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RESULTS OF SEMI-ANNUAL GROUNDWATER SAMPLING JANUARY 1 THROUGH JUNE 30, 2018

EASTERN PORTION OF THE CABOT CARBON/KOPPERS SUPERFUND SITE GAINESVILLE, FLORIDA

June 29, 2018

Prepared for:

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1.0 Background

This report represents the 2018 Semi-Annual Groundwater Monitoring Report for the Eastern Portion of the Cabot Carbon/Koppers Superfund Site (Site; Figure 1) located in Gainesville, Florida (US EPA Identification Number FLD980709356). The amended post-remedial groundwater monitoring program for the eastern portion of the Site includes sampling the following wells on a semi-annual basis: HG-31D; HG-36S; HG-36D; HG-37S; HG-37D; HG-38S; HG-38D; HG-39S; HG-39D; and CFW-1. The groundwater monitoring event was conducted to monitor and evaluate the effectiveness of the groundwater collection system in intercepting contaminated groundwater from the surficial aquifer to fulfill obligations in accordance with the terms of the 1991 Consent Decree between Cabot Corporation (Cabot) and the United States Environmental Protection Agency (US EPA) and to monitor groundwater quality in the Upper and Lower Hawthorn Group Formations and at monitoring well CFW-1.

The objectives of the semi-annual groundwater monitoring event included:

- Collect representative water level measurements from 27 groundwater monitoring wells installed in the surficial aquifer and from 4 interceptor trench sumps; from seven wells installed in the Upper Hawthorn Group (UHG) aquifer; from seven wells installed in the Lower Hawthorn Group (LHG) aquifer; and from one multi-port groundwater monitoring well installed in the Floridan aquifer.

- Collect representative groundwater samples for analysis of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals from four groundwater monitoring wells installed in the UHG aquifer, from five groundwater monitoring wells installed in the LHG aquifer, and from one multi-port groundwater monitoring well installed in the Floridan aquifer.

2.0 Water Level Measurements

Synoptic water level measurements were collected from Site monitoring wells and interceptor trench sumps on May 1, 2018 for use in calculating groundwater elevations and to identify potential changes in the Site hydrogeologic system. Static water level measurements were collected from Site groundwater monitoring wells prior to purging and sampling.

Depth-to-water measurements were obtained from surficial aquifer monitoring wells, Hawthorn Group monitoring wells, and interceptor trench sumps using an electronic water-level meter accurate to 0.01 foot and were measured from fixed locations with known elevations at the top of inner casing (TOIC) at each well. Piezometric levels were calculated for CFW-1 using fluid pressure measurements collected from the Floridan aquifer. Fluid pressure measurements were collected from the aquifer through sample collection ports of the WestBay® Multiport System installed in CFW-1 using a Westbay sampling tool. Calculated groundwater elevation data are presented on Table 1.

Groundwater elevation data obtained during the 2018 Semi-annual Monitoring Event are consistent with data obtained during previous measurement events. Groundwater elevation contours and groundwater flow lines for the surficial aquifer are presented in Figure 2. Groundwater gradients were interpreted relative to flow lines presented in Figure 2.

As shown in Figure 2, groundwater in the surficial aquifer at the Site generally flows north-east. The average groundwater gradient of the surficial aquifer is estimated to be $1x10^{-2}$ foot per foot (ft/ft).

Consistent with prior monitoring events, these groundwater elevation data indicate that groundwater in the surficial aquifer is effectively captured by the groundwater interceptor trench.

3.0 Groundwater Sampling Activities

Environmental Standards collected groundwater samples from Site groundwater monitoring wells on May 8, 2018, and May 9, 2018. Groundwater samples were collected from four monitoring wells installed in the UHG (HG-36S; HG-37S; HG-38S; and HG-39S) and from five monitoring wells installed in the LHG (HG-31D; HG-36D; HG-37D; HG-38D; and HG-39D). Groundwater samples were also collected from each of the four sampling ports of the WestBay Multiport System monitoring well (CFW-1) installed in the Upper Floridan aquifer. Groundwater monitoring and sample collection was conducted in accordance with the site-specific Quality Assurance Project Plan (QAPP) reviewed and approved by US EPA Region IV March 6, 2015.

Sample Collection

Groundwater monitoring wells installed in the Hawthorn Group were purged and sampled using low-flow sampling methodologies. Monitoring wells installed in the UHG were sampled using a surface-mounted peristaltic pump (Geotech Geopump™). Monitoring wells installed in the LHG were sampled using a submersible electric pump (Grundfos Redi-Flo 2®).

Pumps were affixed with new disposable Teflon lined polyethylene tubing for each sampling location. Pump intakes were set to the approximate midpoint of the saturated screen interval for each monitoring well. Once well purging was initiated, the settings of the pump controllers were adjusted until groundwater drawdown had stabilized.

Field parameter measurements including dissolved oxygen (DO), temperature, specific conductivity, pH, turbidity, and oxidation/reduction potential (ORP) were obtained from purged groundwater and recorded following drawdown stabilization.

Monitoring well purging was considered complete when field parameter measurements stabilized. Stabilization was defined as the time at which each parameter value fell within respective allowances for three consecutive measurements. Following stabilization, groundwater samples were collected directly from the pump discharge tubing into pre-preserved, laboratory-provided bottleware. Field sampling log sheets are included in Appendix A.

Groundwater samples were collected directly from the Floridan Aquifer from four screened intervals using the WestBay® Multiport System installed in CFW-1 through sample collection ports. The four screened intervals of CFW-1 were constructed from 155 feet (ft) below ground surface (bgs) to 165 ft bgs; from 175 ft bgs to 185 ft bgs; from 195 ft bgs to 205 ft bgs; and from 215 ft bgs to 225 ft bgs. Groundwater samples were collected into down-well stainless steel sampling containers through a WestBay sampling tool which connected to the sample ports. Following collection of groundwater, the sampling containers were returned to the ground surface, and the groundwater samples were decanted directly into pre-preserved, laboratory-provided bottleware.

Bottleware was labeled accordingly to record relevant information, including the sample identification, requested analysis, preservative, date, time, and sampler's initials. Groundwater samples were generally collected in the order of VOCs, SVOCs, and Metals. Samples for VOC analysis were collected with zero headspace.

Following collection, samples were placed immediately into coolers containing sufficient quantities of wet ice to maintain a constant temperature at or below 4-degrees Celsius (°C).

Chain-of-Custody documentation was initiated at sample collection and maintained through sample delivery to the analytical laboratory.

Groundwater samples were delivered to TestAmerica, Inc.'s (TestAmerica's) Service Center in Orlando, Florida. Groundwater samples were analyzed by TestAmerica's Savannah, Georgia laboratory for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, and for Metals (arsenic and chromium) by EPA Method 6010.

Quality Control Samples

Various field quality assurance/quality control (QA/QC) samples were collected during the 2018 Semi-annual Monitoring Event, including trip blanks, equipment blank samples, a duplicate sample, a field blank sample, and matrix spike/matrix spike duplicate (MS/MSD) samples. These samples were used to assess laboratory performance and to gauge the likelihood of cross-contamination associated with both field and laboratory activities.

One MS/MSD pair was collected from HG-38D. One field duplicate sample (identified as HG-37D FD) was collected from HG-37D.

Individual equipment rinse blank samples were collected for each type of non-disposable sampling equipment (submersible pump and Westbay sample containers) by passing laboratory-provided deionized (DI) water over the decontaminated sampling equipment prior to transferring the water into requisite bottleware for laboratory analysis.

A field blank sample (FB) was collected by filling requisite bottleware with unused, laboratory-provided DI water used for decontamination of sampling equipment.

Trip blanks (analyzed for VOCs only) were also submitted with groundwater samples for laboratory analysis.

4.0 Analytical Results

A summary of analytical results for constituents detected in groundwater samples collected during the 2018 Semi-annual Monitoring Event is presented on Table 2 for the UHG aquifer, on Table 3 for the LHG aquifer, and on Table 4 for the Floridan Aquifer. Comprehensive analytical results are included in the laboratory data packages in Appendix B. Summaries of previous results of groundwater monitoring for the Hawthorn Group Aquifer, and the Floridan Aquifer are included as Appendices C and D, respectively.

The groundwater monitoring quality data collected for the 2018 Semi-annual Monitoring Event is consistent with previous groundwater quality monitoring. A comparison of analytical results to health-based screening levels is presented on Tables 2 through 4.

Upper Hawthorne Group Aquifer

VOCs

Benzene was detected at a concentration that exceeds Florida Department of Environmental Protection (FL DEP) Maximum Concentration Limit (MCL) of 1 microgram per liter (µg/l) in groundwater collected from HG-38S (8.2 µg/l).

1,2,4 -Trimethylbenzene was detected at a concentration that exceeds the EPA Regional Screening Level (RSL) of 15 µg/l in groundwater collected from HG-38S (20 µg/l).

SVOCs

1,1'-Biphenyl was detected at a concentration that exceeds the EPA RSL of 0.83 µg/l in groundwater collected from HG-38S (13 µg/l).

Carbazole was detected at a concentration that exceeds the FL DEP Groundwater Cleanup Target Level (GCTL) of 1.8 µg/l in groundwater collected from HG-38S (39 µg/l).

2-Methylnaphthalene was detected at a concentration that exceeds the FL DEP GCTL of 28 µg/l in groundwater collected from HG-38S (180 µg/l).

Naphthalene was detected at a concentration that exceeds the FL DEP GCTL of 14 µg/l in groundwater collected from HG-38S (3,300 µg/l).

Lower Hawthorne Group Aquifer

VOCs

Benzene was detected at concentrations that exceed the FL DEP MCL of 1 µg/l in groundwater collected from HG-31D (130 µg/l), HG-37D (25 µg/l), HG-38D (11 µg/l), and HG-39D (110 µg/l).

SVOCs

2,4-Dimethylphenol was detected at concentrations that exceed the updated FL DEP GCTL of 192 µg/l in groundwater collected from HG-31D (1,600 µg/l), and HG-38D (290 µg/l). [1]

Naphthalene was detected at concentrations that exceed the FL DEP GCTL of 14 µg/l in groundwater collected from HG-31D (53 µg/l) and HG-38D (1,000 µg/l).

[1] The approach used for updating the FL DEP GCTLs is presented in the SRI/FFS report (Gradient, 2016).

Floridan Aquifer

The compounds acenaphthene (2.3 µg/l J[2]), benzene (0.52 µg/l J), total xylenes (0.23 µg/l J), methyl tert-buty ether (0.34 µg/l J B[3]), and chromium (2.2 µg/l J) were detected at estimated concentrations below Site screening levels in groundwater collected from the 155 ft bgs to 165 ft bgs screened interval of CFW-1. Methyl tert-butyl ether was also detected at estimated concentrations below Site screening levels in groundwater collected from the 175 ft bgs to 185 ft bgs (0.33 µg/l J B), the 195 ft bgs to 205 ft bgs (0.30 µg/l J B), and the 215 ft bgs to 225 ft bgs (0.31 µg/l J B) screened intervals of CFW-1. It is important to note that methyl tert-butyl ether was also detected in the laboratory blank. All other analytes were below laboratory detection limits in groundwater samples collected from CFW-1.

Data Quality Evaluation

As shown on Table 3, analytical results indicate that groundwater monitoring constituents were detected at similar concentrations in the original and duplicate groundwater samples collected from monitoring well HG-37D. Bis (2-ethylhexyl) phthalate was detected in the duplicate groundwater sample collected from HG-37D at a concentration of 2.2 µg/l J; however, the concentration of Bis (2-ethylhexyl) phthalate was below the laboratory detection limit in the original groundwater sample collected from HG-37D.

The data review and the QA samples indicate that the data are suitable for their intended use.

[2] The laboratory data qualifier "J" denotes that the associated value is estimated.

[3]The laboratory data qualifier "B" indicates the compound was detected in the blank and sample

5.0 Findings

The following conclusions are based on groundwater monitoring activities conducted for the 2018 Semi-annual Monitoring Event:

- The groundwater quality data collected for the 2018 Semi-annual Monitoring Event are consistent with data collected for previous groundwater quality monitoring events.
- Consistent with prior monitoring events, groundwater elevation data indicates that groundwater in the surficial aquifer generally flows toward the groundwater interceptor trench.

The following recommendations are based on comparison between previous groundwater monitoring data and 2018 Semi-annual monitoring activities:

- Continue semi-annual groundwater quality monitoring at the Site. Evaluate monitoring data to assure trends are identified with respect to elevated constituent concentrations.
- Continue collecting synoptic water level measurements from the monitoring well network during groundwater monitoring events so that hydrogeologic trends may continue to be accurately evaluated with respect to the effectiveness of the groundwater interceptor trench in controlling the migration of contaminated water in the shallow aquifer.

Environmental Standards greatly appreciates the opportunity to offer our services to Cabot Corporation. Please contact us at (434) 293-4039 with any questions or if we can provide you with any additional information.

Respectfully submitted,

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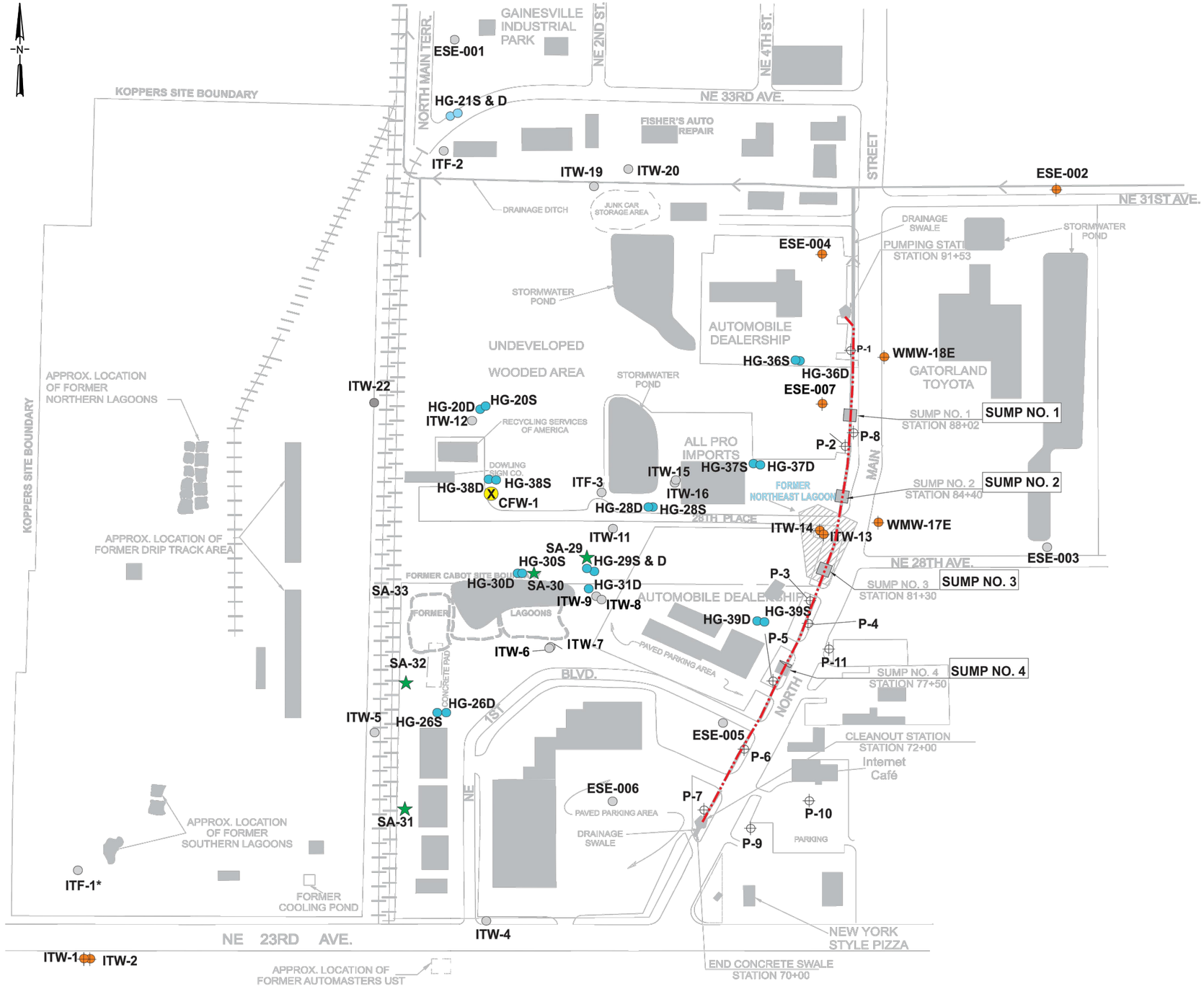
Figures



Notes:

- Groundwater Interceptor Trench
- Groundwater Interceptor Trench Pumping Station
- Groundwater Interceptor Trench Sump Access
- Groundwater Interceptor Trench Cleanout Station
- Drainage Ditch Location
- Monitoring Well Location
- Piezometer Location
- Hawthorn Investigation Surficial Aquifer Monitoring Well Location
- Floridan Aquifer Monitoring Well Location
- Hawthorn Group Monitoring Well Location

Graphic Scale (feet)

0 250 500 1000

Based on Figure Created by Weston Solutions, Inc.

CREATION DATE:	PROJECT NO.:		FIGURE 1: SITE PLAN
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ENVIRONMENTAL STANDARDS	DRAWN BY: SEN	APRV'D BY: –	
	CHEK'D BY: –	REVISION: 0	CABOT CARBON/KOPPERS SUPERFUND SITE GAINESVILLE, FLORIDA

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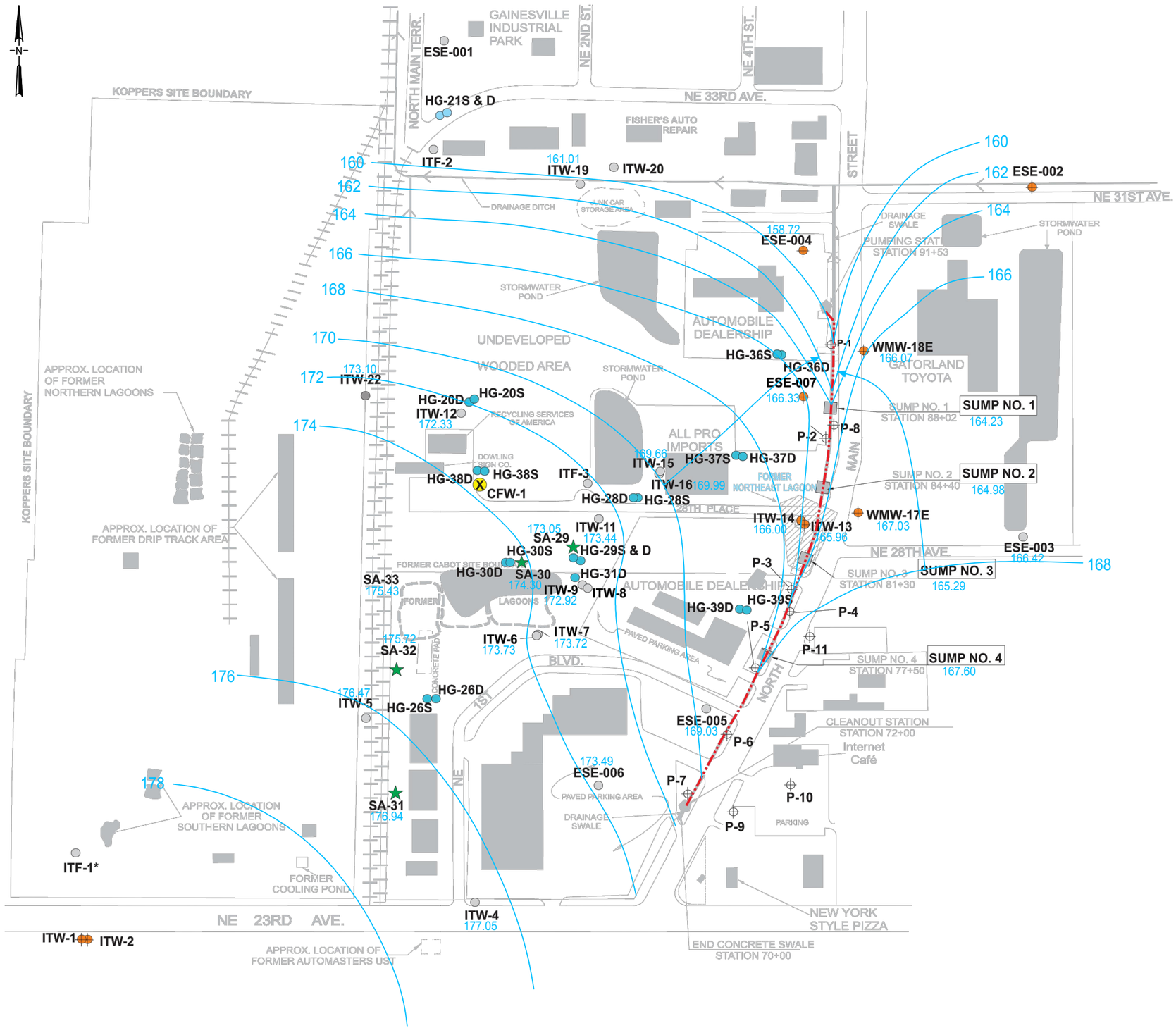

Notes:

- Groundwater Interceptor Trench
- Groundwater Interceptor Trench Pumping Station
- Groundwater Interceptor Trench Sump Access
- Groundwater Interceptor Trench Cleanout Station
- Drainage Ditch Location
- Monitoring Well Location
- Piezometer Location
- Hawthorn Investigation Surficial Aquifer Monitoring Well Location
- Floridan Aquifer Monitoring Well Location
- Hawthorn Group Monitoring Well Location
- 165.84 Groundwater Elevation (feet above mean sea level)
- Groundwater Elevation Contour
- Groundwater Flow Line

Graphic Scale (feet)

0 250 500 1000

Based on Figure Created by Weston Solutions, Inc.

CREATION DATE:	PROJECT NO.:	
6/12/2018	20188145.A	FIGURE 2: SURFICIAL AQUIFER GROUNDWATER ELEVATION CONTOUR MAP
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Tables

Table 1
Monitoring Well Water Level Survey Data

Table 1
Monitoring Well Water-Level Survey Data
Cabot Carbon/Koppers Superfund Site 2018 Semi-annual Monitoring Event
Gainesville, Florida

Monitoring Well	Monitoring Point Elevation (feet above MSL)	Depth to Water (Feet)	Groundwater Elevation (feet above MSL)	Comments
Surficial Aquifer Monitoring Wells				
ITW-4	187.82	10.77	177.05	
ITW-5	185.34	8.87	176.47	
ITW-6	183.10	9.37	173.73	
ITW-7	182.97	9.25	173.72	
ITW-8	180.81	NA	NA	Encountered Obstruction In Well
ITW-9	180.30	7.38	172.92	
ITW-11	180.91	7.47	173.44	
ITW-12	177.49	5.16	172.33	
ITW-13	174.14	8.18	165.96	
ITW-14	174.80	8.80	166.00	Tar globules noted on probe, not measurable amount
ITW-15	175.90	6.24	169.66	
ITW-16	175.41	5.42	169.99	
WMW-17E	175.29	8.26	167.03	
WMW-18E	172.92	6.85	166.07	
ITW-19	169.74	8.73	161.01	
ITW-22	180.54	7.44	173.10	
ESE-003	171.86	5.44	166.42	
ESE-004	166.69	7.97	158.72	
ESE-005	178.23	9.20	169.03	
ESE-006	180.39	6.90	173.49	
ESE-007	168.42	2.09	166.33	
SA-29	179.32	6.27	173.05	
SA-30	179.50	5.20	174.30	
SA-31	184.45	7.51	176.94	
SA-32	185.07	9.35	175.72	
SA-33	185.66	10.23	175.43	
ITF-3	176.61	34.31	142.30	
Sump No. 1	168.95	4.72	164.23	
Sump No. 2	169.80	4.82	164.98	
Sump No. 3	170.94	5.65	165.29	
Sump No. 4	173.27	5.67	167.60	
Hawthorn Group Aquifer Monitoring Wells				
HG-28S	174.82	14.82	160.00	
HG-28D	175.29	35.57	139.72	
HG-29S	179.17	10.54	168.63	
HG-30S	179.50	10.22	169.28	
HG-30D	179.31	37.37	141.94	
HG-31D	182.00	40.32	141.68	
HG-36S	169.35	7.99	161.36	
HG-36D	169.14	33.26	135.88	
HG-37S	176.16	12.11	164.05	
HG-37D	176.43	37.47	138.96	
HG-38S	176.55	6.71	169.84	
HG-38D	176.67	35.56	141.11	
HG-39S	175.34	8.00	167.34	
HG-39D	175.50	36.35	139.15	
Floridan Aquifer Monitoring Well				
CFW-1 155 ft. to 165 ft.	179.88	124.09	55.79	
CFW-1 175 ft. to 185 ft.	179.88	124.02	55.86	
CFW-1 195 ft. to 205 ft.	179.88	123.97	55.91	
CFW-1 215 ft. to 225 ft.	179.88	123.91	55.97	

MSL - Mean Sea Level
ft. - Feet below ground surface
NA - Not Applicable

Table 2
Summary of Detected Constituents – Upper Hawthorn Group Wells

TABLE 2
SUMMARY OF DETECTIONS - UPPER HAWTHORN GROUP WELLS
CABOT CARBON/KOPPERS SUPERFUND SITE 2018 SEMI-ANNUAL MONITORING EVENT
GAINESVILLE, FLORIDA

Detected Constituent	Screening Level	Basis	Units	HG-36S	HG-37S	HG-38S	HG-39S
				5/9/2018	5/8/2018	5/8/2018	5/9/2018
Volatile Organic Compounds (VOCs)							
Benzene	1	MCL FL DEP	µg/L	0.43 U	0.46 J	8.2	0.43 U
Ethylbenzene	700	MCL FL DEP	µg/L	0.33 U	0.33 U	17	0.33 U
Isopropylbenzene	450	EPA RSL	µg/L	0.35 U	0.35 U	2.3	0.35 U
Methyl tert-butyl ether (MTBE)	20	FL DEP GCTL	µg/L	0.33 J	0.31 J	0.30 J	0.30 U
m,p-Xylenes	See Total Xylenes		µg/L	0.35 U	0.35 U	18	0.35 U
o-Xylene	See Total Xylenes		µg/L	0.23 U	0.23 U	11	0.23 U
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	0.48 U	0.48 U	5.8	0.48 U
Toluene	1000	MCL FL DEP	µg/L	0.48 U	0.48 U	4.5	0.48 U
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	0.47 U	0.47 U	20	0.47 U
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	0.31 U	0.31 U	5.7	0.31 U
Xylene (Total)	10,000	MCL FL DEP	µg/L	0.23 U	0.23 U	29	0.23 U
Semi-Volatile Organics (SVOCs)							
Acenaphthene	530	EPA RSL	µg/L	0.73 U	0.73 U	56	0.73 U
1,1 - Biphenyl	0.83	EPA RSL	µg/L	0.56 U	0.56 U	13	0.56 U
Carbazole	1.8	FL DEP GCTL	µg/L	0.68 U	0.68 U	39	0.68 U
Dibenzofuran	28	FL DEP GCTL	µg/L	0.76 U	0.76 U	5.7 J	0.76 U
Fluorene	280	FL DEP GCTL	µg/L	0.92 U	0.92 U	11	0.92 U
2,4-Dimethylphenol	192	HBCs	µg/L	3.8 U	3.8 U	89	3.9 U
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	0.75 U	0.75 U	180	0.75 U
2-Methylphenol	480	HBCs	µg/L	0.85 U	0.85 U	30	0.86 U
3 & 4 Methylphenol	640	Updated GCTL	µg/L	1.2 U	1.2 U	180	1.2 U
Naphthalene	14	FL DEP GCTL	µg/L	0.67 U	0.67 U	3,300	0.67 U
Phenol	9,600	FL DEP GCTL	µg/L	0.80 U	0.80 U	8.6 J	0.80 U
Total Metals							
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	12 J	6.2 U
Chromium	100	MCL FL DEP	µg/L	1.6 U	1.6 U	1.6 U	1.6 U

Notes:
ug/L - micrograms per liter
J - Reported concentration is estimated
U - Analyte was not detected at the associated detection limit
Analyte concentration exceeds health-based benchmark
FL DEP - Florida Department of Environmental Protection
EPA - United States Environmental Protection Agency
MCL - Maximum Contaminant Level
RSL - Regional Screening Level
GCTL - Groundwater Cleanup Target Levels
P-Isopropyl toluene is also called p-Cymene. The health-based criterion was provided by FDEP (FDEP, 2016)

Table 3
Summary of Detected Constituents – Lower Hawthorn Group Wells

TABLE 3
SUMMARY OF DETECTIONS - LOWER HAWTHORN GROUP WELLS
CABOT CARBON/KOPPERS SUPERFUND SITE 2018 SEMI-ANNUAL MONITORING EVENT
GAINESVILLE, FLORIDA

Detected Constituent	Screening Level	Basis	Units	HG-31D	HG-36D	HG-37D	HG-37D FD	HG-38D	HG-39D
				5/9/2018	5/9/2018	5/8/2018	5/8/2018	5/8/2018	5/9/2018
Volatile Organic Compounds (VOCs)									
Acetone	6300	FL DEP GCTL	µg/L	24	7 U	7 U	7 U	33	7 U
Benzene	1	MCL FL DEP	µg/L	130	0.43 U	25	26	11	110
2-Butanone (MEK)	4,200	FL DEP GCTL	µg/L	7.2 J	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
Ethylbenzene	700	MCL FL DEP	µg/L	64	0.33 U	2.2	2.2	12	50
Isopropylbenzene	450	EPA RSL	µg/L	5.5	0.35 U	0.35 U	0.35 U	1	3.3
4-Methyl-2-Pentanone (MIBK)	560	FL DEP GCTL	µg/L	4.2 J	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Methyl tert-butyl ether (MTBE)	20	FL DEP GCTL	µg/L	0.36 J	0.31 J	0.32 J	0.30 U	0.33 J	0.30 U
m,p-Xylenes	See Total Xylenes		µg/L	73	0.36 J	2.6	2.6	17	40
o-Xylene	See Total Xylenes		µg/L	23	0.23 U	0.86 J	0.86 J	8.9	12
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	20	0.48 U	0.48 U	0.48 U	1.4	0.48 U
Toluene	1000	MCL FL DEP	µg/L	34	0.48 U	1.7	1.7	4.1	3.4
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	6.8	0.47 U	0.47 U	0.47 U	9.0	3.9
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	1	0.31 U	0.31 U	0.31 U	3.2	0.76 J
Xylene (Total)	10,000	MCL FL DEP	µg/L	96	0.23 U	3.5	3.5	26	52
Semi-Volatile Organics (SVOCs)									
Acenaphthene	530	EPA RSL	µg/L	0.73 U	0.73 U	0.74 U	0.73 U	2.1 J	0.73 U
Acetophenone	700	FL DEP GCTL	µg/L	2.7 J	0.55 U	0.56 U	0.55 U	0.55 U	0.55 U
1,1'-Biphenyl			µg/L	0.56 U	0.56 U	0.56 U	0.56 U	0.63 J	0.56
Bis (2-ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	1.5 U	1.5 U	1.5 U	2.2 J	1.5 U	1.5 U
Carbazole	1.8	FL DEP GCTL	µg/L	0.68 U	0.68 U	0.68 U	0.69 U	1.8 J	0.68 U
2,4-Dimethylphenol	192	HBCs	µg/L	1,600	3.9 U	140	160	290	5.5 J
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	0.75 U	0.75 U	0.76 U	0.76 U	14	0.75 U
2-Methylphenol	480	HBCs	µg/L	55	0.86 U	0.87 U	0.86 U	0.86 U	0.86 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	380	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U
Naphthalene	14	FL DEP GCTL	µg/L	53	0.67 U	0.68 U	0.68 U	1,000	11
Phenol	9,600	HBCs	µg/L	14	0.8 U	0.81 U	0.8 U	0.8 U	2.0 J
Total Metals									
Chromium	100	MCL FL DEP	µg/L	33	12	3.2 J	3.4 J	8.9 J	20

Notes:
ug/L - micrograms per liter
J - Reported concentration is estimated
U - Analyte was not detected at the associated detection limit
NA - Not Available
Analyte concentration exceeds health-based benchmark
FL DEP - Florida Department of Environmental Protection
EPA - United States Environmental Protection Agency
MCL - Maximum Contaminant Level
RSL - Regional Screening Level
GCTL - Groundwater Cleanup Target Levels
P-Isopropyl toluene is also called p-Cymene. The health-based criterion was provided by FDEP (FDEP, 2016)

Table 4
Summary of Detected Constituents – Floridan Aquifer Well

TABLE 4

SUMMARY OF DETECTIONS - FLORIDAN AQUIFER

CABOT CARBON/KOPPERS SUPERFUND SITE 2018 SEMI-ANNUAL MONITORING EVENT

GAINESVILLE, FLORIDA

Detected Constituent	Screening Level	Basis	Units	CFW-1 155-165	CFW-1 175 -185	CFW-1 195-205	CFW-1 215-225
				5/8/2018	5/8/2018	5/8/2018	5/8/2018
Volatile Organic Compounds (VOCs)							
Benzene	1	MCL FL DEP	µg/L	0.52 J	0.43 U	0.43 U	0.43 U
Methyl tert-butyl ether (MTBE)	20	FL GCTL	µg/L	0.34 J B	0.33 J B	0.30 J B	0.31 J B
o-Xylene	See Total Xylenes		µg/L	0.50 J	0.23 U	0.23 U	0.23 U
Total Xylenes	10,000	MCL FL DEP	µg/L	0.50 J	0.23 U	0.23 U	0.23 U
Semi-Volatile Organic Compounds (SVOCs)							
Acenaphthene	530	EPA RSL	µg/L	2.1 J	0.74 U	0.74 U	0.74 U
Total Metals							
Chromium	100	MCL FL DEP	µg/L	2.2 J	1.6 U	1.6 U	1.6 U

Notes:

ug/L - micrograms per liter

J - Reported concentration is estimated

B - Compound was detected in the blank and the sample

U - Analyte was not detected at the associated detection limit

FL DEP - Florida Department of Environmental Protection

EPA - United States Environmental Protection Agency

MCL - Maximum Contaminant Level

RSL - Regional Screening Level

GCTL - Groundwater Cleanup Target Levels

Appendices

Appendix A
Summary of Purging Data/Field Sampling Logs

Appendix A
Summary of Purge Data
Cabot Carbon/Kopper Superfund Site 2018 Semi-Annual Monitoring
Gainesville, Florida

Well ID	DTW (Feet)	Time	Date	Volume (Gallons)	Temp. (°C)	Conductivity (µS/cm)	pH	Dissolved O² (mg/L)	Turbidity (NTU)	Odor Yes/No	Sample Time	Purge Dry Yes/No	Comments
HG-31D	41.70	0823	5/9/2018	0.4	20.92	2649	5.99	1.22	9	Yes	0900	No	Odor, Grey Color
	41.80	0830		1.1	21.36	2714	6.13	0.49	8				Foamy/ Off-gassing
	41.80	0842		2.5	21.72	2747	6.21	0.20	5				
	41.80	0847		2.9	21.79	2740	6.22	0.21	5				
	41.80	0852		3.4	21.80	2739	6.23	0.21	5				
HG-36S	10.41	1123	5/9/2018	0.5	21.51	304	6.64	0.92	7.41	No	1150	No	
	10.43	1133		2	21.53	302	6.66	0.83	5.98				
	10.44	1138		2.5	21.51	302	6.67	0.68	4.77				
	10.44	1148		3.5	21.50	302	6.67	0.49	4.22				
HG-36D	34.15	1153	5/9/2018	0.5	21.73	273	7.95	0.85	204	Yes	1240	No	Musty Odor, Light Tan Color
	34.33	1200		1.5	21.93	268	7.68	0.41	102				
	34.35	1205		2.2	21.45	262	7.81	0.34	104				
	34.36	1210		2.9	21.97	260	7.86	0.29	109				
	34.37	1215		3.6	22.37	254	7.81	0.23	114				
	34.39	1220		4.3	22.27	267	7.65	0.22	90				
	34.39	1225		5	22.20	270	7.43	0.18	42				
	34.39	1230		5.6	22.22	272	7.41	0.18	19				
	34.39	1235		6.2	22.24	272	7.40	0.18	18				
HG-37S	14.39	1612	5/8/2018	0.5	23.25	334	6.88	0.99	5.21	No	1635	No	
	14.43	1617		1	23.28	336	6.86	0.81	3.27				
	14.44	1627		2	23.29	336	6.85	0.75	3.2				
	14.45	1632		2.5	23.28	337	6.84	0.67	3.03				
HG-37D	38.58	1640	5/8/2018	0.8	23.61	325	8.93	0.49	37	Yes	1220	No	Odor, Light Grey Color
	38.64	1645		1.5	23.41	333	9.51	0.39	14				
	38.65	1650		2.2	23.39	331	9.23	0.32	10				
	38.65	1655		3	23.13	345	8.71	0.26	9				
	38.66	1700		3.6	23.13	346	8.40	0.25	7				
	38.66	1705		4.1	23.17	346	8.33	0.24	6				
	38.66	1710		4.6	23.18	346	8.31	0.23	5				
HG-38S	9.01	1429	5/8/2018	0.5	21.10	811	6.73	0.46	4.39	Yes	1450	No	Chemical Odor
	9.04	1434		1	21.09	804	6.70	0.43	3.81				
	9.06	1444		2	21.07	801	6.69	0.40	3.45				
	9.07	1449		2.5	21.06	799	6.68	0.35	3.22				
HG-38D	36.04	1450	5/8/2018	0.5	21.23	485	7.14	0.60	81.6	Yes	1525	No	Organic Odor, Tan to Grey Color
	36.09	1455		1.2	21.70	484	7.13	0.41	28.5				
	36.10	1500		2	21.83	486	7.15	0.33	17				
	36.10	1505		2.6	21.89	488	7.14	0.31	15				
	36.10	1510		3.2	21.88	489	7.14	0.30	12				
	36.10	1515		3.9	21.90	489	7.13	0.30	11				
HG-39S	11.30	0953	5/9/2018	1	23.58	389	6.60	0.69	3.46	No	1015	No	
	11.32	0958		1.5	23.60	388	6.61	0.44	2.91				
	11.33	1003		2	23.61	388	6.64	0.37	2.71				
	11.33	1013		3	23.63	388	6.65	0.35	2.62				
HG-39D	36.81	1027	5/9/2018	0.5	24.28	1027	6.36	1.50	32	Yes	1055	No	Organic Odor
	36.91	1035		1.1	24.74	1048	6.31	0.47	15				
	36.91	1040		1.8	24.72	1059	6.32	0.45	16				
	36.92	1045		2.5	24.80	1060	6.33	0.44	14				
	36.92	1050		3.1	24.74	1061	6.33	0.43	13				

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Cabot	SITE LOCATION: Gainsville, FL	
WELL NO: H6-310	SAMPLE ID: H6-310	DATE: 5/9/18

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 97 feet to 107 feet	STATIC DEPTH TO WATER (feet): 40.21	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0026 gallons/foot X 107 feet) + 0.13 gallons = 0.41 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 102	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 102	PURGING INITIATED AT: 0818	PURGING ENDED AT: 0852	TOTAL VOLUME PURGED (gallons): 3.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0823	0.4	0.4	0.12	41.70	5.99	20.92	2649	1.22	9	Grey	Musty/ Sandlike
0830	0.7	1.1	0.12	41.80	6.13	21.36	2714	0.49	8		
0842	1.4	2.5	0.12	41.80	6.21	21.72	2747	0.20	5		
0847	0.5	2.9	0.12	41.80	6.22	21.79	2740	0.21	5		
0852	0.5	3.4	0.12	41.80	6.23	21.80	2739	0.21	5		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: SCOTT NASH / ESI	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 0900	SAMPLING ENDED AT: 0910
PUMP OR TUBING DEPTH IN WELL (feet): 102	TUBING MATERIAL CODE: TYPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N (replaced))	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
H6-310	3	CG	~~HCl 40 mL~~	HCl / Ice	NA	NA	VOCs	ESP	0.12
↓	2	AG	~~1,000 mL~~	NO PRES / ICE	↓	↓	SVOCs	↓	↓
↓	1	PE	~~HNO3 250 mL~~	HNO3 / Ice	↓	↓	Metals	↓	↓

REMARKS: Collected ESP Equipment Blank (Equipment Blank 2) at 0730

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Cabot	SITE LOCATION:	Gainesville FL	
WELL NO:	HG 365	SAMPLE ID:	HG 365	DATE: 5-9-18

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2	3/8	45 feet to 55 feet	8.03	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (0.006 gallons/foot X 58 feet) + 0.13 gallons = 0.48 gallons

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 (gallons):
50	50	1118		3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1123	0.5	0.5	0.10	10.41	6.64	21.57	304	0.92	7.41	clear	None
1133	1	1.5	0.10	10.43	6.66	21.53	302	0.83	5.98	"	"
1138	0.5	2	0.10	10.44	6.67	21.51	302	0.68	4.77	"	"
1148	1	3	0.10	10.44	6.67	21.50	302	0.49	4.22	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Mr. Eckstein / GLS		1150	1202

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
50	T		

FIELD DECONTAMINATION: PUMP (Y) N TUBING Y (N replaced) DUPLICATE: Y (N)

	SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
	SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
HG	365	2	AG	1L	—	—	—	SVOCs	APP	350
HG	365	1	PE	250mL	HNO3	—	—	As, Cr	APP	350
HG	365	3	CG	40mL	HCl	—	—	VOCs	APP	300

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass, PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Cabot	SITE LOCATION: Gainesville, FL	
WELL NO: H6-360	SAMPLE ID: H6-360	DATE: 5/9/18

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): ¼	WELL SCREEN INTERVAL DEPTH: 93 feet to 103 feet	STATIC DEPTH TO WATER (feet): 33.38	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

= 0 gallons + (0.0026 gallons/foot X 103 feet) + 0.13 gallons = 0.40 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 98	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 98	PURGING INITIATED AT: 1148	PURGING ENDED AT: 1235	TOTAL VOLUME PURGED (gallons): 6.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1153	0.5	0.5	0.12	34.15	7.95	21.73	273	0.85	204	Lt. tan	V. slight musty odor
1200	1.0	1.5		34.33	7.68	21.93	268	0.41	102		
1205	0.7	2.2		34.35	7.81	21.45	262	0.34	109		
1210	0.7	2.9		34.36	7.86	21.97	260	0.24	114		
1215	0.7	3.6		34.37	7.81	22.37	254	0.23	90		
1220	0.7	4.3		34.39	7.65	22.07	267	0.22	42		
1225	0.7	5.0		34.39	7.43	22.20	270	0.18	19		
1230	0.6	5.6		34.39	7.41	22.22	272	0.18	18		
1235	0.6	6.2	↓	34.39	7.40	22.24	272	0.18	18		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Nash / ESI	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1240	SAMPLING ENDED AT: 1250
PUMP OR TUBING DEPTH IN WELL (feet): 98	TUBING MATERIAL CODE: TUPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
H6-360	3	CG	40mL	HCl/Ice	NA	NA	VOCs	ESP	0.12
↓	2	AG	1,000mL	none/Ice	↓	↓	SVOCs	↓	↓
↓	1	PE	250mL	HNO_3/Ice	↓	↓	metals	↓	↓

REMARKS: Collected Field Blank Sample at 1200

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Cabot	SITE LOCATION:	Gainesville, FL	
WELL NO:	HG 37S	SAMPLE ID:	HG 37S	DATE: 5-8-18

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2	3/8	48 feet to 58 feet	12.06	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (0.006 gallons/foot X 62 feet) + 0.13 gallons = 0.5 gallons

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 (gallons):
53	53	1607	1632	2.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1612	0.5	0.5	0.10	14.39	6.88	23.25	334	0.99	5.21	clear	None
1617	0.5	1	0.10	14.43	6.86	23.28	336	0.81	3.27		
1627	1	2	0.10	14.44	6.85	23.29	336	0.75	3.20		
1632	0.5	2.5	0.10	14.45	6.84	23.28	337	0.67	3.03		

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Mike Eckstein / TLS		1635	1636

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
53	T		

FIELD DECONTAMINATION: PUMP (Y) N TUBING Y (N) replaced DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
HG 375	2	AG	1L	—	—	—	SVOCs	APP	380
HG 375	1	PE	250mL	HNO_3	—	—	As, Cr	APP	380
HG 375	3	CV	40mL	HCl	—	—	VOCs	APP	380

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Cabot	SITE LOCATION: Gainesville, FL	
WELL NO: HG-37D	SAMPLE ID: HG-37D	DATE: 5/8/10

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 98 feet to 108 feet	STATIC DEPTH TO WATER (feet): 37.33	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

= 0 gallons + (0.0026 gallons/foot X 108 feet) + 0.13 gallons = 0.41 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 103	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 103	PURGING INITIATED AT: 1632	PURGING ENDED AT: 1710	TOTAL VOLUME PURGED (gallons): 4.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1640	0.8	0.8	0.12	38.58	8.43	23.01	325	0.44	37	LT TAN	MUSTY
1645	0.7	1.5	|	38.64	9.51	23.41	333	0.34	14		
1650	0.7	2.2	|	38.65	9.23	23.39	331	0.32	10		
1655	0.8	3.0	|	38.66	8.71	23.13	345	0.26	9		
1700	0.6	3.6	|	38.66	8.40	23.13	346	0.25	7		
1705	0.5	4.1	|	38.66	8.33	23.17	346	0.24	6		
1710	0.5	4.6	↓	38.66	8.31	23.18	346	0.23	5		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Nash / ESI	SAMPLER(S) SIGNATURE(S): Scott Nash	SAMPLING INITIATED AT: 1720	SAMPLING ENDED AT: 1730
PUMP OR TUBING DEPTH IN WELL (feet): 103	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: (Y) N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
HG-37D	3	CG	40mL	HCl/Ice	NA	NA	VOCs	ESP	0.12
↓	2	AG	1,000mL	None/Ice	↓	↓	SVOCs	↓	↓
↓	1	PE	250mL	HNO_3/Ice	↓	↓	Metals	↓	↓

REMARKS: Collected Field Duplicate Sample (HG-37D FD)

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Cabot	SITE LOCATION:	Gainesville FL	
WELL NO:	HG 38 S	SAMPLE ID:	HG 38 S	DATE: 5-8-18

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2	3/8	38 feet to 48 feet	6.85	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (0.006 gallons/foot X 50 feet) + 0.13 gallons = 0.43 gallons

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 (gallons):
43	43	1424	1449	2.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1429	0.5	0.5	0.10	9.01	6.73	21.10	811	0.46	4.39	clear	Moderate
1434	0.5	1	0.10	9.04	6.70	21.09	804	0.43	3.81	"	"
1444	"	2	0.10	9.06	6.69	21.07	801	0.40	3.45	"	"
1449	0.5	2.5	0.10	9.07	6.68	21.06	799	0.35	3.22	"	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
Mike Eckstein / GLS		1450	1501

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
43	T		

FIELD DECONTAMINATION: PUMP (Y) N TUBING Y (N) (replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
HG 38S	2	AG	1L	—	—	—	SVOCs	APP	380
HG 38S	1	PE	250ml	HNO_3	—	—	As, Cr	APP	380
HG 38S	3	CG	40ml	HCl	—	—	VOCs	APP	380

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Cabot	SITE LOCATION: Gainesville, FL	
WELL NO: H6-38D	SAMPLE ID: H6-38D	DATE: 5/8/18

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 94 feet to 109 feet	STATIC DEPTH TO WATER (feet): 35.40	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0 gallons + (0.0026 gallons/foot X 109 feet) + 0.13 gallons = 0.41 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 104	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 104	PURGING INITIATED AT: 1445	PURGING ENDED AT: 1515	TOTAL VOLUME PURGED (gallons): 3.4

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1450	0.5	0.5	0.12	36.04	7.14	21.23	485	0.60	81.6	Clear/ Light gray	Musty
1455	0.7	1.2	0.12	36.09	7.13	21.20	484	0.41	28.5	Light gray	Musty
1500	0.8	2.0	0.12	36.10	7.15	21.83	486	0.33	17		
1505	0.6	2.6	↓	36.10	7.14	21.89	488	0.31	15		
1510	0.6	3.2		36.10	7.14	21.88	489	0.30	12		
1515	0.7	3.9	↓	36.10	7.13	21.90	489	0.30	11		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Nush / ESI	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1525	SAMPLING ENDED AT: 1535
PUMP OR TUBING DEPTH IN WELL (feet): 104	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
H6-38D	3	CG	40mL	HCl / Ice	NA	NA	VOCs	ESP	0.12
↓	2	AG	1,000mL	none / Ice	↓	↓	SVOCs	↓	↓
↓	1	PE	250mL	HNO_3 / Ice	↓	↓	Metals	↓	↓

REMARKS: Collect Extra sample volume for MS/MSD analysis

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:	Cabot	SITE LOCATION:	Gainesville, FL	
WELL NO:	HG-39S	SAMPLE ID:	HG39S	DATE: 5-9-18

PURGING DATA

WELL DIAMETER (inches):	2	TUBING DIAMETER (inches):	3/8	WELL SCREEN INTERVAL DEPTH:	50 feet to 60 feet	STATIC DEPTH TO WATER (feet):	8.09	PURGE PUMP TYPE OR BAILER:	PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (0.006 gallons/foot X 64 feet) + 0.13 gallons = 0.51 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	55	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	55	PURGING INITIATED AT:	943	PURGING ENDED AT:	1013	TOTAL VOLUME PURGED (gallons):	3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
953	1	1	0.10	11.30	6.60	23.58	389	0.69	3.46	clear	None
958	0.5	1.5	0.10	11.32	6.61	23.60	389	0.44	2.91		
1003	0.5	2	0.10	11.33	6.64	23.61	388	0.37	2.71		
1013	1	3	0.10	11.33	6.65	23.63	388	0.35	2.62		

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	Mike Eckstein / HLS	SAMPLER(S) SIGNATURE(S):		SAMPLING INITIATED AT:	1015	SAMPLING ENDED AT:	1025
PUMP OR TUBING DEPTH IN WELL (feet):	55	TUBING MATERIAL CODE:	T	FIELD-FILTERED: Y (N) Filtration Equipment Type:		FILTER SIZE: ____ µm	

FIELD DECONTAMINATION: PUMP (Y) N TUBING Y (N) (replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
HG 39S	2	AG	1L	—	—	—	SVOCs	APP	380
HG 39S	1	PE	250ml	H2SO4	—	—	As	APP	380
HG 39S	3	CG	40ml	HCl	—	—	VOCs	APP	380

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Cabot	SITE LOCATION: Gainesville, FL	
WELL NO: HG-39D	SAMPLE ID: HG-39D	DATE: 5/9/18

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4	WELL SCREEN INTERVAL DEPTH: 88.6 feet to 98.6 feet	STATIC DEPTH TO WATER (feet): 36.28	PURGE PUMP TYPE OR BAILER: ESP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

= 0 gallons + (0.0026 gallons/foot X 99 feet) + 0.13 gallons = 0.39 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 94	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 94	PURGING INITIATED AT: 1014	PURGING ENDED AT: 1050	TOTAL VOLUME PURGED (gallons): 3.1

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1027	0.5	0.5	0.12	36.81	6.36	24.23	1027	1.50	32	clear light tan	musty
1035	0.6	1.1	↓	36.91	6.31	24.74	1050	0.47	15		
1040	0.7	1.8		36.91	6.32	24.72	1054	0.45	16		
1045	0.7	2.5		36.92	6.33	24.80	1060	0.44	14		
1050	0.6	3.1		36.92	6.33	24.79	1061	0.43	13		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Scott Nash / ESI	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1055	SAMPLING ENDED AT: 1105
PUMP OR TUBING DEPTH IN WELL (feet): 94	TUBING MATERIAL CODE: T/PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP (Y) N	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
HG-39D	3	CG	40 mL	HCL/Ice	NA	NA	VOCs	ESP	0.12
↓	2	AG	1,000 mL	None/Ice	↓	↓	SVOCs	↓	↓
↓	1	PE	250 mL	HNO_3/Ice	↓	↓	metals	↓	↓

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Groundwater Sampling
Field Data Sheet

Project: Cabot, Gainesville, FL
Monitoring Well No.: CFW-1
Sampling Zone No(s).: 1, 2, 3, 4

Date: 5/8/18
Start Time: 0915 Atm. Rdg: 14.68
End Time: 1400 Atm. Rdg: 14.66
Operators: SN, MS

Port No.	Run No.	Surface Function Tests (probe in flushing collar)						Position Sampler			Sample Collection Checks (probe located at sampling zone in Westbay casing)								Comments (volume recovered)
		Shoe Out	Close Valve	Check Vacuum	Open Valve	Apply Vacuum	Close Valve	Locate Port	Arm Out	Land Probe	Pressure in Westbay (PSI)	Shoe Out	Zone Pressure (PSI)	Open Valve	Zone Pressure (PSI)	Close Valve	Shoe In	Pressure in Westbay (PSI)	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.48	✓	55.33	✓	55.33	✓	✓	53.50	Sulfur odor
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.47	✓	55.33	✓	55.33	✓	✓	53.48	
4	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.45	✓	55.33	✓	55.34	✓	✓	53.41	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	44.74	✓	46.70	✓	46.71	✓	✓	44.74	Sulfur odor
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	44.73	✓	46.71	✓	46.71	✓	✓	44.74	
3	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	44.71	✓	46.71	✓	46.71	✓	✓	44.72	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	38.98	✓	38.06	✓	38.07	✓	✓	36.00	Sulfur odor
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	35.98	✓	38.06	✓	38.07	✓	✓	35.98	
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	35.95	✓	38.06	✓	38.07	✓	✓	35.97	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	27.25	✓	29.43	✓	29.44	✓	✓	27.24	Sulfur odor
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	27.24	✓	29.43	✓	29.44	✓	✓	27.23	
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	27.23	✓	29.43	✓	29.44	✓	✓	27.22	

Additional Comments: (pH, turbidity, S.C., etc.)

