



Environmental Technology Resources, Inc.

June 18, 2018

Mr. Sean Donahue
Urban Realty Partners
950 Joseph E. Lowery Boulevard
Suite 25
Atlanta, Georgia 30318

Re: Results of Phase II Environmental Site Assessment
1135 Sylvan Road
Atlanta, Fulton County, Georgia

Dear Mr. Donahue:

ENVIRONMENTAL TECHNOLOGY RESOURCES, INC., (ETRI) has completed a Phase II Environmental Site Assessment (ESA) of the property located at 1135 Sylvan Road in Atlanta, Fulton County, Georgia (“Site” or “subject property”). The location of the property is shown in Figure 1. This letter report presents the results of the Phase II ESA.

BACKGROUND INFORMATION

In May 2018, ETRI completed a Phase I ESA on the subject property. Historical research conducted as part of the Phase I ESA determined that the property was occupied by two commercial warehouses from at least 1932 until they were razed in 2004. The 1932 Sanborn map shows two commercial warehouses at the Site occupied by “Southern Paint Products Co. & Hughley Oil Co.”, a feed warehouse and auto garage. Southern Paint Products & Hughley Oil Co. remained on the Site in the 1978 Sanborn Map, along with a cotton warehouse. The facility name changed to Superior Sealants in 1986 and then to White Lightning Products in the early 1990s, both manufacturers of caulks, paints, and sealants. The buildings were vacated in the mid-1990s and remained unoccupied until they were eventually razed in 2004.

File reviews determined that investigations that were completed on the subject property in 1991 discovered the presence of polyaromatic hydrocarbons (PAHs) and Lead in soil which exceeded the Georgia EPD Notification Concentration (NC’s). The concentrations of Lead in soils were as high as 3,500 mg/Kg. Four groundwater monitoring wells were installed as part of the investigations. Groundwater samples were collected and found to have detectable concentrations of Zinc, Copper and Bis (2-ethylhexyl) phthalate. Notification was made to the Georgia EPD and the EPD determined that a reportable quantity had not been released and issued a no listing letter for the site.

Based on our review of Sanborn maps dated 1932 and 1950, petroleum tanks were identified on the eastern (gasoline) and northwestern (oil) ends of the northern-most building and northwestern (gasoline) end of the southern building. The Sanborn maps do not indicate whether the tanks were underground or aboveground storage tanks. The Georgia EPD does not have a record of the tanks and no formal tank closure was submitted. Based on the prior use of the property, ETRI recommended completing a Phase II ESA of the property.

METHODS AND RESULTS OF INVESTIGATIONS

Groundwater Sampling and Analysis of Existing Monitoring Wells

Three groundwater monitoring wells were identified on the property during the initial Site visit. The monitoring wells included a well on the north-northwest side of the property (identified as MW-A), west side of the property (MW-B) and east-southeast side of the property (MW-C). MW-A was installed with a steel - standup pipe. MW-B and MW-C were installed with flush-mount vaults.

Depth to groundwater measurements were made using an electronic water level indicator graduated in hundredths of feet. The measuring point was a fixed point on the monitoring well from which all water level measurements were recorded. The measuring tape was cleaned prior to and after use with organic-free water. After donning a clean pair of gloves, the electronic water sensor was activated and slowly lowered into the monitoring well until an audio and visual response was identified. The tape was raised and lowered to confirm the water level detected.

Table 1 summarizes the depth to water readings and total depth of each well.

Table 1
Depth to Water Readings
1135 Sylvan Road, Atlanta, Georgia

Monitoring Well Number	Date	Depth to Water (ft)	Depth to Well (ft)
MW-A	May 21, 2018	12.59	24
MW-B	May 21, 2018	11.50	20
MW-C	May 21, 2018	12.29	20

Investigations completed in 1991 determined that the inferred groundwater flow direction at the Site is to the east-southeast.

Well purging and groundwater sampling was completed on May 21, 2018. Groundwater purging and sampling was conducted in accordance with the procedures described in the SESD Standard Operating Procedure titled: *Groundwater Sampling* (SESDPROC-301-R3), effective March 6, 2013.

Prior to sampling groundwater, each well was purged a minimum of five well volumes using purge pump. Groundwater was monitored for pH, temperature and turbidity. Purging continued until the pH and temperature stabilized and the turbidity was less than 10 NTU. The following summarizes the field parameters obtained for MW-A, MW-B and MW-C prior to sampling during the May 21, 2018 sampling event.

Table 2
Summary of Field Parameters – May 21, 2018
 1135 Sylvan Road, Atlanta, Georgia

Parameter	MW-A	MW-B	MW-C
pH	4.41	4.03	4.03
Temperature	17.9 °C	17.5 °C	17.5 °C
Turbidity	7.76 NTU	9.83 NTU	7.28 NTU

Following sample collection, the bottles were placed in sealable plastic bubble wrap and stored on ice to maintain the sample at 4 degrees Celsius until they were delivered to the laboratory. The samples were maintained under proper chain-of-custody control from the time they were collected until they were relinquished to the laboratory. The groundwater samples were submitted to Analytical Environmental Services, Inc. of Atlanta, Georgia for analyses. The samples were analyzed for semi-volatile organic compounds (semi-VOC's) and total and dissolved, Copper, Lead and Zinc. The results of the groundwater sample analyses are summarized in **Table 3**. Monitoring well locations and the results of the sample analyses are shown in **Figure 2**.

Table 3
Summary of Groundwater Sample Analyses
 1135 Sylvan Road, Atlanta, Georgia

Parameter	MW-1	MW-2	MW-3	MCL
<i>Semi-VOC's</i>	BRL	BRL	BRL	Chemical
<i>Metals</i>				Specific
Total/Dissolved Cu	0.0103/BRL	BRL/BRL	BRL/BRL	1,000 ug/L
Total/Diss Pb	BRL/BRL	BRL/BRL	BRL/BRL	15 ug/L
Total/Diss Zn	0.0679/0.0706	BRL/BRL	0.0442/0.0467	5,000 ug/L

Notes: BRL – Below Reporting Limit
 Results in ug/L (ppb)

A copy of the analytical report is included in **Attachment C**.

Soil and Groundwater Investigations

ETRI installed eleven soil borings on the Site on June 1, 2018. ETRI retained the services of a geoprobe company (GeoLab Probing Services) to install the soil borings. The borings were installed using direct push methods, which involves hammering and/or pushing a hollow rod through the soil column using a hydraulic hammer designed for that purpose. A dual tube sampling method was used to collect the soil samples. The dual tube system allows for discrete sampling and minimizes cross contamination of soil samples.

All of the sampling equipment was decontaminated before arrival on the Site and between each borehole. Clean latex sample gloves were used when handling equipment, supplies, and soil samples. Decontamination procedures consisted of an Alconox detergent wash and a double rinse with clean water. Upon completion of the soil boring installation, all boreholes were backfilled with bentonite clay (which was hydrated by the addition of water) and

sealed with asphalt before leaving the Site.

Soil boring B1 was located on the northwest side of the property. Boring B2 and B3 were installed on the north and northwest sides of the property. Soil borings B4, B5, B6, B7 and B8 were installed in the mid-section of the property. Soil borings B9, B10 and B11 were installed on the eastern side of the property. Soil borings B1, B3 and B10 were installed in the area of former tanks that were once on the property. Soil boring locations are shown in **Figure 3**.

Soil borings were advanced from 20 to 25 feet. The soils were generally found to be reddish-brown clay loam in the upper eight to ten feet and reddish-brown/tan-brown sandy silt to ten to 13 feet. Reddish-brown/pink brown and tan-brown saprolite was found from ten to 10 feet. Brown and reddish-brown sandy silt soils were encountered from 20 to 25 feet. The soil samples were screened using a field calibrated, MiniRae 3000 photoionization detector (PID). The PID provides a general evaluation of the total volatile organics in the soils by measuring organics in air. By placing the soils in an enclosed container, the organics in the gaseous phase could be screened with the PID. Soil boring logs are included in **Attachment A**.

Soil samples from select borings for analyses. Samples were selected based on discoloration, odors or PID readings.

The soil samples collected from boring B1 at 8 to 10 feet, B2 from 0 to 2 feet and 15 to 17 feet, B3 at 0 to 2 feet, B4 from 0 to 2 feet, B5 from 0 to 2 feet, B6 at 1 to 3 feet, B7 from 5 to 8 feet, B8 from 0 to 3 feet, B9 from 0 to 2 feet and B10 from 8 to 10 feet. The samples were analyzed for polyaromatic hydrocarbons and total Lead. Samples collected from B1 and B10 at 8 to 10 feet were also analyzed for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX). The sample collected from B2 at 15 to 17 feet was analyzed for volatile organic compounds.

The samples were delivered to Analytical Environmental Services, Inc. of Atlanta, Georgia under proper chain-of-custody for analyses. Samples for volatile organic compounds analyses or BTEX analyses were analyzed using Method SW 8260B, PAHs using Method SW 8270D and total Lead using Method SW 6010.

The soil samples for VOC or BTEX analyses were collected using EPA Method 5035. These samples were preserved with Sodium bisulfite or Methanol then placed on ice. The results of the soil sample analyses are summarized in **Table 4** and the complete analytical report is included in **Attachment B**.

Table 4
Soil Sample Analyses
 1135 Sylvan Road, Atlanta, Georgia

Parameter	B1-8-10 ft.	B2-0-2 ft.	B2-15-17 ft.	B3-0-2 ft.	B4-0-2 ft.	EPD NC's	Type 1/3 RRS
<i>VOC's</i>		NA	BRL	NA	NA		
<i>BTEX</i>	BRL		BRL	NA	NA		
<i>PAH's</i>	BRL	NA	BRL	BRL			
Anthracene					BRL	500	500
Benzo(a)anthracene					BRL	5.0	5.0
Benzo(a)pyrene					BRL	1.64	1.64
Benzo(b) fluoranthene					0.46	5.0	5.0
Benzo(k)fluoranthene					BRL	5.0	5.0
Benzo(g,h,i) perylene					BRL	500	500
Chrysene					BRL	5.0	5.0
Dibenzo(a,h)anthracene					BRL	5.0	5.0
Fluoranthene					BRL	500	500
Fluorene					BRL	360	360
Indeno(1,2,3-cd)pyrene					BRL	5.0	5.0
1-Methylnaphthalene					BRL	NR	NR
2-Methylnaphthalene					BRL	NR	NR
Naphthalene					BRL	100	100
Phenanthrene					BRL	110	110
Pyrene					BRL	500	500
<i>Metals</i>							
Lead	5.11	187	34.4	20.7	23.2	400	75 / 400

Table 4
Soil Sample Analyses
 1135 Sylvan Road, Atlanta, Georgia

Parameter	B5-0-2 ft.	B6-1-3 ft.	B7-5-8 ft.	B8-0-3ft.	B9-0-2 ft.	B10-8-10 ft.	EPD NC's	Type 1/3 RRS
<i>VOC's</i>	NA	NA	NA	NA	NA			
<i>BTEX</i>	NA	NA	NA	NA	NA	BRL		
<i>PAH's</i>	BRL	BRL				BRL		
Anthracene			BRL	BRL	1.0		500	500
Benzo(a)anthracene			BRL	BRL	4.0		5.0	5.0
Benzo(a)pyrene			BRL	BRL	4.4		1.64	1.64
Benzo(b) fluoranthene			BRL	0.67	5.9		5.0	5.0
Benzo(k)fluoranthene			BRL	BRL	2.0		5.0	5.0
Benzo(g,h,i) perylene			BRL	BRL	2.6		500	500
Chrysene			BRL	BRL	3.9		5.0	5.0

Parameter	B5-0-2 ft.	B6-1-3 ft.	B7-5-8 ft.	B8-0-3ft.	B9-0-2 ft.	B10-8-10 ft.	EPD NC's	Type 1/3 RRS
Dibenzo(a,h)anthracene			BRL	BRL	0.93		5.0	5.0
Fluoranthene			0.4	0.75	6.4		500	500
Fluorene			BRL	BRL	BRL		360	360
Indeno(1,2,3-cd)pyrene			BRL	BRL	2.8		5.0	5.0
1-Methylnaphthalene			BRL	BRL	BRL		NR	NR
2-Methylnaphthalene			BRL	BRL	BRL		NR	NR
Naphthalene			BRL	BRL	BRL		100	100
Phenanthrene			BRL	0.55	3.5		110	110
Pyrene			BRL	0.56	5.3		500	500
<i>Metals</i>								
Lead	21.1	33.9	34.4	24.4	23.2	21.0	400	75 / 400

Notes: Results Reported in mg/Kg, ppm
 BRL – Not Detected
 NA – Not Analyzed
 N/A – Not Applicable
 NR – Not Regulated under HSRA

After collecting the soil samples from boring B1, B2 and B10, a groundwater sampling tool consisting of a telescopic four-foot length of wire mesh screen was inserted into a drive point rod. Given that a dual tube system of soil sample collection was being used, the wire mesh screen was advanced to the bottom of the outer MacroCore and the outer MacroCore was retracted by five feet exposing the screen to groundwater. The depth to groundwater was determined to be approximately 19.7 feet in B1, 17.2 feet in B2 and 22.1 feet in B10.

A groundwater sample was collected by lowering a disposable length of polyethylene tubing into the hollow rods and connecting the tubing to a peristaltic pump at the surface. Groundwater was then extracted using the peristaltic pump. Samples were transferred to the sample containers by discharging the groundwater into appropriate sample containers provided by the analytical laboratory. Following sample collection, the bottles were placed in sealable plastic bubble wrap and stored on ice in a cooler until they were transported to the laboratory. Approximately 0.3 to 0.5 gallon of groundwater was purged from each boring prior to collecting samples for analyses. The purging continued until the turbidity had significantly decreased.

The samples for BTEX or volatile organic compound analyses were placed in 40-mL vials containing hydrochloric acid as a preservative. Samples collected for polyaromatic hydrocarbon (PAH) analyses were placed in amber, 40 mL glass containers. Samples for total and dissolved Lead were placed in preserved or unpreserved 200 mg/L polyethylene contains. The samples for total Lead analyses were preserved with hydrochloric acid. The samples were then placed on ice for preservation.

The groundwater samples were also delivered to Analytical Environmental Services, Inc. under proper chain of custody. The groundwater samples were analyzed for BTEX or VOC's using Method 8260B, PAHs using Method 8270C and total and dissolved Lead using Method 6010. **Table 5** is a summary of the analyses of the groundwater samples.

Table 5
Summary of Groundwater Sample Analyses
 1135 Sylvan Road, Atlanta, Georgia

Parameter	B1	B2	B3	HSRA Notification Concentration
<i>Volatile Organic Compounds</i>		BRL		Chemical Specific
BTEX	BRL	BRL	BRL	Chemical Specific
<i>PAHs</i>	BRL	BRL	BRL	Chemical Specific
<i>Metals</i>				
<i>Total/Dissolved Pb</i>	0.0959/BRL	0.0106/BRL	0.0157/BRL	

Notes: BRL – Below Reporting Limits
 Results in mg/L

DISCUSSION OF RESULTS

The results of the soil and groundwater investigations completed at 1135 Sylvan Road determined the following:

- No detectable concentrations of VOC's/BTEX or PAHs were present in soil samples collected in the area of the former petroleum storage tanks.
- No detectable concentrations of VOC's/BTEX or PAHs were present in groundwater samples collected in the area of the former petroleum storage tanks.
- The concentrations of total Lead detected in soils ranged from 5.11 mg/Kg to 187 mg/Kg. The Georgia EPD Notification Concentration for Lead is 400 mg/Kg.
- PAHs were detected in soil samples collected from boring B3 at 0-2 feet, B7 at 5-8 feet, B8 at 0-3 feet and B9 at 0-2 feet. The concentrations of PAHs detected in B3, B7 and B8 were below Georgia EPD Notification Concentrations. Benzo(a)pyrene and Benzo(b) fluoranthene were detected in the sample collected from boring B9 at 0 to 2 feet above the Georgia EPD Notification Concentrations and above Type 1/3 Risk Reduction Standards.

