: 680-96575-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-96575-1	MWD-23(112513)	Water	11/25/13 15:07	11/26/13 16:00
680-96575-2	MW-F16(112513)	Water	11/25/13 16:48	11/26/13 16:00
680-96575-3	MW-F14(112513)	Water	11/25/13 17:04	11/26/13 16:00
680-96575-4	MWD-25(112513)	Water	11/25/13 16:38	11/26/13 16:00
680-96575-5	MW-25(112513)	Water	11/25/13 16:27	11/26/13 16:00
680-96575-6	MW-F13(112513)	Water	11/25/13 16:07	11/26/13 16:00
680-96575-7	MW-23(112513)	Water	11/25/13 15:39	11/26/13 16:00
680-96575-8	MW-F2(112513)	Water	11/25/13 14:12	11/26/13 16:00
680-96575-9	MWD-22(112513)	Water	11/25/13 15:50	11/26/13 16:00
680-96575-10	MW-22(112513)	Water	11/25/13 16:46	11/26/13 16:00
680-96575-11	MW-24(112613)	Water	11/26/13 09:09	11/26/13 16:00
680-96575-12	MWD-24(112613)	Water	11/26/13 10:06	11/26/13 16:00
680-96575-13	MW-F19(112613)	Water	11/26/13 11:14	11/26/13 16:00
680-96575-14	MW-F5(112613)	Water	11/26/13 12:44	11/26/13 16:00
680-96575-15	MW-F3R(112613)	Water	11/26/13 12:59	11/26/13 16:00
680-96575-16	MWD-29(112613)	Water	11/26/13 12:05	11/26/13 16:00
680-96575-17	MW-29(112613)	Water	11/26/13 10:54	11/26/13 16:00
680-96575-18	MW-F9(112613)	Water	11/26/13 10:09	11/26/13 16:00
680-96575-19	MW-F8(112613)	Water	11/26/13 09:29	11/26/13 16:00
680-96575-20	MW-F1(112613)	Water	11/26/13 08:28	11/26/13 16:00
680-96575-21	MW-F11(112613)	Water	11/26/13 15:04	11/26/13 16:00

Job ID: 680-96575-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah / Remediation

Report Number: 680-96575-1

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.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 11/26/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt were 3.0º C and 3.0º C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL

Samples MWD-23(112513) (680-96575-1), MW-F16(112513) (680-96575-2), MW-F14(112513) (680-96575-3), MWD-25(112513) (680-96575-4), MW-25(112513) (680-96575-5), MW-F13(112513) (680-96575-6), MW-23(112513) (680-96575-7), MW-F2(112513) (680-96575-8), MWD-22(112513) (680-96575-9), MW-22(112513) (680-96575-10), MW-24(112613) (680-96575-11), MWD-24(112613) (680-96575-12), MW-F19(112613) (680-96575-13), MW-F5(112613) (680-96575-14), MW-F3R(112613) (680-96575-15), MWD-29(112613) (680-96575-16), MW-29(112613) (680-96575-17), MW-F9(112613) (680-96575-18), MW-F8(112613) (680-96575-19), MW-F1(112613) (680-96575-20) and MW-F11(112613) (680-96575-21) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 11/29/2013, 12/02/2013, 12/04/2013 and 12/10/2013 and analyzed on 12/03/2013, 12/06/2013, 12/07/2013, 12/11/2013 and 12/14/2013.

2-Fluorobiphenyl and Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria low for MW-F19(112613) (680-96575-13).
2-Fluorobiphenyl and Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria low for MW-F14(112513) (680-96575-3). Samples were re-extracted outside of holding time, both sets of data have been reported.

Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria low for MW-F16(112513) (680-96575-2). 2-Fluorobiphenyl and Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria low for MB 680-306860/4-A.

Internal standard (ISTD) response for the following sample(s) was outside control limits: MW-F9(112613) (680-96575-18). The sample(s) was re-analyzed with concurring results. The original set of data has been reported.

No other difficulties were encountered during the SVOAs analysis.

All other quality control parameters were within the acceptance limits.

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-23(112513)

Lab Sample ID: 680-96575-1

Date Collected: 11/25/13 15:07

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*45*		*34 - 130*	*11/29/13 17:02*	*12/03/13 16:05*	*1*
Nitrobenzene-d5 (Surr)	*43*		*32 - 130*	*11/29/13 17:02*	*12/03/13 16:05*	*1*
Terphenyl-d14 (Surr)	*84*		*36 - 130*	*11/29/13 17:02*	*12/03/13 16:05*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F16(112513)

Lab Sample ID: 680-96575-2

Date Collected: 11/25/13 16:48

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*39*		*34 - 130*	*11/29/13 17:02*	*12/03/13 16:31*	*1*
Nitrobenzene-d5 (Surr)	*29*	*X*	*32 - 130*	*11/29/13 17:02*	*12/03/13 16:31*	*1*
Terphenyl-d14 (Surr)	*71*		*36 - 130*	*11/29/13 17:02*	*12/03/13 16:31*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F14(112513)