Westbay Piezometric Pressures/Levels

Field Data and Calculation Sheet

Well No.: CFW-1
Datum: NGVD 29
Elev. G.S.: ~176.88
Height of Westbay above G.S.: 3'
Elev. top of Westbay Casing: 179.88
Reference Elevation: GS
Borehole angle: vert / 90°

Probe Type: Sampler Tool
Serial No.: 3835
Probe Range: 0-500 l
Westbay Casing Type: MP-38
Sampler Valve Position: Closed

Date: 5/8/18
Client: Cabot
Job No.: 20188145
Location: Gainesville, FL
Weather: Clear, ~70°F
Operator: SN, ME

Note: "Port position" in angled boreholes refer to position along drillhole. True depth (Dp) needs to be calculated using borehole angle and deviation data to calculate zone piezometric level (Dz).

Ambient Reading (P_{atm}) (pressure, temperature, time)

Start: Pressure	14.64	Finish:	14.64
Temp	21.23°C		23.74
Time	0810		0833

P_{atm} 14.64 psi

Port No.	Port Position From Log (~~FT~~)	Port Position From Cable (~~FT~~)	True Port Depth "Dp" (~~FT~~)	Fluid Pressure Readings					Pressure Head Outside Port (~~FT~~)	Piez. Level Outside Port ( )	Comments
				Inside Casing (P1)	Outside Casing (P2)	Time H:M:S	Probe Temp. (°C)	Inside Casing (P1)	H = (P2-Patm)/w	Dz = Dp - H	
4	218	217.8	218	51.60	55.35	0817	22.18	51.59	93.41	124.09	
3	198	198	198	42.91	46.71	0821	22.75	42.91	73.98	124.02	
2	178	178.2	178	34.21	38.06	0824	22.86	34.22	54.03	123.97	
1	158	158.4	158	25.55	29.42	0828	22.84	25.56	34.09	123.91	

Notes: w = 0.4335 psi/ ft (1.422psi/m) of H_2O Dz = piezometric level in zone Patm = atmospheric pressure H = pressure head of water in zone Dp = true depth of measurement port

Appendix B
Laboratory Data Packages

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: 680-152352-1
TestAmerica Sample Delivery Group: 680-152352-1
Client Project/Site: Cabot/Hawthorne-HG, CFW

For:
Environmental Standards Inc.
1412 Sachem Pl Unit 100
Charlottesville, Virginia 22901-2499

Attn: Mr. Mark Newell

Authorized for release by:
5/23/2018 10:20:05 AM

Keaton Conner, Project Manager I
(813)885-7427
keaton.conner@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: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Sample Summary

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-152352-1	HG-31D	Water	05/09/18 09:00	05/11/18 07:15
680-152352-2	HG-36S	Water	05/09/18 11:50	05/11/18 07:15
680-152352-3	HG-36D	Water	05/09/18 12:40	05/11/18 07:15
680-152352-4	HG-37S	Water	05/08/18 16:35	05/11/18 07:15
680-152352-5	HG-37D	Water	05/08/18 17:20	05/11/18 07:15
680-152352-6	HG-37D FD	Water	05/08/18 17:20	05/11/18 07:15
680-152352-7	HG-38S	Water	05/08/18 14:50	05/11/18 07:15
680-152352-8	HG-38D	Water	05/08/18 15:25	05/11/18 07:15
680-152352-9	HG-39S	Water	05/09/18 10:15	05/11/18 07:15
680-152352-10	HG-39D	Water	05/09/18 10:55	05/11/18 07:15
680-152352-11	CFW-1 155-165	Water	05/08/18 13:20	05/11/18 07:15
680-152352-12	CFW-1 175-185	Water	05/08/18 12:10	05/11/18 07:15
680-152352-13	CFW-1 195-205	Water	05/08/18 11:00	05/11/18 07:15
680-152352-14	CFW-1 215-225	Water	05/08/18 09:30	05/11/18 07:15
680-152352-15	Field Blank	Water	05/09/18 12:00	05/11/18 07:15
680-152352-16	Equipment Blank 1	Water	05/08/18 11:50	05/11/18 07:15
680-152352-17	Equipment Blank 2	Water	05/09/18 07:30	05/11/18 07:15
680-152352-18	Trip Blank	Water	05/09/18 12:00	05/11/18 07:15

Job ID: 680-152352-1

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE
Client: Environmental Standards Inc.
Project: Cabot/Hawthorne-HG, CFW
Report Number: 680-152352-1

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

RECEIPT

The samples were received on 05/11/2018; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.5º C, 1.3º C, 1.5º C, 1.8º C and 1.8º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples HG-31D (680-152352-1), HG-36S (680-152352-2), HG-36D (680-152352-3), HG-37S (680-152352-4), HG-37D (680-152352-5), HG-37D FD (680-152352-6), HG-38S (680-152352-7), HG-38D (680-152352-8), HG-39S (680-152352-9), HG-39D (680-152352-10), CFW-1 155-165 (680-152352-11), CFW-1 175-185 (680-152352-12), CFW-1 195-205 (680-152352-13), CFW-1 215-225 (680-152352-14), Field Blank (680-152352-15), Equipment Blank 1 (680-152352-16), Equipment Blank 2 (680-152352-17) and Trip Blank (680-152352-18) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/17/2018 and 05/18/2018.

The following sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: HG-31D (680-152352-1).

During secondary log-in protocol the prep technician notated that the following samples were received with headspace in all of the sample containers: HG-38S (680-152352-7), HG-38D (680-152352-8), HG-38D MS (680-152352-8[MS]), HG-38D MSD (680-152352-8[MSD]) and HG-39D (680-152352-10). Use of containers with headspace for analysis must be narrated by analytical staff.

Acetone was detected in method blank LB 680-524024/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Methyl tert-butyl ether was detected in method blank MB 680-524442/9 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

1,2,3-Trichlorobenzene recovered outside of high for LCSD 680-524442/5. Refer to the QC report for details.

Bromomethane recovered outside of criteria low for the MS of sample HG-38D (680-152352-8) in batch 680-524442.

1,2,3-Trichlorobenzene and Bromomethane exceeded the RPD limit for the MSD of sample HG-38D (680-152352-8) in batch 680-524442.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batches 680-524176 and 680-524181.

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

SEMIVOLATILE ORGANIC COMPOUNDS (AQUEOUS)

Samples HG-31D (680-152352-1), HG-36S (680-152352-2), HG-36D (680-152352-3), HG-37S (680-152352-4), HG-37D (680-152352-5), HG-37D FD (680-152352-6), HG-38S (680-152352-7), HG-38D (680-152352-8), HG-39S (680-152352-9), HG-39D (680-152352-10), CFW-1 155-165 (680-152352-11), CFW-1 175-185 (680-152352-12), CFW-1 195-205 (680-152352-13), CFW-1 215-225 (680-152352-14), Field Blank (680-152352-15), Equipment Blank 1 (680-152352-16) and Equipment Blank 2 (680-152352-17) were analyzed for Semivolatile Organic Compounds (Aqueous) in accordance with EPA SW-846 Method 8270D. The samples were prepared

Job ID: 680-152352-1 (Continued)

Laboratory: TestAmerica Savannah (Continued)

on 05/14/2018 and 05/15/2018 and analyzed on 05/16/2018, 05/17/2018, 05/18/2018 and 05/19/2018.

Samples HG-31D (680-152352-1)[10X], HG-38S (680-152352-7)[20X] and HG-38D (680-152352-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 680-523809 and analytical batch 680-524341 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Naphthalene and 2,4-Dimethylphenol in the MS/MSD was above the instrument calibration range. The data has been reported and qualified.

3,3'-Dichlorobenzidine and Naphthalene recovered outside of criteria low for the MS of sample HG-38D (680-152352-8) in batch 680-524341.

3,3'-Dichlorobenzidine recovered outside of criteria low for the MSD of sample HG-38D (680-152352-8) in batch 680-524341.

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

METALS (ICP)

Samples HG-31D (680-152352-1), HG-36S (680-152352-2), HG-36D (680-152352-3), HG-37S (680-152352-4), HG-37D (680-152352-5), HG-37D FD (680-152352-6), HG-38S (680-152352-7), HG-38D (680-152352-8), HG-39S (680-152352-9), HG-39D (680-152352-10), CFW-1 155-165 (680-152352-11), CFW-1 175-185 (680-152352-12), CFW-1 195-205 (680-152352-13), CFW-1 215-225 (680-152352-14), Field Blank (680-152352-15), Equipment Blank 1 (680-152352-16) and Equipment Blank 2 (680-152352-17) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 05/14/2018 and analyzed on 05/15/2018.

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

Client Sample ID: HG-31D

Date Collected: 05/09/18 09:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**24**		10	7.0	ug/L			05/17/18 17:32	1
Benzene	**130**		1.0	0.43	ug/L			05/17/18 17:32	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 17:32	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:32	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 17:32	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:32	1
2-Butanone (MEK)	**7.2**	**J**	10	3.4	ug/L			05/17/18 17:32	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 17:32	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 17:32	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 17:32	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:32	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 17:32	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 17:32	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 17:32	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 17:32	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 17:32	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 17:32	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 17:32	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 17:32	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:32	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 17:32	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 17:32	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:32	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 17:32	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 17:32	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 17:32	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 17:32	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 17:32	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 17:32	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 17:32	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 17:32	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 17:32	1
Ethylbenzene	**64**		1.0	0.33	ug/L			05/17/18 17:32	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 17:32	1
Isopropylbenzene	**5.5**		1.0	0.35	ug/L			05/17/18 17:32	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 17:32	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 17:32	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 17:32	1
4-Methyl-2-pentanone (MIBK)	**4.2**	**J**	10	2.1	ug/L			05/17/18 17:32	1
Methyl tert-butyl ether	**0.36**	**J**	10	0.30	ug/L			05/17/18 17:32	1
m-Xylene & p-Xylene	**73**		1.0	0.35	ug/L			05/17/18 17:32	1
o-Xylene	**23**		1.0	0.23	ug/L			05/17/18 17:32	1
p-Isopropyltoluene	**20**		1.0	0.48	ug/L			05/17/18 17:32	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 17:32	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 17:32	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:32	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 17:32	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 17:32	1
Toluene	**34**		1.0	0.48	ug/L			05/17/18 17:32	1

Client Sample ID: HG-31D

Date Collected: 05/09/18 09:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 17:32	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 17:32	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:32	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:32	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:32	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 17:32	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 17:32	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 17:32	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 17:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 17:32	1
1,2,4-Trimethylbenzene	**6.8**		1.0	0.47	ug/L			05/17/18 17:32	1
1,3,5-Trimethylbenzene	**1.0**		1.0	0.31	ug/L			05/17/18 17:32	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 17:32	1
Xylenes, Total	**96**		1.0	0.23	ug/L			05/17/18 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/17/18 17:32*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 122*		*05/17/18 17:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/17/18 17:32*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*05/17/18 17:32*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.73	U	9.6	0.73	ug/L		05/15/18 14:54	05/17/18 20:17	1
Acenaphthylene	0.82	U	9.6	0.82	ug/L		05/15/18 14:54	05/17/18 20:17	1
Acetophenone	**2.7**	**J**	9.6	0.55	ug/L		05/15/18 14:54	05/17/18 20:17	1
Anthracene	0.66	U	9.6	0.66	ug/L		05/15/18 14:54	05/17/18 20:17	1
Benzo[a]anthracene	0.53	U	9.6	0.53	ug/L		05/15/18 14:54	05/17/18 20:17	1
Benzo[a]pyrene	0.68	U	9.6	0.68	ug/L		05/15/18 14:54	05/17/18 20:17	1
Benzo[b]fluoranthene	2.5	U	9.6	2.5	ug/L		05/15/18 14:54	05/17/18 20:17	1
Benzo[g,h,i]perylene	0.84	U	9.6	0.84	ug/L		05/15/18 14:54	05/17/18 20:17	1
Benzo[k]fluoranthene	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:17	1
1,1'-Biphenyl	0.56	U	9.6	0.56	ug/L		05/15/18 14:54	05/17/18 20:17	1
Bis(2-chloroethoxy)methane	0.91	U	9.6	0.91	ug/L		05/15/18 14:54	05/17/18 20:17	1
Bis(2-chloroethyl)ether	1.1	U	9.6	1.1	ug/L		05/15/18 14:54	05/17/18 20:17	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.6	1.5	ug/L		05/15/18 14:54	05/17/18 20:17	1
4-Bromophenyl phenyl ether	0.74	U	9.6	0.74	ug/L		05/15/18 14:54	05/17/18 20:17	1
Butyl benzyl phthalate	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:17	1
Carbazole	0.68	U	9.6	0.68	ug/L		05/15/18 14:54	05/17/18 20:17	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/15/18 14:54	05/17/18 20:17	1
4-Chloro-3-methylphenol	0.96	U	9.6	0.96	ug/L		05/15/18 14:54	05/17/18 20:17	1
2-Chloronaphthalene	0.77	U	9.6	0.77	ug/L		05/15/18 14:54	05/17/18 20:17	1
2-Chlorophenol	0.84	U	9.6	0.84	ug/L		05/15/18 14:54	05/17/18 20:17	1
4-Chlorophenyl phenyl ether	0.81	U	9.6	0.81	ug/L		05/15/18 14:54	05/17/18 20:17	1
Chrysene	0.49	U	9.6	0.49	ug/L		05/15/18 14:54	05/17/18 20:17	1
Dibenz(a,h)anthracene	0.96	U	9.6	0.96	ug/L		05/15/18 14:54	05/17/18 20:17	1
Dibenzofuran	0.76	U	9.6	0.76	ug/L		05/15/18 14:54	05/17/18 20:17	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,4-Dichlorophenol	1.1	U	9.6	1.1	ug/L		05/15/18 14:54	05/17/18 20:17	1
Diethyl phthalate	0.85	U	9.6	0.85	ug/L		05/15/18 14:54	05/17/18 20:17	1

Client Sample ID: HG-31D
Date Collected: 05/09/18 09:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	0.95	U	9.6	0.95	ug/L		05/15/18 14:54	05/17/18 20:17	1
Di-n-butyl phthalate	0.80	U	9.6	0.80	ug/L		05/15/18 14:54	05/17/18 20:17	1
4,6-Dinitro-2-methylphenol	9.6	U	48	9.6	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,4-Dinitrophenol	9.6	U	48	9.6	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,4-Dinitrotoluene	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,6-Dinitrotoluene	1.1	U	9.6	1.1	ug/L		05/15/18 14:54	05/17/18 20:17	1
Di-n-octyl phthalate	1.3	U	9.6	1.3	ug/L		05/15/18 14:54	05/17/18 20:17	1
Fluoranthene	0.71	U	9.6	0.71	ug/L		05/15/18 14:54	05/17/18 20:17	1
Fluorene	0.92	U	9.6	0.92	ug/L		05/15/18 14:54	05/17/18 20:17	1
Hexachlorobenzene	0.76	U	9.6	0.76	ug/L		05/15/18 14:54	05/17/18 20:17	1
Hexachlorobutadiene	0.60	U	9.6	0.60	ug/L		05/15/18 14:54	05/17/18 20:17	1
Hexachlorocyclopentadiene	2.4	U	9.6	2.4	ug/L		05/15/18 14:54	05/17/18 20:17	1
Hexachloroethane	0.73	U	9.6	0.73	ug/L		05/15/18 14:54	05/17/18 20:17	1
Indeno[1,2,3-cd]pyrene	0.96	U	9.6	0.96	ug/L		05/15/18 14:54	05/17/18 20:17	1
Isophorone	0.87	U	9.6	0.87	ug/L		05/15/18 14:54	05/17/18 20:17	1
2-Methylnaphthalene	0.75	U	9.6	0.75	ug/L		05/15/18 14:54	05/17/18 20:17	1
2-Methylphenol	**55**		9.6	0.86	ug/L		05/15/18 14:54	05/17/18 20:17	1
Naphthalene	**53**		9.6	0.67	ug/L		05/15/18 14:54	05/17/18 20:17	1
2-Nitroaniline	**21**	**J**	48	1.3	ug/L		05/15/18 14:54	05/17/18 20:17	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 20:17	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 20:17	1
Nitrobenzene	0.70	U	9.6	0.70	ug/L		05/15/18 14:54	05/17/18 20:17	1
2-Nitrophenol	0.73	U	9.6	0.73	ug/L		05/15/18 14:54	05/17/18 20:17	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/15/18 14:54	05/17/18 20:17	1
N-Nitrosodi-n-propylamine	0.69	U	9.6	0.69	ug/L		05/15/18 14:54	05/17/18 20:17	1
N-Nitrosodiphenylamine	0.89	U	9.6	0.89	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.6	0.75	ug/L		05/15/18 14:54	05/17/18 20:17	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/15/18 14:54	05/17/18 20:17	1
Phenanthrene	0.74	U	9.6	0.74	ug/L		05/15/18 14:54	05/17/18 20:17	1
Phenol	**14**		9.6	0.80	ug/L		05/15/18 14:54	05/17/18 20:17	1
Pyrene	0.61	U	9.6	0.61	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,4,5-Trichlorophenol	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:17	1
2,4,6-Trichlorophenol	0.82	U	9.6	0.82	ug/L		05/15/18 14:54	05/17/18 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*32 - 113*	*05/15/18 14:54*	*05/17/18 20:17*	*1*
2-Fluorophenol (Surr)	*53*		*26 - 109*	*05/15/18 14:54*	*05/17/18 20:17*	*1*
Nitrobenzene-d5 (Surr)	*62*		*32 - 118*	*05/15/18 14:54*	*05/17/18 20:17*	*1*
Phenol-d5 (Surr)	*55*		*27 - 110*	*05/15/18 14:54*	*05/17/18 20:17*	*1*
Terphenyl-d14 (Surr)	*22*		*10 - 126*	*05/15/18 14:54*	*05/17/18 20:17*	*1*
2,4,6-Tribromophenol (Surr)	*75*		*39 - 124*	*05/15/18 14:54*	*05/17/18 20:17*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	**1600**		96	39	ug/L		05/15/18 14:54	05/19/18 02:22	10
3 & 4 Methylphenol	**380**		96	13	ug/L		05/15/18 14:54	05/19/18 02:22	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 21:12	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-31D
Date Collected: 05/09/18 09:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	33		10	1.6	ug/L		05/14/18 12:25	05/15/18 21:12	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-36S
Date Collected: 05/09/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 17:57	1
Benzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:57	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 17:57	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:57	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 17:57	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:57	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 17:57	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 17:57	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 17:57	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 17:57	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:57	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 17:57	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 17:57	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 17:57	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 17:57	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 17:57	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 17:57	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 17:57	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 17:57	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:57	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 17:57	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 17:57	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:57	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 17:57	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 17:57	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 17:57	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 17:57	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 17:57	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 17:57	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 17:57	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 17:57	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 17:57	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/17/18 17:57	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 17:57	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 17:57	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 17:57	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 17:57	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 17:57	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 17:57	1
Methyl tert-butyl ether	**0.33**	**J**	10	0.30	ug/L			05/17/18 17:57	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/17/18 17:57	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/17/18 17:57	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 17:57	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 17:57	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 17:57	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:57	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 17:57	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 17:57	1
Toluene	0.48	U	1.0	0.48	ug/L			05/17/18 17:57	1

Client Sample ID: HG-36S
Date Collected: 05/09/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 17:57	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 17:57	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:57	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:57	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:57	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 17:57	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 17:57	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 17:57	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 17:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 17:57	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 17:57	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 17:57	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 17:57	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/17/18 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/17/18 17:57*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 122*		*05/17/18 17:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*73 - 131*		*05/17/18 17:57*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*05/17/18 17:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.73	U	9.6	0.73	ug/L		05/15/18 14:54	05/17/18 20:40	1
Acenaphthylene	0.82	U	9.6	0.82	ug/L		05/15/18 14:54	05/17/18 20:40	1
Acetophenone	0.55	U	9.6	0.55	ug/L		05/15/18 14:54	05/17/18 20:40	1
Anthracene	0.66	U	9.6	0.66	ug/L		05/15/18 14:54	05/17/18 20:40	1
Benzo[a]anthracene	0.53	U	9.6	0.53	ug/L		05/15/18 14:54	05/17/18 20:40	1
Benzo[a]pyrene	0.68	U	9.6	0.68	ug/L		05/15/18 14:54	05/17/18 20:40	1
Benzo[b]fluoranthene	2.5	U	9.6	2.5	ug/L		05/15/18 14:54	05/17/18 20:40	1
Benzo[g,h,i]perylene	0.84	U	9.6	0.84	ug/L		05/15/18 14:54	05/17/18 20:40	1
Benzo[k]fluoranthene	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:40	1
1,1'-Biphenyl	0.56	U	9.6	0.56	ug/L		05/15/18 14:54	05/17/18 20:40	1
Bis(2-chloroethoxy)methane	0.90	U	9.6	0.90	ug/L		05/15/18 14:54	05/17/18 20:40	1
Bis(2-chloroethyl)ether	1.1	U	9.6	1.1	ug/L		05/15/18 14:54	05/17/18 20:40	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.6	1.5	ug/L		05/15/18 14:54	05/17/18 20:40	1
4-Bromophenyl phenyl ether	0.74	U	9.6	0.74	ug/L		05/15/18 14:54	05/17/18 20:40	1
Butyl benzyl phthalate	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:40	1
Carbazole	0.68	U	9.6	0.68	ug/L		05/15/18 14:54	05/17/18 20:40	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/15/18 14:54	05/17/18 20:40	1
4-Chloro-3-methylphenol	0.96	U	9.6	0.96	ug/L		05/15/18 14:54	05/17/18 20:40	1
2-Chloronaphthalene	0.77	U	9.6	0.77	ug/L		05/15/18 14:54	05/17/18 20:40	1
2-Chlorophenol	0.84	U	9.6	0.84	ug/L		05/15/18 14:54	05/17/18 20:40	1
4-Chlorophenyl phenyl ether	0.81	U	9.6	0.81	ug/L		05/15/18 14:54	05/17/18 20:40	1
Chrysene	0.49	U	9.6	0.49	ug/L		05/15/18 14:54	05/17/18 20:40	1
Dibenz(a,h)anthracene	0.96	U	9.6	0.96	ug/L		05/15/18 14:54	05/17/18 20:40	1
Dibenzofuran	0.76	U	9.6	0.76	ug/L		05/15/18 14:54	05/17/18 20:40	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,4-Dichlorophenol	1.1	U	9.6	1.1	ug/L		05/15/18 14:54	05/17/18 20:40	1
Diethyl phthalate	0.85	U	9.6	0.85	ug/L		05/15/18 14:54	05/17/18 20:40	1

Client Sample ID: HG-36S
Date Collected: 05/09/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.8	U	9.6	3.8	ug/L		05/15/18 14:54	05/17/18 20:40	1
Dimethyl phthalate	0.95	U	9.6	0.95	ug/L		05/15/18 14:54	05/17/18 20:40	1
Di-n-butyl phthalate	0.80	U	9.6	0.80	ug/L		05/15/18 14:54	05/17/18 20:40	1
4,6-Dinitro-2-methylphenol	9.6	U	48	9.6	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,4-Dinitrophenol	9.6	U	48	9.6	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,4-Dinitrotoluene	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,6-Dinitrotoluene	1.1	U	9.6	1.1	ug/L		05/15/18 14:54	05/17/18 20:40	1
Di-n-octyl phthalate	1.3	U	9.6	1.3	ug/L		05/15/18 14:54	05/17/18 20:40	1
Fluoranthene	0.71	U	9.6	0.71	ug/L		05/15/18 14:54	05/17/18 20:40	1
Fluorene	0.92	U	9.6	0.92	ug/L		05/15/18 14:54	05/17/18 20:40	1
Hexachlorobenzene	0.76	U	9.6	0.76	ug/L		05/15/18 14:54	05/17/18 20:40	1
Hexachlorobutadiene	0.60	U	9.6	0.60	ug/L		05/15/18 14:54	05/17/18 20:40	1
Hexachlorocyclopentadiene	2.4	U	9.6	2.4	ug/L		05/15/18 14:54	05/17/18 20:40	1
Hexachloroethane	0.73	U	9.6	0.73	ug/L		05/15/18 14:54	05/17/18 20:40	1
Indeno[1,2,3-cd]pyrene	0.96	U	9.6	0.96	ug/L		05/15/18 14:54	05/17/18 20:40	1
Isophorone	0.86	U	9.6	0.86	ug/L		05/15/18 14:54	05/17/18 20:40	1
2-Methylnaphthalene	0.75	U	9.6	0.75	ug/L		05/15/18 14:54	05/17/18 20:40	1
2-Methylphenol	0.85	U	9.6	0.85	ug/L		05/15/18 14:54	05/17/18 20:40	1
3 & 4 Methylphenol	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:40	1
Naphthalene	0.67	U	9.6	0.67	ug/L		05/15/18 14:54	05/17/18 20:40	1
2-Nitroaniline	1.2	U	48	1.2	ug/L		05/15/18 14:54	05/17/18 20:40	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 20:40	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 20:40	1
Nitrobenzene	0.70	U	9.6	0.70	ug/L		05/15/18 14:54	05/17/18 20:40	1
2-Nitrophenol	0.73	U	9.6	0.73	ug/L		05/15/18 14:54	05/17/18 20:40	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/15/18 14:54	05/17/18 20:40	1
N-Nitrosodi-n-propylamine	0.69	U	9.6	0.69	ug/L		05/15/18 14:54	05/17/18 20:40	1
N-Nitrosodiphenylamine	0.88	U	9.6	0.88	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.6	0.75	ug/L		05/15/18 14:54	05/17/18 20:40	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/15/18 14:54	05/17/18 20:40	1
Phenanthrene	0.74	U	9.6	0.74	ug/L		05/15/18 14:54	05/17/18 20:40	1
Phenol	0.80	U	9.6	0.80	ug/L		05/15/18 14:54	05/17/18 20:40	1
Pyrene	0.61	U	9.6	0.61	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,4,5-Trichlorophenol	1.2	U	9.6	1.2	ug/L		05/15/18 14:54	05/17/18 20:40	1
2,4,6-Trichlorophenol	0.82	U	9.6	0.82	ug/L		05/15/18 14:54	05/17/18 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*32 - 113*	*05/15/18 14:54*	*05/17/18 20:40*	*1*
2-Fluorophenol (Surr)	*64*		*26 - 109*	*05/15/18 14:54*	*05/17/18 20:40*	*1*
Nitrobenzene-d5 (Surr)	*77*		*32 - 118*	*05/15/18 14:54*	*05/17/18 20:40*	*1*
Phenol-d5 (Surr)	*70*		*27 - 110*	*05/15/18 14:54*	*05/17/18 20:40*	*1*
Terphenyl-d14 (Surr)	*84*		*10 - 126*	*05/15/18 14:54*	*05/17/18 20:40*	*1*
2,4,6-Tribromophenol (Surr)	*112*		*39 - 124*	*05/15/18 14:54*	*05/17/18 20:40*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:30	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:30	1

Client Sample ID: HG-36D

Date Collected: 05/09/18 12:40
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 17:10	1
Benzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:10	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 17:10	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:10	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 17:10	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:10	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 17:10	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 17:10	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 17:10	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 17:10	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:10	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 17:10	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 17:10	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 17:10	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 17:10	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 17:10	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 17:10	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 17:10	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 17:10	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:10	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 17:10	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 17:10	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:10	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 17:10	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 17:10	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 17:10	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 17:10	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 17:10	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 17:10	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 17:10	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 17:10	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 17:10	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/17/18 17:10	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 17:10	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 17:10	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 17:10	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 17:10	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 17:10	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 17:10	1
Methyl tert-butyl ether	**0.31**	**J**	10	0.30	ug/L			05/17/18 17:10	1
m-Xylene & p-Xylene	**0.36**	**J**	1.0	0.35	ug/L			05/17/18 17:10	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/17/18 17:10	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 17:10	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 17:10	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 17:10	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:10	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 17:10	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 17:10	1
Toluene	0.48	U	1.0	0.48	ug/L			05/17/18 17:10	1

Client Sample ID: HG-36D

Date Collected: 05/09/18 12:40
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 17:10	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 17:10	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:10	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:10	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:10	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 17:10	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 17:10	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 17:10	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 17:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 17:10	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 17:10	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 17:10	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 17:10	1
Xylenes, Total	**0.36**	**J**	1.0	0.23	ug/L			05/17/18 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/17/18 17:10*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 122*		*05/17/18 17:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/17/18 17:10*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/17/18 17:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:04	1
Acenaphthylene	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 21:04	1
Acetophenone	0.55	U	9.7	0.55	ug/L		05/15/18 14:54	05/17/18 21:04	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/15/18 14:54	05/17/18 21:04	1
Benzo[a]anthracene	0.53	U	9.7	0.53	ug/L		05/15/18 14:54	05/17/18 21:04	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 21:04	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/15/18 14:54	05/17/18 21:04	1
Benzo[g,h,i]perylene	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 21:04	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:04	1
1,1'-Biphenyl	0.56	U	9.7	0.56	ug/L		05/15/18 14:54	05/17/18 21:04	1
Bis(2-chloroethoxy)methane	0.91	U	9.7	0.91	ug/L		05/15/18 14:54	05/17/18 21:04	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:04	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.7	1.5	ug/L		05/15/18 14:54	05/17/18 21:04	1
4-Bromophenyl phenyl ether	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:04	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:04	1
Carbazole	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 21:04	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/15/18 14:54	05/17/18 21:04	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:04	1
2-Chloronaphthalene	0.77	U	9.7	0.77	ug/L		05/15/18 14:54	05/17/18 21:04	1
2-Chlorophenol	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 21:04	1
4-Chlorophenyl phenyl ether	0.81	U	9.7	0.81	ug/L		05/15/18 14:54	05/17/18 21:04	1
Chrysene	0.49	U	9.7	0.49	ug/L		05/15/18 14:54	05/17/18 21:04	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:04	1
Dibenzofuran	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 21:04	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:04	1
Diethyl phthalate	0.85	U	9.7	0.85	ug/L		05/15/18 14:54	05/17/18 21:04	1

Client Sample ID: HG-36D
Date Collected: 05/09/18 12:40
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.7	3.9	ug/L		05/15/18 14:54	05/17/18 21:04	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/15/18 14:54	05/17/18 21:04	1
Di-n-butyl phthalate	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 21:04	1
4,6-Dinitro-2-methylphenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,4-Dinitrophenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:04	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/15/18 14:54	05/17/18 21:04	1
Fluoranthene	0.72	U	9.7	0.72	ug/L		05/15/18 14:54	05/17/18 21:04	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/15/18 14:54	05/17/18 21:04	1
Hexachlorobenzene	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 21:04	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/15/18 14:54	05/17/18 21:04	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/15/18 14:54	05/17/18 21:04	1
Hexachloroethane	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:04	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:04	1
Isophorone	0.87	U	9.7	0.87	ug/L		05/15/18 14:54	05/17/18 21:04	1
2-Methylnaphthalene	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 21:04	1
2-Methylphenol	0.86	U	9.7	0.86	ug/L		05/15/18 14:54	05/17/18 21:04	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/15/18 14:54	05/17/18 21:04	1
Naphthalene	0.68	U	9.7	0.68	ug/L		05/15/18 14:54	05/17/18 21:04	1
2-Nitroaniline	1.3	U	48	1.3	ug/L		05/15/18 14:54	05/17/18 21:04	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 21:04	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 21:04	1
Nitrobenzene	0.71	U	9.7	0.71	ug/L		05/15/18 14:54	05/17/18 21:04	1
2-Nitrophenol	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:04	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/15/18 14:54	05/17/18 21:04	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/15/18 14:54	05/17/18 21:04	1
N-Nitrosodiphenylamine	0.89	U	9.7	0.89	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 21:04	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/15/18 14:54	05/17/18 21:04	1
Phenanthrene	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:04	1
Phenol	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 21:04	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:04	1
2,4,6-Trichlorophenol	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*32 - 113*	*05/15/18 14:54*	*05/17/18 21:04*	*1*
2-Fluorophenol (Surr)	*60*		*26 - 109*	*05/15/18 14:54*	*05/17/18 21:04*	*1*
Nitrobenzene-d5 (Surr)	*71*		*32 - 118*	*05/15/18 14:54*	*05/17/18 21:04*	*1*
Phenol-d5 (Surr)	*62*		*27 - 110*	*05/15/18 14:54*	*05/17/18 21:04*	*1*
Terphenyl-d14 (Surr)	*54*		*10 - 126*	*05/15/18 14:54*	*05/17/18 21:04*	*1*
2,4,6-Tribromophenol (Surr)	*97*		*39 - 124*	*05/15/18 14:54*	*05/17/18 21:04*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:09	1
Chromium	**12**		10	1.6	ug/L		05/14/18 12:25	05/15/18 20:09	1

Client Sample ID: HG-37S

Date Collected: 05/08/18 16:35
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 16:47	1
Benzene	**1.9**		1.0	0.43	ug/L			05/17/18 16:47	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 16:47	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 16:47	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 16:47	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 16:47	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 16:47	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 16:47	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 16:47	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 16:47	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 16:47	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 16:47	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 16:47	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 16:47	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 16:47	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 16:47	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 16:47	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 16:47	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 16:47	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 16:47	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 16:47	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 16:47	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 16:47	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 16:47	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 16:47	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 16:47	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 16:47	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 16:47	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 16:47	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 16:47	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 16:47	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 16:47	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/17/18 16:47	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 16:47	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 16:47	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 16:47	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 16:47	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 16:47	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 16:47	1
Methyl tert-butyl ether	**0.31**	**J**	10	0.30	ug/L			05/17/18 16:47	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/17/18 16:47	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/17/18 16:47	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 16:47	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 16:47	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 16:47	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 16:47	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 16:47	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 16:47	1
Toluene	0.48	U	1.0	0.48	ug/L			05/17/18 16:47	1

Client Sample ID: HG-37S
Date Collected: 05/08/18 16:35
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 16:47	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 16:47	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 16:47	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 16:47	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 16:47	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 16:47	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 16:47	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 16:47	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 16:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 16:47	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 16:47	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 16:47	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 16:47	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/17/18 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/17/18 16:47*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 122*		*05/17/18 16:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*73 - 131*		*05/17/18 16:47*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/17/18 16:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.73	U	9.6	0.73	ug/L		05/14/18 13:37	05/17/18 23:00	1
Acenaphthylene	0.82	U	9.6	0.82	ug/L		05/14/18 13:37	05/17/18 23:00	1
Acetophenone	0.55	U	9.6	0.55	ug/L		05/14/18 13:37	05/17/18 23:00	1
Anthracene	0.66	U	9.6	0.66	ug/L		05/14/18 13:37	05/17/18 23:00	1
Benzo[a]anthracene	0.53	U	9.6	0.53	ug/L		05/14/18 13:37	05/17/18 23:00	1
Benzo[a]pyrene	0.68	U	9.6	0.68	ug/L		05/14/18 13:37	05/17/18 23:00	1
Benzo[b]fluoranthene	2.5	U	9.6	2.5	ug/L		05/14/18 13:37	05/17/18 23:00	1
Benzo[g,h,i]perylene	0.84	U	9.6	0.84	ug/L		05/14/18 13:37	05/17/18 23:00	1
Benzo[k]fluoranthene	1.2	U	9.6	1.2	ug/L		05/14/18 13:37	05/17/18 23:00	1
1,1'-Biphenyl	0.56	U	9.6	0.56	ug/L		05/14/18 13:37	05/17/18 23:00	1
Bis(2-chloroethoxy)methane	0.90	U	9.6	0.90	ug/L		05/14/18 13:37	05/17/18 23:00	1
Bis(2-chloroethyl)ether	1.1	U	9.6	1.1	ug/L		05/14/18 13:37	05/17/18 23:00	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.6	1.5	ug/L		05/14/18 13:37	05/17/18 23:00	1
4-Bromophenyl phenyl ether	0.74	U	9.6	0.74	ug/L		05/14/18 13:37	05/17/18 23:00	1
Butyl benzyl phthalate	1.2	U	9.6	1.2	ug/L		05/14/18 13:37	05/17/18 23:00	1
Carbazole	0.68	U	9.6	0.68	ug/L		05/14/18 13:37	05/17/18 23:00	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/14/18 13:37	05/17/18 23:00	1
4-Chloro-3-methylphenol	0.96	U	9.6	0.96	ug/L		05/14/18 13:37	05/17/18 23:00	1
2-Chloronaphthalene	0.77	U	9.6	0.77	ug/L		05/14/18 13:37	05/17/18 23:00	1
2-Chlorophenol	0.84	U	9.6	0.84	ug/L		05/14/18 13:37	05/17/18 23:00	1
4-Chlorophenyl phenyl ether	0.81	U	9.6	0.81	ug/L		05/14/18 13:37	05/17/18 23:00	1
Chrysene	0.49	U	9.6	0.49	ug/L		05/14/18 13:37	05/17/18 23:00	1
Dibenz(a,h)anthracene	0.96	U	9.6	0.96	ug/L		05/14/18 13:37	05/17/18 23:00	1
Dibenzofuran	0.76	U	9.6	0.76	ug/L		05/14/18 13:37	05/17/18 23:00	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,4-Dichlorophenol	1.1	U	9.6	1.1	ug/L		05/14/18 13:37	05/17/18 23:00	1
Diethyl phthalate	0.85	U	9.6	0.85	ug/L		05/14/18 13:37	05/17/18 23:00	1

Client Sample ID: HG-37S
Date Collected: 05/08/18 16:35
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.8	U	9.6	3.8	ug/L		05/14/18 13:37	05/17/18 23:00	1
Dimethyl phthalate	0.95	U	9.6	0.95	ug/L		05/14/18 13:37	05/17/18 23:00	1
Di-n-butyl phthalate	0.80	U	9.6	0.80	ug/L		05/14/18 13:37	05/17/18 23:00	1
4,6-Dinitro-2-methylphenol	9.6	U	48	9.6	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,4-Dinitrophenol	9.6	U	48	9.6	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,4-Dinitrotoluene	1.2	U	9.6	1.2	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,6-Dinitrotoluene	1.1	U	9.6	1.1	ug/L		05/14/18 13:37	05/17/18 23:00	1
Di-n-octyl phthalate	1.3	U	9.6	1.3	ug/L		05/14/18 13:37	05/17/18 23:00	1
Fluoranthene	0.71	U	9.6	0.71	ug/L		05/14/18 13:37	05/17/18 23:00	1
Fluorene	0.92	U	9.6	0.92	ug/L		05/14/18 13:37	05/17/18 23:00	1
Hexachlorobenzene	0.76	U	9.6	0.76	ug/L		05/14/18 13:37	05/17/18 23:00	1
Hexachlorobutadiene	0.60	U	9.6	0.60	ug/L		05/14/18 13:37	05/17/18 23:00	1
Hexachlorocyclopentadiene	2.4	U	9.6	2.4	ug/L		05/14/18 13:37	05/17/18 23:00	1
Hexachloroethane	0.73	U	9.6	0.73	ug/L		05/14/18 13:37	05/17/18 23:00	1
Indeno[1,2,3-cd]pyrene	0.96	U	9.6	0.96	ug/L		05/14/18 13:37	05/17/18 23:00	1
Isophorone	0.86	U	9.6	0.86	ug/L		05/14/18 13:37	05/17/18 23:00	1
2-Methylnaphthalene	0.75	U	9.6	0.75	ug/L		05/14/18 13:37	05/17/18 23:00	1
2-Methylphenol	0.86	U	9.6	0.86	ug/L		05/14/18 13:37	05/17/18 23:00	1
3 & 4 Methylphenol	1.2	U	9.6	1.2	ug/L		05/14/18 13:37	05/17/18 23:00	1
Naphthalene	0.67	U	9.6	0.67	ug/L		05/14/18 13:37	05/17/18 23:00	1
2-Nitroaniline	1.2	U	48	1.2	ug/L		05/14/18 13:37	05/17/18 23:00	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/14/18 13:37	05/17/18 23:00	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/14/18 13:37	05/17/18 23:00	1
Nitrobenzene	0.70	U	9.6	0.70	ug/L		05/14/18 13:37	05/17/18 23:00	1
2-Nitrophenol	0.73	U	9.6	0.73	ug/L		05/14/18 13:37	05/17/18 23:00	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/14/18 13:37	05/17/18 23:00	1
N-Nitrosodi-n-propylamine	0.69	U	9.6	0.69	ug/L		05/14/18 13:37	05/17/18 23:00	1
N-Nitrosodiphenylamine	0.88	U	9.6	0.88	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.6	0.75	ug/L		05/14/18 13:37	05/17/18 23:00	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/14/18 13:37	05/17/18 23:00	1
Phenanthrene	0.74	U	9.6	0.74	ug/L		05/14/18 13:37	05/17/18 23:00	1
Phenol	0.80	U	9.6	0.80	ug/L		05/14/18 13:37	05/17/18 23:00	1
Pyrene	0.61	U	9.6	0.61	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,4,5-Trichlorophenol	1.2	U	9.6	1.2	ug/L		05/14/18 13:37	05/17/18 23:00	1
2,4,6-Trichlorophenol	0.82	U	9.6	0.82	ug/L		05/14/18 13:37	05/17/18 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*32 - 113*	*05/14/18 13:37*	*05/17/18 23:00*	*1*
2-Fluorophenol (Surr)	*55*		*26 - 109*	*05/14/18 13:37*	*05/17/18 23:00*	*1*
Nitrobenzene-d5 (Surr)	*67*		*32 - 118*	*05/14/18 13:37*	*05/17/18 23:00*	*1*
Phenol-d5 (Surr)	*55*		*27 - 110*	*05/14/18 13:37*	*05/17/18 23:00*	*1*
Terphenyl-d14 (Surr)	*24*		*10 - 126*	*05/14/18 13:37*	*05/17/18 23:00*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*39 - 124*	*05/14/18 13:37*	*05/17/18 23:00*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:20	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:20	1