Under the Georgia Hazardous Site Response Act, notification to the Georgia EPD is required when concentrations of contaminants in soils exceed notification concentrations. Petroleum releases are exempt from notification under HSRA. The concentrations of Benzo(a)pyrene and Benzo(b) fluoranthene exceeded the NC. In 1995, notification of a release of Benzo(b) fluoranthene along with other PAHs and Lead was made to the Georgia EPD. Benzo(a)pyrene was not one of the PAHs reported.

Notification is also required when groundwater contamination exceeds EPA Maximum Contaminant Levels (MCL's). No VOC's or PAHs were detected in the groundwater samples therefore, notification is not required.

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1135 Sylvan Road
Atlanta, Georgia
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If you have any questions related to the report, please give me a call at (770) 888-8181.

Sincerely,
ENVIRONMENTAL TECHNOLOGY RESOURCES, INC.

A handwritten signature in black ink that reads "Thomas R. Harper". The signature is written in a cursive style with a long, sweeping underline.

Thomas R. Harper
Technical Director

Attachments

18-028.201

Figures



ETRI

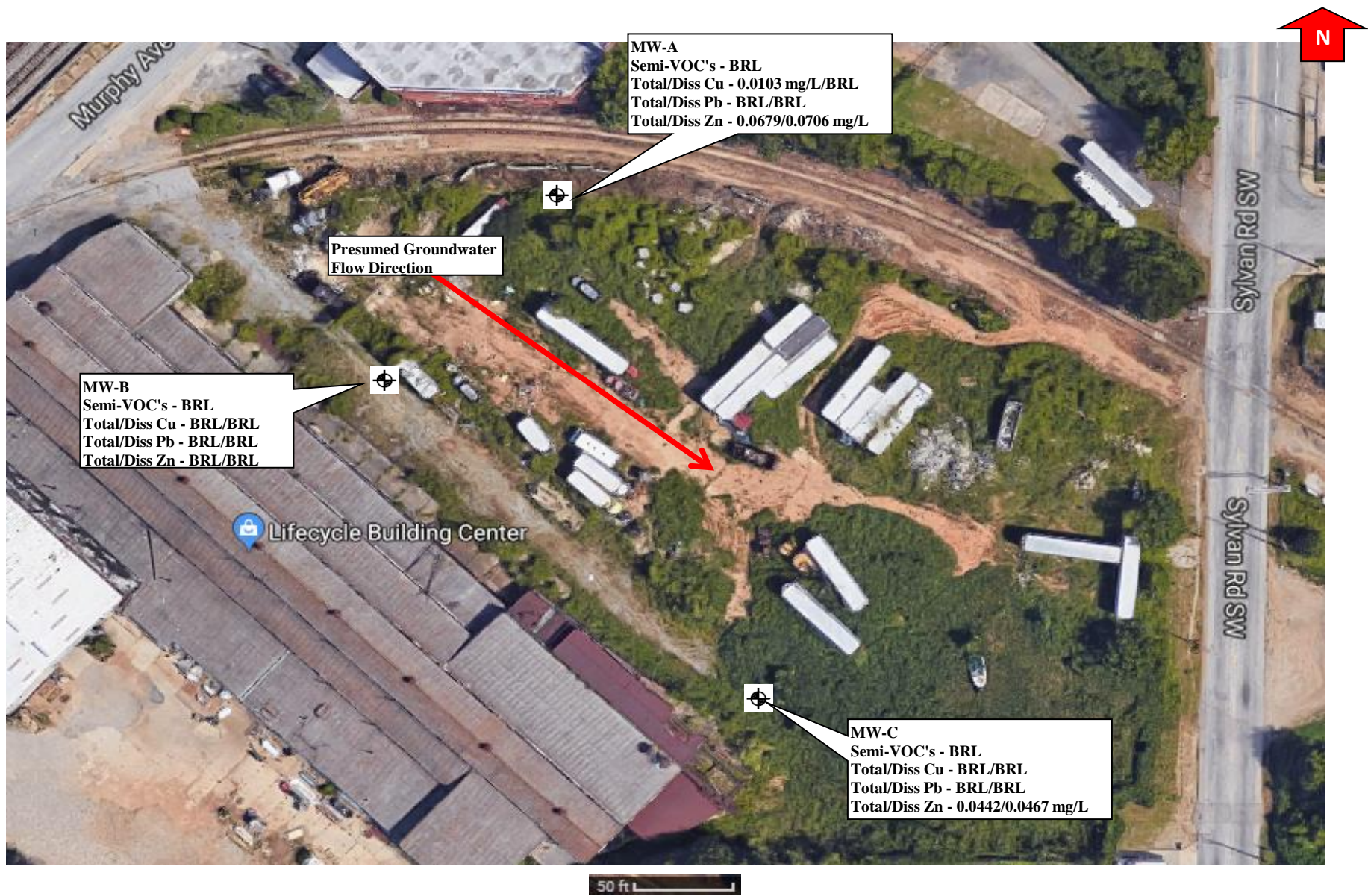
Environmental Technology Resources, Inc.
 4780 Ashford Dunwoody Rd.
 Suite A-456
 Atlanta, Georgia 30338

Southwest Atlanta, GA USGS Quadrangle

Project No.	Scale	Date
18-028	Unknown	1997

**FIGURE 1
 SITE LOCATION MAP**

1135 Sylvan Road
 Atlanta, Georgia



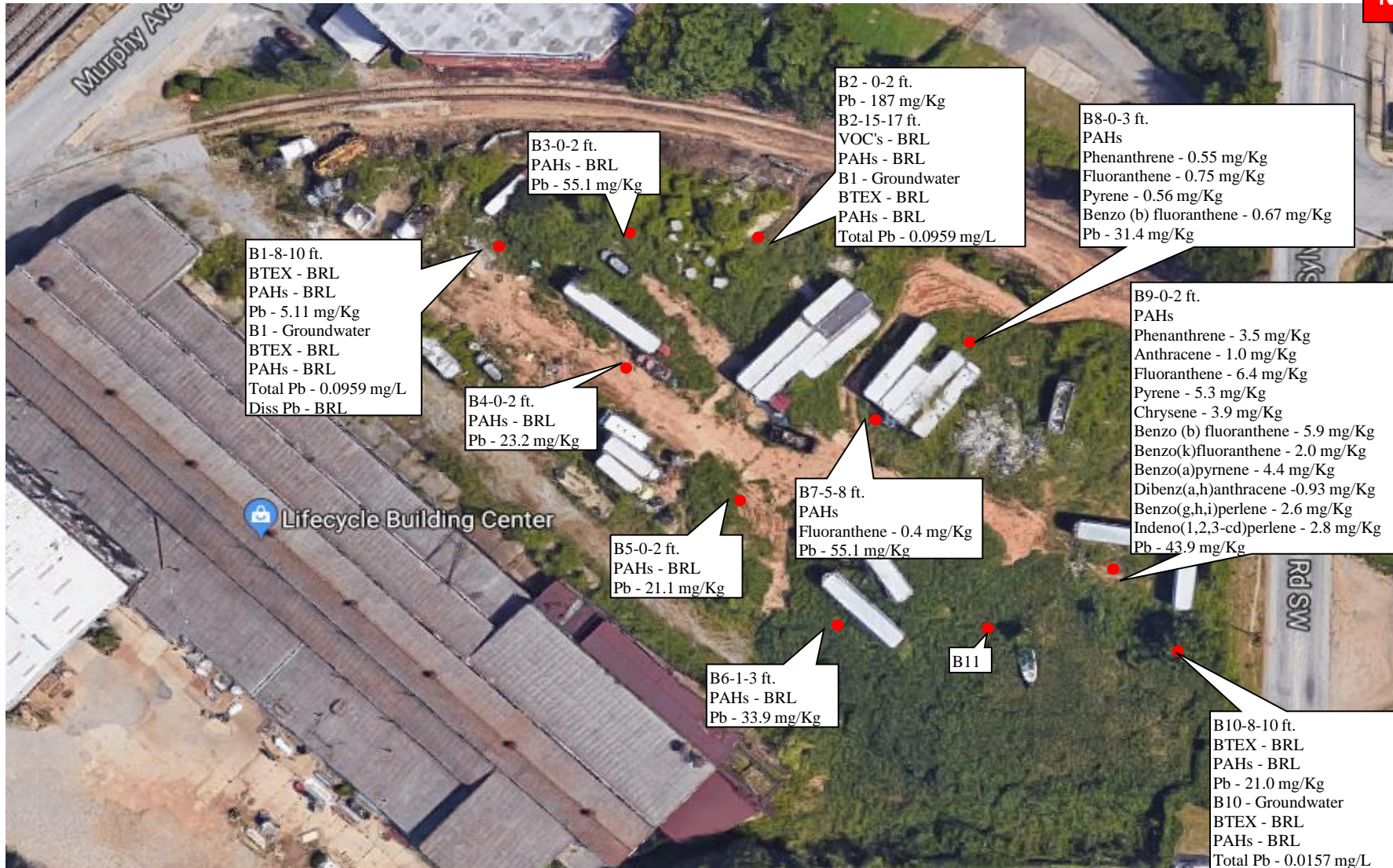
ETRI

Environmental Technology Resources, Inc.
4780 Ashford Dunwoody Rd.
Suite A-456
Atlanta, Georgia 30338

Source - GoogleMaps
Groundwater Monitoring Well

Project No.	Scale	Date
18-028	Noted	43241

FIGURE 2
MONITORING WELL LOCATION MAP
1135 Sylvan Road
Atlanta, Georgia



ETRI

Environmental Technology Resources, Inc.
4780 Ashford Dunwoody Rd.
Suite A-456
Atlanta, Georgia 30338

● Soil Boring Location		
Project No.	Scale	Date
18-028	Noted	June 1, 2018

FIGURE 3
SOIL BORING LOCATION MAP AND ANALYTICAL RESULTS
1135 Sylvan Road
Atlanta, Georgia

Attachment A – Soil Boring Logs

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: Northwest Side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 25 feet
Drilling Company: GeoLab Probing Services	Boring: B1
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—			0.1		Reddish-brown clay Loam to 8 feet
—					Dark gray sandy clay LOAM
—	5		0.1		
—					
—			0		Reddish-brown/tan-brown sandy SILT with dark gray mottling
—	10				
—					
—			0		Reddish-brown/pink brown SAPROLITE
—	15				Reddish-brown/dark gray/off-white SAPROLITE
—					
—			0.1		Groundwater at 19.7 feet
—	20				Gray-brown/reddish-brown sandy SILT
—					
—					
—	25				Boring terminated at 25 feet
—					
—					
—	30				
—					
—					
—	35				

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: North-northwest Side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 25 feet
Drilling Company: GeoLab Probing Services	Boring: B2
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
5			0.2		Brown silty LOAM
					Brick/dark gray Asphalt and brown sandy SILT
10			0.2		Reddish-brown/tan-brown sandy SILT
15			0.2		Pink brown/tan-brown/drk gray SAPROLITE to 20 feet
20			71.2		Organic Odor to Soil
					Groundwater at 17.2 feet
25			0.1		Brown/reddish-brown sandy SILT
30					Boring terminated at 25 feet
35					

SOIL BORING LOG

Project: 1135 Sylvan Road					Location: North-northwest Side of Site				
Date Installed: June 1, 2018					Elevation: _____ TOC: _____				
Drilling Method: Direct Push					Total Depth of Boring: 20 feet				
Drilling Company: GeoLab Probing Services					Boring: B3				
Driller: Steven					Depth to Water From TOC: _____				
Sampler Type: Continuous - Dual Tube					Geologist: _____				
	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)					
—			0.2		Reddish-brown sandy clay LOAM/concrete and asphalt				
—			0.7		Reddish-brown sandy clay LOAM to 7 feet				
5			0.8						
—					Reddish-brown/pink-brown/off-white/dark gray SAPROLITE				
10			0.6		Reddish-brown/pink brown/off-white/dark gray SAPROLITE to 20 feet				
—									
15			0.8						
—									
20					Boring terminated at 20 feet				
—									
25									
—									
30									
—									
35									

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: Mid-section of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 20 feet
Drilling Company: GeoLab Probing Services	Boring: B4
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—			0.5		Reddish-brown LOAM with concrete and asphalt
—					
—					
5			0.6		Reddish-brown silty CLAY to 8 feet
—					Reddish-brown/pink-brown/off-white/dark gray SAPROLITE
—					Light gray-brown/off-white/gray SAPROLITE
10			0.5		Brown sandy SILT
—					
—					
15			0.4		Reddish-brown/dark gray sandy SILT to 18 feet
—					
—					
20					Gray-brown sandy SILT Boring terminated at 20 feet
—					
—					
25					
—					
—					
30					
—					
—					
35					

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: Southwest Side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 20 feet
Drilling Company: GeoLab Probing Services	Boring: B5
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—					Gravel and Asphalt
—			10.2		Reddish-brown sandy clay LOAM with coarse sand
—			6.5		Gray-brown/reddish-brown CLAY
5			0.5		Reddish-brown/tan-brown silty CLAY
—					
—					
10			0.5		Reddish-brown/tan-brown sandy clay SILT
—					
—					
15			0.5		Reddish-brown/tan-brown sandy SILT to 17.5 feet
—					
—					Reddish-brown sandy SILT
20					Boring terminated at 20 feet
—					
—					
25					
—					
—					
30					
—					
—					
35					

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: Southern Side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 20 feet
Drilling Company: GeoLab Probing Services	Boring: B6
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—			0.6		Reddish-brown silty clay LOAM with asphalt at 6 inches
—			1.3		Reddish-brown silty clay LOAM
5			0.5		Reddish-brown sandy CLAY
—					
—					
—					
10			0.3		Reddish-brown/tan-brown sandy CLAY to 13 feet
—					
—					
15			0.2		Reddish-brown/tan-brown slayey SILT Reddish-brown/tan-brown/dark gray sandy SILT to 18 feet
—					
—					
20					Reddish-brown/tan-brown/dark gray SAPROLITE Boring terminated at 20 feet
—					
—					
25					
—					
—					
30					
—					
—					
35					

SOIL BORING LOG

Project: 1135 Sylvan Road					Location: Mid-section of Site				
Date Installed: June 1, 2018					Elevation: _____ TOC: _____				
Drilling Method: Direct Push					Total Depth of Boring: 20 feet				
Drilling Company: GeoLab Probing Services					Boring: B7				
Driller: Steven					Depth to Water From TOC: _____				
Sampler Type: Continuous - Dual Tube					Geologist: _____				
	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)					
—			0.9		Brick/layers of blue plastic material Dark gray/reddish-brown sandy SILT				
5			0.3		Brown/reddish-brown CLAY to 8 feet				
10			0.3		Reddish-brown/tan-brown sandy SILT Reddish-brown/light brown sandy SILT to 14 feet				
15			0.3		Reddish-brown/light brown SAPROLITE Reddish-brown/tan-brown sandy SILT				
20					Boring terminated at 20 feet				
25									
30									
35									