Lab Sample ID: 680-96575-3

Date Collected: 11/25/13 17:04

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/06/13 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*8*	*X*	*34 - 130*	*11/29/13 17:02*	*12/06/13 21:28*	*1*
Nitrobenzene-d5 (Surr)	*3*	*X*	*32 - 130*	*11/29/13 17:02*	*12/06/13 21:28*	*1*
Terphenyl-d14 (Surr)	*63*		*36 - 130*	*11/29/13 17:02*	*12/06/13 21:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.2	U H	2.2		ug/L		12/10/13 15:06	12/14/13 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*34 - 130*	*12/10/13 15:06*	*12/14/13 20:31*	*1*
Nitrobenzene-d5 (Surr)	*67*		*32 - 130*	*12/10/13 15:06*	*12/14/13 20:31*	*1*
Terphenyl-d14 (Surr)	*86*		*36 - 130*	*12/10/13 15:06*	*12/14/13 20:31*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-25(112513)

Lab Sample ID: 680-96575-4

Date Collected: 11/25/13 16:38

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/06/13 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*52*		*34 - 130*	*11/29/13 17:02*	*12/06/13 21:54*	*1*
Nitrobenzene-d5 (Surr)	*57*		*32 - 130*	*11/29/13 17:02*	*12/06/13 21:54*	*1*
Terphenyl-d14 (Surr)	*83*		*36 - 130*	*11/29/13 17:02*	*12/06/13 21:54*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-25(112513)

Lab Sample ID: 680-96575-5

Date Collected: 11/25/13 16:27

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*44*		*34 - 130*	*11/29/13 17:02*	*12/03/13 17:47*	*1*
Nitrobenzene-d5 (Surr)	*49*		*32 - 130*	*11/29/13 17:02*	*12/03/13 17:47*	*1*
Terphenyl-d14 (Surr)	*70*		*36 - 130*	*11/29/13 17:02*	*12/03/13 17:47*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F13(112513)

Lab Sample ID: 680-96575-6

Date Collected: 11/25/13 16:07

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/06/13 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*34 - 130*	*11/29/13 17:02*	*12/06/13 22:19*	*1*
Nitrobenzene-d5 (Surr)	*73*		*32 - 130*	*11/29/13 17:02*	*12/06/13 22:19*	*1*
Terphenyl-d14 (Surr)	*108*		*36 - 130*	*11/29/13 17:02*	*12/06/13 22:19*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-23(112513)

Lab Sample ID: 680-96575-7

Date Collected: 11/25/13 15:39

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*52*		*34 - 130*	*11/29/13 17:02*	*12/03/13 18:37*	*1*
Nitrobenzene-d5 (Surr)	*61*		*32 - 130*	*11/29/13 17:02*	*12/03/13 18:37*	*1*
Terphenyl-d14 (Surr)	*74*		*36 - 130*	*11/29/13 17:02*	*12/03/13 18:37*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F2(112513)

Lab Sample ID: 680-96575-8

Date Collected: 11/25/13 14:12

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*56*		*34 - 130*	*11/29/13 17:02*	*12/03/13 19:02*	*1*
Nitrobenzene-d5 (Surr)	*62*		*32 - 130*	*11/29/13 17:02*	*12/03/13 19:02*	*1*
Terphenyl-d14 (Surr)	*89*		*36 - 130*	*11/29/13 17:02*	*12/03/13 19:02*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-22(112513)

Lab Sample ID: 680-96575-9

Date Collected: 11/25/13 15:50

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/06/13 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*39*		*34 - 130*	*11/29/13 17:02*	*12/06/13 22:45*	*1*
Nitrobenzene-d5 (Surr)	*41*		*32 - 130*	*11/29/13 17:02*	*12/06/13 22:45*	*1*
Terphenyl-d14 (Surr)	*74*		*36 - 130*	*11/29/13 17:02*	*12/06/13 22:45*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-22(112513)

Lab Sample ID: 680-96575-10

Date Collected: 11/25/13 16:46

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/06/13 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*34 - 130*	*11/29/13 17:02*	*12/06/13 23:10*	*1*
Nitrobenzene-d5 (Surr)	*83*		*32 - 130*	*11/29/13 17:02*	*12/06/13 23:10*	*1*
Terphenyl-d14 (Surr)	*110*		*36 - 130*	*11/29/13 17:02*	*12/06/13 23:10*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-24(112613)

Lab Sample ID: 680-96575-11

Date Collected: 11/26/13 09:09

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/06/13 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*54*		*34 - 130*	*11/29/13 17:02*	*12/06/13 23:35*	*1*
Nitrobenzene-d5 (Surr)	*55*		*32 - 130*	*11/29/13 17:02*	*12/06/13 23:35*	*1*
Terphenyl-d14 (Surr)	*87*		*36 - 130*	*11/29/13 17:02*	*12/06/13 23:35*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-24(112613)

Lab Sample ID: 680-96575-12

Date Collected: 11/26/13 10:06

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.9	U	1.9		ug/L		11/29/13 17:02	12/07/13 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*34 - 130*	*11/29/13 17:02*	*12/07/13 00:01*	*1*
Nitrobenzene-d5 (Surr)	*64*		*32 - 130*	*11/29/13 17:02*	*12/07/13 00:01*	*1*
Terphenyl-d14 (Surr)	*84*		*36 - 130*	*11/29/13 17:02*	*12/07/13 00:01*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F19(112613)