Client Sample ID: HG-37D

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 17:09	1
Benzene	**25**		1.0	0.43	ug/L			05/17/18 17:09	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 17:09	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:09	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 17:09	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:09	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 17:09	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 17:09	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 17:09	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 17:09	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:09	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 17:09	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 17:09	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 17:09	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 17:09	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 17:09	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 17:09	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 17:09	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 17:09	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:09	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 17:09	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 17:09	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:09	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 17:09	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 17:09	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 17:09	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 17:09	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 17:09	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 17:09	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 17:09	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 17:09	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 17:09	1
Ethylbenzene	**2.1**		1.0	0.33	ug/L			05/17/18 17:09	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 17:09	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 17:09	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 17:09	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 17:09	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 17:09	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 17:09	1
Methyl tert-butyl ether	**0.32**	**J**	10	0.30	ug/L			05/17/18 17:09	1
m-Xylene & p-Xylene	**2.6**		1.0	0.35	ug/L			05/17/18 17:09	1
o-Xylene	**0.86**	**J**	1.0	0.23	ug/L			05/17/18 17:09	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 17:09	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 17:09	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 17:09	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:09	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 17:09	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 17:09	1
Toluene	**1.7**		1.0	0.48	ug/L			05/17/18 17:09	1

Client Sample ID: HG-37D

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 17:09	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 17:09	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:09	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:09	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:09	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 17:09	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 17:09	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 17:09	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 17:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 17:09	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 17:09	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 17:09	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 17:09	1
Xylenes, Total	**3.5**		1.0	0.23	ug/L			05/17/18 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/17/18 17:09*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 122*		*05/17/18 17:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*73 - 131*		*05/17/18 17:09*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/17/18 17:09*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 21:10	1
Acenaphthylene	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 21:10	1
Acetophenone	0.56	U	9.8	0.56	ug/L		05/14/18 13:37	05/16/18 21:10	1
Anthracene	0.68	U	9.8	0.68	ug/L		05/14/18 13:37	05/16/18 21:10	1
Benzo[a]anthracene	0.54	U	9.8	0.54	ug/L		05/14/18 13:37	05/16/18 21:10	1
Benzo[a]pyrene	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 21:10	1
Benzo[b]fluoranthene	2.6	U	9.8	2.6	ug/L		05/14/18 13:37	05/16/18 21:10	1
Benzo[g,h,i]perylene	0.85	U	9.8	0.85	ug/L		05/14/18 13:37	05/16/18 21:10	1
Benzo[k]fluoranthene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 21:10	1
1,1'-Biphenyl	0.57	U	9.8	0.57	ug/L		05/14/18 13:37	05/16/18 21:10	1
Bis(2-chloroethoxy)methane	0.92	U	9.8	0.92	ug/L		05/14/18 13:37	05/16/18 21:10	1
Bis(2-chloroethyl)ether	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 21:10	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.8	1.6	ug/L		05/14/18 13:37	05/16/18 21:10	1
4-Bromophenyl phenyl ether	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 21:10	1
Butyl benzyl phthalate	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 21:10	1
Carbazole	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 21:10	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/14/18 13:37	05/16/18 21:10	1
4-Chloro-3-methylphenol	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 21:10	1
2-Chloronaphthalene	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 21:10	1
2-Chlorophenol	0.85	U	9.8	0.85	ug/L		05/14/18 13:37	05/16/18 21:10	1
4-Chlorophenyl phenyl ether	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 21:10	1
Chrysene	0.50	U	9.8	0.50	ug/L		05/14/18 13:37	05/16/18 21:10	1
Dibenz(a,h)anthracene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 21:10	1
Dibenzofuran	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 21:10	1
3,3'-Dichlorobenzidine	29	U	59	29	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,4-Dichlorophenol	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 21:10	1
Diethyl phthalate	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 21:10	1

Client Sample ID: HG-37D

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	**140**		9.8	3.9	ug/L		05/14/18 13:37	05/16/18 21:10	1
Dimethyl phthalate	0.97	U	9.8	0.97	ug/L		05/14/18 13:37	05/16/18 21:10	1
Di-n-butyl phthalate	0.81	U	9.8	0.81	ug/L		05/14/18 13:37	05/16/18 21:10	1
4,6-Dinitro-2-methylphenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,4-Dinitrophenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,4-Dinitrotoluene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,6-Dinitrotoluene	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 21:10	1
Di-n-octyl phthalate	1.4	U	9.8	1.4	ug/L		05/14/18 13:37	05/16/18 21:10	1
Fluoranthene	0.73	U	9.8	0.73	ug/L		05/14/18 13:37	05/16/18 21:10	1
Fluorene	0.94	U	9.8	0.94	ug/L		05/14/18 13:37	05/16/18 21:10	1
Hexachlorobenzene	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 21:10	1
Hexachlorobutadiene	0.61	U	9.8	0.61	ug/L		05/14/18 13:37	05/16/18 21:10	1
Hexachlorocyclopentadiene	2.5	U	9.8	2.5	ug/L		05/14/18 13:37	05/16/18 21:10	1
Hexachloroethane	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 21:10	1
Indeno[1,2,3-cd]pyrene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 21:10	1
Isophorone	0.88	U	9.8	0.88	ug/L		05/14/18 13:37	05/16/18 21:10	1
2-Methylnaphthalene	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 21:10	1
2-Methylphenol	0.87	U	9.8	0.87	ug/L		05/14/18 13:37	05/16/18 21:10	1
3 & 4 Methylphenol	1.3	U	9.8	1.3	ug/L		05/14/18 13:37	05/16/18 21:10	1
Naphthalene	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 21:10	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 21:10	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 21:10	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 21:10	1
Nitrobenzene	0.72	U	9.8	0.72	ug/L		05/14/18 13:37	05/16/18 21:10	1
2-Nitrophenol	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 21:10	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 21:10	1
N-Nitrosodi-n-propylamine	0.71	U	9.8	0.71	ug/L		05/14/18 13:37	05/16/18 21:10	1
N-Nitrosodiphenylamine	0.90	U	9.8	0.90	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,2'-oxybis[1-chloropropane]	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 21:10	1
Pentachlorophenol	2.0	U	49	2.0	ug/L		05/14/18 13:37	05/16/18 21:10	1
Phenanthrene	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 21:10	1
Phenol	0.81	U	9.8	0.81	ug/L		05/14/18 13:37	05/16/18 21:10	1
Pyrene	0.62	U	9.8	0.62	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,4,5-Trichlorophenol	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 21:10	1
2,4,6-Trichlorophenol	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*32 - 113*	*05/14/18 13:37*	*05/16/18 21:10*	*1*
2-Fluorophenol (Surr)	*55*		*26 - 109*	*05/14/18 13:37*	*05/16/18 21:10*	*1*
Nitrobenzene-d5 (Surr)	*55*		*32 - 118*	*05/14/18 13:37*	*05/16/18 21:10*	*1*
Phenol-d5 (Surr)	*56*		*27 - 110*	*05/14/18 13:37*	*05/16/18 21:10*	*1*
Terphenyl-d14 (Surr)	*17*		*10 - 126*	*05/14/18 13:37*	*05/16/18 21:10*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*39 - 124*	*05/14/18 13:37*	*05/16/18 21:10*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 19:33	1
Chromium	**3.2**	**J**	10	1.6	ug/L		05/14/18 12:25	05/15/18 19:33	1

Client Sample ID: HG-37D FD

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 17:31	1
Benzene	**26**		1.0	0.43	ug/L			05/17/18 17:31	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 17:31	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:31	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 17:31	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:31	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 17:31	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 17:31	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 17:31	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 17:31	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:31	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 17:31	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 17:31	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 17:31	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 17:31	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 17:31	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 17:31	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 17:31	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 17:31	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:31	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 17:31	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 17:31	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:31	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 17:31	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 17:31	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 17:31	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 17:31	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 17:31	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 17:31	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 17:31	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 17:31	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 17:31	1
Ethylbenzene	**2.2**		1.0	0.33	ug/L			05/17/18 17:31	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 17:31	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 17:31	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 17:31	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 17:31	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 17:31	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 17:31	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/17/18 17:31	1
m-Xylene & p-Xylene	**2.6**		1.0	0.35	ug/L			05/17/18 17:31	1
o-Xylene	**0.86**	**J**	1.0	0.23	ug/L			05/17/18 17:31	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 17:31	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 17:31	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 17:31	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:31	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 17:31	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 17:31	1
Toluene	**1.7**		1.0	0.48	ug/L			05/17/18 17:31	1

Client Sample ID: HG-37D FD

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 17:31	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 17:31	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:31	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:31	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:31	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 17:31	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 17:31	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 17:31	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 17:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 17:31	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 17:31	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 17:31	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 17:31	1
Xylenes, Total	**3.5**		1.0	0.23	ug/L			05/17/18 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/17/18 17:31*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 122*		*05/17/18 17:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*73 - 131*		*05/17/18 17:31*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/17/18 17:31*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 21:33	1
Acenaphthylene	0.83	U	9.7	0.83	ug/L		05/14/18 13:37	05/16/18 21:33	1
Acetophenone	0.55	U	9.7	0.55	ug/L		05/14/18 13:37	05/16/18 21:33	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/14/18 13:37	05/16/18 21:33	1
Benzo[a]anthracene	0.53	U	9.7	0.53	ug/L		05/14/18 13:37	05/16/18 21:33	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/14/18 13:37	05/16/18 21:33	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/14/18 13:37	05/16/18 21:33	1
Benzo[g,h,i]perylene	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 21:33	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:33	1
1,1'-Biphenyl	0.56	U	9.7	0.56	ug/L		05/14/18 13:37	05/16/18 21:33	1
Bis(2-chloroethoxy)methane	0.91	U	9.7	0.91	ug/L		05/14/18 13:37	05/16/18 21:33	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 21:33	1
Bis(2-ethylhexyl) phthalate	**2.2**	**J**	9.7	1.6	ug/L		05/14/18 13:37	05/16/18 21:33	1
4-Bromophenyl phenyl ether	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/16/18 21:33	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:33	1
Carbazole	0.69	U	9.7	0.69	ug/L		05/14/18 13:37	05/16/18 21:33	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/14/18 13:37	05/16/18 21:33	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 21:33	1
2-Chloronaphthalene	0.78	U	9.7	0.78	ug/L		05/14/18 13:37	05/16/18 21:33	1
2-Chlorophenol	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 21:33	1
4-Chlorophenyl phenyl ether	0.82	U	9.7	0.82	ug/L		05/14/18 13:37	05/16/18 21:33	1
Chrysene	0.50	U	9.7	0.50	ug/L		05/14/18 13:37	05/16/18 21:33	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 21:33	1
Dibenzofuran	0.77	U	9.7	0.77	ug/L		05/14/18 13:37	05/16/18 21:33	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 21:33	1
Diethyl phthalate	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 21:33	1

Client Sample ID: HG-37D FD

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	**160**		9.7	3.9	ug/L		05/14/18 13:37	05/16/18 21:33	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/14/18 13:37	05/16/18 21:33	1
Di-n-butyl phthalate	0.81	U	9.7	0.81	ug/L		05/14/18 13:37	05/16/18 21:33	1
4,6-Dinitro-2-methylphenol	9.7	U	49	9.7	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,4-Dinitrophenol	9.7	U	49	9.7	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 21:33	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/14/18 13:37	05/16/18 21:33	1
Fluoranthene	0.72	U	9.7	0.72	ug/L		05/14/18 13:37	05/16/18 21:33	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/14/18 13:37	05/16/18 21:33	1
Hexachlorobenzene	0.77	U	9.7	0.77	ug/L		05/14/18 13:37	05/16/18 21:33	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/14/18 13:37	05/16/18 21:33	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/14/18 13:37	05/16/18 21:33	1
Hexachloroethane	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 21:33	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 21:33	1
Isophorone	0.87	U	9.7	0.87	ug/L		05/14/18 13:37	05/16/18 21:33	1
2-Methylnaphthalene	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/16/18 21:33	1
2-Methylphenol	0.86	U	9.7	0.86	ug/L		05/14/18 13:37	05/16/18 21:33	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/14/18 13:37	05/16/18 21:33	1
Naphthalene	0.68	U	9.7	0.68	ug/L		05/14/18 13:37	05/16/18 21:33	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 21:33	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 21:33	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 21:33	1
Nitrobenzene	0.71	U	9.7	0.71	ug/L		05/14/18 13:37	05/16/18 21:33	1
2-Nitrophenol	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 21:33	1
4-Nitrophenol	1.8	U	49	1.8	ug/L		05/14/18 13:37	05/16/18 21:33	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/14/18 13:37	05/16/18 21:33	1
N-Nitrosodiphenylamine	0.89	U	9.7	0.89	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,2'-oxybis[1-chloropropane]	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/16/18 21:33	1
Pentachlorophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 21:33	1
Phenanthrene	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/16/18 21:33	1
Phenol	0.81	U	9.7	0.81	ug/L		05/14/18 13:37	05/16/18 21:33	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:33	1
2,4,6-Trichlorophenol	0.83	U	9.7	0.83	ug/L		05/14/18 13:37	05/16/18 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*32 - 113*	*05/14/18 13:37*	*05/16/18 21:33*	*1*
2-Fluorophenol (Surr)	*60*		*26 - 109*	*05/14/18 13:37*	*05/16/18 21:33*	*1*
Nitrobenzene-d5 (Surr)	*63*		*32 - 118*	*05/14/18 13:37*	*05/16/18 21:33*	*1*
Phenol-d5 (Surr)	*62*		*27 - 110*	*05/14/18 13:37*	*05/16/18 21:33*	*1*
Terphenyl-d14 (Surr)	*23*		*10 - 126*	*05/14/18 13:37*	*05/16/18 21:33*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*39 - 124*	*05/14/18 13:37*	*05/16/18 21:33*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:35	1
Chromium	**3.4**	**J**	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:35	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-38S
Date Collected: 05/08/18 14:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 17:53	1
Benzene	**8.2**		1.0	0.43	ug/L			05/17/18 17:53	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 17:53	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:53	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 17:53	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:53	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 17:53	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 17:53	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 17:53	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 17:53	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 17:53	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 17:53	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 17:53	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 17:53	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 17:53	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 17:53	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 17:53	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 17:53	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 17:53	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 17:53	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 17:53	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 17:53	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 17:53	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 17:53	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 17:53	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 17:53	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 17:53	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 17:53	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 17:53	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 17:53	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 17:53	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 17:53	1
Ethylbenzene	**17**		1.0	0.33	ug/L			05/17/18 17:53	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 17:53	1
Isopropylbenzene	**2.3**		1.0	0.35	ug/L			05/17/18 17:53	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 17:53	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 17:53	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 17:53	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 17:53	1
Methyl tert-butyl ether	**0.30**	**J**	10	0.30	ug/L			05/17/18 17:53	1
m-Xylene & p-Xylene	**18**		1.0	0.35	ug/L			05/17/18 17:53	1
o-Xylene	**11**		1.0	0.23	ug/L			05/17/18 17:53	1
p-Isopropyltoluene	**5.8**		1.0	0.48	ug/L			05/17/18 17:53	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 17:53	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 17:53	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:53	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 17:53	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 17:53	1
Toluene	**4.5**		1.0	0.48	ug/L			05/17/18 17:53	1

Client Sample ID: HG-38S

Date Collected: 05/08/18 14:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 17:53	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 17:53	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:53	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 17:53	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 17:53	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 17:53	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 17:53	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 17:53	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 17:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 17:53	1
1,2,4-Trimethylbenzene	**20**		1.0	0.47	ug/L			05/17/18 17:53	1
1,3,5-Trimethylbenzene	**5.7**		1.0	0.31	ug/L			05/17/18 17:53	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 17:53	1
Xylenes, Total	**29**		1.0	0.23	ug/L			05/17/18 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*05/17/18 17:53*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 122*		*05/17/18 17:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*73 - 131*		*05/17/18 17:53*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*05/17/18 17:53*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**56**		9.7	0.74	ug/L		05/14/18 13:37	05/16/18 21:57	1
Acenaphthylene	0.83	U	9.7	0.83	ug/L		05/14/18 13:37	05/16/18 21:57	1
Acetophenone	0.56	U	9.7	0.56	ug/L		05/14/18 13:37	05/16/18 21:57	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/14/18 13:37	05/16/18 21:57	1
Benzo[a]anthracene	0.54	U	9.7	0.54	ug/L		05/14/18 13:37	05/16/18 21:57	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/14/18 13:37	05/16/18 21:57	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/14/18 13:37	05/16/18 21:57	1
Benzo[g,h,i]perylene	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 21:57	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:57	1
1,1'-Biphenyl	**13**		9.7	0.57	ug/L		05/14/18 13:37	05/16/18 21:57	1
Bis(2-chloroethoxy)methane	0.92	U	9.7	0.92	ug/L		05/14/18 13:37	05/16/18 21:57	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 21:57	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.7	1.6	ug/L		05/14/18 13:37	05/16/18 21:57	1
4-Bromophenyl phenyl ether	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/16/18 21:57	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:57	1
Carbazole	**39**		9.7	0.69	ug/L		05/14/18 13:37	05/16/18 21:57	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/14/18 13:37	05/16/18 21:57	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 21:57	1
2-Chloronaphthalene	0.78	U	9.7	0.78	ug/L		05/14/18 13:37	05/16/18 21:57	1
2-Chlorophenol	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 21:57	1
4-Chlorophenyl phenyl ether	0.82	U	9.7	0.82	ug/L		05/14/18 13:37	05/16/18 21:57	1
Chrysene	0.50	U	9.7	0.50	ug/L		05/14/18 13:37	05/16/18 21:57	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 21:57	1
Dibenzofuran	**5.7**	**J**	9.7	0.77	ug/L		05/14/18 13:37	05/16/18 21:57	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 21:57	1
Diethyl phthalate	0.86	U	9.7	0.86	ug/L		05/14/18 13:37	05/16/18 21:57	1

Client Sample ID: HG-38S

Date Collected: 05/08/18 14:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-7

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	**89**		9.7	3.9	ug/L		05/14/18 13:37	05/16/18 21:57	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/14/18 13:37	05/16/18 21:57	1
Di-n-butyl phthalate	0.81	U	9.7	0.81	ug/L		05/14/18 13:37	05/16/18 21:57	1
4,6-Dinitro-2-methylphenol	9.7	U	49	9.7	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,4-Dinitrophenol	9.7	U	49	9.7	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 21:57	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/14/18 13:37	05/16/18 21:57	1
Fluoranthene	0.72	U	9.7	0.72	ug/L		05/14/18 13:37	05/16/18 21:57	1
Fluorene	**11**		9.7	0.94	ug/L		05/14/18 13:37	05/16/18 21:57	1
Hexachlorobenzene	0.77	U	9.7	0.77	ug/L		05/14/18 13:37	05/16/18 21:57	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/14/18 13:37	05/16/18 21:57	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/14/18 13:37	05/16/18 21:57	1
Hexachloroethane	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 21:57	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 21:57	1
Isophorone	0.88	U	9.7	0.88	ug/L		05/14/18 13:37	05/16/18 21:57	1
2-Methylnaphthalene	**180**		9.7	0.76	ug/L		05/14/18 13:37	05/16/18 21:57	1
2-Methylphenol	**30**		9.7	0.87	ug/L		05/14/18 13:37	05/16/18 21:57	1
3 & 4 Methylphenol	**180**		9.7	1.3	ug/L		05/14/18 13:37	05/16/18 21:57	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 21:57	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 21:57	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 21:57	1
Nitrobenzene	0.71	U	9.7	0.71	ug/L		05/14/18 13:37	05/16/18 21:57	1
2-Nitrophenol	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 21:57	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 21:57	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/14/18 13:37	05/16/18 21:57	1
N-Nitrosodiphenylamine	0.90	U	9.7	0.90	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,2'-oxybis[1-chloropropane]	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/16/18 21:57	1
Pentachlorophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 21:57	1
Phenanthrene	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/16/18 21:57	1
Phenol	**8.6**	**J**	9.7	0.81	ug/L		05/14/18 13:37	05/16/18 21:57	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 21:57	1
2,4,6-Trichlorophenol	0.83	U	9.7	0.83	ug/L		05/14/18 13:37	05/16/18 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*32 - 113*	*05/14/18 13:37*	*05/16/18 21:57*	*1*
2-Fluorophenol (Surr)	*63*		*26 - 109*	*05/14/18 13:37*	*05/16/18 21:57*	*1*
Nitrobenzene-d5 (Surr)	*67*		*32 - 118*	*05/14/18 13:37*	*05/16/18 21:57*	*1*
Phenol-d5 (Surr)	*65*		*27 - 110*	*05/14/18 13:37*	*05/16/18 21:57*	*1*
Terphenyl-d14 (Surr)	*30*		*10 - 126*	*05/14/18 13:37*	*05/16/18 21:57*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*39 - 124*	*05/14/18 13:37*	*05/16/18 21:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**3300**		190	14	ug/L		05/14/18 13:37	05/18/18 01:20	20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12**	**J**	20	6.2	ug/L		05/14/18 12:25	05/15/18 21:06	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-38S
Date Collected: 05/08/18 14:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 21:06	1

Client Sample ID: HG-38D

Date Collected: 05/08/18 15:25
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**33**		10	7.0	ug/L			05/18/18 12:03	1
Benzene	**11**		1.0	0.43	ug/L			05/18/18 12:03	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 12:03	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 12:03	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 12:03	1
Bromomethane	2.5	U F1 F2	5.0	2.5	ug/L			05/18/18 12:03	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 12:03	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 12:03	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 12:03	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 12:03	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 12:03	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 12:03	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 12:03	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 12:03	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 12:03	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 12:03	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 12:03	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 12:03	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 12:03	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 12:03	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 12:03	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 12:03	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 12:03	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 12:03	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 12:03	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 12:03	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 12:03	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 12:03	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 12:03	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 12:03	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 12:03	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 12:03	1
Ethylbenzene	**12**		1.0	0.33	ug/L			05/18/18 12:03	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 12:03	1
Isopropylbenzene	**1.0**		1.0	0.35	ug/L			05/18/18 12:03	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 12:03	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 12:03	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 12:03	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 12:03	1
Methyl tert-butyl ether	**0.33**	**J B**	10	0.30	ug/L			05/18/18 12:03	1
m-Xylene & p-Xylene	**17**		1.0	0.35	ug/L			05/18/18 12:03	1
o-Xylene	**8.9**		1.0	0.23	ug/L			05/18/18 12:03	1
p-Isopropyltoluene	**1.4**		1.0	0.48	ug/L			05/18/18 12:03	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 12:03	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 12:03	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 12:03	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 12:03	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 12:03	1
Toluene	**4.1**		1.0	0.48	ug/L			05/18/18 12:03	1

Client Sample ID: HG-38D

Date Collected: 05/08/18 15:25
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 12:03	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 12:03	1
1,2,3-Trichlorobenzene	2.5	U * F2	5.0	2.5	ug/L			05/18/18 12:03	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 12:03	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 12:03	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 12:03	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 12:03	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 12:03	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 12:03	1
1,2,4-Trimethylbenzene	**9.0**		1.0	0.47	ug/L			05/18/18 12:03	1
1,3,5-Trimethylbenzene	**3.2**		1.0	0.31	ug/L			05/18/18 12:03	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 12:03	1
Xylenes, Total	**26**		1.0	0.23	ug/L			05/18/18 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/18 12:03*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 122*		*05/18/18 12:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/18/18 12:03*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 12:03*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**2.1**	**J**	9.7	0.73	ug/L		05/14/18 13:37	05/17/18 23:23	1
Acenaphthylene	0.82	U	9.7	0.82	ug/L		05/14/18 13:37	05/17/18 23:23	1
Acetophenone	0.55	U	9.7	0.55	ug/L		05/14/18 13:37	05/17/18 23:23	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/14/18 13:37	05/17/18 23:23	1
Benzo[a]anthracene	0.53	U	9.7	0.53	ug/L		05/14/18 13:37	05/17/18 23:23	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/14/18 13:37	05/17/18 23:23	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/14/18 13:37	05/17/18 23:23	1
Benzo[g,h,i]perylene	0.84	U	9.7	0.84	ug/L		05/14/18 13:37	05/17/18 23:23	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/17/18 23:23	1
1,1'-Biphenyl	**0.63**	**J**	9.7	0.56	ug/L		05/14/18 13:37	05/17/18 23:23	1
Bis(2-chloroethoxy)methane	0.91	U	9.7	0.91	ug/L		05/14/18 13:37	05/17/18 23:23	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/17/18 23:23	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.7	1.5	ug/L		05/14/18 13:37	05/17/18 23:23	1
4-Bromophenyl phenyl ether	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/17/18 23:23	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/17/18 23:23	1
Carbazole	**1.8**	**J**	9.7	0.69	ug/L		05/14/18 13:37	05/17/18 23:23	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/14/18 13:37	05/17/18 23:23	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/17/18 23:23	1
2-Chloronaphthalene	0.77	U	9.7	0.77	ug/L		05/14/18 13:37	05/17/18 23:23	1
2-Chlorophenol	0.84	U	9.7	0.84	ug/L		05/14/18 13:37	05/17/18 23:23	1
4-Chlorophenyl phenyl ether	0.81	U	9.7	0.81	ug/L		05/14/18 13:37	05/17/18 23:23	1
Chrysene	0.49	U	9.7	0.49	ug/L		05/14/18 13:37	05/17/18 23:23	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/17/18 23:23	1
Dibenzofuran	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/17/18 23:23	1
3,3'-Dichlorobenzidine	29	U F1	58	29	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/17/18 23:23	1
Diethyl phthalate	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/17/18 23:23	1

Client Sample ID: HG-38D
Date Collected: 05/08/18 15:25
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/14/18 13:37	05/17/18 23:23	1
Di-n-butyl phthalate	0.80	U	9.7	0.80	ug/L		05/14/18 13:37	05/17/18 23:23	1
4,6-Dinitro-2-methylphenol	9.7	U	48	9.7	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,4-Dinitrophenol	9.7	U	48	9.7	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/17/18 23:23	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/14/18 13:37	05/17/18 23:23	1
Fluoranthene	0.71	U	9.7	0.71	ug/L		05/14/18 13:37	05/17/18 23:23	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/14/18 13:37	05/17/18 23:23	1
Hexachlorobenzene	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/17/18 23:23	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/14/18 13:37	05/17/18 23:23	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/14/18 13:37	05/17/18 23:23	1
Hexachloroethane	0.73	U	9.7	0.73	ug/L		05/14/18 13:37	05/17/18 23:23	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/17/18 23:23	1
Isophorone	0.87	U	9.7	0.87	ug/L		05/14/18 13:37	05/17/18 23:23	1
2-Methylnaphthalene	**14**		9.7	0.75	ug/L		05/14/18 13:37	05/17/18 23:23	1
2-Methylphenol	0.86	U	9.7	0.86	ug/L		05/14/18 13:37	05/17/18 23:23	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/14/18 13:37	05/17/18 23:23	1
2-Nitroaniline	1.3	U	48	1.3	ug/L		05/14/18 13:37	05/17/18 23:23	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/14/18 13:37	05/17/18 23:23	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/14/18 13:37	05/17/18 23:23	1
Nitrobenzene	0.71	U	9.7	0.71	ug/L		05/14/18 13:37	05/17/18 23:23	1
2-Nitrophenol	0.73	U	9.7	0.73	ug/L		05/14/18 13:37	05/17/18 23:23	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/14/18 13:37	05/17/18 23:23	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/14/18 13:37	05/17/18 23:23	1
N-Nitrosodiphenylamine	0.89	U	9.7	0.89	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/17/18 23:23	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/14/18 13:37	05/17/18 23:23	1
Phenanthrene	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/17/18 23:23	1
Phenol	0.80	U	9.7	0.80	ug/L		05/14/18 13:37	05/17/18 23:23	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/17/18 23:23	1
2,4,6-Trichlorophenol	0.82	U	9.7	0.82	ug/L		05/14/18 13:37	05/17/18 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*32 - 113*	*05/14/18 13:37*	*05/17/18 23:23*	*1*
2-Fluorophenol (Surr)	*57*		*26 - 109*	*05/14/18 13:37*	*05/17/18 23:23*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 118*	*05/14/18 13:37*	*05/17/18 23:23*	*1*
Phenol-d5 (Surr)	*60*		*27 - 110*	*05/14/18 13:37*	*05/17/18 23:23*	*1*
Terphenyl-d14 (Surr)	*28*		*10 - 126*	*05/14/18 13:37*	*05/17/18 23:23*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*39 - 124*	*05/14/18 13:37*	*05/17/18 23:23*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	**290**		97	39	ug/L		05/14/18 13:37	05/19/18 02:45	10
Naphthalene	**1000**		97	6.8	ug/L		05/14/18 13:37	05/19/18 02:45	10

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 19:07	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-38D
Date Collected: 05/08/18 15:25
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	8.9	J	10	1.6	ug/L		05/14/18 12:25	05/15/18 19:07	1

Client Sample ID: HG-39S

Date Collected: 05/09/18 10:15
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 12:25	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 12:25	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 12:25	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 12:25	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 12:25	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 12:25	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 12:25	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 12:25	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 12:25	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 12:25	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 12:25	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 12:25	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 12:25	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 12:25	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 12:25	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 12:25	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 12:25	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 12:25	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 12:25	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 12:25	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 12:25	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 12:25	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 12:25	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 12:25	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 12:25	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 12:25	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 12:25	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 12:25	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 12:25	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 12:25	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 12:25	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 12:25	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 12:25	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 12:25	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 12:25	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 12:25	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 12:25	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 12:25	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 12:25	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/18/18 12:25	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 12:25	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 12:25	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 12:25	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 12:25	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 12:25	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 12:25	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 12:25	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 12:25	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 12:25	1

Client Sample ID: HG-39S
Date Collected: 05/09/18 10:15
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 12:25	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 12:25	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 12:25	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 12:25	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 12:25	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 12:25	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 12:25	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 12:25	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 12:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 12:25	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 12:25	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 12:25	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 12:25	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 12:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/18 12:25*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 122*		*05/18/18 12:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/18/18 12:25*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/18/18 12:25*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 21:27	1
Acenaphthylene	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 21:27	1
Acetophenone	0.55	U	9.7	0.55	ug/L		05/15/18 14:54	05/17/18 21:27	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/15/18 14:54	05/17/18 21:27	1
Benzo[a]anthracene	0.53	U	9.7	0.53	ug/L		05/15/18 14:54	05/17/18 21:27	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 21:27	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/15/18 14:54	05/17/18 21:27	1
Benzo[g,h,i]perylene	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 21:27	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:27	1
1,1'-Biphenyl	0.56	U	9.7	0.56	ug/L		05/15/18 14:54	05/17/18 21:27	1
Bis(2-chloroethoxy)methane	0.91	U	9.7	0.91	ug/L		05/15/18 14:54	05/17/18 21:27	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:27	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.7	1.5	ug/L		05/15/18 14:54	05/17/18 21:27	1
4-Bromophenyl phenyl ether	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:27	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:27	1
Carbazole	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 21:27	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/15/18 14:54	05/17/18 21:27	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:27	1
2-Chloronaphthalene	0.77	U	9.7	0.77	ug/L		05/15/18 14:54	05/17/18 21:27	1
2-Chlorophenol	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 21:27	1
4-Chlorophenyl phenyl ether	0.81	U	9.7	0.81	ug/L		05/15/18 14:54	05/17/18 21:27	1
Chrysene	0.49	U	9.7	0.49	ug/L		05/15/18 14:54	05/17/18 21:27	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:27	1
Dibenzofuran	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 21:27	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:27	1
Diethyl phthalate	0.85	U	9.7	0.85	ug/L		05/15/18 14:54	05/17/18 21:27	1

Client Sample ID: HG-39S
Date Collected: 05/09/18 10:15
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.7	3.9	ug/L		05/15/18 14:54	05/17/18 21:27	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/15/18 14:54	05/17/18 21:27	1
Di-n-butyl phthalate	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 21:27	1
4,6-Dinitro-2-methylphenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,4-Dinitrophenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:27	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/15/18 14:54	05/17/18 21:27	1
Fluoranthene	0.71	U	9.7	0.71	ug/L		05/15/18 14:54	05/17/18 21:27	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/15/18 14:54	05/17/18 21:27	1
Hexachlorobenzene	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 21:27	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/15/18 14:54	05/17/18 21:27	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/15/18 14:54	05/17/18 21:27	1
Hexachloroethane	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 21:27	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:27	1
Isophorone	0.87	U	9.7	0.87	ug/L		05/15/18 14:54	05/17/18 21:27	1
2-Methylnaphthalene	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 21:27	1
2-Methylphenol	0.86	U	9.7	0.86	ug/L		05/15/18 14:54	05/17/18 21:27	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/15/18 14:54	05/17/18 21:27	1
Naphthalene	0.68	U	9.7	0.68	ug/L		05/15/18 14:54	05/17/18 21:27	1
2-Nitroaniline	1.3	U	48	1.3	ug/L		05/15/18 14:54	05/17/18 21:27	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 21:27	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 21:27	1
Nitrobenzene	0.70	U	9.7	0.70	ug/L		05/15/18 14:54	05/17/18 21:27	1
2-Nitrophenol	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 21:27	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/15/18 14:54	05/17/18 21:27	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/15/18 14:54	05/17/18 21:27	1
N-Nitrosodiphenylamine	0.89	U	9.7	0.89	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 21:27	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/15/18 14:54	05/17/18 21:27	1
Phenanthrene	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:27	1
Phenol	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 21:27	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:27	1
2,4,6-Trichlorophenol	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*32 - 113*	*05/15/18 14:54*	*05/17/18 21:27*	*1*
2-Fluorophenol (Surr)	*54*		*26 - 109*	*05/15/18 14:54*	*05/17/18 21:27*	*1*
Nitrobenzene-d5 (Surr)	*65*		*32 - 118*	*05/15/18 14:54*	*05/17/18 21:27*	*1*
Phenol-d5 (Surr)	*55*		*27 - 110*	*05/15/18 14:54*	*05/17/18 21:27*	*1*
Terphenyl-d14 (Surr)	*38*		*10 - 126*	*05/15/18 14:54*	*05/17/18 21:27*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*39 - 124*	*05/15/18 14:54*	*05/17/18 21:27*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:14	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:14	1

Client Sample ID: HG-39D

Date Collected: 05/09/18 10:55
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 12:47	1
Benzene	**110**		1.0	0.43	ug/L			05/18/18 12:47	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 12:47	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 12:47	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 12:47	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 12:47	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 12:47	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 12:47	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 12:47	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 12:47	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 12:47	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 12:47	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 12:47	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 12:47	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 12:47	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 12:47	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 12:47	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 12:47	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 12:47	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 12:47	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 12:47	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 12:47	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 12:47	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 12:47	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 12:47	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 12:47	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 12:47	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 12:47	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 12:47	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 12:47	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 12:47	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 12:47	1
Ethylbenzene	**50**		1.0	0.33	ug/L			05/18/18 12:47	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 12:47	1
Isopropylbenzene	**3.3**		1.0	0.35	ug/L			05/18/18 12:47	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 12:47	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 12:47	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 12:47	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 12:47	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/18/18 12:47	1
m-Xylene & p-Xylene	**40**		1.0	0.35	ug/L			05/18/18 12:47	1
o-Xylene	**12**		1.0	0.23	ug/L			05/18/18 12:47	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 12:47	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 12:47	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 12:47	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 12:47	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 12:47	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 12:47	1
Toluene	**3.4**		1.0	0.48	ug/L			05/18/18 12:47	1

Client Sample ID: HG-39D

Date Collected: 05/09/18 10:55
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 12:47	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 12:47	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 12:47	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 12:47	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 12:47	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 12:47	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 12:47	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 12:47	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 12:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 12:47	1
1,2,4-Trimethylbenzene	**3.9**		1.0	0.47	ug/L			05/18/18 12:47	1
1,3,5-Trimethylbenzene	**0.76**	**J**	1.0	0.31	ug/L			05/18/18 12:47	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 12:47	1
Xylenes, Total	**52**		1.0	0.23	ug/L			05/18/18 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/18 12:47*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 122*		*05/18/18 12:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/18/18 12:47*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 12:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 21:50	1
Acenaphthylene	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 21:50	1
Acetophenone	0.55	U	9.7	0.55	ug/L		05/15/18 14:54	05/17/18 21:50	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/15/18 14:54	05/17/18 21:50	1
Benzo[a]anthracene	0.53	U	9.7	0.53	ug/L		05/15/18 14:54	05/17/18 21:50	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 21:50	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/15/18 14:54	05/17/18 21:50	1
Benzo[g,h,i]perylene	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 21:50	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:50	1
1,1'-Biphenyl	0.56	U	9.7	0.56	ug/L		05/15/18 14:54	05/17/18 21:50	1
Bis(2-chloroethoxy)methane	0.91	U	9.7	0.91	ug/L		05/15/18 14:54	05/17/18 21:50	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:50	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.7	1.5	ug/L		05/15/18 14:54	05/17/18 21:50	1
4-Bromophenyl phenyl ether	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:50	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:50	1
Carbazole	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 21:50	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/15/18 14:54	05/17/18 21:50	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:50	1
2-Chloronaphthalene	0.77	U	9.7	0.77	ug/L		05/15/18 14:54	05/17/18 21:50	1
2-Chlorophenol	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 21:50	1
4-Chlorophenyl phenyl ether	0.81	U	9.7	0.81	ug/L		05/15/18 14:54	05/17/18 21:50	1
Chrysene	0.49	U	9.7	0.49	ug/L		05/15/18 14:54	05/17/18 21:50	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:50	1
Dibenzofuran	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 21:50	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:50	1
Diethyl phthalate	0.85	U	9.7	0.85	ug/L		05/15/18 14:54	05/17/18 21:50	1

Client Sample ID: HG-39D

Date Collected: 05/09/18 10:55
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-10

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	**6.2**	**J**	9.7	3.9	ug/L		05/15/18 14:54	05/17/18 21:50	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/15/18 14:54	05/17/18 21:50	1
Di-n-butyl phthalate	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 21:50	1
4,6-Dinitro-2-methylphenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,4-Dinitrophenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 21:50	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/15/18 14:54	05/17/18 21:50	1
Fluoranthene	0.72	U	9.7	0.72	ug/L		05/15/18 14:54	05/17/18 21:50	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/15/18 14:54	05/17/18 21:50	1
Hexachlorobenzene	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 21:50	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/15/18 14:54	05/17/18 21:50	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/15/18 14:54	05/17/18 21:50	1
Hexachloroethane	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 21:50	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 21:50	1
Isophorone	0.87	U	9.7	0.87	ug/L		05/15/18 14:54	05/17/18 21:50	1
2-Methylnaphthalene	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 21:50	1
2-Methylphenol	0.86	U	9.7	0.86	ug/L		05/15/18 14:54	05/17/18 21:50	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/15/18 14:54	05/17/18 21:50	1
Naphthalene	**11**		9.7	0.68	ug/L		05/15/18 14:54	05/17/18 21:50	1
2-Nitroaniline	1.3	U	48	1.3	ug/L		05/15/18 14:54	05/17/18 21:50	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 21:50	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 21:50	1
Nitrobenzene	0.71	U	9.7	0.71	ug/L		05/15/18 14:54	05/17/18 21:50	1
2-Nitrophenol	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 21:50	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/15/18 14:54	05/17/18 21:50	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/15/18 14:54	05/17/18 21:50	1
N-Nitrosodiphenylamine	0.89	U	9.7	0.89	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 21:50	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/15/18 14:54	05/17/18 21:50	1
Phenanthrene	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 21:50	1
Phenol	**2.0**	**J**	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 21:50	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 21:50	1
2,4,6-Trichlorophenol	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*32 - 113*	*05/15/18 14:54*	*05/17/18 21:50*	*1*
2-Fluorophenol (Surr)	*61*		*26 - 109*	*05/15/18 14:54*	*05/17/18 21:50*	*1*
Nitrobenzene-d5 (Surr)	*68*		*32 - 118*	*05/15/18 14:54*	*05/17/18 21:50*	*1*
Phenol-d5 (Surr)	*65*		*27 - 110*	*05/15/18 14:54*	*05/17/18 21:50*	*1*
Terphenyl-d14 (Surr)	*39*		*10 - 126*	*05/15/18 14:54*	*05/17/18 21:50*	*1*
2,4,6-Tribromophenol (Surr)	*97*		*39 - 124*	*05/15/18 14:54*	*05/17/18 21:50*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 21:01	1
Chromium	**20**		10	1.6	ug/L		05/14/18 12:25	05/15/18 21:01	1

Client Sample ID: CFW-1 155-165

Date Collected: 05/08/18 13:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 13:09	1
Benzene	**0.52**	**J**	1.0	0.43	ug/L			05/18/18 13:09	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 13:09	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 13:09	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 13:09	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 13:09	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 13:09	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 13:09	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 13:09	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 13:09	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 13:09	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 13:09	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 13:09	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 13:09	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 13:09	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 13:09	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 13:09	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 13:09	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 13:09	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 13:09	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 13:09	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 13:09	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 13:09	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 13:09	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 13:09	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 13:09	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 13:09	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 13:09	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 13:09	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 13:09	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 13:09	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 13:09	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 13:09	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 13:09	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 13:09	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 13:09	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 13:09	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 13:09	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 13:09	1
Methyl tert-butyl ether	**0.34**	**J B**	10	0.30	ug/L			05/18/18 13:09	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 13:09	1
o-Xylene	**0.50**	**J**	1.0	0.23	ug/L			05/18/18 13:09	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 13:09	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 13:09	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 13:09	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 13:09	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 13:09	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 13:09	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 13:09	1

Client Sample ID: CFW-1 155-165

Date Collected: 05/08/18 13:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 13:09	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 13:09	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 13:09	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 13:09	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 13:09	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 13:09	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 13:09	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 13:09	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 13:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 13:09	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 13:09	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 13:09	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 13:09	1
Xylenes, Total	**0.50**	**J**	1.0	0.23	ug/L			05/18/18 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/18 13:09*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 122*		*05/18/18 13:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/18/18 13:09*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 13:09*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**2.1**	**J**	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 22:20	1
Acenaphthylene	0.83	U	9.7	0.83	ug/L		05/14/18 13:37	05/16/18 22:20	1
Acetophenone	0.56	U	9.7	0.56	ug/L		05/14/18 13:37	05/16/18 22:20	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/14/18 13:37	05/16/18 22:20	1
Benzo[a]anthracene	0.54	U	9.7	0.54	ug/L		05/14/18 13:37	05/16/18 22:20	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/14/18 13:37	05/16/18 22:20	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/14/18 13:37	05/16/18 22:20	1
Benzo[g,h,i]perylene	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 22:20	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 22:20	1
1,1'-Biphenyl	0.56	U	9.7	0.56	ug/L		05/14/18 13:37	05/16/18 22:20	1
Bis(2-chloroethoxy)methane	0.92	U	9.7	0.92	ug/L		05/14/18 13:37	05/16/18 22:20	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 22:20	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.7	1.6	ug/L		05/14/18 13:37	05/16/18 22:20	1
4-Bromophenyl phenyl ether	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/16/18 22:20	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 22:20	1
Carbazole	0.69	U	9.7	0.69	ug/L		05/14/18 13:37	05/16/18 22:20	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/14/18 13:37	05/16/18 22:20	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 22:20	1
2-Chloronaphthalene	0.78	U	9.7	0.78	ug/L		05/14/18 13:37	05/16/18 22:20	1
2-Chlorophenol	0.85	U	9.7	0.85	ug/L		05/14/18 13:37	05/16/18 22:20	1
4-Chlorophenyl phenyl ether	0.82	U	9.7	0.82	ug/L		05/14/18 13:37	05/16/18 22:20	1
Chrysene	0.50	U	9.7	0.50	ug/L		05/14/18 13:37	05/16/18 22:20	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 22:20	1
Dibenzofuran	0.77	U	9.7	0.77	ug/L		05/14/18 13:37	05/16/18 22:20	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 22:20	1
Diethyl phthalate	0.86	U	9.7	0.86	ug/L		05/14/18 13:37	05/16/18 22:20	1

Client Sample ID: CFW-1 155-165
Date Collected: 05/08/18 13:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.7	3.9	ug/L		05/14/18 13:37	05/16/18 22:20	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/14/18 13:37	05/16/18 22:20	1
Di-n-butyl phthalate	0.81	U	9.7	0.81	ug/L		05/14/18 13:37	05/16/18 22:20	1
4,6-Dinitro-2-methylphenol	9.7	U	49	9.7	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,4-Dinitrophenol	9.7	U	49	9.7	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/14/18 13:37	05/16/18 22:20	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/14/18 13:37	05/16/18 22:20	1
Fluoranthene	0.72	U	9.7	0.72	ug/L		05/14/18 13:37	05/16/18 22:20	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/14/18 13:37	05/16/18 22:20	1
Hexachlorobenzene	0.77	U	9.7	0.77	ug/L		05/14/18 13:37	05/16/18 22:20	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/14/18 13:37	05/16/18 22:20	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/14/18 13:37	05/16/18 22:20	1
Hexachloroethane	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 22:20	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/14/18 13:37	05/16/18 22:20	1
Isophorone	0.88	U	9.7	0.88	ug/L		05/14/18 13:37	05/16/18 22:20	1
2-Methylnaphthalene	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/16/18 22:20	1
2-Methylphenol	0.87	U	9.7	0.87	ug/L		05/14/18 13:37	05/16/18 22:20	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/14/18 13:37	05/16/18 22:20	1
Naphthalene	0.68	U	9.7	0.68	ug/L		05/14/18 13:37	05/16/18 22:20	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 22:20	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 22:20	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 22:20	1
Nitrobenzene	0.71	U	9.7	0.71	ug/L		05/14/18 13:37	05/16/18 22:20	1
2-Nitrophenol	0.74	U	9.7	0.74	ug/L		05/14/18 13:37	05/16/18 22:20	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 22:20	1
N-Nitrosodi-n-propylamine	0.70	U	9.7	0.70	ug/L		05/14/18 13:37	05/16/18 22:20	1
N-Nitrosodiphenylamine	0.90	U	9.7	0.90	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,2'-oxybis[1-chloropropane]	0.76	U	9.7	0.76	ug/L		05/14/18 13:37	05/16/18 22:20	1
Pentachlorophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 22:20	1
Phenanthrene	0.75	U	9.7	0.75	ug/L		05/14/18 13:37	05/16/18 22:20	1
Phenol	0.81	U	9.7	0.81	ug/L		05/14/18 13:37	05/16/18 22:20	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/14/18 13:37	05/16/18 22:20	1
2,4,6-Trichlorophenol	0.83	U	9.7	0.83	ug/L		05/14/18 13:37	05/16/18 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*32 - 113*	*05/14/18 13:37*	*05/16/18 22:20*	*1*
2-Fluorophenol (Surr)	*55*		*26 - 109*	*05/14/18 13:37*	*05/16/18 22:20*	*1*
Nitrobenzene-d5 (Surr)	*61*		*32 - 118*	*05/14/18 13:37*	*05/16/18 22:20*	*1*
Phenol-d5 (Surr)	*56*		*27 - 110*	*05/14/18 13:37*	*05/16/18 22:20*	*1*
Terphenyl-d14 (Surr)	*22*		*10 - 126*	*05/14/18 13:37*	*05/16/18 22:20*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*39 - 124*	*05/14/18 13:37*	*05/16/18 22:20*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:40	1
Chromium	**2.2**	**J**	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:40	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: CFW-1 175-185
Date Collected: 05/08/18 12:10
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 13:31	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 13:31	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 13:31	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 13:31	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 13:31	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 13:31	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 13:31	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 13:31	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 13:31	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 13:31	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 13:31	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 13:31	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 13:31	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 13:31	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 13:31	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 13:31	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 13:31	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 13:31	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 13:31	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 13:31	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 13:31	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 13:31	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 13:31	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 13:31	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 13:31	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 13:31	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 13:31	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 13:31	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 13:31	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 13:31	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 13:31	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 13:31	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 13:31	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 13:31	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 13:31	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 13:31	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 13:31	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 13:31	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 13:31	1
Methyl tert-butyl ether	**0.33**	**J B**	10	0.30	ug/L			05/18/18 13:31	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 13:31	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 13:31	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 13:31	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 13:31	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 13:31	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 13:31	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 13:31	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 13:31	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 13:31	1