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: North-northeast side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 20 feet
Drilling Company: GeoLab Probing Services	Boring: B8
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—			0.9		Reddish-brown silty clay LOAM to 3 feet
—					Dark gray wood - Railroad Tie - 3-5 feet
5			0.3		Tan-brown sandy SILT to 7 feet
—					Light tan-brown/off-white coarse silty SAND to 11 feet
—					
10			0.3		Brown sandy SILT to 16 feet
—					
15			0.3		Light brown/brown SAPROLITE
—					
20					Boring terminated at 20 feet
—					
25					
—					
30					
—					
35					

SOIL BORING LOG

Project: 1135 Sylvan Road					Location: East side of Site
Date Installed: June 1, 2018					Elevation: TOC:
Drilling Method: Direct Push					Total Depth of Boring: 20 feet
Drilling Company: GeoLab Probing Services					Boring: B9
Driller: Steven					Depth to Water From TOC:
Sampler Type: Continuous - Dual Tube					Geologist:
	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—			0		Dark gray/brown clay LOAM and gravel
—			0		Reddish-brown clay LOAM
5			0.7		Dark gray-brown silty LOAM
—					
—					
—					
10			2.2		Reddish-brown CLAY to 13 feet
—					
—					
15			0.1		Reddish-brown/tan-brown clayey SILT Reddish-brown sandy SILT
—					
—					
20					Boring terminated at 20 feet
—					
—					
25					
—					
—					
30					
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—					
35					

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: East Side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 25 feet
Drilling Company: GeoLab Probing Services	Boring: B10
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—					Concrete to 5 inches
—			0.6		Reddish-brown silty clay LOAM
—					
5			0.6		Reddish-brown silty clay to 7 feet
—					Brown sandy CLAY
—					
10			0.3		Reddish-brown/tan-brown CLAY to 17 feet
—					
—					
15			0.4		Brown/reddish-brown clayey SILT with dark gray mottling
—					
—					
20			6.3		Brown/reddish-brown sandy SILT with dark gray mottling
—					Depth to water - 22.1 feet
—					
25					Boring terminated at 25 feet
—					
—					
30					
—					
—					
35					

SOIL BORING LOG

Project: 1135 Sylvan Road	Location: Southeast side of Site
Date Installed: June 1, 2018	Elevation: _____ TOC: _____
Drilling Method: Direct Push	Total Depth of Boring: 20 feet
Drilling Company: GeoLab Probing Services	Boring: B11
Driller: Steven	Depth to Water From TOC: _____
Sampler Type: Continuous - Dual Tube	Geologist: _____

	Sample Number	Blows/6"	PID/FID (ppm)	USCS (sym)	
—					Concrete - no sample recovery
—					
—					
5			0.2		
—					
—					
—					
10			0.4		
—					
—					
—					
15			0.2		
—					
—					
20					
—					
—					
25					
—					
—					
30					
—					
—					
35					

Attachment B – Laboratory Analytical Report



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 31, 2018

Tom Harper
ETRI

4780 Ashford Dunwoody, Suite A-456
Atlanta GA 30338

RE: 1135 Sylvan Road

Dear Tom Harper:

Order No: 1805L75

Analytical Environmental Services, Inc. received 3 samples on 5/21/2018 2:25:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/17-06/30/18.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/17-06/30/18 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.

-NELAP/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/17-06/30/18.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic
Project Manager



CHAIN OF CUSTODY

COMPANY: ETRI		ADDRESS: 4700 Ashford Dunwoody Rd Suite A 456 Atlanta GA 30338			ANALYSIS REQUESTED								Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.		Number of Containers													
PHONE: 770-888-8181		EMAIL: etri@woodsprng.com			<div style="display: flex; flex-direction: row;"> <div style="writing-mode: vertical-rl; text-orientation: mixed; margin-right: 5px;">Thomas E. Disson</div> <div style="writing-mode: vertical-rl; text-orientation: mixed; margin-right: 5px;">Cu, Pb, Zn</div> <div style="writing-mode: vertical-rl; text-orientation: mixed; margin-right: 5px;">Seam Vols</div> <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr> </table> </div>																							
SAMPLED BY: Tom Harper		SIGNATURE:			PRESERVATION (see codes)								REMARKS															
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)																						
1	MW-A	5-21-18	1305	x			x	x																				
2	MW-B	5-21-18	1200	x			x	x																				
3	MW-C	5-21-18	1240	x			x	x																				
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												
13																												
14																												

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	PROJECT INFORMATION	RECEIPT
1.	5-21-18	1.	5/21/18 2:25pm	PROJECT NAME: 1135 SYLVAN ROAD	Total # of Containers
2.		2.		PROJECT #:	Turnaround Time (TAT) Request <input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____
3.		3.		SITE ADDRESS: 1135 Sylvan Road, Atlanta GA	
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		SEND REPORT TO:	STATE PROGRAM (if any): _____ E-mail? <input checked="" type="checkbox"/> Fax? <input type="checkbox"/> DATA PACKAGE: I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>
		OUT: / / VIA: IN: client / / VIA: client FedEx UPS US mail courier Greyhound other: _____		INVOICE TO: (IF DIFFERENT FROM ABOVE)	
				QUOTE #:	PO#:

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Client: ETRI
Project: 1135 Sylvan Road
Lab ID: 1805L75

Case Narrative

Sample Receiving Nonconformance:

Samples 1805L75 were received at [16.3], outside required temperature range of 0-6°C. Samples were received on ice but, due to being immediately delivered to the laboratory, target temperature had not been reached.

Client: ETRI	Client Sample ID: MW-A
Project Name: 1135 Sylvan Road	Collection Date: 5/21/2018 1:15:00 PM
Lab ID: 1805L75-001	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3510C)								
1,1'-Biphenyl	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2,4-Dichlorophenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2,4-Dimethylphenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2,4-Dinitrophenol	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
2,4-Dinitrotoluene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2,6-Dinitrotoluene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2-Chloronaphthalene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2-Chlorophenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2-Methylnaphthalene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2-Methylphenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
2-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
2-Nitrophenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
3-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
4-Chloroaniline	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
4-Methylphenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
4-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
4-Nitrophenol	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
Acenaphthene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Acenaphthylene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Acetophenone	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Anthracene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Atrazine	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Benz(a)anthracene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Benzaldehyde	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Benzo(a)pyrene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Benzo(b)fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Benzo(k)fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Butyl benzyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Caprolactam	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: MW-A
Project Name: 1135 Sylvan Road	Collection Date: 5/21/2018 1:15:00 PM
Lab ID: 1805L75-001	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D		(SW3510C)						
Carbazole	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Chrysene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Di-n-butyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Di-n-octyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Dibenzofuran	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Diethyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Dimethyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Fluorene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Hexachlorobenzene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Hexachlorobutadiene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Hexachloroethane	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Isophorone	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Naphthalene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Nitrobenzene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Pentachlorophenol	BRL	25		ug/L	261167	1	05/23/2018 15:36	YH
Phenanthrene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Phenol	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Pyrene	BRL	10		ug/L	261167	1	05/23/2018 15:36	YH
Surr: 2,4,6-Tribromophenol	95.4	51.4-138		%REC	261167	1	05/23/2018 15:36	YH
Surr: 2-Fluorobiphenyl	85.9	44.6-119		%REC	261167	1	05/23/2018 15:36	YH
Surr: 2-Fluorophenol	49.6	27.2-120		%REC	261167	1	05/23/2018 15:36	YH
Surr: 4-Terphenyl-d14	79.8	47.1-136		%REC	261167	1	05/23/2018 15:36	YH
Surr: Nitrobenzene-d5	83.3	40.7-119		%REC	261167	1	05/23/2018 15:36	YH
Surr: Phenol-d5	29.6	18.1-120		%REC	261167	1	05/23/2018 15:36	YH
METALS, DISSOLVED SW6010D		(SW3005A)						
Copper	BRL	0.0100		mg/L	261373	1	05/30/2018 15:52	DG
Lead	BRL	0.0100		mg/L	261373	1	05/30/2018 15:52	DG
Zinc	0.0706	0.0200		mg/L	261373	1	05/30/2018 15:52	DG
METALS, TOTAL SW6010D		(SW3010A)						
Copper	0.0103	0.0100		mg/L	261339	1	05/30/2018 16:01	DG
Lead	BRL	0.0100		mg/L	261339	1	05/30/2018 16:01	DG
Zinc	0.0679	0.0200		mg/L	261339	1	05/30/2018 16:01	DG

Qualifiers:

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- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: MW-B
Project Name: 1135 Sylvan Road	Collection Date: 5/21/2018 12:00:00 PM
Lab ID: 1805L75-002	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3510C)								
1,1'-Biphenyl	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2,4-Dichlorophenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2,4-Dimethylphenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2,4-Dinitrophenol	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
2,4-Dinitrotoluene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2,6-Dinitrotoluene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2-Chloronaphthalene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2-Chlorophenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2-Methylnaphthalene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2-Methylphenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
2-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
2-Nitrophenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
3-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
4-Chloroaniline	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
4-Methylphenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
4-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
4-Nitrophenol	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
Acenaphthene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Acenaphthylene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Acetophenone	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Anthracene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Atrazine	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Benz(a)anthracene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Benzaldehyde	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Benzo(a)pyrene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Benzo(b)fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Benzo(k)fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Butyl benzyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Caprolactam	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH

Qualifiers:

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- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: MW-B
Project Name: 1135 Sylvan Road	Collection Date: 5/21/2018 12:00:00 PM
Lab ID: 1805L75-002	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D					(SW3510C)			
Carbazole	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Chrysene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Di-n-butyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Di-n-octyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Dibenzofuran	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Diethyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Dimethyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Fluorene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Hexachlorobenzene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Hexachlorobutadiene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Hexachloroethane	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Isophorone	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Naphthalene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Nitrobenzene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Pentachlorophenol	BRL	25		ug/L	261167	1	05/23/2018 16:57	YH
Phenanthrene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Phenol	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Pyrene	BRL	10		ug/L	261167	1	05/23/2018 16:57	YH
Surr: 2,4,6-Tribromophenol	93	51.4-138		%REC	261167	1	05/23/2018 16:57	YH
Surr: 2-Fluorobiphenyl	89.1	44.6-119		%REC	261167	1	05/23/2018 16:57	YH
Surr: 2-Fluorophenol	59.4	27.2-120		%REC	261167	1	05/23/2018 16:57	YH
Surr: 4-Terphenyl-d14	88.5	47.1-136		%REC	261167	1	05/23/2018 16:57	YH
Surr: Nitrobenzene-d5	91.4	40.7-119		%REC	261167	1	05/23/2018 16:57	YH
Surr: Phenol-d5	37	18.1-120		%REC	261167	1	05/23/2018 16:57	YH
METALS, DISSOLVED SW6010D					(SW3005A)			
Copper	BRL	0.0100		mg/L	261373	1	05/25/2018 13:53	DG
Lead	BRL	0.0100		mg/L	261373	1	05/25/2018 13:53	DG
Zinc	BRL	0.0200		mg/L	261373	1	05/25/2018 13:53	DG
METALS, TOTAL SW6010D					(SW3010A)			
Copper	BRL	0.0100		mg/L	261339	1	05/25/2018 15:17	TA
Lead	BRL	0.0100		mg/L	261339	1	05/25/2018 15:17	TA
Zinc	BRL	0.0200		mg/L	261339	1	05/25/2018 15:17	TA

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: MW-C
Project Name: 1135 Sylvan Road	Collection Date: 5/21/2018 12:40:00 PM
Lab ID: 1805L75-003	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D (SW3510C)								
1,1'-Biphenyl	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2,4,5-Trichlorophenol	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
2,4,6-Trichlorophenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2,4-Dichlorophenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2,4-Dimethylphenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2,4-Dinitrophenol	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
2,4-Dinitrotoluene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2,6-Dinitrotoluene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2-Chloronaphthalene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2-Chlorophenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2-Methylnaphthalene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2-Methylphenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
2-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
2-Nitrophenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
3,3'-Dichlorobenzidine	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
3-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
4,6-Dinitro-2-methylphenol	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
4-Bromophenyl phenyl ether	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
4-Chloro-3-methylphenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
4-Chloroaniline	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
4-Chlorophenyl phenyl ether	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
4-Methylphenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
4-Nitroaniline	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
4-Nitrophenol	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
Acenaphthene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Acenaphthylene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Acetophenone	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Anthracene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Atrazine	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Benz(a)anthracene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Benzaldehyde	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Benzo(a)pyrene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Benzo(b)fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Benzo(g,h,i)perylene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Benzo(k)fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Bis(2-chloroethoxy)methane	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Bis(2-chloroethyl)ether	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Bis(2-chloroisopropyl)ether	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Bis(2-ethylhexyl)phthalate	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Butyl benzyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Caprolactam	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH

Qualifiers:

- * Value exceeds maximum contaminant level
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- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: MW-C
Project Name: 1135 Sylvan Road	Collection Date: 5/21/2018 12:40:00 PM
Lab ID: 1805L75-003	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D		(SW3510C)						
Carbazole	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Chrysene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Di-n-butyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Di-n-octyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Dibenz(a,h)anthracene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Dibenzofuran	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Diethyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Dimethyl phthalate	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Fluoranthene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Fluorene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Hexachlorobenzene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Hexachlorobutadiene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Hexachlorocyclopentadiene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Hexachloroethane	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Isophorone	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
N-Nitrosodi-n-propylamine	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
N-Nitrosodiphenylamine	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Naphthalene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Nitrobenzene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Pentachlorophenol	BRL	25		ug/L	261167	1	05/23/2018 17:24	YH
Phenanthrene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Phenol	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Pyrene	BRL	10		ug/L	261167	1	05/23/2018 17:24	YH
Surr: 2,4,6-Tribromophenol	91.8	51.4-138		%REC	261167	1	05/23/2018 17:24	YH
Surr: 2-Fluorobiphenyl	89.4	44.6-119		%REC	261167	1	05/23/2018 17:24	YH
Surr: 2-Fluorophenol	57.6	27.2-120		%REC	261167	1	05/23/2018 17:24	YH
Surr: 4-Terphenyl-d14	75.3	47.1-136		%REC	261167	1	05/23/2018 17:24	YH
Surr: Nitrobenzene-d5	95	40.7-119		%REC	261167	1	05/23/2018 17:24	YH
Surr: Phenol-d5	36.3	18.1-120		%REC	261167	1	05/23/2018 17:24	YH
METALS, DISSOLVED SW6010D		(SW3005A)						
Copper	BRL	0.0100		mg/L	261373	1	05/30/2018 15:54	DG
Lead	BRL	0.0100		mg/L	261373	1	05/30/2018 15:54	DG
Zinc	0.0467	0.0200		mg/L	261373	1	05/30/2018 15:54	DG
METALS, TOTAL SW6010D		(SW3010A)						
Copper	BRL	0.0100		mg/L	261339	1	05/30/2018 16:03	DG
Lead	BRL	0.0100		mg/L	261339	1	05/30/2018 16:03	DG
Zinc	0.0442	0.0200		mg/L	261339	1	05/30/2018 16:03	DG

Qualifiers:

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- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: _____

AES Work Order Number: _____

2. Carrier: FedEx UPS USPS Client Courier Other _____

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?				damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?					
5. Custody seals intact on shipping container?					
6. Temperature blanks present?					
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]				Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?					
9. Chain of Custody signed, dated, and timed when relinquished and received?					
10. Sampler name and/or signature on COC?					
11. Were all samples received within holding time?					
12. TAT marked on the COC?				If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature _____ °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C
 Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). _____

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?					
17. Custody seals present on sample containers?					
18. Custody seals intact on sample containers?					
19. Do sample container labels match the COC?				incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?					
21. Were all of the samples listed on the COC received?				samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?					
23. Did we receive sufficient sample volume for indicated analyses?					
24. Were samples received in appropriate containers?					
25. Were VOA samples received without headspace (< 1/4" bubble)?					
26. Were trip blanks submitted?				listed on COC <input type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). _____

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *					
29. Containers meet preservation guidelines?					
30. Was pH adjusted at Sample Receipt?					