Lab Sample ID: 680-96575-13

Date Collected: 11/26/13 11:14

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*18*	*X*	*34 - 130*	*11/29/13 17:02*	*12/03/13 21:09*	*1*
Nitrobenzene-d5 (Surr)	*13*	*X*	*32 - 130*	*11/29/13 17:02*	*12/03/13 21:09*	*1*
Terphenyl-d14 (Surr)	*61*		*36 - 130*	*11/29/13 17:02*	*12/03/13 21:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	3.8	U H	3.8		ug/L		12/04/13 14:58	12/11/13 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*34 - 130*	*12/04/13 14:58*	*12/11/13 00:48*	*1*
Nitrobenzene-d5 (Surr)	*69*		*32 - 130*	*12/04/13 14:58*	*12/11/13 00:48*	*1*
Terphenyl-d14 (Surr)	*107*		*36 - 130*	*12/04/13 14:58*	*12/11/13 00:48*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F5(112613)

Lab Sample ID: 680-96575-14

Date Collected: 11/26/13 12:44

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*51*		*34 - 130*	*11/29/13 17:02*	*12/03/13 21:34*	*1*
Nitrobenzene-d5 (Surr)	*51*		*32 - 130*	*11/29/13 17:02*	*12/03/13 21:34*	*1*
Terphenyl-d14 (Surr)	*72*		*36 - 130*	*11/29/13 17:02*	*12/03/13 21:34*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F3R(112613)

Lab Sample ID: 680-96575-15

Date Collected: 11/26/13 12:59

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/07/13 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*34 - 130*	*11/29/13 17:02*	*12/07/13 00:26*	*1*
Nitrobenzene-d5 (Surr)	*65*		*32 - 130*	*11/29/13 17:02*	*12/07/13 00:26*	*1*
Terphenyl-d14 (Surr)	*96*		*36 - 130*	*11/29/13 17:02*	*12/07/13 00:26*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-29(112613)

Lab Sample ID: 680-96575-16

Date Collected: 11/26/13 12:05

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/07/13 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*34 - 130*	*11/29/13 17:02*	*12/07/13 00:51*	*1*
Nitrobenzene-d5 (Surr)	*69*		*32 - 130*	*11/29/13 17:02*	*12/07/13 00:51*	*1*
Terphenyl-d14 (Surr)	*99*		*36 - 130*	*11/29/13 17:02*	*12/07/13 00:51*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-29(112613)

Lab Sample ID: 680-96575-17

Date Collected: 11/26/13 10:54

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*34 - 130*	*11/29/13 17:02*	*12/03/13 22:50*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 130*	*11/29/13 17:02*	*12/03/13 22:50*	*1*
Terphenyl-d14 (Surr)	*90*		*36 - 130*	*11/29/13 17:02*	*12/03/13 22:50*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F9(112613)

Lab Sample ID: 680-96575-18

Date Collected: 11/26/13 10:09

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U *	2.0		ug/L		11/29/13 17:02	12/03/13 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*43*		*34 - 130*	*11/29/13 17:02*	*12/03/13 23:15*	*1*
Nitrobenzene-d5 (Surr)	*45*		*32 - 130*	*11/29/13 17:02*	*12/03/13 23:15*	*1*
Terphenyl-d14 (Surr)	*72*	*	*36 - 130*	*11/29/13 17:02*	*12/03/13 23:15*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F8(112613)

Lab Sample ID: 680-96575-19

Date Collected: 11/26/13 09:29

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/07/13 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*50*		*34 - 130*	*11/29/13 17:02*	*12/07/13 02:07*	*1*
Nitrobenzene-d5 (Surr)	*53*		*32 - 130*	*11/29/13 17:02*	*12/07/13 02:07*	*1*
Terphenyl-d14 (Surr)	*75*		*36 - 130*	*11/29/13 17:02*	*12/07/13 02:07*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F1(112613)

Lab Sample ID: 680-96575-20

Date Collected: 11/26/13 08:28

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/07/13 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*34 - 130*	*11/29/13 17:02*	*12/07/13 02:32*	*1*
Nitrobenzene-d5 (Surr)	*67*		*32 - 130*	*11/29/13 17:02*	*12/07/13 02:32*	*1*
Terphenyl-d14 (Surr)	*89*		*36 - 130*	*11/29/13 17:02*	*12/07/13 02:32*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F11(112613)

Lab Sample ID: 680-96575-21

Date Collected: 11/26/13 15:04

Matrix: Water

Date Received: 11/26/13 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		12/02/13 16:15	12/03/13 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*39*		*34 - 130*	*12/02/13 16:15*	*12/03/13 21:30*	*1*
Nitrobenzene-d5 (Surr)	*36*		*32 - 130*	*12/02/13 16:15*	*12/03/13 21:30*	*1*
Terphenyl-d14 (Surr)	*47*		*36 - 130*	*12/02/13 16:15*	*12/03/13 21:30*	*1*

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

Lab Sample ID: MB 680-305487/21-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 305851 — **Prep Batch: 305487**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		11/29/13 17:02	12/03/13 14:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*34 - 130*	*11/29/13 17:02*	*12/03/13 14:50*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 130*	*11/29/13 17:02*	*12/03/13 14:50*	*1*
Terphenyl-d14 (Surr)	*88*		*36 - 130*	*11/29/13 17:02*	*12/03/13 14:50*	*1*