Client Sample ID: CFW-1 175-185
Date Collected: 05/08/18 12:10
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 13:31	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 13:31	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 13:31	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 13:31	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 13:31	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 13:31	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 13:31	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 13:31	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 13:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 13:31	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 13:31	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 13:31	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 13:31	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/18/18 13:31*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 122*		*05/18/18 13:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/18/18 13:31*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 13:31*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 22:44	1
Acenaphthylene	0.84	U	9.8	0.84	ug/L		05/14/18 13:37	05/16/18 22:44	1
Acetophenone	0.56	U	9.8	0.56	ug/L		05/14/18 13:37	05/16/18 22:44	1
Anthracene	0.68	U	9.8	0.68	ug/L		05/14/18 13:37	05/16/18 22:44	1
Benzo[a]anthracene	0.54	U	9.8	0.54	ug/L		05/14/18 13:37	05/16/18 22:44	1
Benzo[a]pyrene	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 22:44	1
Benzo[b]fluoranthene	2.6	U	9.8	2.6	ug/L		05/14/18 13:37	05/16/18 22:44	1
Benzo[g,h,i]perylene	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 22:44	1
Benzo[k]fluoranthene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 22:44	1
1,1'-Biphenyl	0.57	U	9.8	0.57	ug/L		05/14/18 13:37	05/16/18 22:44	1
Bis(2-chloroethoxy)methane	0.93	U	9.8	0.93	ug/L		05/14/18 13:37	05/16/18 22:44	1
Bis(2-chloroethyl)ether	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 22:44	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.8	1.6	ug/L		05/14/18 13:37	05/16/18 22:44	1
4-Bromophenyl phenyl ether	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 22:44	1
Butyl benzyl phthalate	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 22:44	1
Carbazole	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 22:44	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/14/18 13:37	05/16/18 22:44	1
4-Chloro-3-methylphenol	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 22:44	1
2-Chloronaphthalene	0.79	U	9.8	0.79	ug/L		05/14/18 13:37	05/16/18 22:44	1
2-Chlorophenol	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 22:44	1
4-Chlorophenyl phenyl ether	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 22:44	1
Chrysene	0.50	U	9.8	0.50	ug/L		05/14/18 13:37	05/16/18 22:44	1
Dibenz(a,h)anthracene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 22:44	1
Dibenzofuran	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 22:44	1
3,3'-Dichlorobenzidine	30	U	59	30	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,4-Dichlorophenol	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 22:44	1
Diethyl phthalate	0.87	U	9.8	0.87	ug/L		05/14/18 13:37	05/16/18 22:44	1

Client Sample ID: CFW-1 175-185
Date Collected: 05/08/18 12:10
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.8	3.9	ug/L		05/14/18 13:37	05/16/18 22:44	1
Dimethyl phthalate	0.97	U	9.8	0.97	ug/L		05/14/18 13:37	05/16/18 22:44	1
Di-n-butyl phthalate	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 22:44	1
4,6-Dinitro-2-methylphenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,4-Dinitrophenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,4-Dinitrotoluene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,6-Dinitrotoluene	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 22:44	1
Di-n-octyl phthalate	1.4	U	9.8	1.4	ug/L		05/14/18 13:37	05/16/18 22:44	1
Fluoranthene	0.73	U	9.8	0.73	ug/L		05/14/18 13:37	05/16/18 22:44	1
Fluorene	0.94	U	9.8	0.94	ug/L		05/14/18 13:37	05/16/18 22:44	1
Hexachlorobenzene	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 22:44	1
Hexachlorobutadiene	0.61	U	9.8	0.61	ug/L		05/14/18 13:37	05/16/18 22:44	1
Hexachlorocyclopentadiene	2.5	U	9.8	2.5	ug/L		05/14/18 13:37	05/16/18 22:44	1
Hexachloroethane	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 22:44	1
Indeno[1,2,3-cd]pyrene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 22:44	1
Isophorone	0.89	U	9.8	0.89	ug/L		05/14/18 13:37	05/16/18 22:44	1
2-Methylnaphthalene	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 22:44	1
2-Methylphenol	0.88	U	9.8	0.88	ug/L		05/14/18 13:37	05/16/18 22:44	1
3 & 4 Methylphenol	1.3	U	9.8	1.3	ug/L		05/14/18 13:37	05/16/18 22:44	1
Naphthalene	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 22:44	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 22:44	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 22:44	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 22:44	1
Nitrobenzene	0.72	U	9.8	0.72	ug/L		05/14/18 13:37	05/16/18 22:44	1
2-Nitrophenol	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 22:44	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 22:44	1
N-Nitrosodi-n-propylamine	0.71	U	9.8	0.71	ug/L		05/14/18 13:37	05/16/18 22:44	1
N-Nitrosodiphenylamine	0.91	U	9.8	0.91	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,2'-oxybis[1-chloropropane]	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 22:44	1
Pentachlorophenol	2.0	U	49	2.0	ug/L		05/14/18 13:37	05/16/18 22:44	1
Phenanthrene	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 22:44	1
Phenol	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 22:44	1
Pyrene	0.62	U	9.8	0.62	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,4,5-Trichlorophenol	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 22:44	1
2,4,6-Trichlorophenol	0.84	U	9.8	0.84	ug/L		05/14/18 13:37	05/16/18 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*32 - 113*	*05/14/18 13:37*	*05/16/18 22:44*	*1*
2-Fluorophenol (Surr)	*54*		*26 - 109*	*05/14/18 13:37*	*05/16/18 22:44*	*1*
Nitrobenzene-d5 (Surr)	*61*		*32 - 118*	*05/14/18 13:37*	*05/16/18 22:44*	*1*
Phenol-d5 (Surr)	*58*		*27 - 110*	*05/14/18 13:37*	*05/16/18 22:44*	*1*
Terphenyl-d14 (Surr)	*28*		*10 - 126*	*05/14/18 13:37*	*05/16/18 22:44*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*39 - 124*	*05/14/18 13:37*	*05/16/18 22:44*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:25	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:25	1

Client Sample ID: CFW-1 195-205

Date Collected: 05/08/18 11:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 13:54	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 13:54	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 13:54	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 13:54	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 13:54	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 13:54	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 13:54	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 13:54	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 13:54	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 13:54	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 13:54	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 13:54	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 13:54	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 13:54	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 13:54	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 13:54	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 13:54	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 13:54	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 13:54	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 13:54	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 13:54	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 13:54	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 13:54	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 13:54	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 13:54	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 13:54	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 13:54	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 13:54	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 13:54	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 13:54	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 13:54	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 13:54	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 13:54	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 13:54	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 13:54	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 13:54	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 13:54	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 13:54	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 13:54	1
Methyl tert-butyl ether	**0.30**	**J B**	10	0.30	ug/L			05/18/18 13:54	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 13:54	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 13:54	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 13:54	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 13:54	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 13:54	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 13:54	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 13:54	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 13:54	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 13:54	1

Client Sample ID: CFW-1 195-205
Date Collected: 05/08/18 11:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 13:54	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 13:54	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 13:54	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 13:54	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 13:54	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 13:54	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 13:54	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 13:54	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 13:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 13:54	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 13:54	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 13:54	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 13:54	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/18 13:54*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 122*		*05/18/18 13:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*73 - 131*		*05/18/18 13:54*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/18/18 13:54*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.74	U	9.8	0.74	ug/L		05/14/18 13:37	05/16/18 23:07	1
Acenaphthylene	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 23:07	1
Acetophenone	0.56	U	9.8	0.56	ug/L		05/14/18 13:37	05/16/18 23:07	1
Anthracene	0.68	U	9.8	0.68	ug/L		05/14/18 13:37	05/16/18 23:07	1
Benzo[a]anthracene	0.54	U	9.8	0.54	ug/L		05/14/18 13:37	05/16/18 23:07	1
Benzo[a]pyrene	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 23:07	1
Benzo[b]fluoranthene	2.5	U	9.8	2.5	ug/L		05/14/18 13:37	05/16/18 23:07	1
Benzo[g,h,i]perylene	0.85	U	9.8	0.85	ug/L		05/14/18 13:37	05/16/18 23:07	1
Benzo[k]fluoranthene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:07	1
1,1'-Biphenyl	0.57	U	9.8	0.57	ug/L		05/14/18 13:37	05/16/18 23:07	1
Bis(2-chloroethoxy)methane	0.92	U	9.8	0.92	ug/L		05/14/18 13:37	05/16/18 23:07	1
Bis(2-chloroethyl)ether	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:07	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.8	1.6	ug/L		05/14/18 13:37	05/16/18 23:07	1
4-Bromophenyl phenyl ether	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:07	1
Butyl benzyl phthalate	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:07	1
Carbazole	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 23:07	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/14/18 13:37	05/16/18 23:07	1
4-Chloro-3-methylphenol	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:07	1
2-Chloronaphthalene	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 23:07	1
2-Chlorophenol	0.85	U	9.8	0.85	ug/L		05/14/18 13:37	05/16/18 23:07	1
4-Chlorophenyl phenyl ether	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 23:07	1
Chrysene	0.50	U	9.8	0.50	ug/L		05/14/18 13:37	05/16/18 23:07	1
Dibenz(a,h)anthracene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:07	1
Dibenzofuran	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 23:07	1
3,3'-Dichlorobenzidine	29	U	59	29	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,4-Dichlorophenol	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:07	1
Diethyl phthalate	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 23:07	1

Client Sample ID: CFW-1 195-205
Date Collected: 05/08/18 11:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.8	3.9	ug/L		05/14/18 13:37	05/16/18 23:07	1
Dimethyl phthalate	0.97	U	9.8	0.97	ug/L		05/14/18 13:37	05/16/18 23:07	1
Di-n-butyl phthalate	0.81	U	9.8	0.81	ug/L		05/14/18 13:37	05/16/18 23:07	1
4,6-Dinitro-2-methylphenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,4-Dinitrophenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,4-Dinitrotoluene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,6-Dinitrotoluene	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:07	1
Di-n-octyl phthalate	1.4	U	9.8	1.4	ug/L		05/14/18 13:37	05/16/18 23:07	1
Fluoranthene	0.72	U	9.8	0.72	ug/L		05/14/18 13:37	05/16/18 23:07	1
Fluorene	0.94	U	9.8	0.94	ug/L		05/14/18 13:37	05/16/18 23:07	1
Hexachlorobenzene	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 23:07	1
Hexachlorobutadiene	0.61	U	9.8	0.61	ug/L		05/14/18 13:37	05/16/18 23:07	1
Hexachlorocyclopentadiene	2.4	U	9.8	2.4	ug/L		05/14/18 13:37	05/16/18 23:07	1
Hexachloroethane	0.74	U	9.8	0.74	ug/L		05/14/18 13:37	05/16/18 23:07	1
Indeno[1,2,3-cd]pyrene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:07	1
Isophorone	0.88	U	9.8	0.88	ug/L		05/14/18 13:37	05/16/18 23:07	1
2-Methylnaphthalene	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 23:07	1
2-Methylphenol	0.87	U	9.8	0.87	ug/L		05/14/18 13:37	05/16/18 23:07	1
3 & 4 Methylphenol	1.3	U	9.8	1.3	ug/L		05/14/18 13:37	05/16/18 23:07	1
Naphthalene	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 23:07	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 23:07	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 23:07	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 23:07	1
Nitrobenzene	0.71	U	9.8	0.71	ug/L		05/14/18 13:37	05/16/18 23:07	1
2-Nitrophenol	0.74	U	9.8	0.74	ug/L		05/14/18 13:37	05/16/18 23:07	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 23:07	1
N-Nitrosodi-n-propylamine	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 23:07	1
N-Nitrosodiphenylamine	0.90	U	9.8	0.90	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,2'-oxybis[1-chloropropane]	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 23:07	1
Pentachlorophenol	2.0	U	49	2.0	ug/L		05/14/18 13:37	05/16/18 23:07	1
Phenanthrene	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:07	1
Phenol	0.81	U	9.8	0.81	ug/L		05/14/18 13:37	05/16/18 23:07	1
Pyrene	0.62	U	9.8	0.62	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,4,5-Trichlorophenol	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:07	1
2,4,6-Trichlorophenol	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*46*		*32 - 113*	*05/14/18 13:37*	*05/16/18 23:07*	*1*
2-Fluorophenol (Surr)	*38*		*26 - 109*	*05/14/18 13:37*	*05/16/18 23:07*	*1*
Nitrobenzene-d5 (Surr)	*41*		*32 - 118*	*05/14/18 13:37*	*05/16/18 23:07*	*1*
Phenol-d5 (Surr)	*41*		*27 - 110*	*05/14/18 13:37*	*05/16/18 23:07*	*1*
Terphenyl-d14 (Surr)	*16*		*10 - 126*	*05/14/18 13:37*	*05/16/18 23:07*	*1*
2,4,6-Tribromophenol (Surr)	*58*		*39 - 124*	*05/14/18 13:37*	*05/16/18 23:07*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 19:43	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 19:43	1

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: CFW-1 215-225
Date Collected: 05/08/18 09:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 14:16	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 14:16	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 14:16	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 14:16	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 14:16	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 14:16	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 14:16	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 14:16	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 14:16	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 14:16	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 14:16	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 14:16	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 14:16	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 14:16	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 14:16	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 14:16	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 14:16	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 14:16	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 14:16	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 14:16	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 14:16	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 14:16	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 14:16	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 14:16	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 14:16	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 14:16	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 14:16	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 14:16	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 14:16	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 14:16	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 14:16	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 14:16	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 14:16	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 14:16	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 14:16	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 14:16	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 14:16	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 14:16	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 14:16	1
Methyl tert-butyl ether	**0.31**	**J B**	10	0.30	ug/L			05/18/18 14:16	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 14:16	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 14:16	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 14:16	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 14:16	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 14:16	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 14:16	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 14:16	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 14:16	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 14:16	1

Client Sample ID: CFW-1 215-225
Date Collected: 05/08/18 09:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 14:16	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 14:16	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 14:16	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 14:16	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 14:16	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 14:16	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 14:16	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 14:16	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 14:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 14:16	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 14:16	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 14:16	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 14:16	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/18 14:16*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 122*		*05/18/18 14:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/18/18 14:16*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 14:16*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:31	1
Acenaphthylene	0.84	U	9.8	0.84	ug/L		05/14/18 13:37	05/16/18 23:31	1
Acetophenone	0.56	U	9.8	0.56	ug/L		05/14/18 13:37	05/16/18 23:31	1
Anthracene	0.68	U	9.8	0.68	ug/L		05/14/18 13:37	05/16/18 23:31	1
Benzo[a]anthracene	0.54	U	9.8	0.54	ug/L		05/14/18 13:37	05/16/18 23:31	1
Benzo[a]pyrene	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 23:31	1
Benzo[b]fluoranthene	2.6	U	9.8	2.6	ug/L		05/14/18 13:37	05/16/18 23:31	1
Benzo[g,h,i]perylene	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 23:31	1
Benzo[k]fluoranthene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:31	1
1,1'-Biphenyl	0.57	U	9.8	0.57	ug/L		05/14/18 13:37	05/16/18 23:31	1
Bis(2-chloroethoxy)methane	0.93	U	9.8	0.93	ug/L		05/14/18 13:37	05/16/18 23:31	1
Bis(2-chloroethyl)ether	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:31	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.8	1.6	ug/L		05/14/18 13:37	05/16/18 23:31	1
4-Bromophenyl phenyl ether	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 23:31	1
Butyl benzyl phthalate	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:31	1
Carbazole	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 23:31	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/14/18 13:37	05/16/18 23:31	1
4-Chloro-3-methylphenol	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:31	1
2-Chloronaphthalene	0.79	U	9.8	0.79	ug/L		05/14/18 13:37	05/16/18 23:31	1
2-Chlorophenol	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 23:31	1
4-Chlorophenyl phenyl ether	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 23:31	1
Chrysene	0.50	U	9.8	0.50	ug/L		05/14/18 13:37	05/16/18 23:31	1
Dibenz(a,h)anthracene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:31	1
Dibenzofuran	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 23:31	1
3,3'-Dichlorobenzidine	30	U	59	30	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,4-Dichlorophenol	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:31	1
Diethyl phthalate	0.87	U	9.8	0.87	ug/L		05/14/18 13:37	05/16/18 23:31	1

Client Sample ID: CFW-1 215-225
Date Collected: 05/08/18 09:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.8	3.9	ug/L		05/14/18 13:37	05/16/18 23:31	1
Dimethyl phthalate	0.97	U	9.8	0.97	ug/L		05/14/18 13:37	05/16/18 23:31	1
Di-n-butyl phthalate	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 23:31	1
4,6-Dinitro-2-methylphenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,4-Dinitrophenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,4-Dinitrotoluene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,6-Dinitrotoluene	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:31	1
Di-n-octyl phthalate	1.4	U	9.8	1.4	ug/L		05/14/18 13:37	05/16/18 23:31	1
Fluoranthene	0.73	U	9.8	0.73	ug/L		05/14/18 13:37	05/16/18 23:31	1
Fluorene	0.94	U	9.8	0.94	ug/L		05/14/18 13:37	05/16/18 23:31	1
Hexachlorobenzene	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 23:31	1
Hexachlorobutadiene	0.61	U	9.8	0.61	ug/L		05/14/18 13:37	05/16/18 23:31	1
Hexachlorocyclopentadiene	2.5	U	9.8	2.5	ug/L		05/14/18 13:37	05/16/18 23:31	1
Hexachloroethane	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:31	1
Indeno[1,2,3-cd]pyrene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:31	1
Isophorone	0.89	U	9.8	0.89	ug/L		05/14/18 13:37	05/16/18 23:31	1
2-Methylnaphthalene	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 23:31	1
2-Methylphenol	0.88	U	9.8	0.88	ug/L		05/14/18 13:37	05/16/18 23:31	1
3 & 4 Methylphenol	1.3	U	9.8	1.3	ug/L		05/14/18 13:37	05/16/18 23:31	1
Naphthalene	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 23:31	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 23:31	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 23:31	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 23:31	1
Nitrobenzene	0.72	U	9.8	0.72	ug/L		05/14/18 13:37	05/16/18 23:31	1
2-Nitrophenol	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:31	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 23:31	1
N-Nitrosodi-n-propylamine	0.71	U	9.8	0.71	ug/L		05/14/18 13:37	05/16/18 23:31	1
N-Nitrosodiphenylamine	0.91	U	9.8	0.91	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,2'-oxybis[1-chloropropane]	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 23:31	1
Pentachlorophenol	2.0	U	49	2.0	ug/L		05/14/18 13:37	05/16/18 23:31	1
Phenanthrene	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 23:31	1
Phenol	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 23:31	1
Pyrene	0.62	U	9.8	0.62	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,4,5-Trichlorophenol	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:31	1
2,4,6-Trichlorophenol	0.84	U	9.8	0.84	ug/L		05/14/18 13:37	05/16/18 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*32 - 113*	*05/14/18 13:37*	*05/16/18 23:31*	*1*
2-Fluorophenol (Surr)	*58*		*26 - 109*	*05/14/18 13:37*	*05/16/18 23:31*	*1*
Nitrobenzene-d5 (Surr)	*59*		*32 - 118*	*05/14/18 13:37*	*05/16/18 23:31*	*1*
Phenol-d5 (Surr)	*64*		*27 - 110*	*05/14/18 13:37*	*05/16/18 23:31*	*1*
Terphenyl-d14 (Surr)	*25*		*10 - 126*	*05/14/18 13:37*	*05/16/18 23:31*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*39 - 124*	*05/14/18 13:37*	*05/16/18 23:31*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 19:59	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 19:59	1

Client Sample ID: Field Blank
Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-15
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 14:38	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 14:38	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 14:38	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 14:38	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 14:38	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 14:38	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 14:38	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 14:38	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 14:38	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 14:38	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 14:38	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 14:38	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 14:38	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 14:38	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 14:38	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 14:38	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 14:38	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 14:38	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 14:38	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 14:38	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 14:38	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 14:38	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 14:38	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 14:38	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 14:38	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 14:38	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 14:38	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 14:38	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 14:38	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 14:38	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 14:38	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 14:38	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 14:38	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 14:38	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 14:38	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 14:38	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 14:38	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 14:38	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 14:38	1
Methyl tert-butyl ether	**0.33**	**J B**	10	0.30	ug/L			05/18/18 14:38	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 14:38	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 14:38	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 14:38	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 14:38	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 14:38	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 14:38	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 14:38	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 14:38	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 14:38	1

Client Sample ID: Field Blank

Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-15

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 14:38	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 14:38	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 14:38	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 14:38	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 14:38	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 14:38	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 14:38	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 14:38	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 14:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 14:38	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 14:38	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 14:38	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 14:38	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/18/18 14:38*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 122*		*05/18/18 14:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*73 - 131*		*05/18/18 14:38*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 14:38*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		05/15/18 14:54	05/17/18 22:14	1
Acenaphthylene	0.85	U	10	0.85	ug/L		05/15/18 14:54	05/17/18 22:14	1
Acetophenone	0.57	U	10	0.57	ug/L		05/15/18 14:54	05/17/18 22:14	1
Anthracene	0.69	U	10	0.69	ug/L		05/15/18 14:54	05/17/18 22:14	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		05/15/18 14:54	05/17/18 22:14	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		05/15/18 14:54	05/17/18 22:14	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		05/15/18 14:54	05/17/18 22:14	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		05/15/18 14:54	05/17/18 22:14	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 22:14	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		05/15/18 14:54	05/17/18 22:14	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		05/15/18 14:54	05/17/18 22:14	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		05/15/18 14:54	05/17/18 22:14	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		05/15/18 14:54	05/17/18 22:14	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		05/15/18 14:54	05/17/18 22:14	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 22:14	1
Carbazole	0.71	U	10	0.71	ug/L		05/15/18 14:54	05/17/18 22:14	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/15/18 14:54	05/17/18 22:14	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		05/15/18 14:54	05/17/18 22:14	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		05/15/18 14:54	05/17/18 22:14	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		05/15/18 14:54	05/17/18 22:14	1
Chrysene	0.51	U	10	0.51	ug/L		05/15/18 14:54	05/17/18 22:14	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
Dibenzofuran	0.79	U	10	0.79	ug/L		05/15/18 14:54	05/17/18 22:14	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		05/15/18 14:54	05/17/18 22:14	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		05/15/18 14:54	05/17/18 22:14	1

Client Sample ID: Field Blank
Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-15
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		05/15/18 14:54	05/17/18 22:14	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		05/15/18 14:54	05/17/18 22:14	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,4-Dinitrophenol	10	U	50	10	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		05/15/18 14:54	05/17/18 22:14	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		05/15/18 14:54	05/17/18 22:14	1
Fluoranthene	0.74	U	10	0.74	ug/L		05/15/18 14:54	05/17/18 22:14	1
Fluorene	0.96	U	10	0.96	ug/L		05/15/18 14:54	05/17/18 22:14	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		05/15/18 14:54	05/17/18 22:14	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		05/15/18 14:54	05/17/18 22:14	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		05/15/18 14:54	05/17/18 22:14	1
Hexachloroethane	0.76	U	10	0.76	ug/L		05/15/18 14:54	05/17/18 22:14	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
Isophorone	0.90	U	10	0.90	ug/L		05/15/18 14:54	05/17/18 22:14	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		05/15/18 14:54	05/17/18 22:14	1
2-Methylphenol	0.89	U	10	0.89	ug/L		05/15/18 14:54	05/17/18 22:14	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		05/15/18 14:54	05/17/18 22:14	1
Naphthalene	0.70	U	10	0.70	ug/L		05/15/18 14:54	05/17/18 22:14	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		05/15/18 14:54	05/17/18 22:14	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
Nitrobenzene	0.73	U	10	0.73	ug/L		05/15/18 14:54	05/17/18 22:14	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		05/15/18 14:54	05/17/18 22:14	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		05/15/18 14:54	05/17/18 22:14	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		05/15/18 14:54	05/17/18 22:14	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,2'-oxybis[1-chloropropane]	0.78	U	10	0.78	ug/L		05/15/18 14:54	05/17/18 22:14	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		05/15/18 14:54	05/17/18 22:14	1
Phenanthrene	0.77	U	10	0.77	ug/L		05/15/18 14:54	05/17/18 22:14	1
Phenol	0.83	U	10	0.83	ug/L		05/15/18 14:54	05/17/18 22:14	1
Pyrene	0.63	U	10	0.63	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 22:14	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		05/15/18 14:54	05/17/18 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*32 - 113*	*05/15/18 14:54*	*05/17/18 22:14*	*1*
2-Fluorophenol (Surr)	*66*		*26 - 109*	*05/15/18 14:54*	*05/17/18 22:14*	*1*
Nitrobenzene-d5 (Surr)	*82*		*32 - 118*	*05/15/18 14:54*	*05/17/18 22:14*	*1*
Phenol-d5 (Surr)	*68*		*27 - 110*	*05/15/18 14:54*	*05/17/18 22:14*	*1*
Terphenyl-d14 (Surr)	*97*		*10 - 126*	*05/15/18 14:54*	*05/17/18 22:14*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*39 - 124*	*05/15/18 14:54*	*05/17/18 22:14*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:46	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:46	1

Client Sample ID: Equipment Blank 1

Date Collected: 05/08/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-16

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 15:00	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 15:00	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 15:00	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 15:00	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 15:00	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 15:00	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 15:00	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 15:00	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 15:00	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 15:00	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 15:00	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 15:00	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 15:00	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 15:00	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 15:00	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 15:00	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 15:00	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 15:00	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 15:00	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 15:00	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 15:00	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 15:00	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 15:00	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 15:00	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 15:00	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 15:00	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 15:00	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 15:00	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 15:00	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 15:00	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 15:00	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 15:00	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 15:00	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 15:00	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 15:00	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 15:00	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 15:00	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 15:00	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 15:00	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/18/18 15:00	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 15:00	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 15:00	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 15:00	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 15:00	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 15:00	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 15:00	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 15:00	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 15:00	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 15:00	1

Client Sample ID: Equipment Blank 1

Date Collected: 05/08/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-16

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 15:00	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 15:00	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 15:00	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 15:00	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 15:00	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 15:00	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 15:00	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 15:00	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 15:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 15:00	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 15:00	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 15:00	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 15:00	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/18/18 15:00*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 122*		*05/18/18 15:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*73 - 131*		*05/18/18 15:00*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 15:00*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:54	1
Acenaphthylene	0.84	U	9.8	0.84	ug/L		05/14/18 13:37	05/16/18 23:54	1
Acetophenone	0.56	U	9.8	0.56	ug/L		05/14/18 13:37	05/16/18 23:54	1
Anthracene	0.68	U	9.8	0.68	ug/L		05/14/18 13:37	05/16/18 23:54	1
Benzo[a]anthracene	0.54	U	9.8	0.54	ug/L		05/14/18 13:37	05/16/18 23:54	1
Benzo[a]pyrene	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 23:54	1
Benzo[b]fluoranthene	2.6	U	9.8	2.6	ug/L		05/14/18 13:37	05/16/18 23:54	1
Benzo[g,h,i]perylene	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 23:54	1
Benzo[k]fluoranthene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:54	1
1,1'-Biphenyl	0.57	U	9.8	0.57	ug/L		05/14/18 13:37	05/16/18 23:54	1
Bis(2-chloroethoxy)methane	0.92	U	9.8	0.92	ug/L		05/14/18 13:37	05/16/18 23:54	1
Bis(2-chloroethyl)ether	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:54	1
Bis(2-ethylhexyl) phthalate	1.6	U	9.8	1.6	ug/L		05/14/18 13:37	05/16/18 23:54	1
4-Bromophenyl phenyl ether	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 23:54	1
Butyl benzyl phthalate	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:54	1
Carbazole	0.70	U	9.8	0.70	ug/L		05/14/18 13:37	05/16/18 23:54	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/14/18 13:37	05/16/18 23:54	1
4-Chloro-3-methylphenol	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:54	1
2-Chloronaphthalene	0.79	U	9.8	0.79	ug/L		05/14/18 13:37	05/16/18 23:54	1
2-Chlorophenol	0.86	U	9.8	0.86	ug/L		05/14/18 13:37	05/16/18 23:54	1
4-Chlorophenyl phenyl ether	0.83	U	9.8	0.83	ug/L		05/14/18 13:37	05/16/18 23:54	1
Chrysene	0.50	U	9.8	0.50	ug/L		05/14/18 13:37	05/16/18 23:54	1
Dibenz(a,h)anthracene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:54	1
Dibenzofuran	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 23:54	1
3,3'-Dichlorobenzidine	30	U	59	30	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,4-Dichlorophenol	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:54	1
Diethyl phthalate	0.87	U	9.8	0.87	ug/L		05/14/18 13:37	05/16/18 23:54	1

Client Sample ID: Equipment Blank 1

Date Collected: 05/08/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-16

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.8	3.9	ug/L		05/14/18 13:37	05/16/18 23:54	1
Dimethyl phthalate	0.97	U	9.8	0.97	ug/L		05/14/18 13:37	05/16/18 23:54	1
Di-n-butyl phthalate	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 23:54	1
4,6-Dinitro-2-methylphenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,4-Dinitrophenol	9.8	U	49	9.8	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,4-Dinitrotoluene	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,6-Dinitrotoluene	1.1	U	9.8	1.1	ug/L		05/14/18 13:37	05/16/18 23:54	1
Di-n-octyl phthalate	1.4	U	9.8	1.4	ug/L		05/14/18 13:37	05/16/18 23:54	1
Fluoranthene	0.73	U	9.8	0.73	ug/L		05/14/18 13:37	05/16/18 23:54	1
Fluorene	0.94	U	9.8	0.94	ug/L		05/14/18 13:37	05/16/18 23:54	1
Hexachlorobenzene	0.78	U	9.8	0.78	ug/L		05/14/18 13:37	05/16/18 23:54	1
Hexachlorobutadiene	0.61	U	9.8	0.61	ug/L		05/14/18 13:37	05/16/18 23:54	1
Hexachlorocyclopentadiene	2.5	U	9.8	2.5	ug/L		05/14/18 13:37	05/16/18 23:54	1
Hexachloroethane	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:54	1
Indeno[1,2,3-cd]pyrene	0.98	U	9.8	0.98	ug/L		05/14/18 13:37	05/16/18 23:54	1
Isophorone	0.89	U	9.8	0.89	ug/L		05/14/18 13:37	05/16/18 23:54	1
2-Methylnaphthalene	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 23:54	1
2-Methylphenol	0.88	U	9.8	0.88	ug/L		05/14/18 13:37	05/16/18 23:54	1
3 & 4 Methylphenol	1.3	U	9.8	1.3	ug/L		05/14/18 13:37	05/16/18 23:54	1
Naphthalene	0.69	U	9.8	0.69	ug/L		05/14/18 13:37	05/16/18 23:54	1
2-Nitroaniline	1.3	U	49	1.3	ug/L		05/14/18 13:37	05/16/18 23:54	1
3-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 23:54	1
4-Nitroaniline	4.9	U	49	4.9	ug/L		05/14/18 13:37	05/16/18 23:54	1
Nitrobenzene	0.72	U	9.8	0.72	ug/L		05/14/18 13:37	05/16/18 23:54	1
2-Nitrophenol	0.75	U	9.8	0.75	ug/L		05/14/18 13:37	05/16/18 23:54	1
4-Nitrophenol	1.9	U	49	1.9	ug/L		05/14/18 13:37	05/16/18 23:54	1
N-Nitrosodi-n-propylamine	0.71	U	9.8	0.71	ug/L		05/14/18 13:37	05/16/18 23:54	1
N-Nitrosodiphenylamine	0.91	U	9.8	0.91	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,2'-oxybis[1-chloropropane]	0.77	U	9.8	0.77	ug/L		05/14/18 13:37	05/16/18 23:54	1
Pentachlorophenol	2.0	U	49	2.0	ug/L		05/14/18 13:37	05/16/18 23:54	1
Phenanthrene	0.76	U	9.8	0.76	ug/L		05/14/18 13:37	05/16/18 23:54	1
Phenol	0.82	U	9.8	0.82	ug/L		05/14/18 13:37	05/16/18 23:54	1
Pyrene	0.62	U	9.8	0.62	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,4,5-Trichlorophenol	1.2	U	9.8	1.2	ug/L		05/14/18 13:37	05/16/18 23:54	1
2,4,6-Trichlorophenol	0.84	U	9.8	0.84	ug/L		05/14/18 13:37	05/16/18 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*32 - 113*	*05/14/18 13:37*	*05/16/18 23:54*	*1*
2-Fluorophenol (Surr)	*54*		*26 - 109*	*05/14/18 13:37*	*05/16/18 23:54*	*1*
Nitrobenzene-d5 (Surr)	*57*		*32 - 118*	*05/14/18 13:37*	*05/16/18 23:54*	*1*
Phenol-d5 (Surr)	*57*		*27 - 110*	*05/14/18 13:37*	*05/16/18 23:54*	*1*
Terphenyl-d14 (Surr)	*70*		*10 - 126*	*05/14/18 13:37*	*05/16/18 23:54*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*39 - 124*	*05/14/18 13:37*	*05/16/18 23:54*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 19:38	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 19:38	1

Client Sample ID: Equipment Blank 2

Date Collected: 05/09/18 07:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-17

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 11:19	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 11:19	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 11:19	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 11:19	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 11:19	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 11:19	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 11:19	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 11:19	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 11:19	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 11:19	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 11:19	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 11:19	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 11:19	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 11:19	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 11:19	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 11:19	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 11:19	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 11:19	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 11:19	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 11:19	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 11:19	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 11:19	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 11:19	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 11:19	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 11:19	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 11:19	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 11:19	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 11:19	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 11:19	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 11:19	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 11:19	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 11:19	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 11:19	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 11:19	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 11:19	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 11:19	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 11:19	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 11:19	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 11:19	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/18/18 11:19	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 11:19	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 11:19	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 11:19	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 11:19	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 11:19	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 11:19	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 11:19	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 11:19	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 11:19	1

Client Sample ID: Equipment Blank 2

Date Collected: 05/09/18 07:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-17
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 11:19	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 11:19	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 11:19	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 11:19	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 11:19	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 11:19	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 11:19	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 11:19	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 11:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 11:19	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 11:19	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 11:19	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 11:19	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 11:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/18/18 11:19*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 122*		*05/18/18 11:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*73 - 131*		*05/18/18 11:19*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*05/18/18 11:19*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 22:37	1
Acenaphthylene	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 22:37	1
Acetophenone	0.55	U	9.7	0.55	ug/L		05/15/18 14:54	05/17/18 22:37	1
Anthracene	0.67	U	9.7	0.67	ug/L		05/15/18 14:54	05/17/18 22:37	1
Benzo[a]anthracene	0.53	U	9.7	0.53	ug/L		05/15/18 14:54	05/17/18 22:37	1
Benzo[a]pyrene	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 22:37	1
Benzo[b]fluoranthene	2.5	U	9.7	2.5	ug/L		05/15/18 14:54	05/17/18 22:37	1
Benzo[g,h,i]perylene	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 22:37	1
Benzo[k]fluoranthene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 22:37	1
1,1'-Biphenyl	0.56	U	9.7	0.56	ug/L		05/15/18 14:54	05/17/18 22:37	1
Bis(2-chloroethoxy)methane	0.91	U	9.7	0.91	ug/L		05/15/18 14:54	05/17/18 22:37	1
Bis(2-chloroethyl)ether	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 22:37	1
Bis(2-ethylhexyl) phthalate	1.5	U	9.7	1.5	ug/L		05/15/18 14:54	05/17/18 22:37	1
4-Bromophenyl phenyl ether	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 22:37	1
Butyl benzyl phthalate	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 22:37	1
Carbazole	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 22:37	1
4-Chloroaniline	2.1	U	19	2.1	ug/L		05/15/18 14:54	05/17/18 22:37	1
4-Chloro-3-methylphenol	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 22:37	1
2-Chloronaphthalene	0.77	U	9.7	0.77	ug/L		05/15/18 14:54	05/17/18 22:37	1
2-Chlorophenol	0.84	U	9.7	0.84	ug/L		05/15/18 14:54	05/17/18 22:37	1
4-Chlorophenyl phenyl ether	0.81	U	9.7	0.81	ug/L		05/15/18 14:54	05/17/18 22:37	1
Chrysene	0.49	U	9.7	0.49	ug/L		05/15/18 14:54	05/17/18 22:37	1
Dibenz(a,h)anthracene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 22:37	1
Dibenzofuran	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 22:37	1
3,3'-Dichlorobenzidine	29	U	58	29	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,4-Dichlorophenol	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 22:37	1
Diethyl phthalate	0.85	U	9.7	0.85	ug/L		05/15/18 14:54	05/17/18 22:37	1

Client Sample ID: Equipment Blank 2
Date Collected: 05/09/18 07:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-17
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	3.9	U	9.7	3.9	ug/L		05/15/18 14:54	05/17/18 22:37	1
Dimethyl phthalate	0.96	U	9.7	0.96	ug/L		05/15/18 14:54	05/17/18 22:37	1
Di-n-butyl phthalate	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 22:37	1
4,6-Dinitro-2-methylphenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,4-Dinitrophenol	9.7	U	48	9.7	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,4-Dinitrotoluene	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,6-Dinitrotoluene	1.1	U	9.7	1.1	ug/L		05/15/18 14:54	05/17/18 22:37	1
Di-n-octyl phthalate	1.4	U	9.7	1.4	ug/L		05/15/18 14:54	05/17/18 22:37	1
Fluoranthene	0.71	U	9.7	0.71	ug/L		05/15/18 14:54	05/17/18 22:37	1
Fluorene	0.93	U	9.7	0.93	ug/L		05/15/18 14:54	05/17/18 22:37	1
Hexachlorobenzene	0.76	U	9.7	0.76	ug/L		05/15/18 14:54	05/17/18 22:37	1
Hexachlorobutadiene	0.60	U	9.7	0.60	ug/L		05/15/18 14:54	05/17/18 22:37	1
Hexachlorocyclopentadiene	2.4	U	9.7	2.4	ug/L		05/15/18 14:54	05/17/18 22:37	1
Hexachloroethane	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 22:37	1
Indeno[1,2,3-cd]pyrene	0.97	U	9.7	0.97	ug/L		05/15/18 14:54	05/17/18 22:37	1
Isophorone	0.87	U	9.7	0.87	ug/L		05/15/18 14:54	05/17/18 22:37	1
2-Methylnaphthalene	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 22:37	1
2-Methylphenol	0.86	U	9.7	0.86	ug/L		05/15/18 14:54	05/17/18 22:37	1
3 & 4 Methylphenol	1.3	U	9.7	1.3	ug/L		05/15/18 14:54	05/17/18 22:37	1
Naphthalene	0.68	U	9.7	0.68	ug/L		05/15/18 14:54	05/17/18 22:37	1
2-Nitroaniline	1.3	U	48	1.3	ug/L		05/15/18 14:54	05/17/18 22:37	1
3-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 22:37	1
4-Nitroaniline	4.8	U	48	4.8	ug/L		05/15/18 14:54	05/17/18 22:37	1
Nitrobenzene	0.70	U	9.7	0.70	ug/L		05/15/18 14:54	05/17/18 22:37	1
2-Nitrophenol	0.73	U	9.7	0.73	ug/L		05/15/18 14:54	05/17/18 22:37	1
4-Nitrophenol	1.8	U	48	1.8	ug/L		05/15/18 14:54	05/17/18 22:37	1
N-Nitrosodi-n-propylamine	0.69	U	9.7	0.69	ug/L		05/15/18 14:54	05/17/18 22:37	1
N-Nitrosodiphenylamine	0.89	U	9.7	0.89	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,2'-oxybis[1-chloropropane]	0.75	U	9.7	0.75	ug/L		05/15/18 14:54	05/17/18 22:37	1
Pentachlorophenol	1.9	U	48	1.9	ug/L		05/15/18 14:54	05/17/18 22:37	1
Phenanthrene	0.74	U	9.7	0.74	ug/L		05/15/18 14:54	05/17/18 22:37	1
Phenol	0.80	U	9.7	0.80	ug/L		05/15/18 14:54	05/17/18 22:37	1
Pyrene	0.61	U	9.7	0.61	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,4,5-Trichlorophenol	1.2	U	9.7	1.2	ug/L		05/15/18 14:54	05/17/18 22:37	1
2,4,6-Trichlorophenol	0.82	U	9.7	0.82	ug/L		05/15/18 14:54	05/17/18 22:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*32 - 113*	*05/15/18 14:54*	*05/17/18 22:37*	*1*
2-Fluorophenol (Surr)	*55*		*26 - 109*	*05/15/18 14:54*	*05/17/18 22:37*	*1*
Nitrobenzene-d5 (Surr)	*67*		*32 - 118*	*05/15/18 14:54*	*05/17/18 22:37*	*1*
Phenol-d5 (Surr)	*59*		*27 - 110*	*05/15/18 14:54*	*05/17/18 22:37*	*1*
Terphenyl-d14 (Surr)	*28*		*10 - 126*	*05/15/18 14:54*	*05/17/18 22:37*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*39 - 124*	*05/15/18 14:54*	*05/17/18 22:37*	*1*

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 20:04	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 20:04	1

Client Sample ID: Trip Blank

Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-18

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 10:57	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 10:57	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 10:57	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 10:57	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 10:57	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 10:57	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 10:57	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 10:57	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 10:57	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 10:57	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 10:57	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 10:57	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 10:57	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 10:57	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 10:57	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 10:57	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 10:57	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 10:57	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 10:57	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 10:57	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 10:57	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 10:57	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 10:57	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 10:57	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 10:57	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 10:57	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 10:57	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 10:57	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 10:57	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 10:57	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 10:57	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 10:57	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 10:57	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 10:57	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 10:57	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 10:57	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 10:57	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 10:57	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 10:57	1
Methyl tert-butyl ether	**0.31**	**J B**	10	0.30	ug/L			05/18/18 10:57	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 10:57	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 10:57	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 10:57	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 10:57	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 10:57	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 10:57	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 10:57	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 10:57	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 10:57	1

Client Sample ID: Trip Blank
Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-18
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 10:57	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 10:57	1
1,2,3-Trichlorobenzene	2.5	U *	5.0	2.5	ug/L			05/18/18 10:57	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 10:57	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 10:57	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 10:57	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 10:57	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 10:57	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 10:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 10:57	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 10:57	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*05/18/18 10:57*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 122*		*05/18/18 10:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*73 - 131*		*05/18/18 10:57*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/18/18 10:57*	*1*

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

Lab Sample ID: MB 680-524176/9
Matrix: Water
Analysis Batch: 524176

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 10:30	1
Benzene	0.43	U	1.0	0.43	ug/L			05/17/18 10:30	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 10:30	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 10:30	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 10:30	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 10:30	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 10:30	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 10:30	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 10:30	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 10:30	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 10:30	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 10:30	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 10:30	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 10:30	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 10:30	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 10:30	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 10:30	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 10:30	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 10:30	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 10:30	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 10:30	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 10:30	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 10:30	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 10:30	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 10:30	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 10:30	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 10:30	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 10:30	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 10:30	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 10:30	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 10:30	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 10:30	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/17/18 10:30	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 10:30	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 10:30	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 10:30	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 10:30	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 10:30	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 10:30	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/17/18 10:30	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/17/18 10:30	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/17/18 10:30	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 10:30	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 10:30	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 10:30	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 10:30	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 10:30	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 10:30	1

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

Lab Sample ID: MB 680-524176/9
Matrix: Water
Analysis Batch: 524176

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.48	U	1.0	0.48	ug/L			05/17/18 10:30	1
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 10:30	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 10:30	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 10:30	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 10:30	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 10:30	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 10:30	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 10:30	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 10:30	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 10:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 10:30	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 10:30	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 10:30	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 10:30	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/17/18 10:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*05/17/18 10:30*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 122*		*05/17/18 10:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*73 - 131*		*05/17/18 10:30*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/17/18 10:30*	*1*

Lab Sample ID: LCS 680-524176/4
Matrix: Water
Analysis Batch: 524176

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	232		ug/L		93	68 - 132
Benzene	50.0	48.9		ug/L		98	80 - 120
Bromobenzene	50.0	48.7		ug/L		97	71 - 124
Bromodichloromethane	50.0	48.1		ug/L		96	80 - 120
Bromoform	50.0	49.7		ug/L		99	52 - 122
Bromomethane	50.0	34.6		ug/L		69	43 - 146
2-Butanone (MEK)	250	233		ug/L		93	79 - 125
Carbon disulfide	50.0	50.0		ug/L		100	77 - 129
Carbon tetrachloride	50.0	49.5		ug/L		99	67 - 125
Chlorobenzene	50.0	47.7		ug/L		95	80 - 120
Chloroethane	50.0	51.5		ug/L		103	48 - 145
Chloroform	50.0	46.9		ug/L		94	80 - 120
Chloromethane	50.0	43.7		ug/L		87	76 - 149
4-Chlorotoluene	50.0	49.3		ug/L		99	80 - 120
cis-1,2-Dichloroethene	50.0	47.9		ug/L		96	80 - 120
cis-1,3-Dichloropropene	50.0	48.8		ug/L		98	80 - 129
Cyclohexane	50.0	52.5		ug/L		105	80 - 132
Dibromochloromethane	50.0	49.1		ug/L		98	68 - 120
1,2-Dibromo-3-Chloropropane	50.0	50.6		ug/L		101	74 - 120
1,2-Dibromoethane	50.0	46.5		ug/L		93	75 - 126
Dibromomethane	50.0	46.3		ug/L		93	80 - 120