I certify that I have completed sections 28-30 (dated initials). _____

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261167

Sample ID: MB-261167	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
Sample Type: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8228806							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	10									
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2,4-Dinitrotoluene	BRL	10									
2,6-Dinitrotoluene	BRL	10									
2-Chloronaphthalene	BRL	10									
2-Chlorophenol	BRL	10									
2-Methylnaphthalene	BRL	10									
2-Methylphenol	BRL	10									
2-Nitroaniline	BRL	25									
2-Nitrophenol	BRL	10									
3,3'-Dichlorobenzidine	BRL	10									
3-Nitroaniline	BRL	25									
4,6-Dinitro-2-methylphenol	BRL	25									
4-Bromophenyl phenyl ether	BRL	10									
4-Chloro-3-methylphenol	BRL	10									
4-Chloroaniline	BRL	10									
4-Chlorophenyl phenyl ether	BRL	10									
4-Methylphenol	BRL	10									
4-Nitroaniline	BRL	25									
4-Nitrophenol	BRL	25									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Acetophenone	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261167

Sample ID: MB-261167	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8228806							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	10									
Atrazine	BRL	10									
Benz(a)anthracene	BRL	10									
Benzaldehyde	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroethoxy)methane	BRL	10									
Bis(2-chloroethyl)ether	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Butyl benzyl phthalate	BRL	10									
Caprolactam	BRL	10									
Carbazole	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Dibenzofuran	BRL	10									
Diethyl phthalate	BRL	10									
Dimethyl phthalate	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Hexachlorobenzene	BRL	10									
Hexachlorobutadiene	BRL	10									
Hexachlorocyclopentadiene	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261167

Sample ID: MB-261167	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: MBLK	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8228806							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Isophorone	BRL	10									
N-Nitrosodi-n-propylamine	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Nitrobenzene	BRL	10									
Pentachlorophenol	BRL	25									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	89.34	0	100.0		89.3	51.4	138				
Surr: 2-Fluorobiphenyl	42.41	0	50.00		84.8	44.6	119				
Surr: 2-Fluorophenol	51.15	0	100.0		51.2	27.2	120				
Surr: 4-Terphenyl-d14	46.89	0	50.00		93.8	47.1	136				
Surr: Nitrobenzene-d5	42.23	0	50.00		84.5	40.7	119				
Surr: Phenol-d5	29.12	0	100.0		29.1	18.1	120				

Sample ID: LCS-261167	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8228807							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	90.04	10	100.0		90.0	52.3	120				
2-Chlorophenol	87.63	10	100.0		87.6	46.9	120				
4-Chloro-3-methylphenol	95.93	10	100.0		95.9	45.5	122				
4-Nitrophenol	30.60	25	100.0		30.6	23	120				
Acenaphthene	88.40	10	100.0		88.4	48.5	120				
N-Nitrosodi-n-propylamine	101.1	10	100.0		101	47.3	118				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261167

Sample ID: LCS-261167	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: LCS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8228807							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Pentachlorophenol	83.12	25	100.0		83.1	41	118				
Phenol	32.87	10	100.0		32.9	26.4	120				
Pyrene	105.5	10	100.0		106	51.2	128				
Surr: 2,4,6-Tribromophenol	94.27	0	100.0		94.3	51.4	138				
Surr: 2-Fluorobiphenyl	44.94	0	50.00		89.9	44.6	119				
Surr: 2-Fluorophenol	53.03	0	100.0		53.0	27.2	120				
Surr: 4-Terphenyl-d14	52.00	0	50.00		104	47.1	136				
Surr: Nitrobenzene-d5	48.48	0	50.00		97.0	40.7	119				
Surr: Phenol-d5	30.51	0	100.0		30.5	18.1	120				

Sample ID: 1805L22-001BMS	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8230492							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	80.08	10	100.0		80.1	50.3	123				
2-Chlorophenol	87.73	10	100.0		87.7	50.8	120				
4-Chloro-3-methylphenol	98.92	10	100.0		98.9	47.1	124				
4-Nitrophenol	55.71	25	100.0		55.7	21.8	120				
Acenaphthene	87.19	10	100.0		87.2	44.7	119				
N-Nitrosodi-n-propylamine	92.80	10	100.0		92.8	51.2	120				
Pentachlorophenol	79.96	25	100.0		80.0	40	120				
Phenol	51.74	10	100.0		51.7	31.5	120				
Pyrene	99.04	10	100.0		99.0	51	129				
Surr: 2,4,6-Tribromophenol	95.06	0	100.0		95.1	51.4	138				
Surr: 2-Fluorobiphenyl	43.49	0	50.00		87.0	44.6	119				
Surr: 2-Fluorophenol	68.81	0	100.0		68.8	27.2	120				
Surr: 4-Terphenyl-d14	44.83	0	50.00		89.7	47.1	136				
Surr: Nitrobenzene-d5	43.42	0	50.00		86.8	40.7	119				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261167

Sample ID: 1805L22-001BMS	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: MS	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8230492							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5	49.19	0	100.0		49.2	18.1	120				
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Sample ID: 1805L22-001BMSD	Client ID:	Units: ug/L	Prep Date: 05/23/2018	Run No: 371053							
SampleType: MSD	TestCode: TCL-SEMIVOLATILE ORGANICS SW8270D	BatchID: 261167	Analysis Date: 05/23/2018	Seq No: 8230493							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	77.47	10	100.0		77.5	50.3	123	80.08	3.31	21.7	
2-Chlorophenol	84.91	10	100.0		84.9	50.8	120	87.73	3.27	24.8	
4-Chloro-3-methylphenol	92.09	10	100.0		92.1	47.1	124	98.92	7.15	20.7	
4-Nitrophenol	57.00	25	100.0		57.0	21.8	120	55.71	2.29	38.3	
Acenaphthene	83.83	10	100.0		83.8	44.7	119	87.19	3.93	20.5	
N-Nitrosodi-n-propylamine	86.08	10	100.0		86.1	51.2	120	92.80	7.51	23.2	
Pentachlorophenol	80.47	25	100.0		80.5	40	120	79.96	0.636	30.7	
Phenol	50.64	10	100.0		50.6	31.5	120	51.74	2.15	28.5	
Pyrene	94.95	10	100.0		95.0	51	129	99.04	4.22	24.8	
Surr: 2,4,6-Tribromophenol	88.63	0	100.0		88.6	51.4	138	95.06	0	0	
Surr: 2-Fluorobiphenyl	40.34	0	50.00		80.7	44.6	119	43.49	0	0	
Surr: 2-Fluorophenol	68.37	0	100.0		68.4	27.2	120	68.81	0	0	
Surr: 4-Terphenyl-d14	42.68	0	50.00		85.4	47.1	136	44.83	0	0	
Surr: Nitrobenzene-d5	42.26	0	50.00		84.5	40.7	119	43.42	0	0	
Surr: Phenol-d5	48.49	0	100.0		48.5	18.1	120	49.19	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261339

Sample ID: MB-261339	Client ID:	Units: mg/L	Prep Date: 05/24/2018	Run No: 371335							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010D	BatchID: 261339	Analysis Date: 05/25/2018	Seq No: 8238015							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper BRL 0.0100
 Lead BRL 0.0100
 Zinc BRL 0.0200

Sample ID: LCS-261339	Client ID:	Units: mg/L	Prep Date: 05/24/2018	Run No: 371335							
SampleType: LCS	TestCode: METALS, TOTAL SW6010D	BatchID: 261339	Analysis Date: 05/25/2018	Seq No: 8238016							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper 1.031 0.0100 1.000 103 80 120
 Lead 1.038 0.0100 1.000 104 80 120
 Zinc 1.038 0.0200 1.000 104 80 120

Sample ID: 1805G43-017BMS	Client ID: MW-37S	Units: mg/L	Prep Date: 05/24/2018	Run No: 371335							
SampleType: MS	TestCode: METALS, TOTAL SW6010D	BatchID: 261339	Analysis Date: 05/25/2018	Seq No: 8238018							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper 1.008 0.0100 1.000 101 75 125
 Lead 0.9923 0.0100 1.000 99.2 75 125
 Zinc 1.175 0.0200 1.000 0.1770 99.8 75 125

Sample ID: 1805G43-017BMSD	Client ID: MW-37S	Units: mg/L	Prep Date: 05/24/2018	Run No: 371335							
SampleType: MSD	TestCode: METALS, TOTAL SW6010D	BatchID: 261339	Analysis Date: 05/25/2018	Seq No: 8238019							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper 1.020 0.0100 1.000 102 75 125 1.008 1.18 20
 Lead 1.005 0.0100 1.000 100 75 125 0.9923 1.27 20
 Zinc 1.195 0.0200 1.000 0.1770 102 75 125 1.175 1.69 20

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1805L75

ANALYTICAL QC SUMMARY REPORT

BatchID: 261373

Sample ID: MB-261373	Client ID:	Units: mg/L	Prep Date: 05/24/2018	Run No: 371369							
SampleType: MBLK	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261373	Analysis Date: 05/25/2018	Seq No: 8238304							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper	BRL	0.0100									
Lead	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: LCS-261373	Client ID:	Units: mg/L	Prep Date: 05/24/2018	Run No: 371369							
SampleType: LCS	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261373	Analysis Date: 05/25/2018	Seq No: 8238305							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper	0.9475	0.0100	1.000		94.7	80	120				
Lead	0.9709	0.0100	1.000		97.1	80	120				
Zinc	1.027	0.0200	1.000		103	80	120				

Sample ID: 1805L75-001BMS	Client ID: MW-A	Units: mg/L	Prep Date: 05/24/2018	Run No: 371369							
SampleType: MS	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261373	Analysis Date: 05/25/2018	Seq No: 8238307							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper	0.9512	0.0100	1.000	0.01087	94.0	75	125				
Lead	0.9920	0.0100	1.000		99.2	75	125				
Zinc	1.144	0.0200	1.000	0.07394	107	75	125				

Sample ID: 1805L75-001BMSD	Client ID: MW-A	Units: mg/L	Prep Date: 05/24/2018	Run No: 371369							
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261373	Analysis Date: 05/25/2018	Seq No: 8238308							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Copper	0.9381	0.0100	1.000	0.01087	92.7	75	125	0.9512	1.39	20	
Lead	0.9528	0.0100	1.000		95.3	75	125	0.9920	4.03	20	
Zinc	1.064	0.0200	1.000	0.07394	99.0	75	125	1.144	7.27	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

June 12, 2018

Tom Harper
ETRI

4780 Ashford Dunwoody, Suite A-456
Atlanta GA 30338

RE: 1135 Sylvan Road

Dear Tom Harper:

Order No: 1806099

Analytical Environmental Services, Inc. received 16 samples on June 1, 2018 3:47 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/17-06/30/18.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective 07/01/17-06/30/18 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.

-NELAP/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/17-06/30/18.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/19.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic
Project Manager



CHAIN OF CUSTODY

Work Order: 1806099

Date: 6-1-18 Page 1 of 1

COMPANY: ETRI		ADDRESS: 4780 Ashwood Dunwoody Rd Suite A-456 Atlanta GA 30388					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.		Number of Containers																				
PHONE: 770-888-8181		EMAIL: etri@mindspring.com					<table border="1"> <tr> <td>Pres / PAHS</td> <td>PAHS</td> <td>Totals Lead</td> <td>Disolved Lead</td> <td>VOC's</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										Pres / PAHS	PAHS		Totals Lead	Disolved Lead	VOC's																	
Pres / PAHS	PAHS	Totals Lead	Disolved Lead	VOC's																																			
SAMPLED BY: Tom Hape		SIGNATURE: Tom Hape					PRESERVATION (see codes)										REMARKS																						
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)																																	
		DATE	TIME																																				
1	B1-8-10'	6-1-18	0824	X		SO	X																																
2	B2-0-2'	6-1-18	0914	X		SO																																	
3	B2-15-11'	6-1-18	0924	X		SO		X																															
4	B3-0-2'	6-1-18	1007	X		SO	X	X																															
5	B4-0-2'	6-1-18	1026	X		SO	X	X																															
6	B5-0-2'	6-1-18	1049	X		SO	X	X																															
7	B6-1-3'	6-1-18	1106	X		SO	X	X																															
8	B7-5-8'	6-1-18	1153	X		SO	X	X																															
9	B8-0-3'	6-1-18	1146	X		SO	X	X																															
10	B9-0-2'	6-1-18	1210	X		SO	X	X																															
11	B10-8-10'	6-1-18	1240	X		SO	X	X																															
12	B1	6-1-18	0846	X		GW	X	X	X																														
13	B2	6-1-18	0945	X		GW		X	X	X																													
14	B10	6-1-18	0845	X		GW	X	X	X																														
RELINQUISHED BY: Thomas Riffey		DATE/TIME: 6-1-18 1547		RECEIVED BY: Munir		DATE/TIME: 6/1/2018 3:47PM		PROJECT INFORMATION										RECEIPT																					
1.		2.		3.		PROJECT NAME: 1135 Sylvan Road										Total # of Containers																							
2.		3.		SITE ADDRESS: 1135 Sylvan Road, Atlanta GA										Turnaround Time (TAT) Request																									
3.		3.		SEND REPORT TO:										<input checked="" type="checkbox"/> Standard 5 Business Days <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____																									
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				INVOICE TO:				(IF DIFFERENT FROM ABOVE)				STATE PROGRAM (if any):																							
				OUT: / / VIA:												E-mail? <input checked="" type="checkbox"/> Fax? <input type="checkbox"/>																							
				IN: <u>client</u> / / VIA:												DATA PACKAGE: I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>																							
				other: FedEx UPS US mail courier Greyhound				QUOTE #:				PO#:																											

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Client: ETRI
Project: 1135 Sylvan Road
Lab ID: 1806099

Case Narrative

Sample Receiving Nonconformance:

Sample "B7-0-2" was received but not listed on the Chain of Custody. Sample were logged in using the information present. Lead analysis was required per Tom Harper via email 6/2/2018 1:27pm.

Four unpreserved amber vials were received for "B2". The sample was analyzed for PAH per Tom Harper via email 6/2/2018 1:27pm.

Only PAH was required for sample "B7-5-8" per Tom Harper via email 6/2/2018 1:27pm.