Lab Sample ID: LCS 680-305487/22-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 305851 — **Prep Batch: 305487**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	10.0	8.22		ug/L		82	10 - 158

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*57*		*34 - 130*
Nitrobenzene-d5 (Surr)	*60*		*32 - 130*
Terphenyl-d14 (Surr)	*81*		*36 - 130*

Lab Sample ID: LCSD 680-305487/23-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 305851 — **Prep Batch: 305487**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	10.0	7.53		ug/L		75	10 - 158	9	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*61*		*34 - 130*
Nitrobenzene-d5 (Surr)	*62*		*32 - 130*
Terphenyl-d14 (Surr)	*79*		*36 - 130*

Lab Sample ID: MB 680-305667/4-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 305928 — **Prep Batch: 305667**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		12/02/13 16:15	12/03/13 19:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*53*		*34 - 130*	*12/02/13 16:15*	*12/03/13 19:26*	*1*
Nitrobenzene-d5 (Surr)	*47*		*32 - 130*	*12/02/13 16:15*	*12/03/13 19:26*	*1*
Terphenyl-d14 (Surr)	*63*		*36 - 130*	*12/02/13 16:15*	*12/03/13 19:26*	*1*

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

Lab Sample ID: LCS 680-305667/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 305928 — **Prep Batch: 305667**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bis(2-ethylhexyl) phthalate			10.0	9.85		ug/L		99	10 - 158		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*34 - 130*
Nitrobenzene-d5 (Surr)	*64*		*32 - 130*
Terphenyl-d14 (Surr)	*75*		*36 - 130*

Lab Sample ID: LCSD 680-305667/6-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 305928 — **Prep Batch: 305667**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			10.0	8.42		ug/L		84	10 - 158	16	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*34 - 130*
Nitrobenzene-d5 (Surr)	*65*		*32 - 130*
Terphenyl-d14 (Surr)	*76*		*36 - 130*

Lab Sample ID: MB 680-306008/13-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306930 — **Prep Batch: 306008**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		12/04/13 14:58	12/10/13 18:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*34 - 130*	*12/04/13 14:58*	*12/10/13 18:32*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 130*	*12/04/13 14:58*	*12/10/13 18:32*	*1*
Terphenyl-d14 (Surr)	*99*		*36 - 130*	*12/04/13 14:58*	*12/10/13 18:32*	*1*

Lab Sample ID: LCS 680-306008/14-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306930 — **Prep Batch: 306008**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bis(2-ethylhexyl) phthalate			10.0	11.3		ug/L		113	10 - 158		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*34 - 130*
Nitrobenzene-d5 (Surr)	*82*		*32 - 130*
Terphenyl-d14 (Surr)	*100*		*36 - 130*

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

Lab Sample ID: MB 680-306860/4-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307606 — **Prep Batch: 306860**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		12/10/13 15:06	12/14/13 19:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*18*	*X*	*34 - 130*	*12/10/13 15:06*	*12/14/13 19:16*	*1*
Nitrobenzene-d5 (Surr)	*17*	*X*	*32 - 130*	*12/10/13 15:06*	*12/14/13 19:16*	*1*
Terphenyl-d14 (Surr)	*81*		*36 - 130*	*12/10/13 15:06*	*12/14/13 19:16*	*1*

Lab Sample ID: LCS 680-306860/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307606 — **Prep Batch: 306860**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bis(2-ethylhexyl) phthalate			10.0	10.7		ug/L		107	10 - 158		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*34 - 130*
Nitrobenzene-d5 (Surr)	*80*		*32 - 130*
Terphenyl-d14 (Surr)	*94*		*36 - 130*

Lab Sample ID: LCSD 680-306860/6-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307606 — **Prep Batch: 306860**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			10.0	10.6		ug/L		106	10 - 158	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*34 - 130*
Nitrobenzene-d5 (Surr)	*78*		*32 - 130*
Terphenyl-d14 (Surr)	*90*		*36 - 130*