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

Lab Sample ID: LCS 680-524176/4
Matrix: Water
Analysis Batch: 524176

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	50.0	47.6		ug/L		95	80 - 120
1,3-Dichlorobenzene	50.0	46.8		ug/L		94	80 - 120
1,4-Dichlorobenzene	50.0	46.2		ug/L		92	80 - 120
Dichlorodifluoromethane	50.0	54.5		ug/L		109	70 - 137
1,1-Dichloroethane	50.0	47.5		ug/L		95	80 - 120
1,2-Dichloroethane	50.0	46.6		ug/L		93	72 - 128
1,1-Dichloroethene	50.0	51.2		ug/L		102	80 - 120
1,2-Dichloropropane	50.0	47.1		ug/L		94	80 - 120
1,3-Dichloropropane	50.0	46.6		ug/L		93	80 - 120
2,2-Dichloropropane	50.0	49.8		ug/L		100	80 - 135
1,1-Dichloropropene	50.0	48.9		ug/L		98	80 - 120
Ethylbenzene	50.0	49.5		ug/L		99	80 - 120
2-Hexanone	250	231		ug/L		93	80 - 131
Isopropylbenzene	50.0	50.2		ug/L		100	79 - 126
Methyl acetate	100	92.4		ug/L		92	73 - 139
Methylcyclohexane	50.0	52.4		ug/L		105	80 - 138
Methylene Chloride	50.0	48.3		ug/L		97	80 - 120
4-Methyl-2-pentanone (MIBK)	250	230		ug/L		92	80 - 134
Methyl tert-butyl ether	50.0	48.6		ug/L		97	80 - 122
m-Xylene & p-Xylene	50.0	49.4		ug/L		99	80 - 120
o-Xylene	50.0	50.5		ug/L		101	80 - 120
p-Isopropyltoluene	50.0	50.9		ug/L		102	80 - 120
Styrene	50.0	51.8		ug/L		104	80 - 126
tert-Butylbenzene	50.0	51.5		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	50.0	48.8		ug/L		98	73 - 124
1,1,2,2-Tetrachloroethane	50.0	47.0		ug/L		94	76 - 126
Tetrachloroethene	50.0	47.6		ug/L		95	71 - 123
Toluene	50.0	49.1		ug/L		98	80 - 120
trans-1,2-Dichloroethene	50.0	49.4		ug/L		99	80 - 120
trans-1,3-Dichloropropene	50.0	48.9		ug/L		98	80 - 128
1,2,3-Trichlorobenzene	50.0	57.0		ug/L		114	70 - 125
1,2,4-Trichlorobenzene	50.0	50.4		ug/L		101	71 - 126
1,1,1-Trichloroethane	50.0	48.1		ug/L		96	80 - 120
1,1,2-Trichloroethane	50.0	46.7		ug/L		93	80 - 120
Trichloroethene	50.0	47.9		ug/L		96	80 - 120
Trichlorofluoromethane	50.0	50.9		ug/L		102	58 - 127
1,2,3-Trichloropropane	50.0	47.0		ug/L		94	78 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.7		ug/L		101	75 - 128
1,2,4-Trimethylbenzene	50.0	51.4		ug/L		103	80 - 120
1,3,5-Trimethylbenzene	50.0	51.4		ug/L		103	80 - 120
Vinyl chloride	50.0	51.2		ug/L		102	80 - 129
Xylenes, Total	100	99.9		ug/L		100	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*91*		*73 - 131*

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

Lab Sample ID: LCS 680-524176/4
Matrix: Water
Analysis Batch: 524176

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 680-524176/5
Matrix: Water
Analysis Batch: 524176

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	250	245		ug/L		98	68 - 132	5	30
Benzene	50.0	52.7		ug/L		105	80 - 120	7	20
Bromobenzene	50.0	52.8		ug/L		106	71 - 124	8	20
Bromodichloromethane	50.0	52.1		ug/L		104	80 - 120	8	20
Bromoform	50.0	55.1		ug/L		110	52 - 122	10	20
Bromomethane	50.0	37.4		ug/L		75	43 - 146	8	20
2-Butanone (MEK)	250	260		ug/L		104	79 - 125	11	20
Carbon disulfide	50.0	53.6		ug/L		107	77 - 129	7	20
Carbon tetrachloride	50.0	53.2		ug/L		106	67 - 125	7	20
Chlorobenzene	50.0	52.5		ug/L		105	80 - 120	10	20
Chloroethane	50.0	55.3		ug/L		111	48 - 145	7	20
Chloroform	50.0	50.5		ug/L		101	80 - 120	7	20
Chloromethane	50.0	45.9		ug/L		92	76 - 149	5	30
4-Chlorotoluene	50.0	54.0		ug/L		108	80 - 120	9	20
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	80 - 120	8	20
cis-1,3-Dichloropropene	50.0	53.0		ug/L		106	80 - 129	8	20
Cyclohexane	50.0	54.9		ug/L		110	80 - 132	5	20
Dibromochloromethane	50.0	52.9		ug/L		106	68 - 120	7	20
1,2-Dibromo-3-Chloropropane	50.0	57.5		ug/L		115	74 - 120	13	20
1,2-Dibromoethane	50.0	50.7		ug/L		101	75 - 126	9	20
Dibromomethane	50.0	50.4		ug/L		101	80 - 120	8	20
1,2-Dichlorobenzene	50.0	52.5		ug/L		105	80 - 120	10	20
1,3-Dichlorobenzene	50.0	51.3		ug/L		103	80 - 120	9	20
1,4-Dichlorobenzene	50.0	51.3		ug/L		103	80 - 120	10	20
Dichlorodifluoromethane	50.0	57.9		ug/L		116	70 - 137	6	40
1,1-Dichloroethane	50.0	50.7		ug/L		101	80 - 120	7	20
1,2-Dichloroethane	50.0	50.2		ug/L		100	72 - 128	7	50
1,1-Dichloroethene	50.0	55.7		ug/L		111	80 - 120	8	20
1,2-Dichloropropane	50.0	51.2		ug/L		102	80 - 120	8	20
1,3-Dichloropropane	50.0	50.7		ug/L		101	80 - 120	8	20
2,2-Dichloropropane	50.0	53.0		ug/L		106	80 - 135	6	20
1,1-Dichloropropene	50.0	52.9		ug/L		106	80 - 120	8	20
Ethylbenzene	50.0	54.5		ug/L		109	80 - 120	9	20
2-Hexanone	250	254		ug/L		102	80 - 131	9	20
Isopropylbenzene	50.0	54.5		ug/L		109	79 - 126	8	20
Methyl acetate	100	99.0		ug/L		99	73 - 139	7	20
Methylcyclohexane	50.0	55.7		ug/L		111	80 - 138	6	20
Methylene Chloride	50.0	52.7		ug/L		105	80 - 120	9	20
4-Methyl-2-pentanone (MIBK)	250	250		ug/L		100	80 - 134	8	20
Methyl tert-butyl ether	50.0	52.9		ug/L		106	80 - 122	9	20
m-Xylene & p-Xylene	50.0	54.4		ug/L		109	80 - 120	10	20

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

Lab Sample ID: LCSD 680-524176/5
Matrix: Water
Analysis Batch: 524176

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
o-Xylene			50.0	54.9		ug/L		110	80 - 120	8	30
p-Isopropyltoluene			50.0	56.3		ug/L		113	80 - 120	10	20
Styrene			50.0	56.3		ug/L		113	80 - 126	8	20
tert-Butylbenzene			50.0	56.3		ug/L		113	80 - 120	9	20
1,1,1,2-Tetrachloroethane			50.0	53.9		ug/L		108	73 - 124	10	20
1,1,2,2-Tetrachloroethane			50.0	53.0		ug/L		106	76 - 126	12	20
Tetrachloroethene			50.0	50.9		ug/L		102	71 - 123	7	20
Toluene			50.0	52.5		ug/L		105	80 - 120	7	20
trans-1,2-Dichloroethene			50.0	53.1		ug/L		106	80 - 120	7	20
trans-1,3-Dichloropropene			50.0	53.1		ug/L		106	80 - 128	8	30
1,2,3-Trichlorobenzene			50.0	60.0		ug/L		120	70 - 125	5	20
1,2,4-Trichlorobenzene			50.0	54.4		ug/L		109	71 - 126	8	20
1,1,1-Trichloroethane			50.0	51.8		ug/L		104	80 - 120	7	20
1,1,2-Trichloroethane			50.0	50.3		ug/L		101	80 - 120	8	20
Trichloroethene			50.0	51.7		ug/L		103	80 - 120	8	20
Trichlorofluoromethane			50.0	54.4		ug/L		109	58 - 127	7	20
1,2,3-Trichloropropane			50.0	50.9		ug/L		102	78 - 128	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	53.2		ug/L		106	75 - 128	5	20
1,2,4-Trimethylbenzene			50.0	56.3		ug/L		113	80 - 120	9	20
1,3,5-Trimethylbenzene			50.0	56.4		ug/L		113	80 - 120	9	20
Vinyl chloride			50.0	54.6		ug/L		109	80 - 129	6	20
Xylenes, Total			100	109		ug/L		109	80 - 120	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*99*		*73 - 131*
Toluene-d8 (Surr)	*108*		*80 - 120*

Lab Sample ID: MB 680-524181/9
Matrix: Water
Analysis Batch: 524181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 10:07	1
Benzene	0.43	U	1.0	0.43	ug/L			05/17/18 10:07	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 10:07	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 10:07	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 10:07	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 10:07	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 10:07	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 10:07	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 10:07	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 10:07	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 10:07	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 10:07	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 10:07	1

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

Lab Sample ID: MB 680-524181/9
Matrix: Water
Analysis Batch: 524181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 10:07	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 10:07	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 10:07	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 10:07	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 10:07	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 10:07	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 10:07	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 10:07	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 10:07	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 10:07	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 10:07	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 10:07	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 10:07	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 10:07	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 10:07	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 10:07	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 10:07	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 10:07	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 10:07	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/17/18 10:07	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 10:07	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 10:07	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 10:07	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 10:07	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 10:07	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 10:07	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/17/18 10:07	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/17/18 10:07	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/17/18 10:07	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 10:07	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 10:07	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 10:07	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 10:07	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 10:07	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 10:07	1
Toluene	0.48	U	1.0	0.48	ug/L			05/17/18 10:07	1
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 10:07	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 10:07	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 10:07	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 10:07	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 10:07	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 10:07	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 10:07	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 10:07	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 10:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 10:07	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 10:07	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 10:07	1

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

Lab Sample ID: MB 680-524181/9
Matrix: Water
Analysis Batch: 524181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 10:07	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/17/18 10:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/17/18 10:07*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 122*		*05/17/18 10:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*73 - 131*		*05/17/18 10:07*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*05/17/18 10:07*	*1*

Lab Sample ID: LCS 680-524181/4
Matrix: Water
Analysis Batch: 524181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	207		ug/L		83	68 - 132
Benzene	50.0	48.0		ug/L		96	80 - 120
Bromobenzene	50.0	45.8		ug/L		92	71 - 124
Bromodichloromethane	50.0	47.7		ug/L		95	80 - 120
Bromoform	50.0	43.9		ug/L		88	52 - 122
Bromomethane	50.0	45.0		ug/L		90	43 - 146
2-Butanone (MEK)	250	219		ug/L		88	79 - 125
Carbon disulfide	50.0	49.4		ug/L		99	77 - 129
Carbon tetrachloride	50.0	49.8		ug/L		100	67 - 125
Chlorobenzene	50.0	46.8		ug/L		94	80 - 120
Chloroethane	50.0	48.3		ug/L		97	48 - 145
Chloroform	50.0	47.8		ug/L		96	80 - 120
Chloromethane	50.0	44.8		ug/L		90	76 - 149
4-Chlorotoluene	50.0	47.3		ug/L		95	80 - 120
cis-1,2-Dichloroethene	50.0	49.5		ug/L		99	80 - 120
cis-1,3-Dichloropropene	50.0	48.1		ug/L		96	80 - 129
Cyclohexane	50.0	54.1		ug/L		108	80 - 132
Dibromochloromethane	50.0	43.5		ug/L		87	68 - 120
1,2-Dibromo-3-Chloropropane	50.0	44.3		ug/L		89	74 - 120
1,2-Dibromoethane	50.0	44.3		ug/L		89	75 - 126
Dibromomethane	50.0	43.0		ug/L		86	80 - 120
1,2-Dichlorobenzene	50.0	47.7		ug/L		95	80 - 120
1,3-Dichlorobenzene	50.0	48.8		ug/L		98	80 - 120
1,4-Dichlorobenzene	50.0	47.6		ug/L		95	80 - 120
Dichlorodifluoromethane	50.0	49.3		ug/L		99	70 - 137
1,1-Dichloroethane	50.0	49.1		ug/L		98	80 - 120
1,2-Dichloroethane	50.0	48.4		ug/L		97	72 - 128
1,1-Dichloroethene	50.0	50.7		ug/L		101	80 - 120
1,2-Dichloropropane	50.0	47.9		ug/L		96	80 - 120
1,3-Dichloropropane	50.0	46.4		ug/L		93	80 - 120
2,2-Dichloropropane	50.0	48.7		ug/L		97	80 - 135
1,1-Dichloropropene	50.0	51.4		ug/L		103	80 - 120
Ethylbenzene	50.0	48.7		ug/L		97	80 - 120
2-Hexanone	250	234		ug/L		94	80 - 131

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

Lab Sample ID: LCS 680-524181/4
Matrix: Water
Analysis Batch: 524181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	50.0	49.3		ug/L		99	79 - 126
Methyl acetate	100	93.3		ug/L		93	73 - 139
Methylcyclohexane	50.0	53.8		ug/L		108	80 - 138
Methylene Chloride	50.0	45.6		ug/L		91	80 - 120
4-Methyl-2-pentanone (MIBK)	250	235		ug/L		94	80 - 134
Methyl tert-butyl ether	50.0	43.4		ug/L		87	80 - 122
m-Xylene & p-Xylene	50.0	48.8		ug/L		98	80 - 120
o-Xylene	50.0	48.1		ug/L		96	80 - 120
p-Isopropyltoluene	50.0	51.0		ug/L		102	80 - 120
Styrene	50.0	46.7		ug/L		93	80 - 126
tert-Butylbenzene	50.0	48.4		ug/L		97	80 - 120
1,1,1,2-Tetrachloroethane	50.0	45.2		ug/L		90	73 - 124
1,1,2,2-Tetrachloroethane	50.0	44.3		ug/L		89	76 - 126
Tetrachloroethene	50.0	49.2		ug/L		98	71 - 123
Toluene	50.0	47.9		ug/L		96	80 - 120
trans-1,2-Dichloroethene	50.0	47.5		ug/L		95	80 - 120
trans-1,3-Dichloropropene	50.0	46.7		ug/L		93	80 - 128
1,2,3-Trichlorobenzene	50.0	47.7		ug/L		95	70 - 125
1,2,4-Trichlorobenzene	50.0	49.3		ug/L		99	71 - 126
1,1,1-Trichloroethane	50.0	51.4		ug/L		103	80 - 120
1,1,2-Trichloroethane	50.0	45.8		ug/L		92	80 - 120
Trichloroethene	50.0	48.1		ug/L		96	80 - 120
Trichlorofluoromethane	50.0	52.7		ug/L		105	58 - 127
1,2,3-Trichloropropane	50.0	41.7		ug/L		83	78 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.1		ug/L		98	75 - 128
1,2,4-Trimethylbenzene	50.0	47.8		ug/L		96	80 - 120
1,3,5-Trimethylbenzene	50.0	48.8		ug/L		98	80 - 120
Vinyl chloride	50.0	51.2		ug/L		102	80 - 129
Xylenes, Total	100	96.9		ug/L		97	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*90*		*73 - 131*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: LCSD 680-524181/5
Matrix: Water
Analysis Batch: 524181

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	250	221		ug/L		88	68 - 132	6	30
Benzene	50.0	48.9		ug/L		98	80 - 120	2	20
Bromobenzene	50.0	48.1		ug/L		96	71 - 124	5	20
Bromodichloromethane	50.0	49.9		ug/L		100	80 - 120	5	20
Bromoform	50.0	46.9		ug/L		94	52 - 122	7	20
Bromomethane	50.0	47.2		ug/L		94	43 - 146	5	20

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

Lab Sample ID: LCSD 680-524181/5
Matrix: Water
Analysis Batch: 524181

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
2-Butanone (MEK)	250	234		ug/L		94	79 - 125	6	20
Carbon disulfide	50.0	49.1		ug/L		98	77 - 129	1	20
Carbon tetrachloride	50.0	51.4		ug/L		103	67 - 125	3	20
Chlorobenzene	50.0	48.2		ug/L		96	80 - 120	3	20
Chloroethane	50.0	48.5		ug/L		97	48 - 145	0	20
Chloroform	50.0	49.2		ug/L		98	80 - 120	3	20
Chloromethane	50.0	46.8		ug/L		94	76 - 149	4	30
4-Chlorotoluene	50.0	49.3		ug/L		99	80 - 120	4	20
cis-1,2-Dichloroethene	50.0	50.4		ug/L		101	80 - 120	2	20
cis-1,3-Dichloropropene	50.0	49.8		ug/L		100	80 - 129	3	20
Cyclohexane	50.0	54.3		ug/L		109	80 - 132	0	20
Dibromochloromethane	50.0	46.1		ug/L		92	68 - 120	6	20
1,2-Dibromo-3-Chloropropane	50.0	46.7		ug/L		93	74 - 120	5	20
1,2-Dibromoethane	50.0	47.0		ug/L		94	75 - 126	6	20
Dibromomethane	50.0	45.8		ug/L		92	80 - 120	6	20
1,2-Dichlorobenzene	50.0	49.5		ug/L		99	80 - 120	4	20
1,3-Dichlorobenzene	50.0	49.7		ug/L		99	80 - 120	2	20
1,4-Dichlorobenzene	50.0	48.9		ug/L		98	80 - 120	3	20
Dichlorodifluoromethane	50.0	48.9		ug/L		98	70 - 137	1	40
1,1-Dichloroethane	50.0	50.6		ug/L		101	80 - 120	3	20
1,2-Dichloroethane	50.0	51.0		ug/L		102	72 - 128	5	50
1,1-Dichloroethene	50.0	51.0		ug/L		102	80 - 120	1	20
1,2-Dichloropropane	50.0	49.5		ug/L		99	80 - 120	3	20
1,3-Dichloropropane	50.0	49.1		ug/L		98	80 - 120	6	20
2,2-Dichloropropane	50.0	49.1		ug/L		98	80 - 135	1	20
1,1-Dichloropropene	50.0	51.7		ug/L		103	80 - 120	1	20
Ethylbenzene	50.0	50.2		ug/L		100	80 - 120	3	20
2-Hexanone	250	251		ug/L		100	80 - 131	7	20
Isopropylbenzene	50.0	50.5		ug/L		101	79 - 126	2	20
Methyl acetate	100	98.9		ug/L		99	73 - 139	6	20
Methylcyclohexane	50.0	53.8		ug/L		108	80 - 138	0	20
Methylene Chloride	50.0	46.7		ug/L		93	80 - 120	2	20
4-Methyl-2-pentanone (MIBK)	250	252		ug/L		101	80 - 134	7	20
Methyl tert-butyl ether	50.0	45.8		ug/L		92	80 - 122	5	20
m-Xylene & p-Xylene	50.0	50.5		ug/L		101	80 - 120	3	20
o-Xylene	50.0	49.1		ug/L		98	80 - 120	2	30
p-Isopropyltoluene	50.0	51.8		ug/L		104	80 - 120	2	20
Styrene	50.0	48.2		ug/L		96	80 - 126	3	20
tert-Butylbenzene	50.0	50.0		ug/L		100	80 - 120	3	20
1,1,1,2-Tetrachloroethane	50.0	46.5		ug/L		93	73 - 124	3	20
1,1,2,2-Tetrachloroethane	50.0	47.7		ug/L		95	76 - 126	8	20
Tetrachloroethene	50.0	50.3		ug/L		101	71 - 123	2	20
Toluene	50.0	49.0		ug/L		98	80 - 120	2	20
trans-1,2-Dichloroethene	50.0	48.5		ug/L		97	80 - 120	2	20
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	80 - 128	6	30
1,2,3-Trichlorobenzene	50.0	50.0		ug/L		100	70 - 125	5	20
1,2,4-Trichlorobenzene	50.0	51.0		ug/L		102	71 - 126	4	20
1,1,1-Trichloroethane	50.0	52.2		ug/L		104	80 - 120	2	20

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

Lab Sample ID: LCSD 680-524181/5
Matrix: Water
Analysis Batch: 524181

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	48.2		ug/L		96	80 - 120	5	20
Trichloroethene			50.0	49.6		ug/L		99	80 - 120	3	20
Trichlorofluoromethane			50.0	52.7		ug/L		105	58 - 127	0	20
1,2,3-Trichloropropane			50.0	44.5		ug/L		89	78 - 128	7	30
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	49.4		ug/L		99	75 - 128	0	20
1,2,4-Trimethylbenzene			50.0	49.9		ug/L		100	80 - 120	4	20
1,3,5-Trimethylbenzene			50.0	49.9		ug/L		100	80 - 120	2	20
Vinyl chloride			50.0	51.1		ug/L		102	80 - 129	0	20
Xylenes, Total			100	99.6		ug/L		100	80 - 120	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*93*		*73 - 131*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LB 680-524024/1-A
Matrix: Water
Analysis Batch: 524185

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

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	176	J	200	140	ug/L			05/17/18 14:37	20
Benzene	8.6	U	20	8.6	ug/L			05/17/18 14:37	20
Bromobenzene	10	U	20	10	ug/L			05/17/18 14:37	20
Bromodichloromethane	8.8	U	20	8.8	ug/L			05/17/18 14:37	20
Bromoform	8.6	U	20	8.6	ug/L			05/17/18 14:37	20
Bromomethane	50	U	100	50	ug/L			05/17/18 14:37	20
2-Butanone (MEK)	68	U	200	68	ug/L			05/17/18 14:37	20
Carbon disulfide	20	U	40	20	ug/L			05/17/18 14:37	20
Carbon tetrachloride	6.6	U	20	6.6	ug/L			05/17/18 14:37	20
Chlorobenzene	5.2	U	20	5.2	ug/L			05/17/18 14:37	20
Chloroethane	50	U	100	50	ug/L			05/17/18 14:37	20
Chloroform	10	U	20	10	ug/L			05/17/18 14:37	20
Chloromethane	8.0	U	20	8.0	ug/L			05/17/18 14:37	20
4-Chlorotoluene	9.0	U	20	9.0	ug/L			05/17/18 14:37	20
cis-1,2-Dichloroethene	8.2	U	20	8.2	ug/L			05/17/18 14:37	20
cis-1,3-Dichloropropene	8.0	U	20	8.0	ug/L			05/17/18 14:37	20
Cyclohexane	7.8	U	20	7.8	ug/L			05/17/18 14:37	20
Dibromochloromethane	6.4	U	20	6.4	ug/L			05/17/18 14:37	20
1,2-Dibromo-3-Chloropropane	22	U	100	22	ug/L			05/17/18 14:37	20
1,2-Dibromoethane	8.8	U	20	8.8	ug/L			05/17/18 14:37	20
Dibromomethane	7.0	U	20	7.0	ug/L			05/17/18 14:37	20
1,2-Dichlorobenzene	7.4	U	20	7.4	ug/L			05/17/18 14:37	20
1,3-Dichlorobenzene	8.6	U	20	8.6	ug/L			05/17/18 14:37	20
1,4-Dichlorobenzene	9.2	U	20	9.2	ug/L			05/17/18 14:37	20
Dichlorodifluoromethane	12	U	20	12	ug/L			05/17/18 14:37	20
1,1-Dichloroethane	7.6	U	20	7.6	ug/L			05/17/18 14:37	20

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

Lab Sample ID: LB 680-524024/1-A
Matrix: Water
Analysis Batch: 524185

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

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	10	U	20	10	ug/L			05/17/18 14:37	20
1,1-Dichloroethene	7.2	U	20	7.2	ug/L			05/17/18 14:37	20
1,2-Dichloropropane	13	U	20	13	ug/L			05/17/18 14:37	20
1,3-Dichloropropane	6.8	U	20	6.8	ug/L			05/17/18 14:37	20
2,2-Dichloropropane	7.4	U	20	7.4	ug/L			05/17/18 14:37	20
1,1-Dichloropropene	6.8	U	20	6.8	ug/L			05/17/18 14:37	20
Ethylbenzene	6.6	U	20	6.6	ug/L			05/17/18 14:37	20
2-Hexanone	40	U	200	40	ug/L			05/17/18 14:37	20
Isopropylbenzene	7.0	U	20	7.0	ug/L			05/17/18 14:37	20
Methyl acetate	36	U	100	36	ug/L			05/17/18 14:37	20
Methylcyclohexane	8.6	U	20	8.6	ug/L			05/17/18 14:37	20
Methylene Chloride	50	U	100	50	ug/L			05/17/18 14:37	20
4-Methyl-2-pentanone (MIBK)	42	U	200	42	ug/L			05/17/18 14:37	20
Methyl tert-butyl ether	6.0	U	200	6.0	ug/L			05/17/18 14:37	20
m-Xylene & p-Xylene	7.0	U	20	7.0	ug/L			05/17/18 14:37	20
o-Xylene	4.6	U	20	4.6	ug/L			05/17/18 14:37	20
p-Isopropyltoluene	9.6	U	20	9.6	ug/L			05/17/18 14:37	20
Styrene	5.4	U	20	5.4	ug/L			05/17/18 14:37	20
tert-Butylbenzene	9.0	U	20	9.0	ug/L			05/17/18 14:37	20
1,1,1,2-Tetrachloroethane	7.4	U	20	7.4	ug/L			05/17/18 14:37	20
1,1,2,2-Tetrachloroethane	12	U	20	12	ug/L			05/17/18 14:37	20
Tetrachloroethene	15	U	20	15	ug/L			05/17/18 14:37	20
Toluene	9.6	U	20	9.6	ug/L			05/17/18 14:37	20
trans-1,2-Dichloroethene	7.4	U	20	7.4	ug/L			05/17/18 14:37	20
trans-1,3-Dichloropropene	8.4	U	20	8.4	ug/L			05/17/18 14:37	20
1,2,3-Trichlorobenzene	50	U	100	50	ug/L			05/17/18 14:37	20
1,2,4-Trichlorobenzene	50	U	100	50	ug/L			05/17/18 14:37	20
1,1,1-Trichloroethane	7.4	U	20	7.4	ug/L			05/17/18 14:37	20
1,1,2-Trichloroethane	6.6	U	20	6.6	ug/L			05/17/18 14:37	20
Trichloroethene	9.6	U	20	9.6	ug/L			05/17/18 14:37	20
Trichlorofluoromethane	8.4	U	20	8.4	ug/L			05/17/18 14:37	20
1,2,3-Trichloropropane	7.8	U	20	7.8	ug/L			05/17/18 14:37	20
1,1,2-Trichloro-1,2,2-trifluoroethane	7.2	U	20	7.2	ug/L			05/17/18 14:37	20
1,2,4-Trimethylbenzene	9.4	U	20	9.4	ug/L			05/17/18 14:37	20
1,3,5-Trimethylbenzene	6.2	U	20	6.2	ug/L			05/17/18 14:37	20
Vinyl chloride	10	U	20	10	ug/L			05/17/18 14:37	20
Xylenes, Total	4.6	U	20	4.6	ug/L			05/17/18 14:37	20

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*05/17/18 14:37*	*20*
Dibromofluoromethane (Surr)	*107*		*80 - 122*		*05/17/18 14:37*	*20*
1,2-Dichloroethane-d4 (Surr)	*102*		*73 - 131*		*05/17/18 14:37*	*20*
Toluene-d8 (Surr)	*104*		*80 - 120*		*05/17/18 14:37*	*20*

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

Lab Sample ID: MB 680-524185/7
Matrix: Water
Analysis Batch: 524185

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/17/18 10:28	1
Benzene	0.43	U	1.0	0.43	ug/L			05/17/18 10:28	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/17/18 10:28	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/17/18 10:28	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/17/18 10:28	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/17/18 10:28	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/17/18 10:28	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/17/18 10:28	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/17/18 10:28	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/17/18 10:28	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/17/18 10:28	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/17/18 10:28	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/17/18 10:28	1
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/17/18 10:28	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/17/18 10:28	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/17/18 10:28	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/17/18 10:28	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/17/18 10:28	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/17/18 10:28	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/17/18 10:28	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/17/18 10:28	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/17/18 10:28	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/17/18 10:28	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/17/18 10:28	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/17/18 10:28	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/17/18 10:28	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/17/18 10:28	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/17/18 10:28	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/17/18 10:28	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/17/18 10:28	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/17/18 10:28	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/17/18 10:28	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/17/18 10:28	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/17/18 10:28	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/17/18 10:28	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/17/18 10:28	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/17/18 10:28	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/17/18 10:28	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/17/18 10:28	1
Methyl tert-butyl ether	0.30	U	10	0.30	ug/L			05/17/18 10:28	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/17/18 10:28	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/17/18 10:28	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/17/18 10:28	1
Styrene	0.27	U	1.0	0.27	ug/L			05/17/18 10:28	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/17/18 10:28	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 10:28	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/17/18 10:28	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/17/18 10:28	1

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

Lab Sample ID: MB 680-524185/7
Matrix: Water
Analysis Batch: 524185

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.48	U	1.0	0.48	ug/L			05/17/18 10:28	1
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/17/18 10:28	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/17/18 10:28	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 10:28	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/17/18 10:28	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/17/18 10:28	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/17/18 10:28	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/17/18 10:28	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/17/18 10:28	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/17/18 10:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/17/18 10:28	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/17/18 10:28	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/17/18 10:28	1
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/17/18 10:28	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/17/18 10:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/17/18 10:28*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 122*		*05/17/18 10:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*73 - 131*		*05/17/18 10:28*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*05/17/18 10:28*	*1*

Lab Sample ID: LCS 680-524185/3
Matrix: Water
Analysis Batch: 524185

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	253		ug/L		101	68 - 132
Benzene	50.0	51.5		ug/L		103	80 - 120
Bromobenzene	50.0	48.8		ug/L		98	71 - 124
Bromodichloromethane	50.0	52.8		ug/L		106	80 - 120
Bromoform	50.0	53.7		ug/L		107	52 - 122
Bromomethane	50.0	47.2		ug/L		94	43 - 146
2-Butanone (MEK)	250	282		ug/L		113	79 - 125
Carbon disulfide	50.0	51.0		ug/L		102	77 - 129
Carbon tetrachloride	50.0	57.3		ug/L		115	67 - 125
Chlorobenzene	50.0	51.3		ug/L		103	80 - 120
Chloroethane	50.0	55.8		ug/L		112	48 - 145
Chloroform	50.0	52.1		ug/L		104	80 - 120
Chloromethane	50.0	45.9		ug/L		92	76 - 149
4-Chlorotoluene	50.0	50.5		ug/L		101	80 - 120
cis-1,2-Dichloroethene	50.0	53.4		ug/L		107	80 - 120
cis-1,3-Dichloropropene	50.0	53.1		ug/L		106	80 - 129
Cyclohexane	50.0	56.9		ug/L		114	80 - 132
Dibromochloromethane	50.0	52.1		ug/L		104	68 - 120
1,2-Dibromo-3-Chloropropane	50.0	54.9		ug/L		110	74 - 120
1,2-Dibromoethane	50.0	49.8		ug/L		100	75 - 126
Dibromomethane	50.0	51.7		ug/L		103	80 - 120

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

Lab Sample ID: LCS 680-524185/3
Matrix: Water
Analysis Batch: 524185

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	50.0	49.8		ug/L		100	80 - 120
1,3-Dichlorobenzene	50.0	50.7		ug/L		101	80 - 120
1,4-Dichlorobenzene	50.0	50.2		ug/L		100	80 - 120
Dichlorodifluoromethane	50.0	60.1		ug/L		120	70 - 137
1,1-Dichloroethane	50.0	54.2		ug/L		108	80 - 120
1,2-Dichloroethane	50.0	54.0		ug/L		108	72 - 128
1,1-Dichloroethene	50.0	54.6		ug/L		109	80 - 120
1,2-Dichloropropane	50.0	52.6		ug/L		105	80 - 120
1,3-Dichloropropane	50.0	50.5		ug/L		101	80 - 120
2,2-Dichloropropane	50.0	57.0		ug/L		114	80 - 135
1,1-Dichloropropene	50.0	54.6		ug/L		109	80 - 120
Ethylbenzene	50.0	52.5		ug/L		105	80 - 120
2-Hexanone	250	263		ug/L		105	80 - 131
Isopropylbenzene	50.0	53.4		ug/L		107	79 - 126
Methyl acetate	100	95.3		ug/L		95	73 - 139
Methylcyclohexane	50.0	58.2		ug/L		116	80 - 138
Methylene Chloride	50.0	51.0		ug/L		102	80 - 120
4-Methyl-2-pentanone (MIBK)	250	265		ug/L		106	80 - 134
Methyl tert-butyl ether	50.0	53.4		ug/L		107	80 - 122
m-Xylene & p-Xylene	50.0	51.7		ug/L		103	80 - 120
o-Xylene	50.0	51.7		ug/L		103	80 - 120
p-Isopropyltoluene	50.0	53.2		ug/L		106	80 - 120
Styrene	50.0	52.0		ug/L		104	80 - 126
tert-Butylbenzene	50.0	50.2		ug/L		100	80 - 120
1,1,1,2-Tetrachloroethane	50.0	52.7		ug/L		105	73 - 124
1,1,2,2-Tetrachloroethane	50.0	52.4		ug/L		105	76 - 126
Tetrachloroethene	50.0	51.2		ug/L		102	71 - 123
Toluene	50.0	51.5		ug/L		103	80 - 120
trans-1,2-Dichloroethene	50.0	51.9		ug/L		104	80 - 120
trans-1,3-Dichloropropene	50.0	53.0		ug/L		106	80 - 128
1,2,3-Trichlorobenzene	50.0	49.3		ug/L		99	70 - 125
1,2,4-Trichlorobenzene	50.0	49.2		ug/L		98	71 - 126
1,1,1-Trichloroethane	50.0	55.0		ug/L		110	80 - 120
1,1,2-Trichloroethane	50.0	49.6		ug/L		99	80 - 120
Trichloroethene	50.0	51.8		ug/L		104	80 - 120
Trichlorofluoromethane	50.0	56.7		ug/L		113	58 - 127
1,2,3-Trichloropropane	50.0	52.7		ug/L		105	78 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.9		ug/L		118	75 - 128
1,2,4-Trimethylbenzene	50.0	48.0		ug/L		96	80 - 120
1,3,5-Trimethylbenzene	50.0	51.2		ug/L		102	80 - 120
Vinyl chloride	50.0	51.2		ug/L		102	80 - 129
Xylenes, Total	100	103		ug/L		103	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*102*		*73 - 131*

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

Lab Sample ID: LCS 680-524185/3
Matrix: Water
Analysis Batch: 524185

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 680-524185/4
Matrix: Water
Analysis Batch: 524185

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone			250	250		ug/L		100	68 - 132	1	30
Benzene			50.0	52.3		ug/L		105	80 - 120	1	20
Bromobenzene			50.0	49.7		ug/L		99	71 - 124	2	20
Bromodichloromethane			50.0	54.1		ug/L		108	80 - 120	2	20
Bromoform			50.0	54.6		ug/L		109	52 - 122	2	20
Bromomethane			50.0	48.8		ug/L		98	43 - 146	3	20
2-Butanone (MEK)			250	285		ug/L		114	79 - 125	1	20
Carbon disulfide			50.0	51.4		ug/L		103	77 - 129	1	20
Carbon tetrachloride			50.0	57.4		ug/L		115	67 - 125	0	20
Chlorobenzene			50.0	50.9		ug/L		102	80 - 120	1	20
Chloroethane			50.0	57.1		ug/L		114	48 - 145	2	20
Chloroform			50.0	53.7		ug/L		107	80 - 120	3	20
Chloromethane			50.0	45.9		ug/L		92	76 - 149	0	30
4-Chlorotoluene			50.0	51.6		ug/L		103	80 - 120	2	20
cis-1,2-Dichloroethene			50.0	53.2		ug/L		106	80 - 120	0	20
cis-1,3-Dichloropropene			50.0	53.1		ug/L		106	80 - 129	0	20
Cyclohexane			50.0	56.7		ug/L		113	80 - 132	0	20
Dibromochloromethane			50.0	52.7		ug/L		105	68 - 120	1	20
1,2-Dibromo-3-Chloropropane			50.0	54.9		ug/L		110	74 - 120	0	20
1,2-Dibromoethane			50.0	52.3		ug/L		105	75 - 126	5	20
Dibromomethane			50.0	52.3		ug/L		105	80 - 120	1	20
1,2-Dichlorobenzene			50.0	51.7		ug/L		103	80 - 120	4	20
1,3-Dichlorobenzene			50.0	51.7		ug/L		103	80 - 120	2	20
1,4-Dichlorobenzene			50.0	50.8		ug/L		102	80 - 120	1	20
Dichlorodifluoromethane			50.0	62.5		ug/L		125	70 - 137	4	40
1,1-Dichloroethane			50.0	54.4		ug/L		109	80 - 120	0	20
1,2-Dichloroethane			50.0	54.7		ug/L		109	72 - 128	1	50
1,1-Dichloroethene			50.0	53.7		ug/L		107	80 - 120	2	20
1,2-Dichloropropane			50.0	53.5		ug/L		107	80 - 120	2	20
1,3-Dichloropropane			50.0	53.0		ug/L		106	80 - 120	5	20
2,2-Dichloropropane			50.0	56.0		ug/L		112	80 - 135	2	20
1,1-Dichloropropene			50.0	54.8		ug/L		110	80 - 120	0	20
Ethylbenzene			50.0	53.2		ug/L		106	80 - 120	1	20
2-Hexanone			250	267		ug/L		107	80 - 131	1	20
Isopropylbenzene			50.0	52.5		ug/L		105	79 - 126	2	20
Methyl acetate			100	95.7		ug/L		96	73 - 139	0	20
Methylcyclohexane			50.0	58.2		ug/L		116	80 - 138	0	20
Methylene Chloride			50.0	51.5		ug/L		103	80 - 120	1	20
4-Methyl-2-pentanone (MIBK)			250	270		ug/L		108	80 - 134	2	20
Methyl tert-butyl ether			50.0	53.5		ug/L		107	80 - 122	0	20
m-Xylene & p-Xylene			50.0	52.2		ug/L		104	80 - 120	1	20

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

Lab Sample ID: LCSD 680-524185/4
Matrix: Water
Analysis Batch: 524185

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
o-Xylene			50.0	51.5		ug/L		103	80 - 120	0	30
p-Isopropyltoluene			50.0	52.8		ug/L		106	80 - 120	1	20
Styrene			50.0	52.9		ug/L		106	80 - 126	2	20
tert-Butylbenzene			50.0	50.6		ug/L		101	80 - 120	1	20
1,1,1,2-Tetrachloroethane			50.0	53.2		ug/L		106	73 - 124	1	20
1,1,2,2-Tetrachloroethane			50.0	52.5		ug/L		105	76 - 126	0	20
Tetrachloroethene			50.0	52.7		ug/L		105	71 - 123	3	20
Toluene			50.0	52.0		ug/L		104	80 - 120	1	20
trans-1,2-Dichloroethene			50.0	52.6		ug/L		105	80 - 120	1	20
trans-1,3-Dichloropropene			50.0	54.2		ug/L		108	80 - 128	2	30
1,2,3-Trichlorobenzene			50.0	50.3		ug/L		101	70 - 125	2	20
1,2,4-Trichlorobenzene			50.0	50.5		ug/L		101	71 - 126	3	20
1,1,1-Trichloroethane			50.0	55.5		ug/L		111	80 - 120	1	20
1,1,2-Trichloroethane			50.0	50.7		ug/L		101	80 - 120	2	20
Trichloroethene			50.0	51.3		ug/L		103	80 - 120	1	20
Trichlorofluoromethane			50.0	54.1		ug/L		108	58 - 127	5	20
1,2,3-Trichloropropane			50.0	53.7		ug/L		107	78 - 128	2	30
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	59.1		ug/L		118	75 - 128	0	20
1,2,4-Trimethylbenzene			50.0	48.3		ug/L		97	80 - 120	1	20
1,3,5-Trimethylbenzene			50.0	51.6		ug/L		103	80 - 120	1	20
Vinyl chloride			50.0	51.6		ug/L		103	80 - 129	1	20
Xylenes, Total			100	104		ug/L		104	80 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*105*		*73 - 131*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 680-524442/9
Matrix: Water
Analysis Batch: 524442

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	7.0	U	10	7.0	ug/L			05/18/18 10:35	1
Benzene	0.43	U	1.0	0.43	ug/L			05/18/18 10:35	1
Bromobenzene	0.50	U	1.0	0.50	ug/L			05/18/18 10:35	1
Bromodichloromethane	0.44	U	1.0	0.44	ug/L			05/18/18 10:35	1
Bromoform	0.43	U	1.0	0.43	ug/L			05/18/18 10:35	1
Bromomethane	2.5	U	5.0	2.5	ug/L			05/18/18 10:35	1
2-Butanone (MEK)	3.4	U	10	3.4	ug/L			05/18/18 10:35	1
Carbon disulfide	1.0	U	2.0	1.0	ug/L			05/18/18 10:35	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			05/18/18 10:35	1
Chlorobenzene	0.26	U	1.0	0.26	ug/L			05/18/18 10:35	1
Chloroethane	2.5	U	5.0	2.5	ug/L			05/18/18 10:35	1
Chloroform	0.50	U	1.0	0.50	ug/L			05/18/18 10:35	1
Chloromethane	0.40	U	1.0	0.40	ug/L			05/18/18 10:35	1

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

Lab Sample ID: MB 680-524442/9
Matrix: Water
Analysis Batch: 524442

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.45	U	1.0	0.45	ug/L			05/18/18 10:35	1
cis-1,2-Dichloroethene	0.41	U	1.0	0.41	ug/L			05/18/18 10:35	1
cis-1,3-Dichloropropene	0.40	U	1.0	0.40	ug/L			05/18/18 10:35	1
Cyclohexane	0.39	U	1.0	0.39	ug/L			05/18/18 10:35	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			05/18/18 10:35	1
1,2-Dibromo-3-Chloropropane	1.1	U	5.0	1.1	ug/L			05/18/18 10:35	1
1,2-Dibromoethane	0.44	U	1.0	0.44	ug/L			05/18/18 10:35	1
Dibromomethane	0.35	U	1.0	0.35	ug/L			05/18/18 10:35	1
1,2-Dichlorobenzene	0.37	U	1.0	0.37	ug/L			05/18/18 10:35	1
1,3-Dichlorobenzene	0.43	U	1.0	0.43	ug/L			05/18/18 10:35	1
1,4-Dichlorobenzene	0.46	U	1.0	0.46	ug/L			05/18/18 10:35	1
Dichlorodifluoromethane	0.60	U	1.0	0.60	ug/L			05/18/18 10:35	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			05/18/18 10:35	1
1,2-Dichloroethane	0.50	U	1.0	0.50	ug/L			05/18/18 10:35	1
1,1-Dichloroethene	0.36	U	1.0	0.36	ug/L			05/18/18 10:35	1
1,2-Dichloropropane	0.67	U	1.0	0.67	ug/L			05/18/18 10:35	1
1,3-Dichloropropane	0.34	U	1.0	0.34	ug/L			05/18/18 10:35	1
2,2-Dichloropropane	0.37	U	1.0	0.37	ug/L			05/18/18 10:35	1
1,1-Dichloropropene	0.34	U	1.0	0.34	ug/L			05/18/18 10:35	1
Ethylbenzene	0.33	U	1.0	0.33	ug/L			05/18/18 10:35	1
2-Hexanone	2.0	U	10	2.0	ug/L			05/18/18 10:35	1
Isopropylbenzene	0.35	U	1.0	0.35	ug/L			05/18/18 10:35	1
Methyl acetate	1.8	U	5.0	1.8	ug/L			05/18/18 10:35	1
Methylcyclohexane	0.43	U	1.0	0.43	ug/L			05/18/18 10:35	1
Methylene Chloride	2.5	U	5.0	2.5	ug/L			05/18/18 10:35	1
4-Methyl-2-pentanone (MIBK)	2.1	U	10	2.1	ug/L			05/18/18 10:35	1
Methyl tert-butyl ether	0.380	J	10	0.30	ug/L			05/18/18 10:35	1
m-Xylene & p-Xylene	0.35	U	1.0	0.35	ug/L			05/18/18 10:35	1
o-Xylene	0.23	U	1.0	0.23	ug/L			05/18/18 10:35	1
p-Isopropyltoluene	0.48	U	1.0	0.48	ug/L			05/18/18 10:35	1
Styrene	0.27	U	1.0	0.27	ug/L			05/18/18 10:35	1
tert-Butylbenzene	0.45	U	1.0	0.45	ug/L			05/18/18 10:35	1
1,1,1,2-Tetrachloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 10:35	1
1,1,2,2-Tetrachloroethane	0.62	U	1.0	0.62	ug/L			05/18/18 10:35	1
Tetrachloroethene	0.74	U	1.0	0.74	ug/L			05/18/18 10:35	1
Toluene	0.48	U	1.0	0.48	ug/L			05/18/18 10:35	1
trans-1,2-Dichloroethene	0.37	U	1.0	0.37	ug/L			05/18/18 10:35	1
trans-1,3-Dichloropropene	0.42	U	1.0	0.42	ug/L			05/18/18 10:35	1
1,2,3-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 10:35	1
1,2,4-Trichlorobenzene	2.5	U	5.0	2.5	ug/L			05/18/18 10:35	1
1,1,1-Trichloroethane	0.37	U	1.0	0.37	ug/L			05/18/18 10:35	1
1,1,2-Trichloroethane	0.33	U	1.0	0.33	ug/L			05/18/18 10:35	1
Trichloroethene	0.48	U	1.0	0.48	ug/L			05/18/18 10:35	1
Trichlorofluoromethane	0.42	U	1.0	0.42	ug/L			05/18/18 10:35	1
1,2,3-Trichloropropane	0.39	U	1.0	0.39	ug/L			05/18/18 10:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.0	0.36	ug/L			05/18/18 10:35	1
1,2,4-Trimethylbenzene	0.47	U	1.0	0.47	ug/L			05/18/18 10:35	1
1,3,5-Trimethylbenzene	0.31	U	1.0	0.31	ug/L			05/18/18 10:35	1

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

Lab Sample ID: MB 680-524442/9
Matrix: Water
Analysis Batch: 524442

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.50	U	1.0	0.50	ug/L			05/18/18 10:35	1
Xylenes, Total	0.23	U	1.0	0.23	ug/L			05/18/18 10:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/18/18 10:35*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 122*		*05/18/18 10:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*73 - 131*		*05/18/18 10:35*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/18/18 10:35*	*1*

Lab Sample ID: LCS 680-524442/4
Matrix: Water
Analysis Batch: 524442

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	250	241		ug/L		96	68 - 132
Benzene	50.0	51.0		ug/L		102	80 - 120
Bromobenzene	50.0	49.9		ug/L		100	71 - 124
Bromodichloromethane	50.0	50.1		ug/L		100	80 - 120
Bromoform	50.0	50.8		ug/L		102	52 - 122
Bromomethane	50.0	40.3		ug/L		81	43 - 146
2-Butanone (MEK)	250	249		ug/L		99	79 - 125
Carbon disulfide	50.0	53.0		ug/L		106	77 - 129
Carbon tetrachloride	50.0	51.6		ug/L		103	67 - 125
Chlorobenzene	50.0	49.3		ug/L		99	80 - 120
Chloroethane	50.0	54.5		ug/L		109	48 - 145
Chloroform	50.0	48.7		ug/L		97	80 - 120
Chloromethane	50.0	48.7		ug/L		97	76 - 149
4-Chlorotoluene	50.0	51.0		ug/L		102	80 - 120
cis-1,2-Dichloroethene	50.0	49.8		ug/L		100	80 - 120
cis-1,3-Dichloropropene	50.0	51.9		ug/L		104	80 - 129
Cyclohexane	50.0	55.1		ug/L		110	80 - 132
Dibromochloromethane	50.0	50.1		ug/L		100	68 - 120
1,2-Dibromo-3-Chloropropane	50.0	55.6		ug/L		111	74 - 120
1,2-Dibromoethane	50.0	48.4		ug/L		97	75 - 126
Dibromomethane	50.0	48.3		ug/L		97	80 - 120
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	80 - 120
1,3-Dichlorobenzene	50.0	49.5		ug/L		99	80 - 120
1,4-Dichlorobenzene	50.0	49.4		ug/L		99	80 - 120
Dichlorodifluoromethane	50.0	58.7		ug/L		117	70 - 137
1,1-Dichloroethane	50.0	49.1		ug/L		98	80 - 120
1,2-Dichloroethane	50.0	47.9		ug/L		96	72 - 128
1,1-Dichloroethene	50.0	55.1		ug/L		110	80 - 120
1,2-Dichloropropane	50.0	49.4		ug/L		99	80 - 120
1,3-Dichloropropane	50.0	48.7		ug/L		97	80 - 120
2,2-Dichloropropane	50.0	51.2		ug/L		102	80 - 135
1,1-Dichloropropene	50.0	51.8		ug/L		104	80 - 120
Ethylbenzene	50.0	51.7		ug/L		103	80 - 120
2-Hexanone	250	246		ug/L		99	80 - 131