Client: ETRI	Client Sample ID: B1-8-10'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 8:24:00 AM
Lab ID: 1806099-001	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B		(SW5035)						
Benzene	BRL	0.78		ug/Kg-dry	261948	1	06/05/2018 20:28	JE
Toluene	BRL	0.78		ug/Kg-dry	261948	1	06/05/2018 20:28	JE
Ethylbenzene	BRL	0.78		ug/Kg-dry	261948	1	06/05/2018 20:28	JE
m,p-Xylene	BRL	0.78		ug/Kg-dry	261948	1	06/05/2018 20:28	JE
o-Xylene	BRL	0.78		ug/Kg-dry	261948	1	06/05/2018 20:28	JE
Surr: 4-Bromofluorobenzene	97.3	65-133		%REC	261948	1	06/05/2018 20:28	JE
POLYAROMATIC HYDROCARBONS SW8270D		(SW3546)						
Naphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Acenaphthylene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
1-Methylnaphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
2-Methylnaphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Acenaphthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Fluorene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Phenanthrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Anthracene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Fluoranthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Pyrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Benz(a)anthracene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Chrysene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Benzo(b)fluoranthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Benzo(k)fluoranthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Benzo(a)pyrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Dibenz(a,h)anthracene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Benzo(g,h,i)perylene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Indeno(1,2,3-cd)pyrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 13:52	YH
Surr: 2-Fluorobiphenyl	82.3	54.4-120		%REC	261814	1	06/06/2018 13:52	YH
Surr: 4-Terphenyl-d14	83.5	60.4-120		%REC	261814	1	06/06/2018 13:52	YH
Surr: Nitrobenzene-d5	79.2	51-120		%REC	261814	1	06/06/2018 13:52	YH
METALS, TOTAL SW6010D		(SW3050B)						
Lead	5.11	4.92		mg/Kg-dry	261940	1	06/07/2018 11:42	JR
PERCENT MOISTURE D2216								
Percent Moisture	18.5	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Jun-18

Client: ETRI	Client Sample ID: B2-0-2'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 9:14:00 AM
Lab ID: 1806099-002	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D					(SW3050B)			
Lead	187	5.96		mg/Kg-dry	261940	1	06/07/2018 13:09	JR
PERCENT MOISTURE D2216								
Percent Moisture	36.2	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B2-15-17'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 9:26:00 AM
Lab ID: 1806099-003	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5035)								
1,1,1-Trichloroethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,1,2,2-Tetrachloroethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,1,2-Trichloroethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,1-Dichloroethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,1-Dichloroethene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,2,4-Trichlorobenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,2-Dibromo-3-chloropropane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,2-Dibromoethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,2-Dichlorobenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,2-Dichloroethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,2-Dichloropropane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,3-Dichlorobenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
1,4-Dichlorobenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
2-Butanone	BRL	40		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
2-Hexanone	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
4-Methyl-2-pentanone	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Acetone	BRL	79		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Benzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Bromodichloromethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Bromoform	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Bromomethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Carbon disulfide	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Carbon tetrachloride	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Chlorobenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Chloroethane	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Chloroform	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Chloromethane	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
cis-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
cis-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Cyclohexane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Dibromochloromethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Dichlorodifluoromethane	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Ethylbenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Freon-113	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Isopropylbenzene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
m,p-Xylene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Methyl acetate	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Methyl tert-butyl ether	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Methylcyclohexane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Methylene chloride	BRL	16		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
o-Xylene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B2-15-17'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 9:26:00 AM
Lab ID: 1806099-003	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5035)						
Styrene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Tetrachloroethene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Toluene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
trans-1,2-Dichloroethene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
trans-1,3-Dichloropropene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Trichloroethene	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Trichlorofluoromethane	BRL	4.0		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Vinyl chloride	BRL	7.9		ug/Kg-dry	261887	1	06/11/2018 16:48	AR
Surr: 4-Bromofluorobenzene	92.6	65-133		%REC	261887	1	06/11/2018 16:48	AR
Surr: Dibromofluoromethane	113	75.8-119		%REC	261887	1	06/11/2018 16:48	AR
Surr: Toluene-d8	101	78.3-120		%REC	261887	1	06/11/2018 16:48	AR
POLYAROMATIC HYDROCARBONS SW8270D		(SW3546)						
Naphthalene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Acenaphthylene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
1-Methylnaphthalene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
2-Methylnaphthalene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Acenaphthene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Fluorene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Phenanthrene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Anthracene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Fluoranthene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Pyrene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Benz(a)anthracene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Chrysene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Benzo(b)fluoranthene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Benzo(k)fluoranthene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Benzo(a)pyrene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Dibenz(a,h)anthracene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Benzo(g,h,i)perylene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Indeno(1,2,3-cd)pyrene	BRL	500		ug/Kg-dry	261814	1	06/06/2018 14:19	YH
Surr: 2-Fluorobiphenyl	68.5	54.4-120		%REC	261814	1	06/06/2018 14:19	YH
Surr: 4-Terphenyl-d14	73.2	60.4-120		%REC	261814	1	06/06/2018 14:19	YH
Surr: Nitrobenzene-d5	64	51-120		%REC	261814	1	06/06/2018 14:19	YH
PERCENT MOISTURE D2216								
Percent Moisture	34.4	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B3-0-2'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 10:09:00 AM
Lab ID: 1806099-004	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					(SW3546)			
Naphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Acenaphthylene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
1-Methylnaphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
2-Methylnaphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Acenaphthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Fluorene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Phenanthrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Benz(a)anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Chrysene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Benzo(b)fluoranthene	460	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Benzo(k)fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Benzo(a)pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Dibenz(a,h)anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Benzo(g,h,i)perylene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Indeno(1,2,3-cd)pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 14:45	YH
Surr: 2-Fluorobiphenyl	80.7	54.4-120		%REC	261814	1	06/06/2018 14:45	YH
Surr: 4-Terphenyl-d14	88.7	60.4-120		%REC	261814	1	06/06/2018 14:45	YH
Surr: Nitrobenzene-d5	74.7	51-120		%REC	261814	1	06/06/2018 14:45	YH
METALS, TOTAL SW6010D					(SW3050B)			
Lead	55.1	5.12		mg/Kg-dry	261940	1	06/07/2018 13:11	JR
PERCENT MOISTURE D2216								
Percent Moisture	20.7	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Jun-18

Client: ETRI	Client Sample ID: B4-0-2'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 10:26:00 AM
Lab ID: 1806099-005	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					(SW3546)			
Naphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Acenaphthylene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
1-Methylnaphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
2-Methylnaphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Acenaphthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Fluorene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Phenanthrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Benz(a)anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Chrysene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Benzo(b)fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Benzo(k)fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Benzo(a)pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Dibenz(a,h)anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Benzo(g,h,i)perylene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Indeno(1,2,3-cd)pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 15:11	YH
Surr: 2-Fluorobiphenyl	72.1	54.4-120		%REC	261814	1	06/06/2018 15:11	YH
Surr: 4-Terphenyl-d14	81.1	60.4-120		%REC	261814	1	06/06/2018 15:11	YH
Surr: Nitrobenzene-d5	68.6	51-120		%REC	261814	1	06/06/2018 15:11	YH
METALS, TOTAL SW6010D					(SW3050B)			
Lead	23.2	5.57		mg/Kg-dry	261940	1	06/07/2018 13:13	JR
PERCENT MOISTURE D2216								
Percent Moisture	21.4	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Jun-18

Client: ETRI	Client Sample ID: B5-0-2'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 10:49:00 AM
Lab ID: 1806099-006	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					(SW3546)			
Naphthalene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Acenaphthylene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
1-Methylnaphthalene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
2-Methylnaphthalene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Acenaphthene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Fluorene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Phenanthrene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Anthracene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Fluoranthene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Pyrene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Benz(a)anthracene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Chrysene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Benzo(b)fluoranthene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Benzo(k)fluoranthene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Benzo(a)pyrene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Dibenz(a,h)anthracene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Benzo(g,h,i)perylene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Indeno(1,2,3-cd)pyrene	BRL	410		ug/Kg-dry	261814	1	06/06/2018 15:38	YH
Surr: 2-Fluorobiphenyl	77.1	54.4-120		%REC	261814	1	06/06/2018 15:38	YH
Surr: 4-Terphenyl-d14	85.5	60.4-120		%REC	261814	1	06/06/2018 15:38	YH
Surr: Nitrobenzene-d5	71.3	51-120		%REC	261814	1	06/06/2018 15:38	YH
METALS, TOTAL SW6010D					(SW3050B)			
Lead	21.1	4.55		mg/Kg-dry	261940	1	06/07/2018 13:15	JR
PERCENT MOISTURE D2216								
Percent Moisture	18.6	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Jun-18

Client: ETRI	Client Sample ID: B6-1-3'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 11:06:00 AM
Lab ID: 1806099-007	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D		(SW3546)						
Naphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Acenaphthylene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
1-Methylnaphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
2-Methylnaphthalene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Acenaphthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Fluorene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Phenanthrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Benz(a)anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Chrysene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Benzo(b)fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Benzo(k)fluoranthene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Benzo(a)pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Dibenz(a,h)anthracene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Benzo(g,h,i)perylene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Indeno(1,2,3-cd)pyrene	BRL	420		ug/Kg-dry	261814	1	06/06/2018 17:41	YH
Surr: 2-Fluorobiphenyl	88.1	54.4-120		%REC	261814	1	06/06/2018 17:41	YH
Surr: 4-Terphenyl-d14	85.2	60.4-120		%REC	261814	1	06/06/2018 17:41	YH
Surr: Nitrobenzene-d5	81.2	51-120		%REC	261814	1	06/06/2018 17:41	YH
METALS, TOTAL SW6010D		(SW3050B)						
Lead	33.9	4.68		mg/Kg-dry	261940	1	06/07/2018 13:18	JR
PERCENT MOISTURE D2216								
Percent Moisture	22.0	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B7-5-8'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 11:33:00 AM
Lab ID: 1806099-008	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					(SW3546)			
Naphthalene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Acenaphthylene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
1-Methylnaphthalene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
2-Methylnaphthalene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Acenaphthene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Fluorene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Phenanthrene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Anthracene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Fluoranthene	400	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Pyrene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Benz(a)anthracene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Chrysene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Benzo(b)fluoranthene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Benzo(k)fluoranthene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Benzo(a)pyrene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Dibenz(a,h)anthracene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Benzo(g,h,i)perylene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Indeno(1,2,3-cd)pyrene	BRL	390		ug/Kg-dry	261814	1	06/06/2018 18:08	YH
Surr: 2-Fluorobiphenyl	80	54.4-120		%REC	261814	1	06/06/2018 18:08	YH
Surr: 4-Terphenyl-d14	74.9	60.4-120		%REC	261814	1	06/06/2018 18:08	YH
Surr: Nitrobenzene-d5	67.8	51-120		%REC	261814	1	06/06/2018 18:08	YH
PERCENT MOISTURE D2216								
Percent Moisture	14.7	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Jun-18

Client: ETRI	Client Sample ID: B8-0-3'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 11:46:00 AM
Lab ID: 1806099-009	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D					(SW3546)			
Naphthalene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Acenaphthylene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
1-Methylnaphthalene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
2-Methylnaphthalene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Acenaphthene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Fluorene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Phenanthrene	550	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Anthracene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Fluoranthene	750	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Pyrene	560	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Benz(a)anthracene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Chrysene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Benzo(b)fluoranthene	670	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Benzo(k)fluoranthene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Benzo(a)pyrene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Dibenz(a,h)anthracene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Benzo(g,h,i)perylene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Indeno(1,2,3-cd)pyrene	BRL	440		ug/Kg-dry	261814	1	06/06/2018 18:35	YH
Surr: 2-Fluorobiphenyl	72	54.4-120		%REC	261814	1	06/06/2018 18:35	YH
Surr: 4-Terphenyl-d14	72.4	60.4-120		%REC	261814	1	06/06/2018 18:35	YH
Surr: Nitrobenzene-d5	63.9	51-120		%REC	261814	1	06/06/2018 18:35	YH
METALS, TOTAL SW6010D					(SW3050B)			
Lead	31.4	5.15		mg/Kg-dry	261940	1	06/07/2018 13:20	JR
PERCENT MOISTURE D2216								
Percent Moisture	24.4	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B9-0-2'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 12:10:00 PM
Lab ID: 1806099-010	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
POLYAROMATIC HYDROCARBONS SW8270D		(SW3546)						
Naphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Acenaphthylene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
1-Methylnaphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
2-Methylnaphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Acenaphthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Fluorene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Phenanthrene	3500	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Anthracene	1000	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Fluoranthene	6400	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Pyrene	5300	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Benz(a)anthracene	4000	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Chrysene	3900	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Benzo(b)fluoranthene	5900	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Benzo(k)fluoranthene	2000	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Benzo(a)pyrene	4400	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Dibenz(a,h)anthracene	930	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Benzo(g,h,i)perylene	2600	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Indeno(1,2,3-cd)pyrene	2800	400		ug/Kg-dry	261814	1	06/06/2018 19:02	YH
Surr: 2-Fluorobiphenyl	75.1	54.4-120		%REC	261814	1	06/06/2018 19:02	YH
Surr: 4-Terphenyl-d14	70.2	60.4-120		%REC	261814	1	06/06/2018 19:02	YH
Surr: Nitrobenzene-d5	70.8	51-120		%REC	261814	1	06/06/2018 19:02	YH
METALS, TOTAL SW6010D		(SW3050B)						
Lead	43.9	4.45		mg/Kg-dry	261940	1	06/07/2018 13:22	JR
PERCENT MOISTURE D2216								
Percent Moisture	17.6	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

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- BRL Below reporting limit
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- N Analyte not NELAC certified
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- S Spike Recovery outside limits due to matrix
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- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B10-8-10'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 12:40:00 PM
Lab ID: 1806099-011	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B		(SW5035)						
Benzene	BRL	0.75		ug/Kg-dry	261948	1	06/05/2018 20:56	JE
Toluene	BRL	0.75		ug/Kg-dry	261948	1	06/05/2018 20:56	JE
Ethylbenzene	BRL	0.75		ug/Kg-dry	261948	1	06/05/2018 20:56	JE
m,p-Xylene	BRL	0.75		ug/Kg-dry	261948	1	06/05/2018 20:56	JE
o-Xylene	BRL	0.75		ug/Kg-dry	261948	1	06/05/2018 20:56	JE
Surr: 4-Bromofluorobenzene	97.3	65-133		%REC	261948	1	06/05/2018 20:56	JE
POLYAROMATIC HYDROCARBONS SW8270D		(SW3546)						
Naphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Acenaphthylene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
1-Methylnaphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
2-Methylnaphthalene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Acenaphthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Fluorene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Phenanthrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Anthracene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Fluoranthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Pyrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Benz(a)anthracene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Chrysene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Benzo(b)fluoranthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Benzo(k)fluoranthene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Benzo(a)pyrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Dibenz(a,h)anthracene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Benzo(g,h,i)perylene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Indeno(1,2,3-cd)pyrene	BRL	400		ug/Kg-dry	261814	1	06/06/2018 19:29	YH
Surr: 2-Fluorobiphenyl	85.9	54.4-120		%REC	261814	1	06/06/2018 19:29	YH
Surr: 4-Terphenyl-d14	88.7	60.4-120		%REC	261814	1	06/06/2018 19:29	YH
Surr: Nitrobenzene-d5	83	51-120		%REC	261814	1	06/06/2018 19:29	YH
METALS, TOTAL SW6010D		(SW3050B)						
Lead	21.0	4.64		mg/Kg-dry	261940	1	06/07/2018 13:40	JR
PERCENT MOISTURE D2216								
Percent Moisture	18.4	0		wt%	R372036	1	06/05/2018 15:10	CG

Qualifiers:

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- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B1
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 8:46:00 AM
Lab ID: 1806099-012	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B		(SW5030B)						
Benzene	BRL	1.0		ug/L	261802	1	06/05/2018 01:43	CC
Toluene	BRL	1.0		ug/L	261802	1	06/05/2018 01:43	CC
Ethylbenzene	BRL	1.0		ug/L	261802	1	06/05/2018 01:43	CC
m,p-Xylene	BRL	1.0		ug/L	261802	1	06/05/2018 01:43	CC
o-Xylene	BRL	1.0		ug/L	261802	1	06/05/2018 01:43	CC
Surr: 4-Bromofluorobenzene	90.4	68-127		%REC	261802	1	06/05/2018 01:43	CC
PAHs by Microextraction SW8270D		(SW3511)						
1-Methylnaphthalene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
2-Methylnaphthalene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Acenaphthene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Acenaphthylene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Anthracene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Benz(a)anthracene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Benzo(a)pyrene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Benzo(b)fluoranthene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Benzo(g,h,i)perylene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Benzo(k)fluoranthene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Chrysene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Dibenz(a,h)anthracene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Fluoranthene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Fluorene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Indeno(1,2,3-cd)pyrene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Naphthalene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Phenanthrene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Pyrene	BRL	8.4		ug/L	261799	1	06/05/2018 02:25	RF
Surr: 2-Fluorobiphenyl	89.7	52.2-120		%REC	261799	1	06/05/2018 02:25	RF
Surr: 4-Terphenyl-d14	91.4	42.7-120		%REC	261799	1	06/05/2018 02:25	RF
Surr: Nitrobenzene-d5	87.2	50.7-122		%REC	261799	1	06/05/2018 02:25	RF
METALS, DISSOLVED SW6010D		(SW3005A)						
Lead	BRL	0.0100		mg/L	261840	1	06/07/2018 01:06	JR
METALS, TOTAL SW6010D		(SW3010A)						
Lead	0.0959	0.0100		mg/L	261971	1	06/08/2018 14:13	JR

Qualifiers:

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- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B2
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 9:45:00 AM
Lab ID: 1806099-013	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,1,2-Trichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,1-Dichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,1-Dichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,2-Dibromoethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,2-Dichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,2-Dichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,2-Dichloropropane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,3-Dichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
1,4-Dichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
2-Butanone	BRL	50		ug/L	261763	1	06/04/2018 15:40	OM
2-Hexanone	BRL	10		ug/L	261763	1	06/04/2018 15:40	OM
4-Methyl-2-pentanone	BRL	10		ug/L	261763	1	06/04/2018 15:40	OM
Acetone	BRL	50		ug/L	261763	1	06/04/2018 15:40	OM
Benzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Bromodichloromethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Bromoform	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Bromomethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Carbon disulfide	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Carbon tetrachloride	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Chlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Chloroethane	BRL	10		ug/L	261763	1	06/04/2018 15:40	OM
Chloroform	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Chloromethane	BRL	10		ug/L	261763	1	06/04/2018 15:40	OM
cis-1,2-Dichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Cyclohexane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Dibromochloromethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Dichlorodifluoromethane	BRL	10		ug/L	261763	1	06/04/2018 15:40	OM
Ethylbenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Freon-113	BRL	10		ug/L	261763	1	06/04/2018 15:40	OM
Isopropylbenzene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
m,p-Xylene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Methyl acetate	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Methyl tert-butyl ether	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Methylcyclohexane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Methylene chloride	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
o-Xylene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B2
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 9:45:00 AM
Lab ID: 1806099-013	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B		(SW5030B)						
Styrene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Tetrachloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Toluene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Trichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Trichlorofluoromethane	BRL	5.0		ug/L	261763	1	06/04/2018 15:40	OM
Vinyl chloride	BRL	2.0		ug/L	261763	1	06/04/2018 15:40	OM
Surr: 4-Bromofluorobenzene	90.8	68-127		%REC	261763	1	06/04/2018 15:40	OM
Surr: Dibromofluoromethane	106	84.4-122		%REC	261763	1	06/04/2018 15:40	OM
Surr: Toluene-d8	96.2	80.1-116		%REC	261763	1	06/04/2018 15:40	OM
PAHs by Microextraction SW8270D		(SW3511)						
1-Methylnaphthalene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
2-Methylnaphthalene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Acenaphthene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Acenaphthylene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Anthracene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Benz(a)anthracene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Benzo(a)pyrene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Benzo(b)fluoranthene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Benzo(g,h,i)perylene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Benzo(k)fluoranthene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Chrysene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Dibenz(a,h)anthracene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Fluoranthene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Fluorene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Indeno(1,2,3-cd)pyrene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Naphthalene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Phenanthrene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Pyrene	BRL	8.6		ug/L	261865	1	06/05/2018 19:46	RF
Surr: 2-Fluorobiphenyl	86.8	52.2-120		%REC	261865	1	06/05/2018 19:46	RF
Surr: 4-Terphenyl-d14	96	42.7-120		%REC	261865	1	06/05/2018 19:46	RF
Surr: Nitrobenzene-d5	87.1	50.7-122		%REC	261865	1	06/05/2018 19:46	RF
METALS, DISSOLVED SW6010D		(SW3005A)						
Lead	BRL	0.0100		mg/L	261840	1	06/07/2018 01:08	JR
METALS, TOTAL SW6010D		(SW3010A)						
Lead	0.0106	0.0100		mg/L	261971	1	06/08/2018 14:16	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: B10
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 1:05:00 PM
Lab ID: 1806099-014	Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
VOLATILE ORGANICS SW8260B		(SW5030B)						
Benzene	BRL	1.0		ug/L	261802	1	06/05/2018 02:10	CC
Toluene	BRL	1.0		ug/L	261802	1	06/05/2018 02:10	CC
Ethylbenzene	BRL	1.0		ug/L	261802	1	06/05/2018 02:10	CC
m,p-Xylene	BRL	1.0		ug/L	261802	1	06/05/2018 02:10	CC
o-Xylene	BRL	1.0		ug/L	261802	1	06/05/2018 02:10	CC
Surr: 4-Bromofluorobenzene	92.5	68-127		%REC	261802	1	06/05/2018 02:10	CC
PAHs by Microextraction SW8270D		(SW3511)						
1-Methylnaphthalene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
2-Methylnaphthalene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Acenaphthene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Acenaphthylene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Anthracene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Benz(a)anthracene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Benzo(a)pyrene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Benzo(b)fluoranthene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Benzo(g,h,i)perylene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Benzo(k)fluoranthene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Chrysene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Dibenz(a,h)anthracene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Fluoranthene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Fluorene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Indeno(1,2,3-cd)pyrene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Naphthalene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Phenanthrene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Pyrene	BRL	8.5		ug/L	261865	1	06/05/2018 20:10	RF
Surr: 2-Fluorobiphenyl	71	52.2-120		%REC	261865	1	06/05/2018 20:10	RF
Surr: 4-Terphenyl-d14	27.8	42.7-120	S	%REC	261865	1	06/05/2018 20:10	RF
Surr: Nitrobenzene-d5	84.1	50.7-122		%REC	261865	1	06/05/2018 20:10	RF
METALS, DISSOLVED SW6010D		(SW3005A)						
Lead	BRL	0.0100		mg/L	261840	1	06/07/2018 01:10	JR
METALS, TOTAL SW6010D		(SW3010A)						
Lead	0.0157	0.0100		mg/L	261971	1	06/08/2018 14:18	JR

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: TRIP BLANK
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018
Lab ID: 1806099-015	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B (SW5030B)								
1,1,1-Trichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,1,2-Trichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,1-Dichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,1-Dichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,2-Dibromoethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,2-Dichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,2-Dichloroethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,2-Dichloropropane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,3-Dichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
1,4-Dichlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
2-Butanone	BRL	50		ug/L	261763	1	06/04/2018 13:22	OM
2-Hexanone	BRL	10		ug/L	261763	1	06/04/2018 13:22	OM
4-Methyl-2-pentanone	BRL	10		ug/L	261763	1	06/04/2018 13:22	OM
Acetone	BRL	50		ug/L	261763	1	06/04/2018 13:22	OM
Benzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Bromodichloromethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Bromoform	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Bromomethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Carbon disulfide	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Carbon tetrachloride	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Chlorobenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Chloroethane	BRL	10		ug/L	261763	1	06/04/2018 13:22	OM
Chloroform	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Chloromethane	BRL	10		ug/L	261763	1	06/04/2018 13:22	OM
cis-1,2-Dichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Cyclohexane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Dibromochloromethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Dichlorodifluoromethane	BRL	10		ug/L	261763	1	06/04/2018 13:22	OM
Ethylbenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Freon-113	BRL	10		ug/L	261763	1	06/04/2018 13:22	OM
Isopropylbenzene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
m,p-Xylene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Methyl acetate	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Methyl tert-butyl ether	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Methylcyclohexane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Methylene chloride	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
o-Xylene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: ETRI	Client Sample ID: TRIP BLANK
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018
Lab ID: 1806099-015	Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Tetrachloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Toluene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Trichloroethene	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Trichlorofluoromethane	BRL	5.0		ug/L	261763	1	06/04/2018 13:22	OM
Vinyl chloride	BRL	2.0		ug/L	261763	1	06/04/2018 13:22	OM
Surr: 4-Bromofluorobenzene	91.5	68-127		%REC	261763	1	06/04/2018 13:22	OM
Surr: Dibromofluoromethane	108	84.4-122		%REC	261763	1	06/04/2018 13:22	OM
Surr: Toluene-d8	98.1	80.1-116		%REC	261763	1	06/04/2018 13:22	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 12-Jun-18

Client: ETRI	Client Sample ID: B7-0-2'
Project Name: 1135 Sylvan Road	Collection Date: 6/1/2018 11:29:00 AM
Lab ID: 1806099-016	Matrix: Soil

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D					(SW3050B)			
Lead	89.8	4.84		mg/Kg-dry	261940	1	06/07/2018 13:42	JR
PERCENT MOISTURE D2216								
Percent Moisture	21.7	0		wt%	R371980	1	06/05/2018 21:05	CG

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **ETRI** _____

AES Work Order Number: **1806099** _____

2. Carrier: FedEx UPS USPS Client Courier Other _____

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 2.1 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C
 14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MJ 6/1/18

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input checked="" type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input checked="" type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). ES 6/1/18

This section only applies to samples where pH can be checked at Sample Receipt.

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). ES 6/1/18

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261763

Sample ID: MB-261763	Client ID:	Units: ug/L	Prep Date: 06/01/2018	Run No: 371845							
Sample Type: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261763	Analysis Date: 06/01/2018	Seq No: 8255171							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261763

Sample ID: MB-261763	Client ID:	Units: ug/L	Prep Date: 06/01/2018	Run No: 371845							
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261763	Analysis Date: 06/01/2018	Seq No: 8255171							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	46.60	0	50.00		93.2	68	127				
Surr: Dibromofluoromethane	51.52	0	50.00		103	84.4	122				
Surr: Toluene-d8	49.09	0	50.00		98.2	80.1	116				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261763

Sample ID: LCS-261763	Client ID:	Units: ug/L	Prep Date: 06/01/2018	Run No: 371845							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261763	Analysis Date: 06/01/2018	Seq No: 8255172							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	47.95	5.0	50.00		95.9	69	136				
Benzene	56.45	5.0	50.00		113	73.7	126				
Chlorobenzene	56.63	5.0	50.00		113	73.5	124				
Toluene	55.28	5.0	50.00		111	76.8	125				
Trichloroethene	55.82	5.0	50.00		112	70.9	124				
Surr: 4-Bromofluorobenzene	45.62	0	50.00		91.2	68	127				
Surr: Dibromofluoromethane	48.95	0	50.00		97.9	84.4	122				
Surr: Toluene-d8	48.09	0	50.00		96.2	80.1	116				

Sample ID: 1806099-013AMS	Client ID: B2	Units: ug/L	Prep Date: 06/01/2018	Run No: 372248							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261763	Analysis Date: 06/07/2018	Seq No: 8262211							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	209.0	50	200.0		104	65.7	143				
Benzene	190.4	50	200.0		95.2	66.1	137				
Chlorobenzene	195.0	50	200.0		97.5	70.9	132				
Toluene	177.4	50	200.0		88.7	63.8	141				
Trichloroethene	197.7	50	200.0		98.8	70.6	128				
Surr: 4-Bromofluorobenzene	455.0	0	500.0		91.0	68	127				
Surr: Dibromofluoromethane	507.9	0	500.0		102	84.4	122				
Surr: Toluene-d8	516.1	0	500.0		103	80.1	116				

Sample ID: 1806099-013AMSD	Client ID: B2	Units: ug/L	Prep Date: 06/01/2018	Run No: 372248							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261763	Analysis Date: 06/07/2018	Seq No: 8262212							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	195.0	50	200.0		97.5	65.7	143	209.0	6.93	17.7	
Benzene	175.1	50	200.0		87.6	66.1	137	190.4	8.37	20	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261763

Sample ID: 1806099-013AMSD	Client ID: B2	Units: ug/L	Prep Date: 06/01/2018	Run No: 372248
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261763	Analysis Date: 06/07/2018	Seq No: 8262212

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	197.4	50	200.0		98.7	70.9	132	195.0	1.22	20	
Toluene	161.2	50	200.0		80.6	63.8	141	177.4	9.57	20	
Trichloroethene	177.4	50	200.0		88.7	70.6	128	197.7	10.8	20	
Surr: 4-Bromofluorobenzene	457.1	0	500.0		91.4	68	127	455.0	0	0	
Surr: Dibromofluoromethane	447.3	0	500.0		89.5	84.4	122	507.9	0	0	
Surr: Toluene-d8	496.7	0	500.0		99.3	80.1	116	516.1	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261799

Sample ID: MB-261799	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: MBLK	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/04/2018	Seq No: 8254861							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1,2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	27.02	0	28.57		94.6	70	130				
Surr: 4-Terphenyl-d14	32.10	0	28.57		112	70	130				
Surr: Nitrobenzene-d5	25.56	0	28.57		89.5	70	130				

Sample ID: LCS-261799	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: LCS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/04/2018	Seq No: 8254864							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	28.65	8.6	28.57		100	70	130				
2-Methylnaphthalene	26.63	8.6	28.57		93.2	70	130				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261799

Sample ID: LCS-261799	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: LCS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/04/2018	Seq No: 8254864							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	26.04	8.6	28.57		91.1	70	130				
Acenaphthylene	26.74	8.6	28.57		93.6	70	130				
Anthracene	26.80	8.6	28.57		93.8	70	130				
Benz(a)anthracene	28.91	8.6	28.57		101	70	130				
Benzo(a)pyrene	29.45	8.6	28.57		103	70	130				
Benzo(b)fluoranthene	28.87	8.6	28.57		101	70	130				
Benzo(g,h,i)perylene	28.83	8.6	28.57		101	70	130				
Benzo(k)fluoranthene	30.19	8.6	28.57		106	70	130				
Chrysene	29.79	8.6	28.57		104	70	130				
Dibenz(a,h)anthracene	29.67	8.6	28.57		104	70	130				
Fluoranthene	28.54	8.6	28.57		99.9	70	130				
Fluorene	28.31	8.6	28.57		99.1	70	130				
Indeno(1,2,3-cd)pyrene	30.12	8.6	28.57		105	70	130				
Naphthalene	25.28	8.6	28.57		88.5	70	130				
Phenanthrene	25.97	8.6	28.57		90.9	70	130				
Pyrene	27.96	8.6	28.57		97.9	70	130				
Surr: 2-Fluorobiphenyl	25.30	0	28.57		88.6	70	130				
Surr: 4-Terphenyl-d14	29.95	0	28.57		105	70	130				
Surr: Nitrobenzene-d5	24.35	0	28.57		85.2	70	130				

Sample ID: 1806184-001BMS	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: MS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/05/2018	Seq No: 8254890							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	74.42	8.5	28.26	45.08	104	53.4	120				
2-Methylnaphthalene	86.20	8.5	28.26	55.68	108	49.3	120				
Acenaphthene	28.12	8.5	28.26		99.5	59.8	120				
Acenaphthylene	29.66	8.5	28.26		105	56.3	120				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261799