QC Association Summary

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

TestAmerica Job ID: 680-96575-1

GC/MS Semi VOA

Prep Batch: 305487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-1	MWD-23(112513)	Total/NA	Water	3520C	
680-96575-2	MW-F16(112513)	Total/NA	Water	3520C	
680-96575-3	MW-F14(112513)	Total/NA	Water	3520C	
680-96575-4	MWD-25(112513)	Total/NA	Water	3520C	
680-96575-5	MW-25(112513)	Total/NA	Water	3520C	
680-96575-6	MW-F13(112513)	Total/NA	Water	3520C	
680-96575-7	MW-23(112513)	Total/NA	Water	3520C	
680-96575-8	MW-F2(112513)	Total/NA	Water	3520C	
680-96575-9	MWD-22(112513)	Total/NA	Water	3520C	
680-96575-10	MW-22(112513)	Total/NA	Water	3520C	
680-96575-11	MW-24(112613)	Total/NA	Water	3520C	
680-96575-12	MWD-24(112613)	Total/NA	Water	3520C	
680-96575-13	MW-F19(112613)	Total/NA	Water	3520C	
680-96575-14	MW-F5(112613)	Total/NA	Water	3520C	
680-96575-15	MW-F3R(112613)	Total/NA	Water	3520C	
680-96575-16	MWD-29(112613)	Total/NA	Water	3520C	
680-96575-17	MW-29(112613)	Total/NA	Water	3520C	
680-96575-18	MW-F9(112613)	Total/NA	Water	3520C	
680-96575-19	MW-F8(112613)	Total/NA	Water	3520C	
680-96575-20	MW-F1(112613)	Total/NA	Water	3520C	
LCS 680-305487/22-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-305487/23-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-305487/21-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 305667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-21	MW-F11(112613)	Total/NA	Water	3520C	
LCS 680-305667/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-305667/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-305667/4-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 305851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-1	MWD-23(112513)	Total/NA	Water	8270D LL	305487
680-96575-2	MW-F16(112513)	Total/NA	Water	8270D LL	305487
680-96575-5	MW-25(112513)	Total/NA	Water	8270D LL	305487
680-96575-7	MW-23(112513)	Total/NA	Water	8270D LL	305487
680-96575-8	MW-F2(112513)	Total/NA	Water	8270D LL	305487
680-96575-13	MW-F19(112613)	Total/NA	Water	8270D LL	305487
680-96575-14	MW-F5(112613)	Total/NA	Water	8270D LL	305487
680-96575-17	MW-29(112613)	Total/NA	Water	8270D LL	305487
680-96575-18	MW-F9(112613)	Total/NA	Water	8270D LL	305487
LCS 680-305487/22-A	Lab Control Sample	Total/NA	Water	8270D LL	305487
LCSD 680-305487/23-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	305487
MB 680-305487/21-A	Method Blank	Total/NA	Water	8270D LL	305487

Analysis Batch: 305928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-21	MW-F11(112613)	Total/NA	Water	8270D LL	305667
LCS 680-305667/5-A	Lab Control Sample	Total/NA	Water	8270D LL	305667
LCSD 680-305667/6-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	305667

GC/MS Semi VOA (Continued)

Analysis Batch: 305928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-305667/4-A	Method Blank	Total/NA	Water	8270D LL	305667

Prep Batch: 306008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-13 - RE	MW-F19(112613)	Total/NA	Water	3520C	
LCS 680-306008/14-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-306008/13-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 306542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-3	MW-F14(112513)	Total/NA	Water	8270D LL	305487
680-96575-4	MWD-25(112513)	Total/NA	Water	8270D LL	305487
680-96575-6	MW-F13(112513)	Total/NA	Water	8270D LL	305487
680-96575-9	MWD-22(112513)	Total/NA	Water	8270D LL	305487
680-96575-10	MW-22(112513)	Total/NA	Water	8270D LL	305487
680-96575-11	MW-24(112613)	Total/NA	Water	8270D LL	305487
680-96575-12	MWD-24(112613)	Total/NA	Water	8270D LL	305487
680-96575-15	MW-F3R(112613)	Total/NA	Water	8270D LL	305487
680-96575-16	MWD-29(112613)	Total/NA	Water	8270D LL	305487
680-96575-19	MW-F8(112613)	Total/NA	Water	8270D LL	305487
680-96575-20	MW-F1(112613)	Total/NA	Water	8270D LL	305487

Prep Batch: 306860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-3 - RE	MW-F14(112513)	Total/NA	Water	3520C	
LCS 680-306860/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 680-306860/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 680-306860/4-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 306930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-13 - RE	MW-F19(112613)	Total/NA	Water	8270D LL	306008
LCS 680-306008/14-A	Lab Control Sample	Total/NA	Water	8270D LL	306008
MB 680-306008/13-A	Method Blank	Total/NA	Water	8270D LL	306008

Analysis Batch: 307606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96575-3 - RE	MW-F14(112513)	Total/NA	Water	8270D LL	306860
LCS 680-306860/5-A	Lab Control Sample	Total/NA	Water	8270D LL	306860
LCSD 680-306860/6-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	306860
MB 680-306860/4-A	Method Blank	Total/NA	Water	8270D LL	306860

Lab Chronicle

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-23(112513)

Lab Sample ID: 680-96575-1
Date Collected: 11/25/13 15:07
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			506.7 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	506.7 mL	0.50 mL	305851	12/03/13 16:05	JPM	TAL SAV

Client Sample ID: MW-F16(112513)

Lab Sample ID: 680-96575-2
Date Collected: 11/25/13 16:48
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			506.5 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	506.5 mL	0.50 mL	305851	12/03/13 16:31	JPM	TAL SAV

Client Sample ID: MW-F14(112513)

Lab Sample ID: 680-96575-3
Date Collected: 11/25/13 17:04
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			505.7 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	505.7 mL	0.50 mL	306542	12/06/13 21:28	JLW	TAL SAV
Total/NA	Prep	3520C	RE		455.7 mL	0.50 mL	306860	12/10/13 15:06	RBS	TAL SAV
Total/NA	Analysis	8270D LL	RE	1	455.7 mL	0.50 mL	307606	12/14/13 20:31	JPM	TAL SAV

Client Sample ID: MWD-25(112513)

Lab Sample ID: 680-96575-4
Date Collected: 11/25/13 16:38
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			508.6 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	508.6 mL	0.50 mL	306542	12/06/13 21:54	JLW	TAL SAV

Client Sample ID: MW-25(112513)

Lab Sample ID: 680-96575-5
Date Collected: 11/25/13 16:27
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			500.9 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	500.9 mL	0.50 mL	305851	12/03/13 17:47	JPM	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-F13(112513)