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

Lab Sample ID: LCS 680-524442/4
Matrix: Water
Analysis Batch: 524442

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	50.0	52.2		ug/L		104	79 - 126
Methyl acetate	100	95.7		ug/L		96	73 - 139
Methylcyclohexane	50.0	56.4		ug/L		113	80 - 138
Methylene Chloride	50.0	50.6		ug/L		101	80 - 120
4-Methyl-2-pentanone (MIBK)	250	243		ug/L		97	80 - 134
Methyl tert-butyl ether	50.0	50.5		ug/L		101	80 - 122
m-Xylene & p-Xylene	50.0	51.9		ug/L		104	80 - 120
o-Xylene	50.0	52.4		ug/L		105	80 - 120
p-Isopropyltoluene	50.0	54.6		ug/L		109	80 - 120
Styrene	50.0	52.9		ug/L		106	80 - 126
tert-Butylbenzene	50.0	54.3		ug/L		109	80 - 120
1,1,1,2-Tetrachloroethane	50.0	50.7		ug/L		101	73 - 124
1,1,2,2-Tetrachloroethane	50.0	51.0		ug/L		102	76 - 126
Tetrachloroethene	50.0	49.4		ug/L		99	71 - 123
Toluene	50.0	51.0		ug/L		102	80 - 120
trans-1,2-Dichloroethene	50.0	51.8		ug/L		104	80 - 120
trans-1,3-Dichloropropene	50.0	50.6		ug/L		101	80 - 128
1,2,3-Trichlorobenzene	50.0	60.4		ug/L		121	70 - 125
1,2,4-Trichlorobenzene	50.0	53.9		ug/L		108	71 - 126
1,1,1-Trichloroethane	50.0	50.3		ug/L		101	80 - 120
1,1,2-Trichloroethane	50.0	48.4		ug/L		97	80 - 120
Trichloroethene	50.0	50.1		ug/L		100	80 - 120
Trichlorofluoromethane	50.0	53.5		ug/L		107	58 - 127
1,2,3-Trichloropropane	50.0	48.0		ug/L		96	78 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.2		ug/L		106	75 - 128
1,2,4-Trimethylbenzene	50.0	52.9		ug/L		106	80 - 120
1,3,5-Trimethylbenzene	50.0	53.3		ug/L		107	80 - 120
Vinyl chloride	50.0	54.1		ug/L		108	80 - 129
Xylenes, Total	100	104		ug/L		104	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*94*		*73 - 131*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 680-524442/5
Matrix: Water
Analysis Batch: 524442

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	250	253		ug/L		101	68 - 132	5	30
Benzene	50.0	52.6		ug/L		105	80 - 120	3	20
Bromobenzene	50.0	52.7		ug/L		105	71 - 124	6	20
Bromodichloromethane	50.0	52.2		ug/L		104	80 - 120	4	20
Bromoform	50.0	53.9		ug/L		108	52 - 122	6	20
Bromomethane	50.0	41.8		ug/L		84	43 - 146	3	20

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

Lab Sample ID: LCSD 680-524442/5
Matrix: Water
Analysis Batch: 524442

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
2-Butanone (MEK)	250	267		ug/L		107	79 - 125	7	20
Carbon disulfide	50.0	54.2		ug/L		108	77 - 129	2	20
Carbon tetrachloride	50.0	53.3		ug/L		107	67 - 125	3	20
Chlorobenzene	50.0	52.1		ug/L		104	80 - 120	5	20
Chloroethane	50.0	55.8		ug/L		112	48 - 145	2	20
Chloroform	50.0	50.8		ug/L		102	80 - 120	4	20
Chloromethane	50.0	49.8		ug/L		100	76 - 149	2	30
4-Chlorotoluene	50.0	54.1		ug/L		108	80 - 120	6	20
cis-1,2-Dichloroethene	50.0	51.6		ug/L		103	80 - 120	4	20
cis-1,3-Dichloropropene	50.0	53.6		ug/L		107	80 - 129	3	20
Cyclohexane	50.0	57.7		ug/L		115	80 - 132	5	20
Dibromochloromethane	50.0	53.1		ug/L		106	68 - 120	6	20
1,2-Dibromo-3-Chloropropane	50.0	58.4		ug/L		117	74 - 120	5	20
1,2-Dibromoethane	50.0	51.5		ug/L		103	75 - 126	6	20
Dibromomethane	50.0	50.6		ug/L		101	80 - 120	5	20
1,2-Dichlorobenzene	50.0	53.0		ug/L		106	80 - 120	6	20
1,3-Dichlorobenzene	50.0	52.3		ug/L		105	80 - 120	6	20
1,4-Dichlorobenzene	50.0	51.7		ug/L		103	80 - 120	4	20
Dichlorodifluoromethane	50.0	60.1		ug/L		120	70 - 137	2	40
1,1-Dichloroethane	50.0	50.7		ug/L		101	80 - 120	3	20
1,2-Dichloroethane	50.0	50.4		ug/L		101	72 - 128	5	50
1,1-Dichloroethene	50.0	56.4		ug/L		113	80 - 120	2	20
1,2-Dichloropropane	50.0	51.7		ug/L		103	80 - 120	5	20
1,3-Dichloropropane	50.0	51.6		ug/L		103	80 - 120	6	20
2,2-Dichloropropane	50.0	53.1		ug/L		106	80 - 135	4	20
1,1-Dichloropropene	50.0	53.8		ug/L		108	80 - 120	4	20
Ethylbenzene	50.0	54.3		ug/L		109	80 - 120	5	20
2-Hexanone	250	263		ug/L		105	80 - 131	7	20
Isopropylbenzene	50.0	54.9		ug/L		110	79 - 126	5	20
Methyl acetate	100	99.6		ug/L		100	73 - 139	4	20
Methylcyclohexane	50.0	57.6		ug/L		115	80 - 138	2	20
Methylene Chloride	50.0	51.5		ug/L		103	80 - 120	2	20
4-Methyl-2-pentanone (MIBK)	250	259		ug/L		104	80 - 134	7	20
Methyl tert-butyl ether	50.0	52.5		ug/L		105	80 - 122	4	20
m-Xylene & p-Xylene	50.0	54.6		ug/L		109	80 - 120	5	20
o-Xylene	50.0	55.0		ug/L		110	80 - 120	5	30
p-Isopropyltoluene	50.0	57.0		ug/L		114	80 - 120	4	20
Styrene	50.0	56.0		ug/L		112	80 - 126	6	20
tert-Butylbenzene	50.0	56.4		ug/L		113	80 - 120	4	20
1,1,1,2-Tetrachloroethane	50.0	53.5		ug/L		107	73 - 124	5	20
1,1,2,2-Tetrachloroethane	50.0	53.2		ug/L		106	76 - 126	4	20
Tetrachloroethene	50.0	51.5		ug/L		103	71 - 123	4	20
Toluene	50.0	53.5		ug/L		107	80 - 120	5	20
trans-1,2-Dichloroethene	50.0	53.0		ug/L		106	80 - 120	2	20
trans-1,3-Dichloropropene	50.0	53.2		ug/L		106	80 - 128	5	30
1,2,3-Trichlorobenzene	50.0	63.4	*	ug/L		127	70 - 125	5	20
1,2,4-Trichlorobenzene	50.0	57.4		ug/L		115	71 - 126	6	20
1,1,1-Trichloroethane	50.0	51.7		ug/L		103	80 - 120	3	20

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

Lab Sample ID: LCSD 680-524442/5
Matrix: Water
Analysis Batch: 524442

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	51.3		ug/L		103	80 - 120	6	20
Trichloroethene			50.0	52.2		ug/L		104	80 - 120	4	20
Trichlorofluoromethane			50.0	54.7		ug/L		109	58 - 127	2	20
1,2,3-Trichloropropane			50.0	51.5		ug/L		103	78 - 128	7	30
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	55.4		ug/L		111	75 - 128	4	20
1,2,4-Trimethylbenzene			50.0	56.4		ug/L		113	80 - 120	6	20
1,3,5-Trimethylbenzene			50.0	56.6		ug/L		113	80 - 120	6	20
Vinyl chloride			50.0	56.0		ug/L		112	80 - 129	3	20
Xylenes, Total			100	110		ug/L		110	80 - 120	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*98*		*73 - 131*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: 680-152352-8 MS
Matrix: Water
Analysis Batch: 524442

Client Sample ID: HG-38D MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	33		250	269		ug/L		94	68 - 132
Benzene	11		50.0	61.3		ug/L		102	80 - 120
Bromobenzene	0.50	U	50.0	50.1		ug/L		100	71 - 124
Bromodichloromethane	0.44	U	50.0	49.0		ug/L		98	80 - 120
Bromoform	0.43	U	50.0	50.4		ug/L		101	52 - 122
Bromomethane	2.5	U F1 F2	50.0	19.2	F1	ug/L		38	43 - 146
2-Butanone (MEK)	3.4	U	250	251		ug/L		101	79 - 125
Carbon disulfide	1.0	U	50.0	53.6		ug/L		107	77 - 129
Carbon tetrachloride	0.33	U	50.0	53.0		ug/L		106	67 - 125
Chlorobenzene	0.26	U	50.0	49.2		ug/L		98	80 - 120
Chloroethane	2.5	U	50.0	57.1		ug/L		114	48 - 145
Chloroform	0.50	U	50.0	48.3		ug/L		97	80 - 120
Chloromethane	0.40	U	50.0	52.0		ug/L		104	76 - 149
4-Chlorotoluene	0.45	U	50.0	52.4		ug/L		105	80 - 120
cis-1,2-Dichloroethene	0.41	U	50.0	48.6		ug/L		97	80 - 120
cis-1,3-Dichloropropene	0.40	U	50.0	47.7		ug/L		95	80 - 129
Cyclohexane	0.39	U	50.0	55.7		ug/L		111	80 - 132
Dibromochloromethane	0.32	U	50.0	48.9		ug/L		98	68 - 120
1,2-Dibromo-3-Chloropropane	1.1	U	50.0	53.2		ug/L		106	74 - 120
1,2-Dibromoethane	0.44	U	50.0	47.5		ug/L		95	75 - 126
Dibromomethane	0.35	U	50.0	46.7		ug/L		93	80 - 120
1,2-Dichlorobenzene	0.37	U	50.0	49.4		ug/L		99	80 - 120
1,3-Dichlorobenzene	0.43	U	50.0	48.7		ug/L		97	80 - 120
1,4-Dichlorobenzene	0.46	U	50.0	48.4		ug/L		97	80 - 120
Dichlorodifluoromethane	0.60	U	50.0	59.8		ug/L		120	70 - 137
1,1-Dichloroethane	0.38	U	50.0	49.2		ug/L		98	80 - 120

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

Lab Sample ID: 680-152352-8 MS
Matrix: Water
Analysis Batch: 524442

Client Sample ID: HG-38D MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.50	U	50.0	47.1		ug/L		94	72 - 128
1,1-Dichloroethene	0.36	U	50.0	55.5		ug/L		111	80 - 120
1,2-Dichloropropane	0.67	U	50.0	48.7		ug/L		97	80 - 120
1,3-Dichloropropane	0.34	U	50.0	47.3		ug/L		95	80 - 120
2,2-Dichloropropane	0.37	U	50.0	44.2		ug/L		88	80 - 135
1,1-Dichloropropene	0.34	U	50.0	53.0		ug/L		106	80 - 120
Ethylbenzene	12		50.0	64.9		ug/L		105	80 - 120
2-Hexanone	2.0	U	250	296		ug/L		118	80 - 131
Isopropylbenzene	1.0		50.0	54.3		ug/L		107	79 - 126
Methyl acetate	1.8	U	100	90.8		ug/L		91	73 - 139
Methylcyclohexane	0.43	U	50.0	55.8		ug/L		112	80 - 138
Methylene Chloride	2.5	U	50.0	50.1		ug/L		100	80 - 120
4-Methyl-2-pentanone (MIBK)	2.1	U	250	280		ug/L		112	80 - 134
Methyl tert-butyl ether	0.33	J B	50.0	48.7		ug/L		97	80 - 122
m-Xylene & p-Xylene	17		50.0	70.0		ug/L		106	80 - 120
o-Xylene	8.9		50.0	61.6		ug/L		105	80 - 120
p-Isopropyltoluene	1.4		50.0	55.7		ug/L		109	80 - 120
Styrene	0.27	U	50.0	53.8		ug/L		108	80 - 126
tert-Butylbenzene	0.45	U	50.0	55.3		ug/L		111	80 - 120
1,1,1,2-Tetrachloroethane	0.37	U	50.0	50.0		ug/L		100	73 - 124
1,1,2,2-Tetrachloroethane	0.62	U	50.0	49.9		ug/L		100	76 - 126
Tetrachloroethene	0.74	U	50.0	51.2		ug/L		102	71 - 123
Toluene	4.1		50.0	55.2		ug/L		102	80 - 120
trans-1,2-Dichloroethene	0.37	U	50.0	52.1		ug/L		104	80 - 120
trans-1,3-Dichloropropene	0.42	U	50.0	47.6		ug/L		95	80 - 128
1,2,3-Trichlorobenzene	2.5	U * F2	50.0	48.3		ug/L		97	70 - 125
1,2,4-Trichlorobenzene	2.5	U	50.0	49.3		ug/L		99	71 - 126
1,1,1-Trichloroethane	0.37	U	50.0	51.0		ug/L		102	80 - 120
1,1,2-Trichloroethane	0.33	U	50.0	47.2		ug/L		94	80 - 120
Trichloroethene	0.48	U	50.0	50.4		ug/L		101	80 - 120
Trichlorofluoromethane	0.42	U	50.0	56.5		ug/L		113	58 - 127
1,2,3-Trichloropropane	0.39	U	50.0	49.3		ug/L		99	78 - 128
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	50.0	54.0		ug/L		108	75 - 128
1,2,4-Trimethylbenzene	9.0		50.0	64.0		ug/L		110	80 - 120
1,3,5-Trimethylbenzene	3.2		50.0	58.0		ug/L		110	80 - 120
Vinyl chloride	0.50	U	50.0	57.1		ug/L		114	80 - 129
Xylenes, Total	26		100	132		ug/L		106	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*93*		*73 - 131*
Toluene-d8 (Surr)	*103*		*80 - 120*

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

Lab Sample ID: 680-152352-8 MSD
Matrix: Water
Analysis Batch: 524442

Client Sample ID: HG-38D MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	33		250	276		ug/L		97	68 - 132	3	30
Benzene	11		50.0	62.1		ug/L		103	80 - 120	1	20
Bromobenzene	0.50	U	50.0	50.7		ug/L		101	71 - 124	1	20
Bromodichloromethane	0.44	U	50.0	49.5		ug/L		99	80 - 120	1	20
Bromoform	0.43	U	50.0	51.6		ug/L		103	52 - 122	2	20
Bromomethane	2.5	U F1 F2	50.0	26.7	F2	ug/L		53	43 - 146	33	20
2-Butanone (MEK)	3.4	U	250	263		ug/L		105	79 - 125	4	20
Carbon disulfide	1.0	U	50.0	53.1		ug/L		106	77 - 129	1	20
Carbon tetrachloride	0.33	U	50.0	51.9		ug/L		104	67 - 125	2	20
Chlorobenzene	0.26	U	50.0	49.6		ug/L		99	80 - 120	1	20
Chloroethane	2.5	U	50.0	57.6		ug/L		115	48 - 145	1	20
Chloroform	0.50	U	50.0	49.3		ug/L		99	80 - 120	2	20
Chloromethane	0.40	U	50.0	51.7		ug/L		103	76 - 149	1	30
4-Chlorotoluene	0.45	U	50.0	51.5		ug/L		103	80 - 120	2	20
cis-1,2-Dichloroethene	0.41	U	50.0	49.5		ug/L		99	80 - 120	2	20
cis-1,3-Dichloropropene	0.40	U	50.0	48.9		ug/L		98	80 - 129	2	20
Cyclohexane	0.39	U	50.0	52.2		ug/L		104	80 - 132	7	20
Dibromochloromethane	0.32	U	50.0	50.5		ug/L		101	68 - 120	3	20
1,2-Dibromo-3-Chloropropane	1.1	U	50.0	60.2		ug/L		120	74 - 120	12	20
1,2-Dibromoethane	0.44	U	50.0	49.1		ug/L		98	75 - 126	3	20
Dibromomethane	0.35	U	50.0	47.8		ug/L		96	80 - 120	2	20
1,2-Dichlorobenzene	0.37	U	50.0	50.7		ug/L		101	80 - 120	3	20
1,3-Dichlorobenzene	0.43	U	50.0	49.5		ug/L		99	80 - 120	2	20
1,4-Dichlorobenzene	0.46	U	50.0	48.8		ug/L		98	80 - 120	1	20
Dichlorodifluoromethane	0.60	U	50.0	57.5		ug/L		115	70 - 137	4	40
1,1-Dichloroethane	0.38	U	50.0	50.1		ug/L		100	80 - 120	2	20
1,2-Dichloroethane	0.50	U	50.0	48.1		ug/L		96	72 - 128	2	50
1,1-Dichloroethene	0.36	U	50.0	56.1		ug/L		112	80 - 120	1	20
1,2-Dichloropropane	0.67	U	50.0	50.0		ug/L		100	80 - 120	3	20
1,3-Dichloropropane	0.34	U	50.0	48.9		ug/L		98	80 - 120	3	20
2,2-Dichloropropane	0.37	U	50.0	44.8		ug/L		90	80 - 135	1	20
1,1-Dichloropropene	0.34	U	50.0	51.3		ug/L		103	80 - 120	3	20
Ethylbenzene	12		50.0	64.3		ug/L		104	80 - 120	1	20
2-Hexanone	2.0	U	250	305		ug/L		122	80 - 131	3	20
Isopropylbenzene	1.0		50.0	53.0		ug/L		104	79 - 126	2	20
Methyl acetate	1.8	U	100	90.9		ug/L		91	73 - 139	0	20
Methylcyclohexane	0.43	U	50.0	52.4		ug/L		105	80 - 138	6	20
Methylene Chloride	2.5	U	50.0	51.1		ug/L		102	80 - 120	2	20
4-Methyl-2-pentanone (MIBK)	2.1	U	250	290		ug/L		116	80 - 134	3	20
Methyl tert-butyl ether	0.33	J B	50.0	50.8		ug/L		101	80 - 122	4	20
m-Xylene & p-Xylene	17		50.0	68.9		ug/L		104	80 - 120	2	20
o-Xylene	8.9		50.0	61.5		ug/L		105	80 - 120	0	30
p-Isopropyltoluene	1.4		50.0	54.7		ug/L		107	80 - 120	2	20
Styrene	0.27	U	50.0	53.7		ug/L		107	80 - 126	0	20
tert-Butylbenzene	0.45	U	50.0	53.5		ug/L		107	80 - 120	3	20
1,1,1,2-Tetrachloroethane	0.37	U	50.0	51.2		ug/L		102	73 - 124	2	20
1,1,2,2-Tetrachloroethane	0.62	U	50.0	52.7		ug/L		105	76 - 126	5	20
Tetrachloroethene	0.74	U	50.0	48.9		ug/L		98	71 - 123	4	20

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

Lab Sample ID: 680-152352-8 MSD
Matrix: Water
Analysis Batch: 524442

Client Sample ID: HG-38D MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	4.1		50.0	55.1		ug/L		102	80 - 120	0	20
trans-1,2-Dichloroethene	0.37	U	50.0	52.1		ug/L		104	80 - 120	0	20
trans-1,3-Dichloropropene	0.42	U	50.0	48.7		ug/L		97	80 - 128	2	30
1,2,3-Trichlorobenzene	2.5	U * F2	50.0	60.9	F2	ug/L		122	70 - 125	23	20
1,2,4-Trichlorobenzene	2.5	U	50.0	54.5		ug/L		109	71 - 126	10	20
1,1,1-Trichloroethane	0.37	U	50.0	51.0		ug/L		102	80 - 120	0	20
1,1,2-Trichloroethane	0.33	U	50.0	48.6		ug/L		97	80 - 120	3	20
Trichloroethene	0.48	U	50.0	49.8		ug/L		100	80 - 120	1	20
Trichlorofluoromethane	0.42	U	50.0	50.1		ug/L		100	58 - 127	12	20
1,2,3-Trichloropropane	0.39	U	50.0	50.2		ug/L		100	78 - 128	2	30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	50.0	51.4		ug/L		103	75 - 128	5	20
1,2,4-Trimethylbenzene	9.0		50.0	63.5		ug/L		109	80 - 120	1	20
1,3,5-Trimethylbenzene	3.2		50.0	56.7		ug/L		107	80 - 120	2	20
Vinyl chloride	0.50	U	50.0	58.2		ug/L		116	80 - 129	2	20
Xylenes, Total	26		100	130		ug/L		105	80 - 120	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 122*
1,2-Dichloroethane-d4 (Surr)	*94*		*73 - 131*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-523809/15-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		05/14/18 13:37	05/17/18 19:54	1
Acenaphthylene	0.85	U	10	0.85	ug/L		05/14/18 13:37	05/17/18 19:54	1
Acetophenone	0.57	U	10	0.57	ug/L		05/14/18 13:37	05/17/18 19:54	1
Anthracene	0.69	U	10	0.69	ug/L		05/14/18 13:37	05/17/18 19:54	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		05/14/18 13:37	05/17/18 19:54	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		05/14/18 13:37	05/17/18 19:54	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		05/14/18 13:37	05/17/18 19:54	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		05/14/18 13:37	05/17/18 19:54	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		05/14/18 13:37	05/17/18 19:54	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		05/14/18 13:37	05/17/18 19:54	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		05/14/18 13:37	05/17/18 19:54	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		05/14/18 13:37	05/17/18 19:54	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		05/14/18 13:37	05/17/18 19:54	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		05/14/18 13:37	05/17/18 19:54	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		05/14/18 13:37	05/17/18 19:54	1
Carbazole	0.71	U	10	0.71	ug/L		05/14/18 13:37	05/17/18 19:54	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/14/18 13:37	05/17/18 19:54	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		05/14/18 13:37	05/17/18 19:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-523809/15-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523809

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		05/14/18 13:37	05/17/18 19:54	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		05/14/18 13:37	05/17/18 19:54	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		05/14/18 13:37	05/17/18 19:54	1
Chrysene	0.51	U	10	0.51	ug/L		05/14/18 13:37	05/17/18 19:54	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		05/14/18 13:37	05/17/18 19:54	1
Dibenzofuran	0.79	U	10	0.79	ug/L		05/14/18 13:37	05/17/18 19:54	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		05/14/18 13:37	05/17/18 19:54	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		05/14/18 13:37	05/17/18 19:54	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		05/14/18 13:37	05/17/18 19:54	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		05/14/18 13:37	05/17/18 19:54	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,4-Dinitrophenol	10	U	50	10	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		05/14/18 13:37	05/17/18 19:54	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		05/14/18 13:37	05/17/18 19:54	1
Fluoranthene	0.74	U	10	0.74	ug/L		05/14/18 13:37	05/17/18 19:54	1
Fluorene	0.96	U	10	0.96	ug/L		05/14/18 13:37	05/17/18 19:54	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		05/14/18 13:37	05/17/18 19:54	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		05/14/18 13:37	05/17/18 19:54	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		05/14/18 13:37	05/17/18 19:54	1
Hexachloroethane	0.76	U	10	0.76	ug/L		05/14/18 13:37	05/17/18 19:54	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		05/14/18 13:37	05/17/18 19:54	1
Isophorone	0.90	U	10	0.90	ug/L		05/14/18 13:37	05/17/18 19:54	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		05/14/18 13:37	05/17/18 19:54	1
2-Methylphenol	0.89	U	10	0.89	ug/L		05/14/18 13:37	05/17/18 19:54	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		05/14/18 13:37	05/17/18 19:54	1
Naphthalene	0.70	U	10	0.70	ug/L		05/14/18 13:37	05/17/18 19:54	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		05/14/18 13:37	05/17/18 19:54	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		05/14/18 13:37	05/17/18 19:54	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		05/14/18 13:37	05/17/18 19:54	1
Nitrobenzene	0.73	U	10	0.73	ug/L		05/14/18 13:37	05/17/18 19:54	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		05/14/18 13:37	05/17/18 19:54	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		05/14/18 13:37	05/17/18 19:54	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		05/14/18 13:37	05/17/18 19:54	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,2'-oxybis[1-chloropropane]	0.78	U	10	0.78	ug/L		05/14/18 13:37	05/17/18 19:54	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		05/14/18 13:37	05/17/18 19:54	1
Phenanthrene	0.77	U	10	0.77	ug/L		05/14/18 13:37	05/17/18 19:54	1
Phenol	0.83	U	10	0.83	ug/L		05/14/18 13:37	05/17/18 19:54	1
Pyrene	0.63	U	10	0.63	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		05/14/18 13:37	05/17/18 19:54	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		05/14/18 13:37	05/17/18 19:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*33*		*32 - 113*	*05/14/18 13:37*	*05/17/18 19:54*	*1*
2-Fluorophenol (Surr)	*61*		*26 - 109*	*05/14/18 13:37*	*05/17/18 19:54*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-523809/15-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523809

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	*61*		*32 - 118*	*05/14/18 13:37*	*05/17/18 19:54*	*1*
Phenol-d5 (Surr)	*66*		*27 - 110*	*05/14/18 13:37*	*05/17/18 19:54*	*1*
Terphenyl-d14 (Surr)	*92*		*10 - 126*	*05/14/18 13:37*	*05/17/18 19:54*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*39 - 124*	*05/14/18 13:37*	*05/17/18 19:54*	*1*

Lab Sample ID: LCS 680-523809/16-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	74.2		ug/L		74	48 - 130
Acenaphthylene	100	87.6		ug/L		88	48 - 130
Acetophenone	100	78.6		ug/L		79	44 - 130
Anthracene	100	87.8		ug/L		88	49 - 130
Benzo[a]anthracene	100	91.9		ug/L		92	44 - 130
Benzo[a]pyrene	100	90.4		ug/L		90	44 - 130
Benzo[b]fluoranthene	100	90.6		ug/L		91	43 - 130
Benzo[g,h,i]perylene	100	92.0		ug/L		92	41 - 130
Benzo[k]fluoranthene	100	96.6		ug/L		97	40 - 130
1,1'-Biphenyl	100	77.4		ug/L		77	45 - 130
Bis(2-chloroethoxy)methane	100	73.5		ug/L		73	47 - 130
Bis(2-chloroethyl)ether	100	69.1		ug/L		69	32 - 130
Bis(2-ethylhexyl) phthalate	100	87.9		ug/L		88	45 - 130
4-Bromophenyl phenyl ether	100	91.1		ug/L		91	47 - 130
Butyl benzyl phthalate	100	87.0		ug/L		87	50 - 130
Carbazole	100	89.3		ug/L		89	54 - 130
4-Chloroaniline	100	63.1		ug/L		63	42 - 130
4-Chloro-3-methylphenol	100	87.0		ug/L		87	47 - 130
2-Chloronaphthalene	100	78.5		ug/L		79	44 - 130
2-Chlorophenol	100	77.2		ug/L		77	39 - 130
4-Chlorophenyl phenyl ether	100	86.9		ug/L		87	45 - 130
Chrysene	100	91.1		ug/L		91	47 - 130
Dibenz(a,h)anthracene	100	93.9		ug/L		94	41 - 130
Dibenzofuran	100	81.0		ug/L		81	50 - 130
3,3'-Dichlorobenzidine	100	87.1		ug/L		87	46 - 130
2,4-Dichlorophenol	100	86.0		ug/L		86	44 - 130
Diethyl phthalate	100	96.3		ug/L		96	53 - 130
2,4-Dimethylphenol	100	72.9		ug/L		73	37 - 130
Dimethyl phthalate	100	92.7		ug/L		93	53 - 130
Di-n-butyl phthalate	100	93.2		ug/L		93	51 - 130
4,6-Dinitro-2-methylphenol	200	216		ug/L		108	42 - 130
2,4-Dinitrophenol	200	219		ug/L		109	31 - 130
2,4-Dinitrotoluene	100	98.1		ug/L		98	52 - 130
2,6-Dinitrotoluene	100	93.6		ug/L		94	52 - 130
Di-n-octyl phthalate	100	87.6		ug/L		88	42 - 130
Fluoranthene	100	94.0		ug/L		94	47 - 130
Fluorene	100	85.2		ug/L		85	50 - 130
Hexachlorobenzene	100	94.7		ug/L		95	43 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-523809/16-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	100	86.6		ug/L		87	27 - 130
Hexachlorocyclopentadiene	100	52.5		ug/L		52	11 - 130
Hexachloroethane	100	68.7		ug/L		69	29 - 130
Indeno[1,2,3-cd]pyrene	100	92.5		ug/L		93	31 - 130
Isophorone	100	81.6		ug/L		82	47 - 130
2-Methylnaphthalene	100	77.6		ug/L		78	40 - 130
2-Methylphenol	100	76.0		ug/L		76	40 - 130
3 & 4 Methylphenol	100	77.9		ug/L		78	42 - 130
Naphthalene	100	72.9		ug/L		73	39 - 130
2-Nitroaniline	100	86.0		ug/L		86	51 - 130
3-Nitroaniline	100	84.5		ug/L		85	53 - 130
4-Nitroaniline	100	82.4		ug/L		82	49 - 130
Nitrobenzene	100	73.8		ug/L		74	43 - 130
2-Nitrophenol	100	85.9		ug/L		86	43 - 130
4-Nitrophenol	200	184		ug/L		92	44 - 130
N-Nitrosodi-n-propylamine	100	75.0		ug/L		75	42 - 130
N-Nitrosodiphenylamine	100	87.0		ug/L		87	50 - 130
2,2'-oxybis[1-chloropropane]	100	75.1		ug/L		75	26 - 130
Pentachlorophenol	200	216		ug/L		108	33 - 130
Phenanthrene	100	85.8		ug/L		86	51 - 130
Phenol	100	69.9		ug/L		70	35 - 130
Pyrene	100	90.6		ug/L		91	52 - 130
2,4,5-Trichlorophenol	100	92.5		ug/L		92	48 - 130
2,4,6-Trichlorophenol	100	94.6		ug/L		95	47 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*32 - 113*
2-Fluorophenol (Surr)	*60*		*26 - 109*
Nitrobenzene-d5 (Surr)	*68*		*32 - 118*
Phenol-d5 (Surr)	*66*		*27 - 110*
Terphenyl-d14 (Surr)	*89*		*10 - 126*
2,4,6-Tribromophenol (Surr)	*104*		*39 - 124*

Lab Sample ID: 680-152352-8 MS
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-38D MS
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.1	J	95.0	78.0		ug/L		80	48 - 130
Acenaphthylene	0.82	U	95.0	83.0		ug/L		87	48 - 130
Acetophenone	0.55	U	95.0	69.8		ug/L		73	44 - 130
Anthracene	0.67	U	95.0	83.7		ug/L		88	49 - 130
Benzo[a]anthracene	0.53	U	95.0	88.1		ug/L		93	44 - 130
Benzo[a]pyrene	0.69	U	95.0	84.6		ug/L		89	44 - 130
Benzo[b]fluoranthene	2.5	U	95.0	83.1		ug/L		87	43 - 130
Benzo[g,h,i]perylene	0.84	U	95.0	87.3		ug/L		92	41 - 130
Benzo[k]fluoranthene	1.2	U	95.0	92.4		ug/L		97	40 - 130
1,1'-Biphenyl	0.63	J	95.0	73.3		ug/L		76	45 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-152352-8 MS
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-38D MS
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethoxy)methane	0.91	U	95.0	61.2		ug/L		64	47 - 130
Bis(2-chloroethyl)ether	1.1	U	95.0	57.3		ug/L		60	32 - 130
Bis(2-ethylhexyl) phthalate	1.5	U	95.0	80.8		ug/L		85	45 - 130
4-Bromophenyl phenyl ether	0.74	U	95.0	88.6		ug/L		93	47 - 130
Butyl benzyl phthalate	1.2	U	95.0	80.7		ug/L		85	50 - 130
Carbazole	1.8	J	95.0	85.3		ug/L		88	54 - 130
4-Chloroaniline	2.1	U	95.0	54.5		ug/L		57	42 - 130
4-Chloro-3-methylphenol	0.97	U	95.0	78.4		ug/L		82	47 - 130
2-Chloronaphthalene	0.77	U	95.0	73.6		ug/L		77	44 - 130
2-Chlorophenol	0.84	U	95.0	66.9		ug/L		70	39 - 130
4-Chlorophenyl phenyl ether	0.81	U	95.0	84.1		ug/L		89	45 - 130
Chrysene	0.49	U	95.0	87.3		ug/L		92	47 - 130
Dibenz(a,h)anthracene	0.97	U	95.0	88.2		ug/L		93	41 - 130
Dibenzofuran	0.76	U	95.0	79.9		ug/L		84	50 - 130
3,3'-Dichlorobenzidine	29	U F1	95.0	29	U F1	ug/L		0	46 - 130
2,4-Dichlorophenol	1.1	U	95.0	74.5		ug/L		78	44 - 130
Diethyl phthalate	0.85	U	95.0	84.3		ug/L		89	53 - 130
2,4-Dimethylphenol	280	E	95.0	335	E	ug/L		62	37 - 130
Dimethyl phthalate	0.96	U	95.0	81.7		ug/L		86	53 - 130
Di-n-butyl phthalate	0.80	U	95.0	83.4		ug/L		88	51 - 130
4,6-Dinitro-2-methylphenol	9.7	U	190	196		ug/L		103	42 - 130
2,4-Dinitrophenol	9.7	U	190	192		ug/L		101	31 - 130
2,4-Dinitrotoluene	1.2	U	95.0	86.6		ug/L		91	52 - 130
2,6-Dinitrotoluene	1.1	U	95.0	82.9		ug/L		87	52 - 130
Di-n-octyl phthalate	1.4	U	95.0	82.1		ug/L		86	42 - 130
Fluoranthene	0.71	U	95.0	89.9		ug/L		95	47 - 130
Fluorene	0.93	U	95.0	81.3		ug/L		86	50 - 130
Hexachlorobenzene	0.76	U	95.0	94.1		ug/L		99	43 - 130
Hexachlorobutadiene	0.60	U	95.0	71.2		ug/L		75	27 - 130
Hexachlorocyclopentadiene	2.4	U	95.0	53.6		ug/L		56	11 - 130
Hexachloroethane	0.73	U	95.0	55.7		ug/L		59	29 - 130
Indeno[1,2,3-cd]pyrene	0.97	U	95.0	87.5		ug/L		92	31 - 130
Isophorone	0.87	U	95.0	68.6		ug/L		72	47 - 130
2-Methylnaphthalene	14		95.0	83.0		ug/L		72	40 - 130
2-Methylphenol	0.86	U	95.0	67.2		ug/L		71	40 - 130
3 & 4 Methylphenol	1.3	U	95.0	67.9		ug/L		71	42 - 130
Naphthalene	880	E	95.0	895	E 4	ug/L		21	39 - 130
2-Nitroaniline	1.3	U	95.0	81.6		ug/L		86	51 - 130
3-Nitroaniline	4.8	U	95.0	71.9		ug/L		76	53 - 130
4-Nitroaniline	4.8	U	95.0	69.5		ug/L		73	49 - 130
Nitrobenzene	0.71	U	95.0	66.1		ug/L		70	43 - 130
2-Nitrophenol	0.73	U	95.0	73.1		ug/L		77	43 - 130
4-Nitrophenol	1.8	U	190	166		ug/L		87	44 - 130
N-Nitrosodi-n-propylamine	0.70	U	95.0	65.4		ug/L		69	42 - 130
N-Nitrosodiphenylamine	0.89	U	95.0	74.5		ug/L		78	50 - 130
2,2'-oxybis[1-chloropropane]	0.75	U	95.0	65.0		ug/L		68	26 - 130
Pentachlorophenol	1.9	U	190	199		ug/L		105	33 - 130
Phenanthrene	0.74	U	95.0	85.1		ug/L		89	51 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-152352-8 MS
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-38D MS
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.80	U	95.0	59.9		ug/L		63	35 - 130
Pyrene	0.61	U	95.0	87.4		ug/L		92	52 - 130
2,4,5-Trichlorophenol	1.2	U	95.0	84.1		ug/L		89	48 - 130
2,4,6-Trichlorophenol	0.82	U	95.0	83.0		ug/L		87	47 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*67*		*32 - 113*
2-Fluorophenol (Surr)	*53*		*26 - 109*
Nitrobenzene-d5 (Surr)	*64*		*32 - 118*
Phenol-d5 (Surr)	*58*		*27 - 110*
Terphenyl-d14 (Surr)	*32*		*10 - 126*
2,4,6-Tribromophenol (Surr)	*96*		*39 - 124*

Lab Sample ID: 680-152352-8 MSD
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-38D MSD
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.1	J	95.6	84.3		ug/L		86	48 - 130	8	50
Acenaphthylene	0.82	U	95.6	89.8		ug/L		94	48 - 130	8	50
Acetophenone	0.55	U	95.6	75.5		ug/L		79	44 - 130	8	50
Anthracene	0.67	U	95.6	85.8		ug/L		90	49 - 130	3	50
Benzo[a]anthracene	0.53	U	95.6	90.7		ug/L		95	44 - 130	3	50
Benzo[a]pyrene	0.69	U	95.6	87.4		ug/L		91	44 - 130	3	50
Benzo[b]fluoranthene	2.5	U	95.6	86.9		ug/L		91	43 - 130	4	50
Benzo[g,h,i]perylene	0.84	U	95.6	88.5		ug/L		93	41 - 130	1	50
Benzo[k]fluoranthene	1.2	U	95.6	94.4		ug/L		99	40 - 130	2	50
1,1'-Biphenyl	0.63	J	95.6	80.1		ug/L		83	45 - 130	9	50
Bis(2-chloroethoxy)methane	0.91	U	95.6	65.5		ug/L		68	47 - 130	7	50
Bis(2-chloroethyl)ether	1.1	U	95.6	66.0		ug/L		69	32 - 130	14	50
Bis(2-ethylhexyl) phthalate	1.5	U	95.6	84.3		ug/L		88	45 - 130	4	50
4-Bromophenyl phenyl ether	0.74	U	95.6	95.2		ug/L		99	47 - 130	7	50
Butyl benzyl phthalate	1.2	U	95.6	83.1		ug/L		87	50 - 130	3	50
Carbazole	1.8	J	95.6	88.5		ug/L		91	54 - 130	4	50
4-Chloroaniline	2.1	U	95.6	57.5		ug/L		60	42 - 130	5	50
4-Chloro-3-methylphenol	0.97	U	95.6	84.9		ug/L		89	47 - 130	8	50
2-Chloronaphthalene	0.77	U	95.6	81.6		ug/L		85	44 - 130	10	50
2-Chlorophenol	0.84	U	95.6	74.9		ug/L		78	39 - 130	11	50
4-Chlorophenyl phenyl ether	0.81	U	95.6	88.4		ug/L		92	45 - 130	5	50
Chrysene	0.49	U	95.6	89.5		ug/L		94	47 - 130	2	50
Dibenz(a,h)anthracene	0.97	U	95.6	90.0		ug/L		94	41 - 130	2	50
Dibenzofuran	0.76	U	95.6	84.5		ug/L		88	50 - 130	6	50
3,3'-Dichlorobenzidine	29	U F1	95.6	29	U F1	ug/L		0	46 - 130	NC	50
2,4-Dichlorophenol	1.1	U	95.6	83.3		ug/L		87	44 - 130	11	50
Diethyl phthalate	0.85	U	95.6	88.7		ug/L		93	53 - 130	5	50
2,4-Dimethylphenol	280	E	95.6	375	E	ug/L		104	37 - 130	11	50
Dimethyl phthalate	0.96	U	95.6	88.1		ug/L		92	53 - 130	8	50
Di-n-butyl phthalate	0.80	U	95.6	86.5		ug/L		90	51 - 130	4	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-152352-8 MSD
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-38D MSD
Prep Type: Total/NA
Prep Batch: 523809

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,6-Dinitro-2-methylphenol	9.7	U	191	214		ug/L		112	42 - 130	9	50
2,4-Dinitrophenol	9.7	U	191	209		ug/L		109	31 - 130	8	50
2,4-Dinitrotoluene	1.2	U	95.6	94.1		ug/L		98	52 - 130	8	50
2,6-Dinitrotoluene	1.1	U	95.6	87.7		ug/L		92	52 - 130	6	50
Di-n-octyl phthalate	1.4	U	95.6	85.8		ug/L		90	42 - 130	4	50
Fluoranthene	0.71	U	95.6	91.5		ug/L		96	47 - 130	2	50
Fluorene	0.93	U	95.6	88.6		ug/L		93	50 - 130	9	50
Hexachlorobenzene	0.76	U	95.6	98.2		ug/L		103	43 - 130	4	50
Hexachlorobutadiene	0.60	U	95.6	78.6		ug/L		82	27 - 130	10	50
Hexachlorocyclopentadiene	2.4	U	95.6	62.4		ug/L		65	11 - 130	15	50
Hexachloroethane	0.73	U	95.6	61.1		ug/L		64	29 - 130	9	50
Indeno[1,2,3-cd]pyrene	0.97	U	95.6	89.8		ug/L		94	31 - 130	3	50
Isophorone	0.87	U	95.6	74.6		ug/L		78	47 - 130	8	50
2-Methylnaphthalene	14		95.6	90.3		ug/L		79	40 - 130	8	50
2-Methylphenol	0.86	U	95.6	74.6		ug/L		78	40 - 130	10	50
3 & 4 Methylphenol	1.3	U	95.6	78.1		ug/L		82	42 - 130	14	50
Naphthalene	880	E	95.6	930	E 4	ug/L		57	39 - 130	4	50
2-Nitroaniline	1.3	U	95.6	90.8		ug/L		95	51 - 130	11	50
3-Nitroaniline	4.8	U	95.6	73.6		ug/L		77	53 - 130	2	50
4-Nitroaniline	4.8	U	95.6	73.5		ug/L		77	49 - 130	6	50
Nitrobenzene	0.71	U	95.6	71.2		ug/L		74	43 - 130	7	50
2-Nitrophenol	0.73	U	95.6	81.3		ug/L		85	43 - 130	11	50
4-Nitrophenol	1.8	U	191	184		ug/L		96	44 - 130	11	50
N-Nitrosodi-n-propylamine	0.70	U	95.6	74.4		ug/L		78	42 - 130	13	50
N-Nitrosodiphenylamine	0.89	U	95.6	80.7		ug/L		84	50 - 130	8	50
2,2'-oxybis[1-chloropropane]	0.75	U	95.6	73.0		ug/L		76	26 - 130	12	50
Pentachlorophenol	1.9	U	191	214		ug/L		112	33 - 130	7	50
Phenanthrene	0.74	U	95.6	87.6		ug/L		92	51 - 130	3	50
Phenol	0.80	U	95.6	68.1		ug/L		71	35 - 130	13	50
Pyrene	0.61	U	95.6	87.5		ug/L		91	52 - 130	0	50
2,4,5-Trichlorophenol	1.2	U	95.6	92.3		ug/L		96	48 - 130	9	50
2,4,6-Trichlorophenol	0.82	U	95.6	91.7		ug/L		96	47 - 130	10	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*32 - 113*
2-Fluorophenol (Surr)	*61*		*26 - 109*
Nitrobenzene-d5 (Surr)	*70*		*32 - 118*
Phenol-d5 (Surr)	*66*		*27 - 110*
Terphenyl-d14 (Surr)	*42*		*10 - 126*
2,4,6-Tribromophenol (Surr)	*103*		*39 - 124*

Lab Sample ID: MB 680-523993/20-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.76	U	10	0.76	ug/L		05/15/18 14:54	05/17/18 19:30	1
Acenaphthylene	0.85	U	10	0.85	ug/L		05/15/18 14:54	05/17/18 19:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-523993/20-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetophenone	0.57	U	10	0.57	ug/L		05/15/18 14:54	05/17/18 19:30	1
Anthracene	0.69	U	10	0.69	ug/L		05/15/18 14:54	05/17/18 19:30	1
Benzo[a]anthracene	0.55	U	10	0.55	ug/L		05/15/18 14:54	05/17/18 19:30	1
Benzo[a]pyrene	0.71	U	10	0.71	ug/L		05/15/18 14:54	05/17/18 19:30	1
Benzo[b]fluoranthene	2.6	U	10	2.6	ug/L		05/15/18 14:54	05/17/18 19:30	1
Benzo[g,h,i]perylene	0.87	U	10	0.87	ug/L		05/15/18 14:54	05/17/18 19:30	1
Benzo[k]fluoranthene	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 19:30	1
1,1'-Biphenyl	0.58	U	10	0.58	ug/L		05/15/18 14:54	05/17/18 19:30	1
Bis(2-chloroethoxy)methane	0.94	U	10	0.94	ug/L		05/15/18 14:54	05/17/18 19:30	1
Bis(2-chloroethyl)ether	1.1	U	10	1.1	ug/L		05/15/18 14:54	05/17/18 19:30	1
Bis(2-ethylhexyl) phthalate	1.6	U	10	1.6	ug/L		05/15/18 14:54	05/17/18 19:30	1
4-Bromophenyl phenyl ether	0.77	U	10	0.77	ug/L		05/15/18 14:54	05/17/18 19:30	1
Butyl benzyl phthalate	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 19:30	1
Carbazole	0.71	U	10	0.71	ug/L		05/15/18 14:54	05/17/18 19:30	1
4-Chloroaniline	2.2	U	20	2.2	ug/L		05/15/18 14:54	05/17/18 19:30	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		05/15/18 14:54	05/17/18 19:30	1
2-Chloronaphthalene	0.80	U	10	0.80	ug/L		05/15/18 14:54	05/17/18 19:30	1
2-Chlorophenol	0.87	U	10	0.87	ug/L		05/15/18 14:54	05/17/18 19:30	1
4-Chlorophenyl phenyl ether	0.84	U	10	0.84	ug/L		05/15/18 14:54	05/17/18 19:30	1
Chrysene	0.51	U	10	0.51	ug/L		05/15/18 14:54	05/17/18 19:30	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		05/15/18 14:54	05/17/18 19:30	1
Dibenzofuran	0.79	U	10	0.79	ug/L		05/15/18 14:54	05/17/18 19:30	1
3,3'-Dichlorobenzidine	30	U	60	30	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,4-Dichlorophenol	1.1	U	10	1.1	ug/L		05/15/18 14:54	05/17/18 19:30	1
Diethyl phthalate	0.88	U	10	0.88	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,4-Dimethylphenol	4.0	U	10	4.0	ug/L		05/15/18 14:54	05/17/18 19:30	1
Dimethyl phthalate	0.99	U	10	0.99	ug/L		05/15/18 14:54	05/17/18 19:30	1
Di-n-butyl phthalate	0.83	U	10	0.83	ug/L		05/15/18 14:54	05/17/18 19:30	1
4,6-Dinitro-2-methylphenol	10	U	50	10	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,4-Dinitrophenol	10	U	50	10	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,4-Dinitrotoluene	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,6-Dinitrotoluene	1.1	U	10	1.1	ug/L		05/15/18 14:54	05/17/18 19:30	1
Di-n-octyl phthalate	1.4	U	10	1.4	ug/L		05/15/18 14:54	05/17/18 19:30	1
Fluoranthene	0.74	U	10	0.74	ug/L		05/15/18 14:54	05/17/18 19:30	1
Fluorene	0.96	U	10	0.96	ug/L		05/15/18 14:54	05/17/18 19:30	1
Hexachlorobenzene	0.79	U	10	0.79	ug/L		05/15/18 14:54	05/17/18 19:30	1
Hexachlorobutadiene	0.62	U	10	0.62	ug/L		05/15/18 14:54	05/17/18 19:30	1
Hexachlorocyclopentadiene	2.5	U	10	2.5	ug/L		05/15/18 14:54	05/17/18 19:30	1
Hexachloroethane	0.76	U	10	0.76	ug/L		05/15/18 14:54	05/17/18 19:30	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		05/15/18 14:54	05/17/18 19:30	1
Isophorone	0.90	U	10	0.90	ug/L		05/15/18 14:54	05/17/18 19:30	1
2-Methylnaphthalene	0.78	U	10	0.78	ug/L		05/15/18 14:54	05/17/18 19:30	1
2-Methylphenol	0.89	U	10	0.89	ug/L		05/15/18 14:54	05/17/18 19:30	1
3 & 4 Methylphenol	1.3	U	10	1.3	ug/L		05/15/18 14:54	05/17/18 19:30	1
Naphthalene	0.70	U	10	0.70	ug/L		05/15/18 14:54	05/17/18 19:30	1
2-Nitroaniline	1.3	U	50	1.3	ug/L		05/15/18 14:54	05/17/18 19:30	1
3-Nitroaniline	5.0	U	50	5.0	ug/L		05/15/18 14:54	05/17/18 19:30	1
4-Nitroaniline	5.0	U	50	5.0	ug/L		05/15/18 14:54	05/17/18 19:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-523993/20-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 523993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.73	U	10	0.73	ug/L		05/15/18 14:54	05/17/18 19:30	1
2-Nitrophenol	0.76	U	10	0.76	ug/L		05/15/18 14:54	05/17/18 19:30	1
4-Nitrophenol	1.9	U	50	1.9	ug/L		05/15/18 14:54	05/17/18 19:30	1
N-Nitrosodi-n-propylamine	0.72	U	10	0.72	ug/L		05/15/18 14:54	05/17/18 19:30	1
N-Nitrosodiphenylamine	0.92	U	10	0.92	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,2'-oxybis[1-chloropropane]	0.78	U	10	0.78	ug/L		05/15/18 14:54	05/17/18 19:30	1
Pentachlorophenol	2.0	U	50	2.0	ug/L		05/15/18 14:54	05/17/18 19:30	1
Phenanthrene	0.77	U	10	0.77	ug/L		05/15/18 14:54	05/17/18 19:30	1
Phenol	0.83	U	10	0.83	ug/L		05/15/18 14:54	05/17/18 19:30	1
Pyrene	0.63	U	10	0.63	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,4,5-Trichlorophenol	1.2	U	10	1.2	ug/L		05/15/18 14:54	05/17/18 19:30	1
2,4,6-Trichlorophenol	0.85	U	10	0.85	ug/L		05/15/18 14:54	05/17/18 19:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*32 - 113*	*05/15/18 14:54*	*05/17/18 19:30*	*1*
2-Fluorophenol (Surr)	*62*		*26 - 109*	*05/15/18 14:54*	*05/17/18 19:30*	*1*
Nitrobenzene-d5 (Surr)	*74*		*32 - 118*	*05/15/18 14:54*	*05/17/18 19:30*	*1*
Phenol-d5 (Surr)	*64*		*27 - 110*	*05/15/18 14:54*	*05/17/18 19:30*	*1*
Terphenyl-d14 (Surr)	*93*		*10 - 126*	*05/15/18 14:54*	*05/17/18 19:30*	*1*
2,4,6-Tribromophenol (Surr)	*104*		*39 - 124*	*05/15/18 14:54*	*05/17/18 19:30*	*1*