Sample ID: 1806184-001BMS	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: MS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/05/2018	Seq No: 8254890							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	28.37	8.5	28.26		100	64.2	118				
Benz(a)anthracene	31.63	8.5	28.26		112	63	124				
Benzo(a)pyrene	30.21	8.5	28.26		107	57.6	126				
Benzo(b)fluoranthene	30.81	8.5	28.26		109	62.1	133				
Benzo(g,h,i)perylene	31.97	8.5	28.26		113	54.8	127				
Benzo(k)fluoranthene	30.95	8.5	28.26		110	52.4	123				
Chrysene	31.01	8.5	28.26		110	62.6	118				
Dibenz(a,h)anthracene	33.55	8.5	28.26		119	52.8	125				
Fluoranthene	31.22	8.5	28.26		110	69.7	121				
Fluorene	29.78	8.5	28.26		105	57.8	117				
Indeno(1,2,3-cd)pyrene	32.62	8.5	28.26		115	51.1	129				
Naphthalene	40.17	8.5	28.26	14.00	92.6	43.5	120				
Phenanthrene	27.35	8.5	28.26		96.8	61.7	121				
Pyrene	30.83	8.5	28.26		109	67.3	118				
Surr: 2-Fluorobiphenyl	28.44	0	28.26		101	52.2	120				
Surr: 4-Terphenyl-d14	30.50	0	28.26		108	42.7	120				
Surr: Nitrobenzene-d5	31.07	0	28.26		110	50.7	122				

Sample ID: 1806184-001BMSD	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: MSD	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/05/2018	Seq No: 8254891							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	64.17	8.4	28.08	45.08	68.0	53.4	120	74.42	14.8	19.6	
2-Methylnaphthalene	74.66	8.4	28.08	55.68	67.6	49.3	120	86.20	14.4	21.2	
Acenaphthene	23.82	8.4	28.08		84.8	59.8	120	28.12	16.5	19.2	
Acenaphthylene	25.44	8.4	28.08		90.6	56.3	120	29.66	15.3	18.9	
Anthracene	25.78	8.4	28.08		91.8	64.2	118	28.37	9.56	18.9	
Benz(a)anthracene	28.53	8.4	28.08		102	63	124	31.63	10.3	18.4	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261799

Sample ID: 1806184-001BMSD	Client ID:	Units: ug/L	Prep Date: 06/04/2018	Run No: 371951							
SampleType: MSD	TestCode: PAHs by Microextraction SW8270D	BatchID: 261799	Analysis Date: 06/05/2018	Seq No: 8254891							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzo(a)pyrene	28.77	8.4	28.08		102	57.6	126	30.21	4.89	21.9	
Benzo(b)fluoranthene	28.33	8.4	28.08		101	62.1	133	30.81	8.40	22.2	
Benzo(g,h,i)perylene	29.02	8.4	28.08		103	54.8	127	31.97	9.68	25.8	
Benzo(k)fluoranthene	28.48	8.4	28.08		101	52.4	123	30.95	8.30	21.2	
Chrysene	27.86	8.4	28.08		99.2	62.6	118	31.01	10.7	17.5	
Dibenz(a,h)anthracene	30.15	8.4	28.08		107	52.8	125	33.55	10.7	26	
Fluoranthene	29.73	8.4	28.08		106	69.7	121	31.22	4.87	17.8	
Fluorene	24.01	8.4	28.08		85.5	57.8	117	29.78	21.5	21.6	
Indeno(1,2,3-cd)pyrene	29.36	8.4	28.08		105	51.1	129	32.62	10.5	26	
Naphthalene	34.61	8.4	28.08	14.00	73.4	43.5	120	40.17	14.9	21.9	
Phenanthrene	25.34	8.4	28.08		90.2	61.7	121	27.35	7.61	21.8	
Pyrene	28.01	8.4	28.08		99.8	67.3	118	30.83	9.58	18	
Surr: 2-Fluorobiphenyl	22.01	0	28.08		78.4	52.2	120	28.44	0	0	
Surr: 4-Terphenyl-d14	23.03	0	28.08		82.0	42.7	120	30.50	0	0	
Surr: Nitrobenzene-d5	23.89	0	28.08		85.1	50.7	122	31.07	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261802

Sample ID: MB-261802	Client ID:	Units: ug/L	Prep Date: 06/03/2018	Run No: 371894							
SampleType: MBLK	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261802	Analysis Date: 06/03/2018	Seq No: 8252418							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	52.91	0	50.00		106	68	127				

Sample ID: LCS-261802	Client ID:	Units: ug/L	Prep Date: 06/03/2018	Run No: 371942							
SampleType: LCS	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261802	Analysis Date: 06/04/2018	Seq No: 8253522							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	43.66	1.0	50.00		87.3	73.7	126				
Ethylbenzene	45.02	1.0	50.00		90.0	80.1	125				
m,p-Xylene	87.81	1.0	100.0		87.8	80.5	126				
o-Xylene	44.35	1.0	50.00		88.7	79.9	127				
Toluene	42.46	1.0	50.00		84.9	76.8	125				
Surr: 4-Bromofluorobenzene	52.15	0	50.00		104	68	127				

Sample ID: 1805U63-001AMS	Client ID:	Units: ug/L	Prep Date: 06/03/2018	Run No: 371894							
SampleType: MS	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261802	Analysis Date: 06/03/2018	Seq No: 8252436							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	402.0	10	500.0	15.00	77.4	66.1	137				
Ethylbenzene	615.3	10	500.0	225.9	77.9	74	134				
m,p-Xylene	1566	10	1000	821.1	74.5	73.8	136				
o-Xylene	761.2	10	500.0	385.1	75.2	71.6	135				
Toluene	594.9	10	500.0	223.6	74.3	63.8	141				
Surr: 4-Bromofluorobenzene	520.8	0	500.0		104	68	127				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261802

Sample ID: 1805U63-001AMSD	Client ID:	Units: ug/L	Prep Date: 06/03/2018	Run No: 371894							
SampleType: MSD	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261802	Analysis Date: 06/03/2018	Seq No: 8252437							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	401.0	10	500.0	15.00	77.2	66.1	137	402.0	0.249	20	
Ethylbenzene	614.6	10	500.0	225.9	77.7	74	134	615.3	0.114	20	
m,p-Xylene	1562	10	1000	821.1	74.1	73.8	136	1566	0.281	20	
o-Xylene	762.5	10	500.0	385.1	75.5	71.6	135	761.2	0.171	20	
Toluene	593.0	10	500.0	223.6	73.9	63.8	141	594.9	0.320	20	
Surr: 4-Bromofluorobenzene	527.1	0	500.0		105	68	127	520.8	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261814

Sample ID: MB-261814	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 371978							
SampleType: MBLK	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256701							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	BRL	330									
2-Methylnaphthalene	BRL	330									
Acenaphthene	BRL	330									
Acenaphthylene	BRL	330									
Anthracene	BRL	330									
Benz(a)anthracene	BRL	330									
Benzo(a)pyrene	BRL	330									
Benzo(b)fluoranthene	BRL	330									
Benzo(g,h,i)perylene	BRL	330									
Benzo(k)fluoranthene	BRL	330									
Chrysene	BRL	330									
Dibenz(a,h)anthracene	BRL	330									
Fluoranthene	BRL	330									
Fluorene	BRL	330									
Indeno(1,2,3-cd)pyrene	BRL	330									
Naphthalene	BRL	330									
Phenanthrene	BRL	330									
Pyrene	BRL	330									
Surr: 2-Fluorobiphenyl	1384	0	1667		83.1	54.4	120				
Surr: 4-Terphenyl-d14	1646	0	1667		98.8	60.4	120				
Surr: Nitrobenzene-d5	1418	0	1667		85.1	51	120				

Sample ID: LCS-261814	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 371978							
SampleType: LCS	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256702							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	1399	330	1667		83.9	67.6	120				
2-Methylnaphthalene	1432	330	1667		85.9	66.9	120				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261814

Sample ID: LCS-261814	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 371978							
SampleType: LCS	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256702							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	1398	330	1667		83.9	67.5	120				
Acenaphthylene	1435	330	1667		86.1	66.5	120				
Anthracene	1475	330	1667		88.5	70	120				
Benz(a)anthracene	1580	330	1667		94.8	70	120				
Benzo(a)pyrene	1526	330	1667		91.6	70	120				
Benzo(b)fluoranthene	1577	330	1667		94.6	64.9	120				
Benzo(g,h,i)perylene	1542	330	1667		92.5	70	120				
Benzo(k)fluoranthene	1435	330	1667		86.1	70	120				
Chrysene	1425	330	1667		85.5	68.3	120				
Dibenz(a,h)anthracene	1615	330	1667		96.9	70	120				
Fluoranthene	1506	330	1667		90.4	70	120				
Fluorene	1452	330	1667		87.1	69.5	120				
Indeno(1,2,3-cd)pyrene	1573	330	1667		94.4	70	120				
Naphthalene	1356	330	1667		81.4	62.8	120				
Phenanthrene	1436	330	1667		86.1	70	120				
Pyrene	1508	330	1667		90.5	70	120				
Surr: 2-Fluorobiphenyl	1431	0	1667		85.9	54.4	120				
Surr: 4-Terphenyl-d14	1558	0	1667		93.5	60.4	120				
Surr: Nitrobenzene-d5	1416	0	1667		84.9	51	120				

Sample ID: 1805V68-048BMS	Client ID:	Units: ug/Kg-dry	Prep Date: 06/05/2018	Run No: 371978							
SampleType: MS	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256710							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	1567	410	2053		76.3	57.1	120				
2-Methylnaphthalene	1597	410	2053		77.8	54.9	120				
Acenaphthene	1547	410	2053		75.3	51.4	120				
Acenaphthylene	1603	410	2053		78.1	56.5	120				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261814

Sample ID: 1805V68-048BMS	Client ID:	Units: ug/Kg-dry	Prep Date: 06/05/2018	Run No: 371978							
SampleType: MS	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256710							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	1662	410	2053		80.9	61.5	120				
Benz(a)anthracene	1783	410	2053		86.8	59.6	120				
Benzo(a)pyrene	1703	410	2053		83.0	63.2	120				
Benzo(b)fluoranthene	1795	410	2053		87.4	52.3	124				
Benzo(g,h,i)perylene	1760	410	2053		85.7	50.7	120				
Benzo(k)fluoranthene	1568	410	2053		76.4	59.2	120				
Chrysene	1639	410	2053		79.8	56.5	120				
Dibenz(a,h)anthracene	1776	410	2053		86.5	51.2	119				
Fluoranthene	1715	410	2053		83.5	58.1	120				
Fluorene	1637	410	2053		79.7	52.6	120				
Indeno(1,2,3-cd)pyrene	1771	410	2053		86.3	51.7	119				
Naphthalene	1530	410	2053		74.5	49.9	120				
Phenanthrene	1627	410	2053		79.2	57.4	120				
Pyrene	1707	410	2053		83.1	56.8	120				
Surr: 2-Fluorobiphenyl	1563	0	2053		76.1	54.4	120				
Surr: 4-Terphenyl-d14	1723	0	2053		83.9	60.4	120				
Surr: Nitrobenzene-d5	1577	0	2053		76.8	51	120				

Sample ID: 1805V68-048BMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 06/05/2018	Run No: 371978							
SampleType: MSD	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256711							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	1587	410	2053		77.3	57.1	120	1567	1.25	49.8	
2-Methylnaphthalene	1572	410	2053		76.5	54.9	120	1597	1.61	54.2	
Acenaphthene	1513	410	2053		73.7	51.4	120	1547	2.20	35.6	
Acenaphthylene	1569	410	2053		76.4	56.5	120	1603	2.18	26.4	
Anthracene	1664	410	2053		81.0	61.5	120	1662	0.123	24.3	
Benz(a)anthracene	1704	410	2053		83.0	59.6	120	1783	4.52	24.8	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261814

Sample ID: 1805V68-048BMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 06/05/2018	Run No: 371978							
SampleType: MSD	TestCode: POLYAROMATIC HYDROCARBONS SW8270D	BatchID: 261814	Analysis Date: 06/05/2018	Seq No: 8256711							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(a)pyrene	1639	410	2053		79.8	63.2	120	1703	3.83	21.8	
Benzo(b)fluoranthene	1721	410	2053		83.8	52.3	124	1795	4.20	35.2	
Benzo(g,h,i)perylene	1657	410	2053		80.7	50.7	120	1760	6.01	27.7	
Benzo(k)fluoranthene	1514	410	2053		73.8	59.2	120	1568	3.49	31.8	
Chrysene	1595	410	2053		77.7	56.5	120	1639	2.67	32.7	
Dibenz(a,h)anthracene	1718	410	2053		83.7	51.2	119	1776	3.34	34.8	
Fluoranthene	1701	410	2053		82.8	58.1	120	1715	0.818	34.2	
Fluorene	1576	410	2053		76.8	52.6	120	1637	3.81	52.9	
Indeno(1,2,3-cd)pyrene	1696	410	2053		82.6	51.7	119	1771	4.36	35.2	
Naphthalene	1499	410	2053		73.0	49.9	120	1530	2.06	54.6	
Phenanthrene	1589	410	2053		77.4	57.4	120	1627	2.35	51.4	
Pyrene	1678	410	2053		81.7	56.8	120	1707	1.75	33.8	
Surr: 2-Fluorobiphenyl	1530	0	2053		74.5	54.4	120	1563	0	0	
Surr: 4-Terphenyl-d14	1673	0	2053		81.5	60.4	120	1723	0	0	
Surr: Nitrobenzene-d5	1531	0	2053		74.6	51	120	1577	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261840

Sample ID: MB-261840	Client ID:	Units: mg/L	Prep Date: 06/06/2018	Run No: 372195							
SampleType: MBLK	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261840	Analysis Date: 06/07/2018	Seq No: 8260777							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead BRL 0.0100

Sample ID: LCS-261840	Client ID:	Units: mg/L	Prep Date: 06/06/2018	Run No: 372195							
SampleType: LCS	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261840	Analysis Date: 06/07/2018	Seq No: 8260778							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 1.145 0.0100 1.000 115 80 120

Sample ID: 1806321-001AMS	Client ID:	Units: mg/L	Prep Date: 06/06/2018	Run No: 372195							
SampleType: MS	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261840	Analysis Date: 06/07/2018	Seq No: 8260780							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 1.114 0.0100 1.000 111 75 125

Sample ID: 1806321-001AMSD	Client ID:	Units: mg/L	Prep Date: 06/06/2018	Run No: 372195							
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010D	BatchID: 261840	Analysis Date: 06/07/2018	Seq No: 8260783							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 1.105 0.0100 1.000 111 75 125 1.114 0.845 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261865

Sample ID: MB-261865	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: MBLK	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257798							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	BRL	8.6									
2-Methylnaphthalene	BRL	8.6									
Acenaphthene	BRL	8.6									
Acenaphthylene	BRL	8.6									
Anthracene	BRL	8.6									
Benz(a)anthracene	BRL	8.6									
Benzo(a)pyrene	BRL	8.6									
Benzo(b)fluoranthene	BRL	8.6									
Benzo(g,h,i)perylene	BRL	8.6									
Benzo(k)fluoranthene	BRL	8.6									
Chrysene	BRL	8.6									
Dibenz(a,h)anthracene	BRL	8.6									
Fluoranthene	BRL	8.6									
Fluorene	BRL	8.6									
Indeno(1,2,3-cd)pyrene	BRL	8.6									
Naphthalene	BRL	8.6									
Phenanthrene	BRL	8.6									
Pyrene	BRL	8.6									
Surr: 2-Fluorobiphenyl	24.34	0	28.57		85.2	70	130				
Surr: 4-Terphenyl-d14	30.25	0	28.57		106	70	130				
Surr: Nitrobenzene-d5	22.88	0	28.57		80.1	70	130				