Lab Sample ID: 680-96575-6
Date Collected: 11/25/13 16:07
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			501.9 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	501.9 mL	0.50 mL	306542	12/06/13 22:19	JLW	TAL SAV

Client Sample ID: MW-23(112513)

Lab Sample ID: 680-96575-7
Date Collected: 11/25/13 15:39
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			506.2 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	506.2 mL	0.50 mL	305851	12/03/13 18:37	JPM	TAL SAV

Client Sample ID: MW-F2(112513)

Lab Sample ID: 680-96575-8
Date Collected: 11/25/13 14:12
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			500.8 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	500.8 mL	0.50 mL	305851	12/03/13 19:02	JPM	TAL SAV

Client Sample ID: MWD-22(112513)

Lab Sample ID: 680-96575-9
Date Collected: 11/25/13 15:50
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			505.5 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	505.5 mL	0.50 mL	306542	12/06/13 22:45	JLW	TAL SAV

Client Sample ID: MW-22(112513)

Lab Sample ID: 680-96575-10
Date Collected: 11/25/13 16:46
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			506.3 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	506.3 mL	0.50 mL	306542	12/06/13 23:10	JLW	TAL SAV

Client Sample ID: MW-24(112613)

Lab Sample ID: 680-96575-11
Date Collected: 11/26/13 09:09
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			507.1 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	507.1 mL	0.50 mL	306542	12/06/13 23:35	JLW	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MWD-24(112613)

Lab Sample ID: 680-96575-12
Date Collected: 11/26/13 10:06
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			516.4 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	516.4 mL	0.50 mL	306542	12/07/13 00:01	JLW	TAL SAV

Client Sample ID: MW-F19(112613)

Lab Sample ID: 680-96575-13
Date Collected: 11/26/13 11:14
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			503.6 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	503.6 mL	0.50 mL	305851	12/03/13 21:09	JPM	TAL SAV
Total/NA	Prep	3520C	RE		264.1 mL	0.50 mL	306008	12/04/13 14:58	RNJ	TAL SAV
Total/NA	Analysis	8270D LL	RE	1	264.1 mL	0.50 mL	306930	12/11/13 00:48	JLW	TAL SAV

Client Sample ID: MW-F5(112613)

Lab Sample ID: 680-96575-14
Date Collected: 11/26/13 12:44
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			501.7 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	501.7 mL	0.50 mL	305851	12/03/13 21:34	JPM	TAL SAV

Client Sample ID: MW-F3R(112613)

Lab Sample ID: 680-96575-15
Date Collected: 11/26/13 12:59
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			506.8 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	506.8 mL	0.50 mL	306542	12/07/13 00:26	JLW	TAL SAV

Client Sample ID: MWD-29(112613)

Lab Sample ID: 680-96575-16
Date Collected: 11/26/13 12:05
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			505.4 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	505.4 mL	0.50 mL	306542	12/07/13 00:51	JLW	TAL SAV

Client Sample ID: MW-29(112613)

Lab Sample ID: 680-96575-17
Date Collected: 11/26/13 10:54
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			511.8 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV

Lab Chronicle

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

TestAmerica Job ID: 680-96575-1

Client Sample ID: MW-29(112613)

Lab Sample ID: 680-96575-17
Date Collected: 11/26/13 10:54
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D LL		1	511.8 mL	0.50 mL	305851	12/03/13 22:50	JPM	TAL SAV

Client Sample ID: MW-F9(112613)

Lab Sample ID: 680-96575-18
Date Collected: 11/26/13 10:09
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			508.0 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	508.0 mL	0.50 mL	305851	12/03/13 23:15	JPM	TAL SAV

Client Sample ID: MW-F8(112613)

Lab Sample ID: 680-96575-19
Date Collected: 11/26/13 09:29
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			509.9 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	509.9 mL	0.50 mL	306542	12/07/13 02:07	JLW	TAL SAV

Client Sample ID: MW-F1(112613)

Lab Sample ID: 680-96575-20
Date Collected: 11/26/13 08:28
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			501.7 mL	0.50 mL	305487	11/29/13 17:02	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	501.7 mL	0.50 mL	306542	12/07/13 02:32	JLW	TAL SAV

Client Sample ID: MW-F11(112613)

Lab Sample ID: 680-96575-21
Date Collected: 11/26/13 15:04
Matrix: Water
Date Received: 11/26/13 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			509.9 mL	0.50 mL	305667	12/02/13 16:15	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	509.9 mL	0.50 mL	305928	12/03/13 21:30	JPM	TAL SAV

Laboratory References:

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

Serial Number 57333

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location
Phone:
Fax:

PROJECT REFERENCE: Ashland Savannah Hercules	PROJECT NO.	PROJECT LOCATION (STATE): GA	PAGE 1 OF 2
TAL (LAB) PROJECT MANAGER: Jerry Lanier	P.O. NUMBER: n/a	CONTRACT NO.: n/a	STANDARD REPORT DELIVERY ●
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770 428 9009	CLIENT FAX: 770 428 4004	DATE DUE
CLIENT NAME: Arcadis	CLIENT E-MAIL: david.wilderman@arcadis-us.com		EXPEDITED REPORT DELIVERY (SURCHARGE) ○
CLIENT ADDRESS: 1000 Cobb Place Blvd Bldg 500A, Kennesaw, GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable): Antea Group			NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSIS: BTEX, 2-Ethyl Hexanol, Phthalic Acid, 1,4-Dioxane

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
11/25/13	1507	MWD-23 (112513)	G	X				1	
11/25/13	1648	MW-F16 (112513)		X				1	
11/25/13	1704	MW-F14 (112513)		X				1	
11/25/13	1638	~~MWD-25~~ MWD-25 (112513)		X				1	
11/25/13	1627	MW-23 (112513)		X				1	
11/25/13	1607	MW-F13 (112513)		X				1	
11/25/13	1539	MW-23 (112513)		X				1	
11/25/13	1412	MW-F2 (112513)		X				1	
11/25/13	1550	MWD-22 (112513)		X				1	
11/25/13	1646	MW-22 (112513)		X				1	
112613	0909	MWD-24 (112613)		X				1	
112613	1006	MWD-24 (112613)		X				1	

680-96575 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	112613	1530						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
LE	11/26	1530						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
[signature]	11/26/13	16:00	YES ○ NO ○			3.0°C 3.0°C 3.0/3.0°C

TAL 8240-680 (1008)

Page 36 of 39

12/17/2013

Serial Number 57332

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Ashland Savannah-Hercules	PROJECT NO.	PROJECT LOCATION (STATE): GA	PAGE 2 OF 2
TAL (LAB) PROJECT MANAGER: Jerry Lanier	P.O. NUMBER: n/a	CONTRACT NO.: n/a	STANDARD REPORT DELIVERY ●
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770 428 9009	CLIENT FAX: 770 428 4004	DATE DUE
CLIENT NAME: Arcadis	CLIENT E-MAIL: david.wilderman@arcadis-us.com		EXPEDITED REPORT DELIVERY (SURCHARGE) ○
CLIENT ADDRESS: 1000 Cobb Place Blvd, Bldg 500A, Kennesaw, GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable)			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: 8270C bis(2-ethylhexyl) phthalate

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G)	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID	NUMBER OF CONTAINERS SUBMITTED	REMARKS
112613	1114	~~MWD~~ MW-F19 (112613)	G	X				1	
112613	1244	MW-F5 (112613)						1	
112613	1251	MW-F3R (112613)						1	
112613	~~1105~~	MWD-29 (112613)						1	time: 1154
112613	1048	MW-29 (112613)						1	
112613	1002	MW-F9 (112613)						1	
112613	0922	MW-F8 (112613)						1	
112613	0822	MW-F1 (112613)						1	
112613	1451	MW-F11 (112613)						1	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
	112613	1530						

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
	11/25	1530	YES ○ NO ○		91575	3.0 3.0
mi	16:00	11/26/13				

TAL 8240-680 (1008)

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-96575-1

Login Number: 96575
List Number: 1
Creator: Banda, Christy S

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?	True	
There are no discrepancies between the containers received and the COC.	False	-4 ID on label is MW-23D
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	Times on coc & bottles are different for -15,-16,-17,-18,19,20,21
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 / Remediation

TestAmerica Job ID: 680-96575-1

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	06-30-14
Arkansas DEQ	State Program	6	88-0692	02-01-14
California	NELAP	9	3217CA	07-31-14
Colorado	State Program	8	N/A	12-31-13 *
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13 *
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13 *
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13 *
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13 *
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
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North Carolina DENR	State Program	4	269	12-31-13 *
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14 *
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Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13 *
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Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14

* Expired certification is currently pending renewal and is 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: 680-96613-1
Client Project/Site: Hercules Savannah / Remediation

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

Attn: Chris Miller

Kathryn Smith

Authorized for release by:
12/12/2013 9:54:46 AM

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 / Remediation

TestAmerica Job ID: 680-96613-1

Qualifiers

GC/MS 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
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 / Remediation

TestAmerica Job ID: 680-96613-1

Method	Method Description	Protocol	Laboratory
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	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 / Remediation

TestAmerica Job ID: 680-96613-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-96613-1	MW-F6 (112713)	Water	11/27/13 10:51	11/27/13 10:13
680-96613-2	MW-F12 (112713)	Water	11/27/13 12:04	11/27/13 10:13

Job ID: 680-96613-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Hercules Savannah / Remediation

Report Number: 680-96613-1

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 some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 11/27/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.8 C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) - LOW LEVEL
Samples MW-F6 (112713) (680-96613-1) and MW-F12 (112713) (680-96613-2) were analyzed for Semivolatile Organic Compounds (GC/MS) - Low level in accordance with EPA SW-846 Method 8270D. The samples were prepared on 12/04/2013 and analyzed on 12/10/2013 and 12/11/2013.

No other difficulties were encountered during the SVOAs analysis.

All other quality control parameters were within the acceptance limits.

Client Sample Results

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

TestAmerica Job ID: 680-96613-1

Client Sample ID: MW-F6 (112713)

Lab Sample ID: 680-96613-1

Date Collected: 11/27/13 10:51

Matrix: Water

Date Received: 11/27/13 10:13

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.5	U	2.5		ug/L		12/04/13 14:58	12/10/13 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*34 - 130*	*12/04/13 14:58*	*12/10/13 23:58*	*1*
Nitrobenzene-d5 (Surr)	*77*		*32 - 130*	*12/04/13 14:58*	*12/10/13 23:58*	*1*
Terphenyl-d14 (Surr)	*114*		*36 - 130*	*12/04/13 14:58*	*12/10/13 23:58*	*1*

Client Sample Results

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

TestAmerica Job ID: 680-96613-1

Client Sample ID: MW-F12 (112713)

Lab Sample ID: 680-96613-2

Date Collected: 11/27/13 12:04

Matrix: Water

Date Received: 11/27/13 10:13

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.7	U	2.7		ug/L		12/04/13 14:58	12/11/13 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*34 - 130*	*12/04/13 14:58*	*12/11/13 00:23*	*1*
Nitrobenzene-d5 (Surr)	*65*		*32 - 130*	*12/04/13 14:58*	*12/11/13 00:23*	*1*
Terphenyl-d14 (Surr)	*84*		*36 - 130*	*12/04/13 14:58*	*12/11/13 00:23*	*1*

QC Sample Results

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

TestAmerica Job ID: 680-96613-1

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

Lab Sample ID: MB 680-306008/13-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306930 — **Prep Batch: 306008**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U	2.0		ug/L		12/04/13 14:58	12/10/13 18:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*34 - 130*	*12/04/13 14:58*	*12/10/13 18:32*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 130*	*12/04/13 14:58*	*12/10/13 18:32*	*1*
Terphenyl-d14 (Surr)	*99*		*36 - 130*	*12/04/13 14:58*	*12/10/13 18:32*	*1*

Lab Sample ID: LCS 680-306008/14-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 306930 — **Prep Batch: 306008**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bis(2-ethylhexyl) phthalate			10.0	11.3		ug/L		113	10 - 158		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*34 - 130*
Nitrobenzene-d5 (Surr)	*82*		*32 - 130*
Terphenyl-d14 (Surr)	*100*		*36 - 130*

QC Association Summary

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

TestAmerica Job ID: 680-96613-1

GC/MS Semi VOA

Prep Batch: 306008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96613-1	MW-F6 (112713)	Total/NA	Water	3520C	
680-96613-2	MW-F12 (112713)	Total/NA	Water	3520C	
LCS 680-306008/14-A	Lab Control Sample	Total/NA	Water	3520C	
MB 680-306008/13-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 306930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-96613-1	MW-F6 (112713)	Total/NA	Water	8270D LL	306008
680-96613-2	MW-F12 (112713)	Total/NA	Water	8270D LL	306008
LCS 680-306008/14-A	Lab Control Sample	Total/NA	Water	8270D LL	306008
MB 680-306008/13-A	Method Blank	Total/NA	Water	8270D LL	306008

Lab Chronicle

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

TestAmerica Job ID: 680-96613-1

Client Sample ID: MW-F6 (112713)

Lab Sample ID: 680-96613-1

Date Collected: 11/27/13 10:51

Matrix: Water

Date Received: 11/27/13 10:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			396.5 mL	0.50 mL	306008	12/04/13 14:58	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	396.5 mL	0.50 mL	306930	12/10/13 23:58	JLW	TAL SAV

Client Sample ID: MW-F12 (112713)

Lab Sample ID: 680-96613-2

Date Collected: 11/27/13 12:04

Matrix: Water

Date Received: 11/27/13 10:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			366.9 mL	0.50 mL	306008	12/04/13 14:58	RNJ	TAL SAV
Total/NA	Analysis	8270D LL		1	366.9 mL	0.50 mL	306930	12/11/13 00:23	JLW	TAL SAV

Laboratory References:

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

Serial Number 62235

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.testamericainc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE: Ashland Savannah Hercules	PROJECT NO.: n/a	PROJECT LOCATION (STATE): GA	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER: Jerry Lanier	P.O. NUMBER: n/a	CONTRACT NO.: n/a	STANDARD REPORT DELIVERY
CLIENT (SITE) PM: David Wilderman	CLIENT PHONE: 770-428-9009	CLIENT FAX: 770-428-4024	DATE DUE
CLIENT NAME: Arcadis	CLIENT E-MAIL: david.wilderman@arcadis-us.com		EXPEDITED REPORT DELIVERY (SURCHARGE)
CLIENT ADDRESS: 1000 Cobb Place Blvd, Bldg 500A, Kennesaw GA			DATE DUE
COMPANY CONTRACTING THIS WORK (if applicable): Antea Group			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: 8270C - semi volatiles; 1311/5030C - ethylbenzene

PRESERVATIVE: none

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
112713	1051	MW-F6(112713)						X(1)	
112713	1204	MW-F12 (112713)						X(1)	

680-96613 Chain of Custody

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	112713	1310						
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
O Shane	11/27/13	1310	[signature]					

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS
M. Kirkbride	11/27/13	10:13	YES ○ NO ○	680-96613		2.8 a.c

TAL8240-680 (10

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-96613-1

Login Number: 96613

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.	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	

Certification Summary

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

TestAmerica Job ID: 680-96613-1

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	06-30-14
Arkansas DEQ	State Program	6	88-0692	02-01-14
California	NELAP	9	3217CA	07-31-14
Colorado	State Program	8	N/A	12-31-13 *
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13 *
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13 *
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13 *
Kentucky (UST)	State Program	4	18	06-30-14
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Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13 *
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