Lab Sample ID: LCS 680-523993/21-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 523993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	100	95.2		ug/L		95	48 - 130
Acenaphthylene	100	95.3		ug/L		95	48 - 130
Acetophenone	100	83.4		ug/L		83	44 - 130
Anthracene	100	96.5		ug/L		96	49 - 130
Benzo[a]anthracene	100	99.3		ug/L		99	44 - 130
Benzo[a]pyrene	100	97.3		ug/L		97	44 - 130
Benzo[b]fluoranthene	100	101		ug/L		101	43 - 130
Benzo[g,h,i]perylene	100	99.1		ug/L		99	41 - 130
Benzo[k]fluoranthene	100	96.8		ug/L		97	40 - 130
1,1'-Biphenyl	100	83.5		ug/L		84	45 - 130
Bis(2-chloroethoxy)methane	100	76.2		ug/L		76	47 - 130
Bis(2-chloroethyl)ether	100	69.3		ug/L		69	32 - 130
Bis(2-ethylhexyl) phthalate	100	92.6		ug/L		93	45 - 130
4-Bromophenyl phenyl ether	100	104		ug/L		104	47 - 130
Butyl benzyl phthalate	100	92.2		ug/L		92	50 - 130
Carbazole	100	94.4		ug/L		94	54 - 130
4-Chloroaniline	100	78.1		ug/L		78	42 - 130
4-Chloro-3-methylphenol	100	92.4		ug/L		92	47 - 130
2-Chloronaphthalene	100	84.4		ug/L		84	44 - 130
2-Chlorophenol	100	78.9		ug/L		79	39 - 130
4-Chlorophenyl phenyl ether	100	96.0		ug/L		96	45 - 130
Chrysene	100	98.4		ug/L		98	47 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-523993/21-A
Matrix: Water
Analysis Batch: 524341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 523993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	100	101		ug/L		101	41 - 130
Dibenzofuran	100	91.8		ug/L		92	50 - 130
3,3'-Dichlorobenzidine	100	95.6		ug/L		96	46 - 130
2,4-Dichlorophenol	100	92.9		ug/L		93	44 - 130
Diethyl phthalate	100	101		ug/L		101	53 - 130
2,4-Dimethylphenol	100	71.6		ug/L		72	37 - 130
Dimethyl phthalate	100	99.8		ug/L		100	53 - 130
Di-n-butyl phthalate	100	95.9		ug/L		96	51 - 130
4,6-Dinitro-2-methylphenol	200	225		ug/L		112	42 - 130
2,4-Dinitrophenol	200	227		ug/L		114	31 - 130
2,4-Dinitrotoluene	100	107		ug/L		107	52 - 130
2,6-Dinitrotoluene	100	99.6		ug/L		100	52 - 130
Di-n-octyl phthalate	100	94.7		ug/L		95	42 - 130
Fluoranthene	100	102		ug/L		102	47 - 130
Fluorene	100	95.9		ug/L		96	50 - 130
Hexachlorobenzene	100	109		ug/L		109	43 - 130
Hexachlorobutadiene	100	84.3		ug/L		84	27 - 130
Hexachlorocyclopentadiene	100	39.3		ug/L		39	11 - 130
Hexachloroethane	100	66.8		ug/L		67	29 - 130
Indeno[1,2,3-cd]pyrene	100	100		ug/L		100	31 - 130
Isophorone	100	87.8		ug/L		88	47 - 130
2-Methylnaphthalene	100	79.9		ug/L		80	40 - 130
2-Methylphenol	100	75.6		ug/L		76	40 - 130
3 & 4 Methylphenol	100	79.3		ug/L		79	42 - 130
Naphthalene	100	76.9		ug/L		77	39 - 130
2-Nitroaniline	100	92.4		ug/L		92	51 - 130
3-Nitroaniline	100	92.8		ug/L		93	53 - 130
4-Nitroaniline	100	87.5		ug/L		87	49 - 130
Nitrobenzene	100	80.5		ug/L		81	43 - 130
2-Nitrophenol	100	92.0		ug/L		92	43 - 130
4-Nitrophenol	200	200		ug/L		100	44 - 130
N-Nitrosodi-n-propylamine	100	75.5		ug/L		76	42 - 130
N-Nitrosodiphenylamine	100	93.7		ug/L		94	50 - 130
2,2'-oxybis[1-chloropropane]	100	76.0		ug/L		76	26 - 130
Pentachlorophenol	200	228		ug/L		114	33 - 130
Phenanthrene	100	95.1		ug/L		95	51 - 130
Phenol	100	73.8		ug/L		74	35 - 130
Pyrene	100	97.7		ug/L		98	52 - 130
2,4,5-Trichlorophenol	100	102		ug/L		102	48 - 130
2,4,6-Trichlorophenol	100	100		ug/L		100	47 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*32 - 113*
2-Fluorophenol (Surr)	*61*		*26 - 109*
Nitrobenzene-d5 (Surr)	*77*		*32 - 118*
Phenol-d5 (Surr)	*69*		*27 - 110*
Terphenyl-d14 (Surr)	*103*		*10 - 126*
2,4,6-Tribromophenol (Surr)	*108*		*39 - 124*

Lab Sample ID: 680-152352-9 MS
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-39S
Prep Type: Total/NA
Prep Batch: 523993

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.73	U	99.6	87.9		ug/L		88	48 - 130
Acenaphthylene	0.82	U	99.6	86.0		ug/L		86	48 - 130
Acetophenone	0.55	U	99.6	76.5		ug/L		77	44 - 130
Anthracene	0.67	U	99.6	82.6		ug/L		83	49 - 130
Benzo[a]anthracene	0.53	U	99.6	85.9		ug/L		86	44 - 130
Benzo[a]pyrene	0.69	U	99.6	81.4		ug/L		82	44 - 130
Benzo[b]fluoranthene	2.5	U	99.6	82.9		ug/L		83	43 - 130
Benzo[g,h,i]perylene	0.84	U	99.6	83.8		ug/L		84	41 - 130
Benzo[k]fluoranthene	1.2	U	99.6	86.7		ug/L		87	40 - 130
1,1'-Biphenyl	0.56	U	99.6	75.2		ug/L		75	45 - 130
Bis(2-chloroethoxy)methane	0.91	U	99.6	70.9		ug/L		71	47 - 130
Bis(2-chloroethyl)ether	1.1	U	99.6	64.7		ug/L		65	32 - 130
Bis(2-ethylhexyl) phthalate	1.5	U	99.6	80.1		ug/L		80	45 - 130
4-Bromophenyl phenyl ether	0.74	U	99.6	90.1		ug/L		90	47 - 130
Butyl benzyl phthalate	1.2	U	99.6	81.9		ug/L		82	50 - 130
Carbazole	0.69	U	99.6	86.8		ug/L		87	54 - 130
4-Chloroaniline	2.1	U	99.6	67.1		ug/L		67	42 - 130
4-Chloro-3-methylphenol	0.97	U	99.6	81.3		ug/L		82	47 - 130
2-Chloronaphthalene	0.77	U	99.6	76.8		ug/L		77	44 - 130
2-Chlorophenol	0.84	U	99.6	70.9		ug/L		71	39 - 130
4-Chlorophenyl phenyl ether	0.81	U	99.6	86.1		ug/L		86	45 - 130
Chrysene	0.49	U	99.6	83.3		ug/L		84	47 - 130
Dibenz(a,h)anthracene	0.97	U	99.6	86.7		ug/L		87	41 - 130
Dibenzofuran	0.76	U	99.6	81.2		ug/L		81	50 - 130
3,3'-Dichlorobenzidine	29	U	99.6	88.0	J	ug/L		88	46 - 130
2,4-Dichlorophenol	1.1	U	99.6	82.3		ug/L		83	44 - 130
Diethyl phthalate	0.85	U	99.6	91.9		ug/L		92	53 - 130
2,4-Dimethylphenol	3.9	U	99.6	66.8		ug/L		67	37 - 130
Dimethyl phthalate	0.96	U	99.6	87.6		ug/L		88	53 - 130
Di-n-butyl phthalate	0.80	U	99.6	84.8		ug/L		85	51 - 130
4,6-Dinitro-2-methylphenol	9.7	U	199	207		ug/L		104	42 - 130
2,4-Dinitrophenol	9.7	U	199	197		ug/L		99	31 - 130
2,4-Dinitrotoluene	1.2	U	99.6	94.9		ug/L		95	52 - 130
2,6-Dinitrotoluene	1.1	U	99.6	92.1		ug/L		92	52 - 130
Di-n-octyl phthalate	1.4	U	99.6	80.7		ug/L		81	42 - 130
Fluoranthene	0.71	U	99.6	89.7		ug/L		90	47 - 130
Fluorene	0.93	U	99.6	81.6		ug/L		82	50 - 130
Hexachlorobenzene	0.76	U	99.6	91.3		ug/L		92	43 - 130
Hexachlorobutadiene	0.60	U	99.6	71.5		ug/L		72	27 - 130
Hexachlorocyclopentadiene	2.4	U	99.6	29.7		ug/L		30	11 - 130
Hexachloroethane	0.73	U	99.6	57.5		ug/L		58	29 - 130
Indeno[1,2,3-cd]pyrene	0.97	U	99.6	86.4		ug/L		87	31 - 130
Isophorone	0.87	U	99.6	76.6		ug/L		77	47 - 130
2-Methylnaphthalene	0.75	U	99.6	73.2		ug/L		73	40 - 130
2-Methylphenol	0.86	U	99.6	68.9		ug/L		69	40 - 130
3 & 4 Methylphenol	1.3	U	99.6	70.8		ug/L		71	42 - 130
Naphthalene	0.68	U	99.6	69.9		ug/L		70	39 - 130
2-Nitroaniline	1.3	U	99.6	83.3	J	ug/L		84	51 - 130
3-Nitroaniline	4.8	U	99.6	84.3	J	ug/L		85	53 - 130
4-Nitroaniline	4.8	U	99.6	84.2	J	ug/L		85	49 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-152352-9 MS
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-39S
Prep Type: Total/NA
Prep Batch: 523993

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	0.70	U	99.6	72.0		ug/L		72	43 - 130
2-Nitrophenol	0.73	U	99.6	80.6		ug/L		81	43 - 130
4-Nitrophenol	1.8	U	199	178		ug/L		89	44 - 130
N-Nitrosodi-n-propylamine	0.70	U	99.6	68.6		ug/L		69	42 - 130
N-Nitrosodiphenylamine	0.89	U	99.6	83.1		ug/L		83	50 - 130
2,2'-oxybis[1-chloropropane]	0.75	U	99.6	70.9		ug/L		71	26 - 130
Pentachlorophenol	1.9	U	199	204		ug/L		102	33 - 130
Phenanthrene	0.74	U	99.6	83.5		ug/L		84	51 - 130
Phenol	0.80	U	99.6	67.2		ug/L		68	35 - 130
Pyrene	0.61	U	99.6	83.1		ug/L		83	52 - 130
2,4,5-Trichlorophenol	1.2	U	99.6	89.2		ug/L		90	48 - 130
2,4,6-Trichlorophenol	0.82	U	99.6	90.6		ug/L		91	47 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*32 - 113*
2-Fluorophenol (Surr)	*60*		*26 - 109*
Nitrobenzene-d5 (Surr)	*72*		*32 - 118*
Phenol-d5 (Surr)	*64*		*27 - 110*
Terphenyl-d14 (Surr)	*84*		*10 - 126*
2,4,6-Tribromophenol (Surr)	*102*		*39 - 124*

Lab Sample ID: 680-152352-9 MSD
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-39S
Prep Type: Total/NA
Prep Batch: 523993

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.73	U	93.3	72.7		ug/L		78	48 - 130	19	50
Acenaphthylene	0.82	U	93.3	71.5		ug/L		77	48 - 130	18	50
Acetophenone	0.55	U	93.3	64.4		ug/L		69	44 - 130	17	50
Anthracene	0.67	U	93.3	69.1		ug/L		74	49 - 130	18	50
Benzo[a]anthracene	0.53	U	93.3	74.5		ug/L		80	44 - 130	14	50
Benzo[a]pyrene	0.69	U	93.3	72.3		ug/L		77	44 - 130	12	50
Benzo[b]fluoranthene	2.5	U	93.3	74.1		ug/L		79	43 - 130	11	50
Benzo[g,h,i]perylene	0.84	U	93.3	73.3		ug/L		79	41 - 130	13	50
Benzo[k]fluoranthene	1.2	U	93.3	71.7		ug/L		77	40 - 130	19	50
1,1'-Biphenyl	0.56	U	93.3	62.4		ug/L		67	45 - 130	19	50
Bis(2-chloroethoxy)methane	0.91	U	93.3	56.5		ug/L		61	47 - 130	23	50
Bis(2-chloroethyl)ether	1.1	U	93.3	55.5		ug/L		60	32 - 130	15	50
Bis(2-ethylhexyl) phthalate	1.5	U	93.3	68.3		ug/L		73	45 - 130	16	50
4-Bromophenyl phenyl ether	0.74	U	93.3	74.1		ug/L		79	47 - 130	20	50
Butyl benzyl phthalate	1.2	U	93.3	69.2		ug/L		74	50 - 130	17	50
Carbazole	0.69	U	93.3	71.4		ug/L		77	54 - 130	20	50
4-Chloroaniline	2.1	U	93.3	58.7		ug/L		63	42 - 130	13	50
4-Chloro-3-methylphenol	0.97	U	93.3	68.4		ug/L		73	47 - 130	17	50
2-Chloronaphthalene	0.77	U	93.3	61.3		ug/L		66	44 - 130	22	50
2-Chlorophenol	0.84	U	93.3	61.8		ug/L		66	39 - 130	14	50
4-Chlorophenyl phenyl ether	0.81	U	93.3	71.2		ug/L		76	45 - 130	19	50
Chrysene	0.49	U	93.3	74.0		ug/L		79	47 - 130	12	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-152352-9 MSD
Matrix: Water
Analysis Batch: 524341

Client Sample ID: HG-39S
Prep Type: Total/NA
Prep Batch: 523993

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenz(a,h)anthracene	0.97	U	93.3	73.0		ug/L		78	41 - 130	17	50
Dibenzofuran	0.76	U	93.3	68.6		ug/L		74	50 - 130	17	50
3,3'-Dichlorobenzidine	29	U	93.3	66.0	J	ug/L		71	46 - 130	29	50
2,4-Dichlorophenol	1.1	U	93.3	70.7		ug/L		76	44 - 130	15	50
Diethyl phthalate	0.85	U	93.3	76.7		ug/L		82	53 - 130	18	50
2,4-Dimethylphenol	3.9	U	93.3	59.1		ug/L		63	37 - 130	12	50
Dimethyl phthalate	0.96	U	93.3	75.4		ug/L		81	53 - 130	15	50
Di-n-butyl phthalate	0.80	U	93.3	70.2		ug/L		75	51 - 130	19	50
4,6-Dinitro-2-methylphenol	9.7	U	187	172		ug/L		92	42 - 130	18	50
2,4-Dinitrophenol	9.7	U	187	173		ug/L		93	31 - 130	13	50
2,4-Dinitrotoluene	1.2	U	93.3	83.5		ug/L		89	52 - 130	13	50
2,6-Dinitrotoluene	1.1	U	93.3	78.3		ug/L		84	52 - 130	16	50
Di-n-octyl phthalate	1.4	U	93.3	68.2		ug/L		73	42 - 130	17	50
Fluoranthene	0.71	U	93.3	74.4		ug/L		80	47 - 130	19	50
Fluorene	0.93	U	93.3	68.1		ug/L		73	50 - 130	18	50
Hexachlorobenzene	0.76	U	93.3	76.3		ug/L		82	43 - 130	18	50
Hexachlorobutadiene	0.60	U	93.3	51.5		ug/L		55	27 - 130	33	50
Hexachlorocyclopentadiene	2.4	U	93.3	22.3		ug/L		24	11 - 130	28	50
Hexachloroethane	0.73	U	93.3	40.6		ug/L		44	29 - 130	34	50
Indeno[1,2,3-cd]pyrene	0.97	U	93.3	74.2		ug/L		80	31 - 130	15	50
Isophorone	0.87	U	93.3	65.0		ug/L		70	47 - 130	16	50
2-Methylnaphthalene	0.75	U	93.3	62.1		ug/L		67	40 - 130	16	50
2-Methylphenol	0.86	U	93.3	58.5		ug/L		63	40 - 130	16	50
3 & 4 Methylphenol	1.3	U	93.3	62.4		ug/L		67	42 - 130	13	50
Naphthalene	0.68	U	93.3	58.9		ug/L		63	39 - 130	17	50
2-Nitroaniline	1.3	U	93.3	68.7	J	ug/L		74	51 - 130	19	50
3-Nitroaniline	4.8	U	93.3	72.2	J	ug/L		77	53 - 130	15	50
4-Nitroaniline	4.8	U	93.3	71.9	J	ug/L		77	49 - 130	16	50
Nitrobenzene	0.70	U	93.3	61.3		ug/L		66	43 - 130	16	50
2-Nitrophenol	0.73	U	93.3	72.0		ug/L		77	43 - 130	11	50
4-Nitrophenol	1.8	U	187	156		ug/L		83	44 - 130	13	50
N-Nitrosodi-n-propylamine	0.70	U	93.3	57.0		ug/L		61	42 - 130	19	50
N-Nitrosodiphenylamine	0.89	U	93.3	70.0		ug/L		75	50 - 130	17	50
2,2'-oxybis[1-chloropropane]	0.75	U	93.3	61.6		ug/L		66	26 - 130	14	50
Pentachlorophenol	1.9	U	187	166		ug/L		89	33 - 130	21	50
Phenanthrene	0.74	U	93.3	70.2		ug/L		75	51 - 130	17	50
Phenol	0.80	U	93.3	57.3		ug/L		61	35 - 130	16	50
Pyrene	0.61	U	93.3	71.1		ug/L		76	52 - 130	16	50
2,4,5-Trichlorophenol	1.2	U	93.3	77.6		ug/L		83	48 - 130	14	50
2,4,6-Trichlorophenol	0.82	U	93.3	73.6		ug/L		79	47 - 130	21	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*64*		*32 - 113*
2-Fluorophenol (Surr)	*53*		*26 - 109*
Nitrobenzene-d5 (Surr)	*61*		*32 - 118*
Phenol-d5 (Surr)	*57*		*27 - 110*
Terphenyl-d14 (Surr)	*83*		*10 - 126*
2,4,6-Tribromophenol (Surr)	*93*		*39 - 124*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-523853/1-A
Matrix: Water
Analysis Batch: 524228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 523853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2	U	20	6.2	ug/L		05/14/18 12:25	05/15/18 18:57	1
Chromium	1.6	U	10	1.6	ug/L		05/14/18 12:25	05/15/18 18:57	1

Lab Sample ID: LCS 680-523853/2-A
Matrix: Water
Analysis Batch: 524228

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 523853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	96.7		ug/L		97	80 - 120
Chromium	100	104		ug/L		104	80 - 120

Lab Sample ID: 680-152352-8 MS
Matrix: Water
Analysis Batch: 524228

Client Sample ID: HG-38D MS
Prep Type: Total Recoverable
Prep Batch: 523853

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.2	U	100	95.1		ug/L		95	75 - 125
Chromium	8.9	J	100	104		ug/L		95	75 - 125

Lab Sample ID: 680-152352-8 MSD
Matrix: Water
Analysis Batch: 524228

Client Sample ID: HG-38D MSD
Prep Type: Total Recoverable
Prep Batch: 523853

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	6.2	U	100	100		ug/L		100	75 - 125	5	20
Chromium	8.9	J	100	110		ug/L		101	75 - 125	6	20

GC/MS VOA

Leach Batch: 524024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 680-524024/1-A	Method Blank	Total/NA	Water	1311	

Analysis Batch: 524176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-4	HG-37S	Total/NA	Water	8260B	
680-152352-5	HG-37D	Total/NA	Water	8260B	
680-152352-6	HG-37D FD	Total/NA	Water	8260B	
680-152352-7	HG-38S	Total/NA	Water	8260B	
MB 680-524176/9	Method Blank	Total/NA	Water	8260B	
LCS 680-524176/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-524176/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 524181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-1	HG-31D	Total/NA	Water	8260B	
680-152352-3	HG-36D	Total/NA	Water	8260B	
MB 680-524181/9	Method Blank	Total/NA	Water	8260B	
LCS 680-524181/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-524181/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 524185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-2	HG-36S	Total/NA	Water	8260B	
LB 680-524024/1-A	Method Blank	Total/NA	Water	8260B	524024
MB 680-524185/7	Method Blank	Total/NA	Water	8260B	
LCS 680-524185/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-524185/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 524442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-8	HG-38D	Total/NA	Water	8260B	
680-152352-9	HG-39S	Total/NA	Water	8260B	
680-152352-10	HG-39D	Total/NA	Water	8260B	
680-152352-11	CFW-1 155-165	Total/NA	Water	8260B	
680-152352-12	CFW-1 175-185	Total/NA	Water	8260B	
680-152352-13	CFW-1 195-205	Total/NA	Water	8260B	
680-152352-14	CFW-1 215-225	Total/NA	Water	8260B	
680-152352-15	Field Blank	Total/NA	Water	8260B	
680-152352-16	Equipment Blank 1	Total/NA	Water	8260B	
680-152352-17	Equipment Blank 2	Total/NA	Water	8260B	
680-152352-18	Trip Blank	Total/NA	Water	8260B	
MB 680-524442/9	Method Blank	Total/NA	Water	8260B	
LCS 680-524442/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-524442/5	Lab Control Sample Dup	Total/NA	Water	8260B	
680-152352-8 MS	HG-38D MS	Total/NA	Water	8260B	
680-152352-8 MSD	HG-38D MSD	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 523809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-4	HG-37S	Total/NA	Water	3520C	
680-152352-5	HG-37D	Total/NA	Water	3520C	
680-152352-6	HG-37D FD	Total/NA	Water	3520C	
680-152352-7	HG-38S	Total/NA	Water	3520C	
680-152352-7 - DL	HG-38S	Total/NA	Water	3520C	
680-152352-8 - DL	HG-38D	Total/NA	Water	3520C	
680-152352-8	HG-38D	Total/NA	Water	3520C	
680-152352-11	CFW-1 155-165	Total/NA	Water	3520C	
680-152352-12	CFW-1 175-185	Total/NA	Water	3520C	
680-152352-13	CFW-1 195-205	Total/NA	Water	3520C	
680-152352-14	CFW-1 215-225	Total/NA	Water	3520C	
680-152352-16	Equipment Blank 1	Total/NA	Water	3520C	
MB 680-523809/15-A	Method Blank	Total/NA	Water	3520C	
LCS 680-523809/16-A	Lab Control Sample	Total/NA	Water	3520C	
680-152352-8 MS	HG-38D MS	Total/NA	Water	3520C	
680-152352-8 MSD	HG-38D MSD	Total/NA	Water	3520C	

Prep Batch: 523993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-1 - DL	HG-31D	Total/NA	Water	3520C	
680-152352-1	HG-31D	Total/NA	Water	3520C	
680-152352-2	HG-36S	Total/NA	Water	3520C	
680-152352-3	HG-36D	Total/NA	Water	3520C	
680-152352-9	HG-39S	Total/NA	Water	3520C	
680-152352-10	HG-39D	Total/NA	Water	3520C	
680-152352-15	Field Blank	Total/NA	Water	3520C	
680-152352-17	Equipment Blank 2	Total/NA	Water	3520C	
MB 680-523993/20-A	Method Blank	Total/NA	Water	3520C	
LCS 680-523993/21-A	Lab Control Sample	Total/NA	Water	3520C	
680-152352-9 MS	HG-39S	Total/NA	Water	3520C	
680-152352-9 MSD	HG-39S	Total/NA	Water	3520C	

Analysis Batch: 524120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-5	HG-37D	Total/NA	Water	8270D	523809
680-152352-6	HG-37D FD	Total/NA	Water	8270D	523809
680-152352-7	HG-38S	Total/NA	Water	8270D	523809
680-152352-11	CFW-1 155-165	Total/NA	Water	8270D	523809
680-152352-12	CFW-1 175-185	Total/NA	Water	8270D	523809
680-152352-13	CFW-1 195-205	Total/NA	Water	8270D	523809
680-152352-14	CFW-1 215-225	Total/NA	Water	8270D	523809
680-152352-16	Equipment Blank 1	Total/NA	Water	8270D	523809

Analysis Batch: 524341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-1	HG-31D	Total/NA	Water	8270D	523993
680-152352-2	HG-36S	Total/NA	Water	8270D	523993
680-152352-3	HG-36D	Total/NA	Water	8270D	523993
680-152352-4	HG-37S	Total/NA	Water	8270D	523809
680-152352-7 - DL	HG-38S	Total/NA	Water	8270D	523809
680-152352-8	HG-38D	Total/NA	Water	8270D	523809

GC/MS Semi VOA (Continued)

Analysis Batch: 524341 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-9	HG-39S	Total/NA	Water	8270D	523993
680-152352-10	HG-39D	Total/NA	Water	8270D	523993
680-152352-15	Field Blank	Total/NA	Water	8270D	523993
680-152352-17	Equipment Blank 2	Total/NA	Water	8270D	523993
MB 680-523809/15-A	Method Blank	Total/NA	Water	8270D	523809
MB 680-523993/20-A	Method Blank	Total/NA	Water	8270D	523993
LCS 680-523809/16-A	Lab Control Sample	Total/NA	Water	8270D	523809
LCS 680-523993/21-A	Lab Control Sample	Total/NA	Water	8270D	523993
680-152352-8 MS	HG-38D MS	Total/NA	Water	8270D	523809
680-152352-8 MSD	HG-38D MSD	Total/NA	Water	8270D	523809
680-152352-9 MS	HG-39S	Total/NA	Water	8270D	523993
680-152352-9 MSD	HG-39S	Total/NA	Water	8270D	523993

Analysis Batch: 524532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-1 - DL	HG-31D	Total/NA	Water	8270D	523993
680-152352-8 - DL	HG-38D	Total/NA	Water	8270D	523809

Metals

Prep Batch: 523853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-1	HG-31D	Total Recoverable	Water	3005A	
680-152352-2	HG-36S	Total Recoverable	Water	3005A	
680-152352-3	HG-36D	Total Recoverable	Water	3005A	
680-152352-4	HG-37S	Total Recoverable	Water	3005A	
680-152352-5	HG-37D	Total Recoverable	Water	3005A	
680-152352-6	HG-37D FD	Total Recoverable	Water	3005A	
680-152352-7	HG-38S	Total Recoverable	Water	3005A	
680-152352-8	HG-38D	Total Recoverable	Water	3005A	
680-152352-9	HG-39S	Total Recoverable	Water	3005A	
680-152352-10	HG-39D	Total Recoverable	Water	3005A	
680-152352-11	CFW-1 155-165	Total Recoverable	Water	3005A	
680-152352-12	CFW-1 175-185	Total Recoverable	Water	3005A	
680-152352-13	CFW-1 195-205	Total Recoverable	Water	3005A	
680-152352-14	CFW-1 215-225	Total Recoverable	Water	3005A	
680-152352-15	Field Blank	Total Recoverable	Water	3005A	
680-152352-16	Equipment Blank 1	Total Recoverable	Water	3005A	
680-152352-17	Equipment Blank 2	Total Recoverable	Water	3005A	
MB 680-523853/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-523853/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-152352-8 MS	HG-38D MS	Total Recoverable	Water	3005A	
680-152352-8 MSD	HG-38D MSD	Total Recoverable	Water	3005A	

Analysis Batch: 524228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-1	HG-31D	Total Recoverable	Water	6010C	523853
680-152352-2	HG-36S	Total Recoverable	Water	6010C	523853
680-152352-3	HG-36D	Total Recoverable	Water	6010C	523853
680-152352-4	HG-37S	Total Recoverable	Water	6010C	523853

Metals (Continued)

Analysis Batch: 524228 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-152352-5	HG-37D	Total Recoverable	Water	6010C	523853
680-152352-6	HG-37D FD	Total Recoverable	Water	6010C	523853
680-152352-7	HG-38S	Total Recoverable	Water	6010C	523853
680-152352-8	HG-38D	Total Recoverable	Water	6010C	523853
680-152352-9	HG-39S	Total Recoverable	Water	6010C	523853
680-152352-10	HG-39D	Total Recoverable	Water	6010C	523853
680-152352-11	CFW-1 155-165	Total Recoverable	Water	6010C	523853
680-152352-12	CFW-1 175-185	Total Recoverable	Water	6010C	523853
680-152352-13	CFW-1 195-205	Total Recoverable	Water	6010C	523853
680-152352-14	CFW-1 215-225	Total Recoverable	Water	6010C	523853
680-152352-15	Field Blank	Total Recoverable	Water	6010C	523853
680-152352-16	Equipment Blank 1	Total Recoverable	Water	6010C	523853
680-152352-17	Equipment Blank 2	Total Recoverable	Water	6010C	523853
MB 680-523853/1-A	Method Blank	Total Recoverable	Water	6010C	523853
LCS 680-523853/2-A	Lab Control Sample	Total Recoverable	Water	6010C	523853
680-152352-8 MS	HG-38D MS	Total Recoverable	Water	6010C	523853
680-152352-8 MSD	HG-38D MSD	Total Recoverable	Water	6010C	523853

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-31D

Date Collected: 05/09/18 09:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524181	05/17/18 17:32	JLK	TAL SAV
	Instrument ID: CMSO2									
Total/NA	Prep	3520C			1038.6 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 20:17	KNW	TAL SAV
	Instrument ID: CMSE									
Total/NA	Prep	3520C	DL		1038.6 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D	DL	10			524532	05/19/18 02:22	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 21:12	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-36S

Date Collected: 05/09/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524185	05/17/18 17:57	Y1S	TAL SAV
	Instrument ID: CMSP2									
Total/NA	Prep	3520C			1041.2 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 20:40	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:30	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-36D

Date Collected: 05/09/18 12:40
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524181	05/17/18 17:10	JLK	TAL SAV
	Instrument ID: CMSO2									
Total/NA	Prep	3520C			1033.9 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 21:04	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:09	BCB	TAL SAV
	Instrument ID: ICPE									

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: HG-37S

Date Collected: 05/08/18 16:35
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524176	05/17/18 16:47	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1040.7 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 23:00	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:20	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-37D

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524176	05/17/18 17:09	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1019.4 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 21:10	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 19:33	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-37D FD

Date Collected: 05/08/18 17:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524176	05/17/18 17:31	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1029.3 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 21:33	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:35	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-38S

Date Collected: 05/08/18 14:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524176	05/17/18 17:53	Y1S	TAL SAV

Client Sample ID: HG-38S

Lab Sample ID: 680-152352-7

Date Collected: 05/08/18 14:50
Matrix: Water
Date Received: 05/11/18 07:15

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	524176	05/17/18 17:53	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1026 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 21:57	OK	TAL SAV
	Instrument ID: CMSE									
Total/NA	Prep	3520C	DL		1026 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D	DL	20			524341	05/18/18 01:20	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 21:06	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-38D

Lab Sample ID: 680-152352-8

Date Collected: 05/08/18 15:25
Matrix: Water
Date Received: 05/11/18 07:15

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	524442	05/18/18 12:03	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1035.1 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 23:23	KNW	TAL SAV
	Instrument ID: CMSE									
Total/NA	Prep	3520C	DL		1035.1 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D	DL	10			524532	05/19/18 02:45	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 19:07	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-39S

Lab Sample ID: 680-152352-9

Date Collected: 05/09/18 10:15
Matrix: Water
Date Received: 05/11/18 07:15

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	524442	05/18/18 12:25	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1035.7 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 21:27	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:14	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: HG-39D
Date Collected: 05/09/18 10:55
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 12:47	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1034.2 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 21:50	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 21:01	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: CFW-1 155-165
Date Collected: 05/08/18 13:20
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 13:09	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1026.8 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 22:20	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:40	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: CFW-1 175-185
Date Collected: 05/08/18 12:10
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 13:31	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1016.1 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 22:44	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:25	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: CFW-1 195-205
Date Collected: 05/08/18 11:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 13:54	Y1S	TAL SAV

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: CFW-1 195-205

Date Collected: 05/08/18 11:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 13:54	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1021.8 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 23:07	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 19:43	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: CFW-1 215-225

Date Collected: 05/08/18 09:30
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 14:16	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1015.9 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 23:31	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 19:59	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: Field Blank

Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 14:38	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1003.5 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 22:14	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:46	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: Equipment Blank 1

Date Collected: 05/08/18 11:50
Date Received: 05/11/18 07:15

Lab Sample ID: 680-152352-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	524442	05/18/18 15:00	Y1S	TAL SAV

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Client Sample ID: Equipment Blank 1

Lab Sample ID: 680-152352-16
Matrix: Water
Date Collected: 05/08/18 11:50
Date Received: 05/11/18 07:15

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	524442	05/18/18 15:00	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1016.3 mL	1 mL	523809	05/14/18 13:37	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524120	05/16/18 23:54	OK	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 19:38	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: Equipment Blank 2

Lab Sample ID: 680-152352-17
Matrix: Water
Date Collected: 05/09/18 07:30
Date Received: 05/11/18 07:15

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	524442	05/18/18 11:19	Y1S	TAL SAV
	Instrument ID: CMSB									
Total/NA	Prep	3520C			1036.2 mL	1 mL	523993	05/15/18 14:54	CEW	TAL SAV
Total/NA	Analysis	8270D		1			524341	05/17/18 22:37	KNW	TAL SAV
	Instrument ID: CMSE									
Total Recoverable	Prep	3005A			50 mL	50 mL	523853	05/14/18 12:25	AJR	TAL SAV
Total Recoverable	Analysis	6010C		1			524228	05/15/18 20:04	BCB	TAL SAV
	Instrument ID: ICPE									

Client Sample ID: Trip Blank

Lab Sample ID: 680-152352-18
Matrix: Water
Date Collected: 05/09/18 12:00
Date Received: 05/11/18 07:15

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	524442	05/18/18 10:57	Y1S	TAL SAV
	Instrument ID: CMSB									

Laboratory References:

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

Accreditation/Certification Summary

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Laboratory: TestAmerica Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Florida	NELAP	4	E87052	06-30-18

Method Summary

Client: Environmental Standards Inc.
Project/Site: Cabot/Hawthorne-HG, CFW

TestAmerica Job ID: 680-152352-1
SDG: 680-152352-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
6010C	Metals (ICP)	SW846	TAL SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SAV
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL SAV
5030B	Purge and Trap	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

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Scott Nash, Mike Eckstein	Lab PM: Conner, Keaton	Carrier Tracking No(s): 530-Orlando	COC No: 680-93250-30985.1
Client Contact: Mr. Mark Newell	Phone:	E-Mail: keaton.conner@testamericainc.com		Page: Page 1 of 2
Company: Environmental Standards Inc.				Job #:
Address: 1412 Sachem Pl Unit 100	Due Date Requested:			
City: Charlottesville	TAT Requested (days): Standard			
State, Zip: VA, 22901-2499				
Phone: 434-293-4039(Tel)	PO #: Purchase Order Requested			
Email: mnewell@envstd.com	WO #:			
Project Name: Cabot/Hawthorne- Monitoring Wells (HG)	Project #: 68016211			
Site: Cabot - Gainesville, FL	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C-(MOD) Custom Sublist Temporary	8260B-(MOD) TCL OLM042 (W/SAN SUM)	8270D-(MOD) TCL OLM042	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N		
HG-31D	5/9/18	0900	G	Water	N	N	1	3	2	6	
HG-36S	5/9/18	1150	G	Water			1	3	2	6	
HG-36D	5/9/18	1240	G	W			1	3	2	6	
HG-37S	5/8/18	1635	G	W			1	3	2	6	
HG-37D	5/8/18	1720	G	W			1	3	2	6	
HG-37D FD	5/8/18	1720	G	W			1	3	2	6	
HG-38S	5/8/18	1450	G	W			1	3	2	6	
HG-38D	5/8/18	1525	G	W			1	3	2	6	
HG-38D MS	5/8/18	1525	G	W		X	1	3	2	6	
HG-38D MSD	5/8/18	1525	G	W		X	1	3	2	6	
HG-39S	5/9/18	1015	G	W		N	1	3	2	6	

680-152352 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: [signature]	Date/Time: 5-10-18 1421	Company:	Received by: [signature] Date/Time: 5/10/18 1421 Company: TAORL
Relinquished by: [signature]	Date/Time: 5/10/18 1430	Company: TAORL	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company:	Received by: [signature] Date/Time: 5/11/18 0715 Company:

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.9, 1.1, 2.4, 2.1, 2.4 CF-0.6 TASAV

Ver: 08/04/2016

TestAmerica Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone (912) 354-7858 Fax (912) 352-0165

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Scott Nash, Mike Eckstien	Lab PM: Conner, Keaton	Carrier Tracking No(s): 630-Orlando	COC No: 680-93250-30985.1
Client Contact: Mr. Mark Newell	Phone:	E-Mail: keaton.conner@testamericainc.com		Page: Page 2 of 2
Company: Environmental Standards Inc.				Job #:
Address: 1412 Sachem Pl Unit 100	Due Date Requested:			
City: Charlottesville	TAT Requested (days): Standard			
State, Zip: VA, 22901-2499				
Phone: 434-293-4039(Tel)	PO #: Purchase Order Requested			
Email: mnewell@envstd.com	WO #:			
Project Name: Cabot/Hawthorne- Monitoring Wells (HG)	Project #: 68016211			
Site: Cabot - Gainesville, FL	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010C - (MOD) (Custom Sublist Template)	8260B - (MOD) TCL OLM04.2 (V/SAN SV)	8270D - (MOD) TCL OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N		
HG-39D	5/9/18	1055	G	Water	N	N	1	3	2	6	
CFW-1 155-165	5/8/18	~~0930~~ 1320	G	Water			1	3	2	6	
CFW-1 175-185	5/8/18	1210	G	W			1	3	2	6	
CFW-1 195-205	5/8/18	1100	G	W			1	3	2	6	
CFW-1 215-225	5/8/18	0930	G	W			1	3	2	6	
Field Blank	5/9/18	1200	G	W			1	3	2	6	
Equipment Blank 1	5/8/18	1150	G	W			1	3	2	6	
Equipment Blank 2	5/9/18	0730	G	W			1	3	2	6	
Trip Blank	5/9/18	1200	G	W			1	3	2	6	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5-10-18 1421		[signature]	5/10/18 1421	TAORL
[signature]	5/10/18 1430	TAORL			
			[signature]	5/11/18 0717	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.9, 1.1, 2.4, 2.1, 2.4 CF-0.6 TASAV

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Environmental Standards Inc.

Job Number: 680-152352-1
SDG Number: 680-152352-1

Login Number: 152352
List Number: 1
Creator: Elwell, Devin M

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Upper Hawthorn Group HG-28S				Upper Hawthorn Group HG-29S			
				9/11/2015	12/3/2015	11/8/2016	11/9/2017	9/9/2015	12/2/2015	11/9/2016	11/9/2017
Volatile Organic Compounds (VOCs)											
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	25 J	11	22 J	23 J	19	28	9.4 U	31
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	1.5 J	0.8 J	7.8 U	7.8 U	3.1 U	6.2 U	6.2 U	7.8 U
2-Butanone	4,200	FL DEP GCTL	µg/L		4800 J	7,900	9600	3900	3300	3,600	5900
2-Hexanone	280	FL DEP GCTL	µg/L	100 J	78	170 J	50 U	110	120 J	130 J	50 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	54 J	56	81 J	53 U	47 J	46 J	56 J	53 U
Acetone	6300	FL DEP GCTL	µg/L	17000 J	20000 J	21,000	24000	8800	10000	9,900	19000
Benzene	1	MCL FL DEP	µg/L	150 J	79	160	170	310	290	210	240
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	11 J	0.82 U	10 U	10 U	4.1 U	8.2 U	20 U	10 U
Ethylbenzene	700	MCL FL DEP	µg/L	57 J	26	49	48	110	99	44	69
Isopropylbenzene	450	EPA RSL	µg/L	3.5 J	1.5 J	0.35 U	8.8 U	3.5 U	7 U	7.0 U	8.8 U
Methyl acetate	20,000	EPA RSL	µg/L	6000 J	5,900	7,100	6900	1100	970	900	620
m,p-Xylenes	See Total Xylenes		µg/L	130 J	55	100	110	190	180	76	120
o-Xylene	See Total Xylenes		µg/L	43 J	20	41	41	50	43	23	36
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	100 J	40	390	88	49	63	170	42
Toluene	1000	MCL FL DEP	µg/L	850 J	730	740	820	1800	1600	860	1,200
Xylene (Total)	10,000	MCL FL DEP	µg/L	170 J	75	140	150	240	220	99	160
Semi-Volatile Organics (SVOCs)											
1,1'-Biphenyl	0.83	EPA RSL	µg/L	1.6 U	17 U	5.6 U	5.5 U	17 U	15 U	28 U	5.7 U
2,4-Dimethylphenol	192	Updated GCTL	µg/L	5200 J	8,900	11,000	2,300	4900	7600	11,000	3,700
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	1.4 U	15 U	7.5 U	7.5 U	15 U	13 U	38 U	7.7 U
2-Methylphenol	480	Updated GCTL	µg/L	10000 J	15,000	24,000	4,700	7900	13000	19,000	5,800
2-Nitroaniline	21	FL DEP GCTL	µg/L			12 U	12 U			64 U	13 U
2-Nitrophenol	NA		µg/L			7.3 U	7.3 U			37 U	7.5 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	25000 J	39,000	57,000	11,000	22000	38000	73,000	25,000
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			48 U	48 U			240 U	49 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			9.6 U	9.6 U			49 U	9.9 U
4-Chloroaniline	28	FL DEP GCTL	µg/L	1.4 U	15 U	21 U	21 U	15 U	13 U	110 U	22 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			18 U	18 U			93 U	19 U
Acenaphthene	530	EPA RSL	µg/L	1.6 U	17 U	7.3 U	7.3 U	17 U	15 U	37 U	7.5 U
Acenaphthylene	210	FL DEP GCTL	µg/L	1.7 U	260	8.2 U	8.1 U	18 U	16 U	42 U	8.4 U
Acetophenone	700	FL DEP GCTL	µg/L	160	660	810	5.5 U	690	810	1,300	5.6 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			9.0 U	9 U			46 U	9.3 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2.5 U	27 U	15 U	15 U	27 U	25 U	78 U	16 U
Carbazole	1.8	FL DEP GCTL	µg/L	2.2 U	24 U	6.8 U	6.8 U	24 U	22 U	35 U	40 J
Dibenzofuran	28	FL DEP GCTL	µg/L	1.8 U	19 U	7.6 U	7.6 U	19 U	17 U	39 U	7.8 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L	2.1 U	23 U	8.5 U	8.4 U	23 U	21 U	43 U	8.7 U
Fluorene	280	FL DEP GCTL	µg/L	1.9 U	20 U	9.2 U	9.2 U	20 U	18 U	47 U	9.5 U
Naphthalene	14	FL DEP GCTL	µg/L	1.3 U	14 U	6.7 U	6.7 U	14 U	12 U	34 U	6.9 U
Nitrobenzene	3.5	FL DEP GCTL	µg/L	1.4 U	15 U	7.0 U	7 U	15 U	13 U	36 U	7.2 U
Phenanthrene	210	FL DEP GCTL	µg/L	2 U	22 U	120	7.4 U	21 U	20 U	38 U	7.6 U
Phenol	9,600	Updated GCTL	µg/L	34000	51,000	93,000	15,000	20000	39000	65,000	15,000
Pyrene	210	FL DEP GCTL	µg/L	2 U	22 U	26 J	6 U	21 U	20 U	31 U	6.2 U
Total Metals											
Arsenic	10	MCL FL DEP	µg/L	6.2 U	62 U	6.2 U	4 U	6.2 U	6.2 U	7.4 J	4 U
Chromium	100	MCL FL DEP	µg/L	160	160	89	150	24	32	36	40

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Upper Hawthorn Group HG-30S				Upper Hawthorn Group HG-36S						
				9/10/2015	12/3/2015	11/9/2016	11/8/2017	9/8/2015	12/1/2015	5/11/2016	11/8/2016	5/3/2017	11/8/2017	5/9/2018
Volatile Organic Compounds (VOCs)														
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	2.6	7.4 J	9.4 U	24 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	0.31 U	3.1 U	6.2 U	16 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
2-Butanone	4,200	FL DEP GCTL	µg/L	2800 J	3800 J	4,100	9,800	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
2-Hexanone	280	FL DEP GCTL	µg/L	78	87 J	110 J	100 U	2 U	2 U	2 U	2.0 U	2.0 U	2 U	2 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	20	44 J	53 J	110 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	6300	FL DEP GCTL	µg/L	6600 J	12000	9,500	26,000	7 U	7 U	7 U	7 U	7 U	7 U	7 U
Benzene	1	MCL FL DEP	µg/L	59	190	170	230	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	4.1 U	20 U	21 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700	MCL FL DEP	µg/L	18	51	41	68	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Isopropylbenzene	450	EPA RSL	µg/L	0.9 J	3.5 U	7.0 U	18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	290	240	90 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
m,p-Xylenes	See Total Xylenes		µg/L	34	92	72	18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
o-Xylene	See Total Xylenes		µg/L	9.2	24	21	29 J	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	4.1	10	56	24 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Toluene	1000	MCL FL DEP	µg/L	300 J	870	680	1,100	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Xylene (Total)	10,000	MCL FL DEP	µg/L	43	120	93	29 J	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Semi-Volatile Organics (SVOCs)														
1,1'-Biphenyl	0.83	EPA RSL	µg/L	16 U	85 U	58 U	5.6 U	0.096 U	0.56 U	0.55 U	0.56 U	0.55 U	0.56 U	0.56 U
2,4-Dimethylphenol	192	Updated GCTL	µg/L	2900	4900	7,400	1,300	0.66 U	3.9 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	14 U	74 U	78 U	7.6 U	0.096 U	0.75 U	0.74 U	0.75 U	0.75 U	0.75 U	0.75 U
2-Methylphenol	480	Updated GCTL	µg/L	5100	8900	16,000	2,800	0.71 U	0.86 U	0.85 U	0.85 U	0.85 U	2.8 J	0.85 U
2-Nitroaniline	21	FL DEP GCTL	µg/L			130 U	13 U			1.2 U	1.3 U	1.2 U	1.2 U	1.2 U
2-Nitrophenol	NA		µg/L			76 U	7.4 U			1.8 U	0.73 U	0.73 U	0.73 U	0.73 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	37000	36000	63,000	8,300	0.63 U	1.3 U	1.2 U	1.2 U	1.2 U	7.2 J	1.2 U
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			500 U	48 U			4.8 U	4.9 U	4.8 U	4.8 U	4.8 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			100 U	9.7 U			0.95 U	0.96 U	0.96 U	0.96 U	0.96 U
4-Chloroaniline	28	FL DEP GCTL	µg/L	14 U	74 U	220 U	21 U			4.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			190 U	18 U			1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Acenaphthene	530	EPA RSL	µg/L	16 U	85 U	76 U	7.4 U	0.096 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U	0.73 U
Acenaphthylene	210	FL DEP GCTL	µg/L	17 U	91 U	85 U	8.2 U	0.096 U	0.82 U	0.81 U	0.82 U	0.81 U	0.81 U	0.81 U
Acetophenone	700	FL DEP GCTL	µg/L	19 U	100 U	430 J	5.5 U	0.29 U	0.55 U	0.54 U	0.66 U	0.54 U	0.55 U	0.55 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			94 U	9.1 U			0.90 U	0.90 U	0.9 U	0.9 U	0.9 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	25 U	140 U	160 U	16 U	1.9 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Carbazole	1.8	FL DEP GCTL	µg/L	22 U	120 U	71 U	6.9 U	0.096 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
Dibenzofuran	28	FL DEP GCTL	µg/L	18 U	96 U	79 U	7.7 U	0.096 U	0.76 U	0.75 U	0.76 U	0.75 U	0.76 U	0.76 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L	21 U	110 U	88 U	8.5 U			0.84 U	0.84 U	0.84 U	0.84 U	0.84 U
Fluorene	280	FL DEP GCTL	µg/L	19 U	100 U	96 U	9.3 U	0.096 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Naphthalene	14	FL DEP GCTL	µg/L	13 U	68 U	70 U	6.8 U	0.096 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Nitrobenzene	3.5	FL DEP GCTL	µg/L	14 U	74 U	73 U	7.1 U			0.70 U	0.70 U	0.7 U	0.7 U	0.7 U
Phenanthrene	210	FL DEP GCTL	µg/L	20 U	110 U	77 U	7.5 U				0.74 U	0.74 U	0.74 U	0.74 U
Phenol	9,600	Updated GCTL	µg/L	16000	31000	73,000	9,000	0.12 U	0.8 U	0.79 U	0.80 U	0.79 U	7.2 J	0.80 U
Pyrene	210	FL DEP GCTL	µg/L	20 U	110 U	63 U	6.1 U				0.60 U	0.6 U	0.6 U	0.6 U
Total Metals														
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	13 J	7.7 J	15	15	6.2 U	6.2 U	6.2 U	4 U	6.2 U
Chromium	100	MCL FL DEP	µg/L	36	43	37	40	1.6 U	39	16	7.4 J	1.6 J	7.9 J	1.6 U

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Upper Hawthorn Group HG-37S							Upper Hawthorn Group HG-38S						
				9/10/2015	12/2/2015	5/10/2016	11/8/2016	5/3/2017	11/18/017	5/8/2018	9/10/2015	12/2/2015	5/10/2016	11/9/2016	5/2/2017	11/8/2017	5/8/2018
Volatile Organic Compounds (VOCs)																	
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1.9	1.2	19	20	17	25	20
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.63 J	0.36 J	7 J	6.9	5.6	7.6	5.7
2-Butanone	4,200	FL DEP GCTL	µg/L	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	34 U	3.4 U	3.4 U	3.4 U	3.4 U
2-Hexanone	280	FL DEP GCTL	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2.0 U	2 U	2 U	2 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	21 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	6300	FL DEP GCTL	µg/L	7 U	7 U	7 U	7.0 U	7 U	7 U	7 U	25	60	70 U	7.0 U	7 U	7 U	7 U
Benzene	1	MCL FL DEP	µg/L	0.8 J	0.51 J	0.51 J	0.60 J	0.46 J	1.6	0.46 J	3.5	1.8	4.3 U	7.2	7	10	8.2
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700	MCL FL DEP	µg/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.9	1.3	16	16	15	19	17
Isopropylbenzene	450	EPA RSL	µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	3.5 U	2.0	1.8	2.5	2.3
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	18 U	1.8 U	1.8 U	1.8 U	1.8 U
m,p-Xylenes	See Total Xylenes		µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	3.4	1.6	20	19	17	22	18
o-Xylene	See Total Xylenes		µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	1.9	0.86 J	11	11	9.6	14	11
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.66 J	0.48 U	4.8 U	4.6	2.6	4.2	5.8
Toluene	1000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	3.3	1.5	6.5 J	2.3	2	2.9	
Xylene (Total)	10,000	MCL FL DEP	µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	5.3	2.5	31	30	27	36	29
Semi-Volatile Organics (SVOCs)																	
1,1'-Biphenyl	0.83	EPA RSL	µg/L			0.55 U	0.56 U	0.55 U	0.56 U	0.56 U	6.5 J	8.5 J	14 J	16	11	15	13
2,4-Dimethylphenol	192	Updated GCTL	µg/L	3 J	5.7 J	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	110	99	42 J	33	20	25	89
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	1.4 U	0.77 U	0.74 u	0.75 U	0.75 U	0.75 U	0.75 U	94	140	170	180	120	210	180
2-Methylphenol	480	Updated GCTL	µg/L	1.5 U	0.87 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	68	59	4.2 U	0.86 U	2.6 J	0.85 U	0.85 U
2-Nitroaniline	21	FL DEP GCTL	µg/L			1.2 U	1.3 U	1.2 U	1.2 U	1.2 U			6.2 U	1.3 U	1.2 U	1.2 U	1.2 U
2-Nitrophenol	NA		µg/L			0.72 U	0.73 U	0.73 U	0.73 U	0.73 U			3.6 U	0.74 U	0.73 U	0.73 U	0.73 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	1.4 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 J	1.2 U	870	260	42 J	1.3 U	1.2 U	1.2 U	1.2 U
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			4.8 U	4.8 U	4.8 U	4.8 U	4.8 U			24 U	4.9 U	4.8 U	4.8 U	4.8 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			0.97 U	0.96 U	0.96 U	0.96 U	0.96 U			0.97 U	0.97 U	0.95 U	0.96 U	0.96 U
4-Chloroaniline	28	FL DEP GCTL	µg/L			2.1 U	2.1 U	2.1 U	2.1 U	2.1 U			10 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			4.8 U	1.8 U	1.8 U	1.8 U	1.8 U			3.6 U	1.8 U	1.8 U	1.8 U	1.8 U
Acenaphthene	530	EPA RSL	µg/L	1.6 U	0.75 U	0.72 U	0.73 U	0.73 U	0.73 U	0.73 U	24	36	66	78	49	54	56
Acenaphthylene	210	FL DEP GCTL	µg/L	1.8 U	0.83 U	0.81 U	0.82 U	0.81 U	0.81 U	0.81 U	1.8 U	1.7 U	4.1 U	0.82 U	0.81 U	0.82 U	0.82 U
Acetophenone	700	FL DEP GCTL	µg/L	2 U	0.56 U	0.54 U	0.66 U	0.55 U	0.55 U	0.55 U	2 U	1.9 U	2.7 U	0.55 U	0.54 U	0.55 U	0.55 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			0.90 U	0.90 U	0.9 U	0.9 U	0.9 U			4.5 U	0.91 U	0.9 U	0.9 U	0.9 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2.6 U	1.6 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	2.7 U	2.5 U	7.6 U	1.6 U	1.5 U	1.5 U	1.5 U
Carbazole	1.8	FL DEP GCTL	µg/L	2.3 U	0.7 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	25	14	36 J	36	29	39	39
Dibenzofuran	28	FL DEP GCTL	µg/L	1.9 U	0.78 U	0.75 U	0.76 U	0.76 U	0.76 U	0.76 U	1.9 U	2.3 J	3.8 U	4 J	2.8 J	4.4 J	5.7 J
Diethylphthalate	5,600	FL DEP GCTL	µg/L			0.84 U	0.84 U	0.84 U	0.84 U	0.84 U			4.2 U	0.85 U	0.84 U	0.85 U	0.85 U
Fluorene	280	FL DEP GCTL	µg/L	2 U	0.94 U	0.91 U	0.92 U	0.92 U	0.92 U	0.92 U	3.9 J	4.9 J	8.5 J	8.5 J	6.4 J	8.8 J	11
Naphthalene	14	FL DEP GCTL	µg/L	1.3 U	0.69 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	2,400	2,800	3,800	4,600	2,900	4600	3,300
Nitrobenzene	3.5	FL DEP GCTL	µg/L			0.70 U	0.70 U	0.7 U	0.7 U	0.7 U			3.5 U	0.71 U	0.7 U	0.7 U	0.7 U
Phenanthrene	210	FL DEP GCTL	µg/L				0.74 U	0.74 U	0.74 U	0.74 U				0.75 U	0.74 U	0.74 U	0.74 U
Phenol	9,600	Updated GCTL	µg/L	1.6 U	0.81 U	0.79 U	0.80 U	0.79 U	1.3 J	0.80 U	37	41	4.0 U	0.81 U	0.79 U	0.8 U	8.65
Pyrene	210	FL DEP GCTL	µg/L				0.60 U	0.6 U	0.6 U	0.6 U				0.61 U	0.6 U	0.6 U	0.6 U
Total Metals																	
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U	6.2 U	7.9 J	11 J	14 J	14 J	9.2 J	8.9 J	12 J
Chromium	100	MCL FL DEP	µg/L	17	6 J	4.2 J	4.9 J	2.3 J	14	1.6 U	4.6 J	4 J	2.5 J	2.8 J	2.2 J	4.3 J	1.6 U

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Upper Hawthorn Group							Lower Hawthorn Group			
				HG-39S							HG-28D			
				9/9/2015	12/1/2015	5/11/2016	11/8/2016	5/2/2017	11/8/2017	5/9/2018	9/11/2015	12/3/2015	11/8/2016	11/9/2017
Volatile Organic Compounds (VOCs)														
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	3.3	3.5	2.8	3.6
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.63 J	0.74 J	0.66 J	0.73 J
2-Butanone	4,200	FL DEP GCTL	µg/L	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	4.1 J		20	31
2-Hexanone	280	FL DEP GCTL	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 J
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	6300	FL DEP GCTL	µg/L	7 U	7 U	7 U	7.0 U	7 U	7 U	7 U	11	8.4 J	42	110
Benzene	1	MCL FL DEP	µg/L	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	100	99	99	120
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700	MCL FL DEP	µg/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	37	37	36	41
Isopropylbenzene	450	EPA RSL	µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	2.8	2.9	2.7	3
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
m,p-Xylenes	See Total Xylenes		µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	52	52	47	53
o-Xylene	See Total Xylenes		µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	14	15	14	18
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.64 J	0.72 J	0.89 J	0.53 J
Toluene	1000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	2	1.9	2.7	3.9
Xylene (Total)	10,000	MCL FL DEP	µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	66	67	61	71
Semi-Volatile Organics (SVOCs)														
1,1'-Biphenyl	0.83	EPA RSL	µg/L	1.6 U	0.57 U	0.55 U	0.56 U	0.56 U	0.56 U	0.56 U	1.5 U	1.6 U	0.57 U	0.57 U
2,4-Dimethylphenol	192	Updated GCTL	µg/L	1.4 U	4 U	3.8 U	3.8 U	3.9 U	3.8 U	3.8 U	920	960	820	1,000
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	1.4 U	0.77 U	0.74 U	0.75 U	0.75 U	0.75 U	0.75 U	1.3 U	1.4 U	0.77 U	0.77 U
2-Methylphenol	480	Updated GCTL	µg/L	1.5 U	0.88 U	0.85 U	0.85 U	0.86 U	0.85 U	0.85 U	19	1.5 U	21	27
2-Nitroaniline	21	FL DEP GCTL	µg/L			1.2 U	1.3 U	1.3 U	1.2 U	1.2 U			1.3 U	1.3 U
2-Nitrophenol	NA		µg/L			0.72 U	0.73 U	0.73 U	0.73 U	0.73 U			7.5 U	0.75 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	1.4 U	1.3 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	44	1.4 U	52	68
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			4.8 U	4.8 U	4.8 U	4.8 U	4.8 U			4.9 U	4.9 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			0.95 U	0.96 U	0.96 U	0.96 U	0.96 U			0.99 U	0.99 U
4-Chloroaniline	28	FL DEP GCTL	µg/L			2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	1.3 U	1.4 U	2.2 U	2.2 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			1.8 U	1.8 U	1.8 U	1.8 U	1.8 U			1.9 U	1.9 U
Acenaphthene	530	EPA RSL	µg/L	1.6 U	0.75 U	0.72 U	0.73 U	0.73 U	0.73 U	0.73 U	1.5 U	1.6 U	0.75 U	0.75 U
Acenaphthylene	210	FL DEP GCTL	µg/L	1.7 U	0.84 U	0.81 U	0.82 U	0.82 U	0.81 U	0.81 U	1.6 U	1.7 U	0.84 U	0.84 U
Acetophenone	700	FL DEP GCTL	µg/L	1.9 U	0.56 U	0.54 U	0.66 U	0.55 U	0.55 U	0.55 U	1.8 U	1.9 U	0.56 U	0.56 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			0.90 U	0.90 U	0.91 U	0.9 U	0.9 U			0.93 U	0.93 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2.5 U	1.6 U	1.5 U	1.6 U	1.5 U	1.5 U	1.5 U	2.5 U	11 U	1.6 U	1.6 U
Carbazole	1.8	FL DEP GCTL	µg/L	2.2 U	0.7 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	2.2 U	2.3 U	13	0.7 U
Dibenzofuran	28	FL DEP GCTL	µg/L	1.8 U	0.78 U	0.75 U	0.76 U	0.76 U	0.76 U	0.76 U	1.7 U	1.8 U	0.78 U	0.78 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L			0.84 U	0.84 U	0.85 U	0.84 U	0.84 U	2.1 U	2.1 U	0.87 U	0.87 U
Fluorene	280	FL DEP GCTL	µg/L	1.9 U	0.95 U	0.91 U	0.92 U	0.92 U	0.92 U	0.92 U	1.8 U	1.9 U	0.95 U	0.95 U
Naphthalene	14	FL DEP GCTL	µg/L	1.3 U	0.69 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	100	100	91	79
Nitrobenzene	3.5	FL DEP GCTL	µg/L			0.70 U	0.70 U	0.7 U	0.7 U	0.7 U	1.3 U	1.4 U	0.72 U	0.72 U
Phenanthrene	210	FL DEP GCTL	µg/L				0.74 U	0.74 U	0.74 U	0.74 U	2 U	2 U	0.76 U	0.76 U
Phenol	9,600	Updated GCTL	µg/L	1.6 U	0.82 U	0.79 U	0.80 U	0.8 U	1 J	0.80 U	55	22	72	84
Pyrene	210	FL DEP GCTL	µg/L				0.60 U	0.61 U	0.6 U	0.6 U	2 U	2 U	0.62 U	0.62 U
Total Metals														
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U
Chromium	100	MCL FL DEP	µg/L	13	26	7.3 J	6.6 J	1.6 U	4.9 J	1.6 U	3.8 J	2.4 J	18	27

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Lower Hawthorn Group HG-30D				Lower Hawthorn Group HG-31D						
				9/10/2015	12/3/2015	11/9/2016	11/8/2017	9/10/2015	12/2/2015	5/11/2016	11/9/2016	5/3/2017	11/9/2017	5/9/2018
Volatile Organic Compounds (VOCs)														
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	15	15	13	16	24 U	5.4	5.2	4.7 U	5.5 J	9.4 U	6.8
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	4.8	4.9	4.5	5.1	16 U	58	1.6 U	3.1 U	3.1 U	6.2 U	1
2-Butanone	4,200	FL DEP GCTL	µg/L	3.4 U	NT	3.4 U	3.4 U	2,700	58	17 U	34 U	34 U	68 U	7.2 J
2-Hexanone	280	FL DEP GCTL	µg/L	2 U	2 U	2 U	2 U			10 U	20 U	20 U	40 U	40 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	110 U	7 J	11 I	21 U	21 U	42 U	4.2 J
Acetone	6300	FL DEP GCTL	µg/L	11	NT	7.0 U	7 U	5,800	130	35 U	70 U	89 J	140 U	24
Benzene	1	MCL FL DEP	µg/L	39	40	38	44	67	120	110	120	110	120	130
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	21 U	0.41 U	2.1 U	4.1 U	4.1 U	8.2 U	8.2 U
Ethylbenzene	700	MCL FL DEP	µg/L	34	35	34	35	20 J	51	48	48	51	53	64
Isopropylbenzene	450	EPA RSL	µg/L	4.8	4.9	4.3	4.6	18 U	4.5	4.3 J	4.3 J	3.5 U	7 U	5.5
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	90 U	1.8 U	9.0 U	18 U	18 U	36 U	36 U
m,p-Xylenes	See Total Xylenes		µg/L	40	41	38	40	37 J	65	59	58	59	61	73
o-Xylene	See Total Xylenes		µg/L	17	17	15	18	12 U	19	19	19	19	20	23
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	6.2	6.2	4.7	5.3	24 U	42	38	26	23	33	20
Toluene	1000	MCL FL DEP	µg/L	3.7	4	2.8	4	310	52	47	44	39	46	34
Xylene (Total)	10,000	MCL FL DEP	µg/L	57	58	53	58	37 J	84	78	77	78	81	96
Semi-Volatile Organics (SVOCs)														
1,1'-Biphenyl	0.83	EPA RSL	µg/L	3.2 J	2.7 J	9.2 J	4.3 J	1.5 U	1.5 U	2.8 U	0.56 U	0.56 U	0.58 U	0.56 U
2,4-Dimethylphenol	192	Updated GCTL	µg/L	690	610	1,400	1,200	2,200	1,500	2000	2,500	2,100	1600	1600
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	46	41	65	55	1.3 U	1.3 U	3.7 U	0.75 U	0.75 U	0.78 U	0.75 U
2-Methylphenol	480	Updated GCTL	µg/L	1.4 U	5.3 J	0.87 U	0.86 U	400	350	460	360	220 J	110	55
2-Nitroaniline	21	FL DEP GCTL	µg/L			1.3 U	1.3 U			48 J	1.3 U	1.3 U	1.3 U	1.3 U
2-Nitrophenol	NA		µg/L			0.74 U	0.73 U			15 J	0.73 U	0.73 U	0.76 U	0.76 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	1.3 U	14 U	1.3 U	1.3 U	3,800	2,600	3,000	2,300	1,100	980	380
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			4.9 U	4.8 U			62 J	4.8 U	4.8 U	5 U	5 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			0.97 U	0.97 U			10 J	0.97 U	0.96 U	1 U	1 U
4-Chloroaniline	28	FL DEP GCTL	µg/L	1.3 U	1.4 U	2.1 U	2.1 U			18 J	2.1 U	2.1 U	2.2 U	2.2 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			1.9 U	1.8 U			45 J	1.8 U	1.8 U	1.9 U	1.9 U
Acenaphthene	530	EPA RSL	µg/L	9.2 J	8 J	19	11	1.5 U	1.5 U	3.6 U	0.73 U	0.73 U	0.76 U	0.73 U
Acenaphthylene	210	FL DEP GCTL	µg/L	1.6 U	1.7 U	37	0.82 U	1.6 U	1.6 U	16 J	49	0.82 U	0.85 U	0.85 U
Acetophenone	700	FL DEP GCTL	µg/L	1.8 U	1.9 U	0.56 U	0.55 U	1.5 U	1.5 U	9.1 J	0.55 U	7.4 J	0.57 U	2.7 J
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			0.92 U	0.91 U			93	0.91 U	0.9 U	0.94 U	0.94 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2.5 U	2.6 U	1.6 U	1.5 U	2.5 U	2.4 U	7.7 U	1.5 U	1.5 U	1.6 U	1.5 U
Carbazole	1.8	FL DEP GCTL	µg/L	15	3.2 J	27	14	2.1 U	2.1 U	13 J	33	0.68 U	0.71 U	0.68 U
Dibenzofuran	28	FL DEP GCTL	µg/L	1.7 U	1.8 U	2.2 J	0.76 U	1.7 U	1.7 U	3.8 U	0.76 U	0.76 U	0.79 U	0.79 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L	2 U	2.1 U	0.86 U	0.85 U			4.2 J	0.85 U	0.85 U	0.88 U	0.88 U
Fluorene	280	FL DEP GCTL	µg/L	1.8 U	1.9 U	0.93	0.93 U	1.8 U	1.8 U	8.2 J	0.93 U	0.92 U	0.96 U	0.96 U
Naphthalene	14	FL DEP GCTL	µg/L	1100	800	1,800	1,600	50	39	52	74	63	39	53
Nitrobenzene	3.5	FL DEP GCTL	µg/L	1.3 U	1.4 U	0.71 U	0.7 U			760	0.7 U	0.7 U	0.73 U	0.73 U
Phenanthrene	210	FL DEP GCTL	µg/L	1.9 U	2 U	0.75 U	0.74 U				0.74 U	0.74 U	0.77 U	0.77 U
Phenol	9,600	Updated GCTL	µg/L	1.5 U	1.6 U	0.81	0.8 U	230	150	140	85	49	27	14
Pyrene	210	FL DEP GCTL	µg/L	1.9 U	2 U	0.61 U	0.61 U				0.61 U	0.61 U	0.63 U	0.63 U
Total Metals														
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	6.2 U	4 U	6.2 U	6.2 U	6.2 U	13 J	6.2 U	4 U	4 U
Chromium	100	MCL FL DEP	µg/L	8.5 J	9 J	37	42	15	29	11	12	14	46	33

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Lower Hawthorn Group						
				HG-36D						
				9/8/2015	12/1/2015	5/11/2016	11/8/2016	5/3/2017	11/8/2017	5/9/2018
Volatile Organic Compounds (VOCs)										
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
2-Butanone	4,200	FL DEP GCTL	µg/L	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
2-Hexanone	280	FL DEP GCTL	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	6300	FL DEP GCTL	µg/L	7 U	100	16	7 U	7 U	7 U	7 U
Benzene	1	MCL FL DEP	µg/L	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700	MCL FL DEP	µg/L	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Isopropylbenzene	450	EPA RSL	µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
m,p-Xylenes	See Total Xylenes		µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.36 J
o-Xylene	See Total Xylenes		µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Toluene	1000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Xylene (Total)	10,000	MCL FL DEP	µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Semi-Volatile Organics (SVOCs)										
1,1'-Biphenyl	0.83	EPA RSL	µg/L	0.099 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
2,4-Dimethylphenol	192	Updated GCTL	µg/L	0.68 U	3.8 U	3.9 U	3.8 U	3.9 U	3.9 U	3.9 U
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	0.099 U	0.75 U	0.75 U	0.75 U	0.75 U	0.76 U	0.76 U
2-Methylphenol	480	Updated GCTL	µg/L	0.73 U	0.85 U	0.86 U	0.85 U	0.86 U	0.86 U	0.86 U
2-Nitroaniline	21	FL DEP GCTL	µg/L			1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2-Nitrophenol	NA		µg/L			0.73 U	0.74 U	0.73 U	0.74 U	0.74 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	0.65 U	1.2 U	1.3 U	1.2 U	1.3 U	1.3 U	1.3 U
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			4.8 U	4.9 U	4.8 U	4.9 U	4.9 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			0.97 U	0.96 U	0.96 U	0.97 U	0.97 U
4-Chloroaniline	28	FL DEP GCTL	µg/L			2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			4.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Acenaphthene	530	EPA RSL	µg/L	0.099 U	0.73 U	0.73 U	0.73 U	0.73 U	0.74 U	0.74 U
Acenaphthylene	210	FL DEP GCTL	µg/L	0.099 U	0.81 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
Acetophenone	700	FL DEP GCTL	µg/L	0.3 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2 U	1.5 U	1.5 U	1.6 U	1.5 U	1.6 U	1.6 U
Carbazole	1.8	FL DEP GCTL	µg/L	0.099 U	0.68 U	0.69 U	0.68 U	0.68 U	0.69 U	0.69 U
Dibenzofuran	28	FL DEP GCTL	µg/L	0.099 U	0.76 U	0.76 U	0.77 U	0.76 U	0.77 U	0.77 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L			0.85 U	0.86 U	0.85 U	0.85 U	0.85 U
Fluorene	280	FL DEP GCTL	µg/L	0.099 U	0.92 U	0.93 U	0.92 U	0.92 U	0.93 U	0.93 U
Naphthalene	14	FL DEP GCTL	µg/L	0.099 U	0.67 U	0.68 U	0.67 U	0.67 U	0.68 U	0.68 U
Nitrobenzene	3.5	FL DEP GCTL	µg/L			0.70 U	0.71 U	0.7 U	0.71 U	0.71 U
Phenanthrene	210	FL DEP GCTL	µg/L				0.75 U	0.74 U	0.75 U	0.75 U
Phenol	9,600	Updated GCTL	µg/L	0.13 U	0.8 U	0.80 U	0.80 U	0.8 U	0.81 U	0.81 U
Pyrene	210	FL DEP GCTL	µg/L				0.61 U	0.61 U	0.61 U	0.61 U
Total Metals										
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U	4 U
Chromium	100	MCL FL DEP	µg/L	2.8 J	11	12	21	58	15	12

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Lower Hawthorn Group									
				HG-37D									
				9/8/2015	12/1/2015	5/10/2016	11/8/2016	5/3/2017	5/3/2017 (FD)	11/8/2017	11/8/2017 (FD)	5/8/2018	5/8/2018 (FD)
Volatile Organic Compounds (VOCs)													
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
2-Butanone	4,200	FL DEP GCTL	µg/L	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
2-Hexanone	280	FL DEP GCTL	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	6300	FL DEP GCTL	µg/L	7 U	7 U	7 U	7.0 U	11	7 U	8 J	7 U	7 U	7 U
Benzene	1	MCL FL DEP	µg/L	16	17	16	21	23	22	26	26	25	26
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700	MCL FL DEP	µg/L	1.1	1.2	1.5	1.8	2	1.9	2.2	2.1	2.2	2.2
Isopropylbenzene	450	EPA RSL	µg/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
m,p-Xylenes	See Total Xylenes		µg/L	1.6	1.4	1.8	2.0	2.4	2.4	2.6	0.35 U	2.6	2.6
o-Xylene	See Total Xylenes		µg/L	0.63 J	0.46 J	0.67 J	0.70 J	0.83 J	0.82 J	0.94 J	0.82 J	0.86 J	0.86 J
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Toluene	1000	MCL FL DEP	µg/L	1.4	1.4	1.6	1.9	1.9	1.9	1.9	2	1.7	1.7
Xylene (Total)	10,000	MCL FL DEP	µg/L	2.2	1.9	2.5	2.7	3.2	3.2	3.5	0.82 J	3.5	3.5
Semi-Volatile Organics (SVOCs)													
1,1'-Biphenyl	0.83	EPA RSL	µg/L	1.5 U	0.57 U	0.56 U	0.56 U	0.57 U	0.56 U	0.57 U	0.56 U		0.56 U
2,4-Dimethylphenol	192	Updated GCTL	µg/L	91	110	87	190	160	140	160	160		160
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	1.3 U	0.76 U	0.75 U	0.75 U	0.76 U	0.75 U	0.75 U	0.76 U		0.76 U
2-Methylphenol	480	Updated GCTL	µg/L	1.4 U	1.1 J	0.86 U	1.3 J	0.87 U	0.87 U	0.86 U	0.86 U		0.86 U
2-Nitroaniline	21	FL DEP GCTL	µg/L			1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U		1.3 U
2-Nitrophenol	NA		µg/L			0.73 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U		0.74 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	1.3 U	1.3 U	1.3 U	1.2 U	1.3 U	1.3 U	1.3 U	1.3 U		1.3 U
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			4.8 U	4.8 U	4.9 U	4.8 U	4.9 U	4.8 U		4.8 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			0.97 U	0.96 U	0.97 U	0.97 U	0.98 U	0.97 U		0.97 U
4-Chloroaniline	28	FL DEP GCTL	µg/L			2.1 U	2.1 U	2.1 U	2.1 U	2.2 U	2.1 U		2.1 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			4.8 U	1.8 U	1.9 U	1.8 U	1.9 U	1.8 U		1.8 U
Acenaphthene	530	EPA RSL	µg/L	1.5 U	0.74 U	0.73 U	0.73 U	0.74 U	0.74 U	0.73 U	0.74 U		0.74 U
Acenaphthylene	210	FL DEP GCTL	µg/L	1.6 U	0.83 U	0.82 U	0.82 U	0.83 U	0.82 U	0.83 U	0.82 U		0.82 U
Acetophenone	700	FL DEP GCTL	µg/L	1.8 U	0.56 U	0.55 U	0.55 U	0.56 U	0.56 U	0.55 U	0.55 U		0.55 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			0.91 U	0.91 U	0.92 U	0.91 U	0.92 U	0.91 U		0.91 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2.4 U	1.6 U	1.5 U	1.5 U	1.6 U	1.5 U	2.2 J	1.6 U		1.6 U
Carbazole	1.8	FL DEP GCTL	µg/L	2.1 U	0.69 U	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U		0.69 U
Dibenzofuran	28	FL DEP GCTL	µg/L	1.7 U	0.77 U	0.76 U	0.76 U	0.77 U	0.76 U	0.77 U	0.77 U		0.77 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L			0.85 U	0.85 U	0.86 U	0.85 U	0.86 U	0.85 U		0.85 U
Fluorene	280	FL DEP GCTL	µg/L	1.8 U	0.94 U	0.93 U	0.92 U	0.94 U	0.93 U	0.94 U	0.93 U		0.93 U
Naphthalene	14	FL DEP GCTL	µg/L	1.2 U	0.68 U	0.68 U	0.67 U	0.68 U	0.68 U	0.68 U	0.68 U		0.68 U
Nitrobenzene	3.5	FL DEP GCTL	µg/L			0.70 U	0.71 U	0.71 U	0.7 U	0.71 U	0.71 U		0.71 U
Phenanthrene	210	FL DEP GCTL	µg/L				0.74 U	0.75 U	0.74 U	0.75 U	0.75 U		0.75 U
Phenol	9,600	Updated GCTL	µg/L	1.5 U	0.81 U	0.80 U	0.80 U	0.81 U	0.81 U	0.80 U	0.8 U		0.8 U
Pyrene	210	FL DEP GCTL	µg/L				0.61 U	0.61 U	0.61 U	0.62 U	0.61 U		0.61 U
Total Metals													
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U	4 U		4 U
Chromium	100	MCL FL DEP	µg/L	12	4.2 J	6.3 J	12	7.2 J	3.2 J	3.4 J	9.5 J		9.5 J

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Lower Hawthorn Group HG-38D							Lower Hawthorn Group HG-39D						
				9/10/2015	12/2/2015	5/10/2016	11/9/2016	5/2/2017	11/7/2017	5/8/2018	9/9/2015	12/1/2015	5/11/2016	11/8/2016	5/2/2017	11/8/2017	11/8/2017
Volatile Organic Compounds (VOCs)																	
1,2,4-Trimethylbenzene	15	EPA RSL	µg/L	7.7 J	8	9.3	8.0	8.8	9.3	9	2.7	3.4	4.6	2.9	4.1	4.8	3.9
1,3,5-Trimethylbenzene	120	EPA RSL	µg/L	2.7 J	2.7	3.4	3.1	3.1	3.3	3.2	0.49 J	0.58 J	0.72 J	0.48 J	0.68 J	0.91 J	0.76 J
2-Butanone	4,200	FL DEP GCTL	µg/L	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
2-Hexanone	280	FL DEP GCTL	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Methyl-2-pentanone	560	FL DEP GCTL	µg/L	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Acetone	6300	FL DEP GCTL	µg/L	16	9.3 J	26	29	160	39	33	7 U	7 U	7 U	7.0 U	7 U	7.9 J	7 U
Benzene	1	MCL FL DEP	µg/L	11	10	9.8	11	10	12	110	120	120	120	120	110	130	110
cis-1,2-Dichloroethene	70	FL DEP GCTL	µg/L	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Ethylbenzene	700	MCL FL DEP	µg/L	12	12	12	12	12	13	12	49	50	51	52	48	54	50
Isopropylbenzene	450	EPA RSL	µg/L	0.85 J	0.9 J	1.1	0.99 J	1	0.98 J	1	2.5	2.6	3.5	3.2	3.3	3.7	3.3
Methyl acetate	20,000	EPA RSL	µg/L	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
m,p-Xylenes	See Total Xylenes		µg/L	17	16	17	16	16	18	17	20	17	8.3	12	17	30	40
o-Xylene	See Total Xylenes		µg/L	8.2	8.1	8.9	9.1	8.5	9.9	8.9	16	11	5.5	6.3	8.2	12	12
P-Isopropyl toluene	1,000	MCL FL DEP	µg/L	1.3	1.2	1.5	1.4	1.3	1.4	1.4	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
Toluene	1000	MCL FL DEP	µg/L	7.4	7.4	7	7.2	6.5	5.5	4.1	5.4	3.8	2.6	3.2	3.1	3.7	3.4
Xylene (Total)	10,000	MCL FL DEP	µg/L	25	24	26	25	25	28	26	36	28	14	18	25	42	52
Semi-Volatile Organics (SVOCs)																	
1,1'-Biphenyl	0.83	EPA RSL	µg/L	1.6 U	1.6 U	0.56 U	0.77 J	0.56 U	0.57 U	0.63 J	1.5 U	0.56 U	0.56 U	0.56 U	0.56 U	0.57 U	0.56
2,4-Dimethylphenol	192	Updated GCTL	µg/L	200 J	280	290	280	290	4 U	290	15	11	4.7 J	3.9 J	5.5 J	5.2 J	5.5 J
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	10 J	12	15	11	11	15	14	1.3 U	0.75 U	0.75 U	0.75 U	0.75 U	0.76 U	0.75 U
2-Methylphenol	480	Updated GCTL	µg/L	1.5 U	1.5 U	0.86 U	0.86 U	0.86 U	8.8 U	0.86 U	1.4 U	0.86 U	0.85 U	0.85 U	0.86 U	0.87 U	0.86
2-Nitroaniline	21	FL DEP GCTL	µg/L			1.3 U	1.3 U	1.3 U	1.3 U	1.3 U			1.2 U	1.3 U	1.2 U	1.3 U	1.3 U
2-Nitrophenol	NA		µg/L			0.73 U	0.73 U	0.73 U	0.75 U	0.75 U			0.73 U	0.74 U	1.73 U	0.74 U	0.74 U
3, 4-Methylphenol	3,680	Updated GCTL	µg/L	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U
3-Nitroaniline	1.7	FL DEP GCTL	µg/L			4.8 U	4.8 U	4.8 U	4.9 U	4.9 U			4.8 U	4.8 U	4.8 U	4.9 U	4.9 U
4-Chloro-3-methylphenol	63	FL DEP GCTL	µg/L			0.97 U	0.97 U	0.96 U	0.99 U	0.99 U			0.96 U	0.96 U	0.96 U	0.97 U	0.97 U
4-Chloroaniline	28	FL DEP GCTL	µg/L			2.1 U	2.1 U	2.1 U	2.2 U	2.2 U			2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Nitrophenol	56	FL DEP GCTL	µg/L			1.8 U	1.8 U	1.8 U	1.9 U	1.9 U			1.8 U	1.8 U	1.8 U	1.9 U	1.9 U
Acenaphthene	530	EPA RSL	µg/L	1.6 J	2.2 J	2.4 J	2.6 J	2.4 J	2.1 J	2.1 J	1.5 U	0.73 U	0.73 U	0.73 U	0.73 U	0.74 U	0.73 U
Acenaphthylene	210	FL DEP GCTL	µg/L	1.7 U	1.8 U	1.8 J	0.82 U	0.82 U	0.84 U	0.84 U	1.6 U	0.82 U	0.81 U	0.82 U	0.82 U	0.83 U	0.83 U
Acetophenone	700	FL DEP GCTL	µg/L	1.9 U	2 U	0.55 U	0.55 U	0.55 U	0.56 U	0.55 U	1.8 U	0.55 U	0.55 U	0.55 U	0.55 U	0.56 U	0.55 U
bis(2-Chloroethoxy)methane	59	EPA RSL	µg/L			0.91 U	0.91 U	0.91 U	0.93 U	0.93 U			0.90 U	0.91 U	0.9 U	0.92 U	0.92 U
bis(2-Ethylhexyl) phthalate	6	FL DEP GCTL	µg/L	2.5 U	8.3 J	1.5 U	1.5 U	1.5 U	1.6 U	1.5 U	2.5 U	1.5 U	1.5 U	1.6 U	1.5 U	1.6 U	1.5 U
Carbazole	1.8	FL DEP GCTL	µg/L	2.2 U	2.3 U	0.69 U	1.7 J	1.8 J	2 J	1.8 J	2.1 U	2.3 U	0.68 U	0.68 U	0.68 U	0.69 U	0.68 U
Dibenzofuran	28	FL DEP GCTL	µg/L	1.8 U	1.9 U	0.76 U	0.76 U	0.76 U	0.78 U	0.78 U	1.7 U	0.76 U	0.76 U	0.77 U	0.76 U	0.77 U	0.77 U
Diethylphthalate	5,600	FL DEP GCTL	µg/L			0.85 U	0.85 U	0.85 U	0.87 U	0.87 U			0.84 U	0.85 U	0.85 U	0.86 U	0.86 U
Fluorene	280	FL DEP GCTL	µg/L	1.9 U	2 U	0.93 U	8.5 J	0.92 U	0.95 U	0.95 U	1.8 U	0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.94 U
Naphthalene	14	FL DEP GCTL	µg/L	780	870	830	1,000	890	1,200	1,000	6.4 J	9.3 J	10	11	11	8.4 J	11
Nitrobenzene	3.5	FL DEP GCTL	µg/L			0.71 U	0.7 U	0.7 U	0.72 U	0.72 U			0.70 U	0.71 U	0.7 U	0.71 U	0.71 U
Phenanthrene	210	FL DEP GCTL	µg/L				0.74 U	0.74 U	0.76 U	0.76 U				0.75 U	0.74 U	0.75 U	0.75 U
Phenol	9,600	Updated GCTL	µg/L	1.6 U	1.6 U	0.80 U	0.81 U	0.8 U	0.82 U	0.80 U	1.5 U	0.8 U	0.80 U	2.4 J	0.8 U	1.3 J	2.0 J
Pyrene	210	FL DEP GCTL	µg/L				0.61 U	0.61 U	0.62 U	0.62 U				0.61 U	0.61 U	0.61 U	0.61 U
Total Metals																	
Arsenic	10	MCL FL DEP	µg/L	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U	4 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	4 U	4 U
Chromium	100	MCL FL DEP	µg/L	33	6.3	6.8 J	8.7 J	11	18	18	4.1 J	2.9 J	7.2 J	18	16	29	20

Appendix C
Summary of Hawthorn Group Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Notes:

ug/L - micrograms per liter

J - Reported concentration is estimated

U - Analyte was not detected at the associated detection limit

NA - Not Available

FD - Field Duplicate

Detection limit of non-detect analyte exceeds screening level

Analyte concentration exceeds health-based benchmark

FL DEP - Florida Department of Environmental Protection

EPA - United States Environmental Protection Agency

MCL - Maximum Contaminant Level

RSL - Regional Screening Level

GCTL - Groundwater Cleanup Target Levels

P-Isopropyl toluene is also called p-Cymene. The health-based criterion was provided by FDEP (FDEP, 2016)

Appendix D
Summary of Floridan Aquifer Groundwater Data

Appendix D
Summary of Floridan Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Floridan Monitoring Well														
				CFW-1 155-165								CFW-1 175 -185						
				11/19/2015	1/6/2016	6/2/2016	11/7/2016	5/2/2017	11/7/2017	11/7/2017	5/8/2018	11/19/2015	1/6/2016	6/2/2016	11/7/2016	5/2/2017	11/7/2017	5/8/2018
Volatile Organic Compounds (VOCs)																		
Acetone	6300	FL DEP GCTL	µg/L	19 U	7 U	8.0 J	7 U	7 U	26	15	7 U	41 J	7 U	9.0 J	7 U	7 U	15	7 U
Benzene	1	MCL FL DEP	µg/L	0.43 U	0.51 J	0.54 J	0.43 U	0.65 J	0.57 J	0.43 J	0.52 J	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Chloroform	70	FL DEP GCTL	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	See Total Xylenes		µg/L	1 U	0.54 J	0.78 J	0.50 J	0.23 U	0.6 J	0.54 J	0.50 J	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Xylene (Total)	10,000	MCL FL DEP	µg/L	1 U	0.54 J	0.78 J	0.50 J	0.23 U	0.6 J	0.54 J	0.50 J	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Semi-Volatile Organic Compounds (SVOCs)																		
2,4-Dimethylphenol	128	Updated GCTL		3.1 J	2.6 J	3.8 U	4.2 U	3.9 U	3.9 U	3.9 U	3.9 U	1.5 U	1.5 U	3.9 U	4.3 U	3.9 U	3.9 U	3.9 U
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	6.2 J	4.9 J	0.75 U	0.83 U	0.76 U	0.77 U	0.76 U	0.76 U	1.6 J	1.5 U	0.76 U	0.85 U	0.75U	0.76 U	0.76 U
Acenaphthene	530	EPA RSL	µg/L	2.3 J	1.7 U	2.0 J	2.0 J	2.3 J	1.6 J	1.9 J	2.1 J	1.8 U	1.7 U	0.74 U	0.83 U	0.73 U	0.74 U	0.74 U
bis(2-Ethylhexyl)phthalate	6	FL DEP GCTL	µg/L	2.7 U	2.7 U	1.5 U	1.7 U	1.5 U	1.6 U	1.6 U	1.6 U	2.8 U	2.7 U	1.6 U	1.7 U	1.5 U	1.6 U	1.6 U
Naphthalene	14	FL DEP GCTL	µg/L	170	130 J	87	0.74 U	0.68 U	2.4 J	3 J	0.73 U	40 J	2.7 J	0.68 U	0.76 U	0.67 U	0.68 U	0.68 U
Total Metals																		
Chromium	100	MCL FL DEP	µg/L	1.6 U	8.5 J	1.8 J	1.6 U	1.9 J	6.2 J	6.7 J	2.2 J	1.6 U	1.6 J	1.6 U	1.6 U	2.0 J	2 U	1.6 U

Notes:
ug/L - micrograms per liter
J - Reported concentration is estimated
U - Analyte was not detected at the associated detection limit
Analyte concentration exceeds health-based benchmark
FL DEP - Florida Department of Environmental Protection
EPA - United States Environmental Protection Agency
MCL - Maximum Contaminant Level
RSL - Regional Screening Level
GCTL - Groundwater Cleanup Target Levels

Appendix D
Summary of Floridan Aquifer Groundwater Data
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida

Detected Constituent	Screening Level	Basis	Units	Floridan Monitoring Well													
				CFW-1 195-205							CFW-1 215-225						
				11/19/2015	1/5/2016	6/2/2016	11/7/2016	5/2/2017	11/7/2017	5/8/2018	11/19/2015	1/5/2016	6/2/2016	11/7/2016	5/2/2017	11/7/2017	5/8/2018
Volatile Organic Compounds (VOCs)																	
Acetone	6300	FL DEP GCTL	µg/L	97	7 U	8.5 J	7 U	7 U	14	7 U	7 U	38	7.0 U	7 U	7 U	8.9 J	7 U
Benzene	1	MCL FL DEP	µg/L	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Chloroform	70	FL DEP GCTL	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.50 U	0.5 U	0.67 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	See Total Xylenes		µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Xylene (Total)	10,000	MCL FL DEP	µg/L	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Semi-Volatile Organic Compounds (SVOCs)																	
2,4-Dimethylphenol	128	Updated GCTL		1.4 U	1.4 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	1.5 U	1.4 U	3.9 U	3.9 U	3.8 U	4 U	4 U
2-Methylnaphthalene	28	FL DEP GCTL	µg/L	1.4 U	1.4 U	0.76 U	0.77 U	0.76 U	0.75 U	0.75 U	1.5 U	1.4 U	0.76 U	0.76 U	0.75 U	0.78 U	0.78 U
Acenaphthene	530	EPA RSL	µg/L	1.6 U	1.6 U	0.74 U	0.75 U	0.74 U	0.73 U	0.73 U	1.8 U	1.6 U	0.74 U	0.74 U	0.73 U	0.76 U	0.76 U
bis(2-Ethylhexyl)phthalate	6	FL DEP GCTL	µg/L	5.9 J	2.6 U	1.6 U	1.6 U	1.6 U	1.5 U	1.5 U	2.8 U	2.6 U	1.5 U	1.6 U	1.5 U	1.6 U	1.6 U
Naphthalene	14	FL DEP GCTL	µg/L	21	15	1.3 J	0.69 U	0.68 U	0.68 U	0.68 U	2.3 J	1.7 J	0.78 J	0.68 U	0.67 U	0.7 U	0.7 U
Total Metals																	
Chromium	100	MCL FL DEP	µg/L	1.6 U	4.4 J	1.6 U	1.6 U	1.6 U	2 U	1.6 U	7.3 J	2.1 J	1.6 U	1.6 U	1.6 U	2.4 J	1.6 U

Notes:
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