Sample ID: LCS-261865	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: LCS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257799							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	25.63	8.6	28.57		89.7	70	130				
2-Methylnaphthalene	25.41	8.6	28.57		88.9	70	130				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261865

Sample ID: LCS-261865	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: LCS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257799							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Acenaphthene	24.29	8.6	28.57		85.0	70	130				
Acenaphthylene	25.91	8.6	28.57		90.7	70	130				
Anthracene	24.82	8.6	28.57		86.9	70	130				
Benz(a)anthracene	27.05	8.6	28.57		94.7	70	130				
Benzo(a)pyrene	26.86	8.6	28.57		94.0	70	130				
Benzo(b)fluoranthene	26.88	8.6	28.57		94.1	70	130				
Benzo(g,h,i)perylene	26.78	8.6	28.57		93.7	70	130				
Benzo(k)fluoranthene	27.56	8.6	28.57		96.5	70	130				
Chrysene	28.11	8.6	28.57		98.4	70	130				
Dibenz(a,h)anthracene	27.26	8.6	28.57		95.4	70	130				
Fluoranthene	25.74	8.6	28.57		90.1	70	130				
Fluorene	25.67	8.6	28.57		89.8	70	130				
Indeno(1,2,3-cd)pyrene	27.31	8.6	28.57		95.6	70	130				
Naphthalene	23.85	8.6	28.57		83.5	70	130				
Phenanthrene	24.86	8.6	28.57		87.0	70	130				
Pyrene	29.28	8.6	28.57		102	70	130				
Surr: 2-Fluorobiphenyl	25.51	0	28.57		89.3	70	130				
Surr: 4-Terphenyl-d14	28.60	0	28.57		100	70	130				
Surr: Nitrobenzene-d5	23.91	0	28.57		83.7	70	130				

Sample ID: 1806237-003BMS	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: MS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257802							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	53.47	8.5	28.25	33.85	69.4	53.4	120				
2-Methylnaphthalene	83.28	8.5	28.25	66.41	59.7	49.3	120				
Acenaphthene	24.54	8.5	28.25		86.9	59.8	120				
Acenaphthylene	25.85	8.5	28.25		91.5	56.3	120				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261865

Sample ID: 1806237-003BMS	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: MS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257802							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	23.37	8.5	28.25		82.7	64.2	118				
Benz(a)anthracene	26.35	8.5	28.25		93.3	63	124				
Benzo(a)pyrene	25.68	8.5	28.25		90.9	57.6	126				
Benzo(b)fluoranthene	26.01	8.5	28.25		92.1	62.1	133				
Benzo(g,h,i)perylene	25.40	8.5	28.25		89.9	54.8	127				
Benzo(k)fluoranthene	26.69	8.5	28.25		94.5	52.4	123				
Chrysene	26.35	8.5	28.25		93.3	62.6	118				
Dibenz(a,h)anthracene	26.96	8.5	28.25		95.4	52.8	125				
Fluoranthene	27.05	8.5	28.25		95.8	69.7	121				
Fluorene	27.43	8.5	28.25		97.1	57.8	117				
Indeno(1,2,3-cd)pyrene	27.12	8.5	28.25		96.0	51.1	129				
Phenanthrene	23.59	8.5	28.25		83.5	61.7	121				
Pyrene	27.60	8.5	28.25		97.7	67.3	118				
Surr: 2-Fluorobiphenyl	24.56	0	28.25		87.0	52.2	120				
Surr: 4-Terphenyl-d14	27.25	0	28.25		96.5	42.7	120				
Surr: Nitrobenzene-d5	27.22	0	28.25		96.4	50.7	122				

Sample ID: 1806237-003BMS	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: MS	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257815							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Naphthalene	306.4	42	28.25	293.7	44.9	43.5	120				
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Sample ID: 1806237-003BMSD	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040							
SampleType: MSD	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257803							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1-Methylnaphthalene	57.14	8.5	28.18	33.85	82.7	53.4	120	53.47	6.64	19.6	
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Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261865

Sample ID: 1806237-003BMSD	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040
SampleType: MSD	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257803

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2-Methylnaphthalene	88.13	8.5	28.18	66.41	77.1	49.3	120	83.28	5.66	21.2	
Acenaphthene	24.86	8.5	28.18		88.2	59.8	120	24.54	1.29	19.2	
Acenaphthylene	26.67	8.5	28.18		94.6	56.3	120	25.85	3.13	18.9	
Anthracene	26.04	8.5	28.18		92.4	64.2	118	23.37	10.8	18.9	
Benz(a)anthracene	27.73	8.5	28.18		98.4	63	124	26.35	5.10	18.4	
Benzo(a)pyrene	28.03	8.5	28.18		99.5	57.6	126	25.68	8.75	21.9	
Benzo(b)fluoranthene	27.64	8.5	28.18		98.1	62.1	133	26.01	6.07	22.2	
Benzo(g,h,i)perylene	27.71	8.5	28.18		98.3	54.8	127	25.40	8.71	25.8	
Benzo(k)fluoranthene	28.22	8.5	28.18		100	52.4	123	26.69	5.56	21.2	
Chrysene	27.26	8.5	28.18		96.8	62.6	118	26.35	3.40	17.5	
Dibenz(a,h)anthracene	29.14	8.5	28.18		103	52.8	125	26.96	7.76	26	
Fluoranthene	27.15	8.5	28.18		96.4	69.7	121	27.05	0.352	17.8	
Fluorene	27.50	8.5	28.18		97.6	57.8	117	27.43	0.231	21.6	
Indeno(1,2,3-cd)pyrene	28.44	8.5	28.18		101	51.1	129	27.12	4.75	26	
Phenanthrene	24.98	8.5	28.18		88.7	61.7	121	23.59	5.75	21.8	
Pyrene	27.95	8.5	28.18		99.2	67.3	118	27.60	1.25	18	
Surr: 2-Fluorobiphenyl	23.60	0	28.18		83.7	52.2	120	24.56	0	0	
Surr: 4-Terphenyl-d14	27.55	0	28.18		97.8	42.7	120	27.25	0	0	
Surr: Nitrobenzene-d5	25.41	0	28.18		90.2	50.7	122	27.22	0	0	

Sample ID: 1806237-003BMSD	Client ID:	Units: ug/L	Prep Date: 06/05/2018	Run No: 372040
SampleType: MSD	TestCode: PAHs by Microextraction SW8270D	BatchID: 261865	Analysis Date: 06/05/2018	Seq No: 8257816

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Naphthalene	310.8	42	28.18	293.7	60.6	43.5	120	306.4	1.42	21.9	

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261887

Sample ID: MB-261887	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372026
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261887	Analysis Date: 06/05/2018	Seq No: 8255602

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,4-Trichlorobenzene	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,3-Dichlorobenzene	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	100									
Benzene	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	10									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									
Chloroform	BRL	5.0									
Chloromethane	BRL	10									

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261887

Sample ID: MB-261887	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372026
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261887	Analysis Date: 06/05/2018	Seq No: 8255602

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	20									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	10									
Surr: 4-Bromofluorobenzene	48.53	0	50.00		97.1	65	133				
Surr: Dibromofluoromethane	52.33	0	50.00		105	75.8	119				
Surr: Toluene-d8	48.32	0	50.00		96.6	78.3	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261887

Sample ID: LCS-261887	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372026							
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261887	Analysis Date: 06/05/2018	Seq No: 8256644							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	67.14	5.0	50.00		134	64.8	138				
Benzene	55.88	5.0	50.00		112	70	126				
Chlorobenzene	52.49	5.0	50.00		105	70	124				
Toluene	56.31	5.0	50.00		113	70.4	127				
Trichloroethene	58.61	5.0	50.00		117	70.4	129				
Surr: 4-Bromofluorobenzene	48.48	0	50.00		97.0	65	133				
Surr: Dibromofluoromethane	49.24	0	50.00		98.5	75.8	119				
Surr: Toluene-d8	48.84	0	50.00		97.7	78.3	120				

Sample ID: 1806275-001AMS	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372026							
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261887	Analysis Date: 06/05/2018	Seq No: 8256640							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	61.04	5.0	50.00		122	58.3	138				
Benzene	49.65	5.0	50.00		99.3	66.2	127				
Chlorobenzene	47.60	5.0	50.00		95.2	66	124				
Toluene	49.46	5.0	50.00		98.9	67.4	127				
Trichloroethene	51.67	5.0	50.00		103	64.9	127				
Surr: 4-Bromofluorobenzene	49.06	0	50.00		98.1	65	133				
Surr: Dibromofluoromethane	49.19	0	50.00		98.4	75.8	119				
Surr: Toluene-d8	48.88	0	50.00		97.8	78.3	120				

Sample ID: 1806275-001AMSD	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372026							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261887	Analysis Date: 06/05/2018	Seq No: 8256643							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	68.24	5.0	50.00		136	58.3	138	61.04	11.1	20.2	
Benzene	55.30	5.0	50.00		111	66.2	127	49.65	10.8	18.6	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261887

Sample ID: 1806275-001AMSD	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372026
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 261887	Analysis Date: 06/05/2018	Seq No: 8256643

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	50.77	5.0	50.00		102	66	124	47.60	6.45	20	
Toluene	54.59	5.0	50.00		109	67.4	127	49.46	9.86	20	
Trichloroethene	57.08	5.0	50.00		114	64.9	127	51.67	9.95	20	
Surr: 4-Bromofluorobenzene	47.65	0	50.00		95.3	65	133	49.06	0	0	
Surr: Dibromofluoromethane	49.78	0	50.00		99.6	75.8	119	49.19	0	0	
Surr: Toluene-d8	49.69	0	50.00		99.4	78.3	120	48.88	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261940

Sample ID: MB-261940	Client ID:	Units: mg/Kg	Prep Date: 06/06/2018	Run No: 372222							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010D	BatchID: 261940	Analysis Date: 06/07/2018	Seq No: 8261118							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead BRL 5.00

Sample ID: LCS-261940	Client ID:	Units: mg/Kg	Prep Date: 06/06/2018	Run No: 372222							
SampleType: LCS	TestCode: METALS, TOTAL SW6010D	BatchID: 261940	Analysis Date: 06/07/2018	Seq No: 8261119							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 48.12 5.00 50.00 96.2 80 120

Sample ID: 1806099-001BMS	Client ID: B1-8-10'	Units: mg/Kg-dry	Prep Date: 06/06/2018	Run No: 372222							
SampleType: MS	TestCode: METALS, TOTAL SW6010D	BatchID: 261940	Analysis Date: 06/07/2018	Seq No: 8261131							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 49.14 4.91 49.14 5.112 89.6 75 125

Sample ID: 1806099-001BMSD	Client ID: B1-8-10'	Units: mg/Kg-dry	Prep Date: 06/06/2018	Run No: 372222							
SampleType: MSD	TestCode: METALS, TOTAL SW6010D	BatchID: 261940	Analysis Date: 06/07/2018	Seq No: 8261121							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 48.10 4.92 49.21 5.112 87.4 75 125 49.14 2.14 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: ETRI
Project Name: 1135 Sylvan Road
Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261948

Sample ID: MB-261948	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372155							
SampleType: MBLK	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261948	Analysis Date: 06/05/2018	Seq No: 8260462							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
m,p-Xylene	BRL	1.0									
o-Xylene	BRL	1.0									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	46.00	0	50.00		92.0	65	133				

Sample ID: LCS-261948	Client ID:	Units: ug/Kg	Prep Date: 06/05/2018	Run No: 372155							
SampleType: LCS	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261948	Analysis Date: 06/05/2018	Seq No: 8260461							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	45.11	1.0	50.00		90.2	70	126				
Ethylbenzene	49.78	1.0	50.00		99.6	74.2	129				
m,p-Xylene	100.5	1.0	100.0		101	73.4	130				
o-Xylene	50.26	1.0	50.00		101	73.8	129				
Toluene	47.00	1.0	50.00		94.0	70.4	127				
Surr: 4-Bromofluorobenzene	48.84	0	50.00		97.7	65	133				

Sample ID: 1806267-001AMS	Client ID:	Units: ug/Kg-dry	Prep Date: 06/05/2018	Run No: 372155							
SampleType: MS	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261948	Analysis Date: 06/05/2018	Seq No: 8260475							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzene	54.64	1.2	57.97		94.3	66.2	127				
Ethylbenzene	59.75	1.2	57.97		103	69.1	129				
m,p-Xylene	118.3	1.2	115.9	2.030	100	67.4	130				
o-Xylene	58.70	1.2	57.97	0.4663	100	69.3	130				
Toluene	54.94	1.2	57.97	1.335	92.5	67.4	127				
Surr: 4-Bromofluorobenzene	55.79	0	57.97		96.2	65	133				

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261948

Sample ID: 1806267-001AMSD	Client ID:	Units: ug/Kg-dry	Prep Date: 06/05/2018	Run No: 372155
SampleType: MSD	TestCode: VOLATILE ORGANICS SW8260B	BatchID: 261948	Analysis Date: 06/05/2018	Seq No: 8260477

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	54.46	1.2	57.97		93.9	66.2	127	54.64	0.340	18.6	
Ethylbenzene	58.88	1.2	57.97		102	69.1	129	59.75	1.47	20	
m,p-Xylene	120.2	1.2	115.9	2.030	102	67.4	130	118.3	1.59	20	
o-Xylene	58.58	1.2	57.97	0.4663	100	69.3	130	58.70	0.198	20	
Toluene	53.88	1.2	57.97	1.335	90.6	67.4	127	54.94	1.96	20	
Surr: 4-Bromofluorobenzene	56.40	0	57.97		97.3	65	133	55.79	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: ETRI
 Project Name: 1135 Sylvan Road
 Workorder: 1806099

ANALYTICAL QC SUMMARY REPORT

BatchID: 261971

Sample ID: MB-261971	Client ID:	Units: mg/L	Prep Date: 06/07/2018	Run No: 372375							
SampleType: MBLK	TestCode: METALS, TOTAL SW6010D	BatchID: 261971	Analysis Date: 06/08/2018	Seq No: 8265815							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead BRL 0.0100

Sample ID: LCS-261971	Client ID:	Units: mg/L	Prep Date: 06/07/2018	Run No: 372375							
SampleType: LCS	TestCode: METALS, TOTAL SW6010D	BatchID: 261971	Analysis Date: 06/08/2018	Seq No: 8265816							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 1.035 0.0100 1.000 103 80 120

Sample ID: 1806181-001AMS	Client ID:	Units: mg/L	Prep Date: 06/07/2018	Run No: 372375							
SampleType: MS	TestCode: METALS, TOTAL SW6010D	BatchID: 261971	Analysis Date: 06/08/2018	Seq No: 8265820							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 0.9747 0.0100 1.000 97.5 75 125

Sample ID: 1806181-001AMSD	Client ID:	Units: mg/L	Prep Date: 06/07/2018	Run No: 372375							
SampleType: MSD	TestCode: METALS, TOTAL SW6010D	BatchID: 261971	Analysis Date: 06/08/2018	Seq No: 8265821							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead 1.003 0.0100 1.000 100 75 125 0.9747 2.87 20

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix