



Environmental and Real Estate Consultants

**Limited and Focused Geophysical Survey and
Limited and Focused Subsurface Soil &
Groundwater Investigation Report for the
Property Identified as:**

**Mixed-Use Property
1984 Elmwood Avenue, 15, 19, 33, 35, 107, and
125 Norris Street, and 742 Hertel Avenue
Buffalo, New York 14207**

LCS PROJECT # 17B280.22

NOVEMBER 16, 2017

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November 16, 2017

Mr. David Reilly
Uniland Development Company
100 Corporate Parkway, Suite 500
Amherst, New York 14226

**Re: Focused Geophysical Survey and Limited and Focused Intrusive Investigation
Subject Property**

125 Norris Avenue, Buffalo, NY (SBL #78.53-3-1)
1984 Elmwood Avenue, Buffalo, NY (SBL #78.53-1-1)
33 Norris Avenue, Buffalo, NY (SBL #78.61-1-18A)
35 Norris Avenue, Buffalo, NY (SBL #78.61-1-18B)
107 Norris Avenue, Buffalo, NY (SBL #78.53-3-4)
19 Norris Avenue, Buffalo, NY (SBL #78.61-1-17)
15 Norris Avenue, Buffalo, NY (SBL #78.61-1-15)
742 Hertel Avenue, Buffalo, NY (SBL #78.61-1-11)
LCS Project No. 17B280.22 (Related to 17B280.39)

Dear Mr. Reilly:

Background

At your request, Lender Consulting Services, Inc. (LCS) performed a focused geophysical survey as well as a limited and focused subsurface soil and groundwater investigation, at the mixed-use Property, located at 1984 Elmwood Avenue, 15, 19, 33, 35, 107, and 125 Norris Street, and 742 Hertel Avenue, Buffalo, New York 14207 (See Figure 1). The subject property measures approximately 9.73 acre and is occupied by developed with the following (See Figure 2):

- Building 1 (125 Norris Street): single-story, 3,060 square foot structure that was constructed in 1950, utilized as storage.
- Building 2 (35 Norris Street): two-story, 14,400 square foot structure that was constructed in 1912, utilized as storage.
- Building 3 (742 Hertel Avenue): two-story, 4,486 square foot structure that was constructed circa 1923, utilized as an automotive collision shop.
- Residence (15 Norris Street): two-story, 1,704 square foot residence that was constructed in 1920.

The subject property is located in a moderately developed industrial, commercial, and residential area. The topography of the site is generally level at grade. Groundwater is expected to generally flow in a west/northwesterly direction toward the Niagara River which is located approximately 1 ¾ miles from the subject property.

This investigation was recommended based on the information gathered by LCS during a Phase I Environmental Site Assessment Report for the above-referenced properties, dated June 9, 2017. Through that report, the following recognized environmental conditions (RECs) were identified warranting further study at that time.

- On-site operations at 742 Hertel Avenue have included automotive repair and/or welding since at least 1931; operations currently include collision work (no engine repair). Floor drains noted within the collision shop reportedly discharge to the municipal sewer system; no evidence of an oil/water separator was identified on-site.
- The subject property included a foundry from at least 1912 through 1986; two small transformer rooms were noted within the foundry building from at least 1950 through at least 1986.
- According to city directories, on-site operations included printing in Building 1 in at least 1998.
- Dark staining was noted to the floor in the area of three of the oil buckets in Building 1. Several unlabeled drums were noted north of Building 2; some of the drums appeared to be empty. The contents of the remaining drums could not be confirmed. Three empty drums were noted in Building 2 and were labelled anti rust and cutting fluid concentrate.
- LCS noted areas of dumping on-site (north of Building 2 and on the northeastern portion of the property), including tires, drums and grinding wheels, asphalt shingles, general refuse, paint cans, and additional rusted drums and buckets.
- LCS noted a cut off pipe protruding from the ground along the eastern exterior of the collision shop building; the nature of such could not be confirmed at the time of the Phase I study.
- A building with two fuel tanks was noted near the eastern portion of the property from at least 1916 through at least 1986. These tanks are believed to have been located aboveground.
- According to Sanborn maps, a suspected buried gasoline tank was noted east of a former office building on the western portion of the property from at least 1950 through at least 1986.
- According to a previous study reviewed by LCS and City of Buffalo Permit records, a permit was filed in 1931 to install one 550-gallon gasoline storage tank at 742 Hertel Avenue and was in addition to a 275-gallon tank already on-site; records do not indicate whether such are aboveground or underground.
- According to Sanborn maps, a railroad spur extended onto the property from at least 1916 through at least 1986.
- Current and former adjacent site operations of potential concern were identified including railroad tracks (east), manufacturing, a maintenance building with fuel oil tanks, automotive repair, and various industrial uses.

Introduction

The purpose of this study was to better determine the likelihood USTs remain on-site in select areas of the subject property and to assess the environmental quality of on-site soils and groundwater in accessible locations of the subject property due to the environmental concerns identified above. Soil samples were collected for stratigraphic characterization and field monitoring. Temporary groundwater monitoring wells (TPMWs) were installed within select test borings where groundwater was encountered. Select soil and groundwater samples were submitted for laboratory analysis to supplement field observations.

The work conducted was completed in general accordance with LCS' April 17, 2017 proposal with the following exception(s). LCS had originally planned on sampling groundwater proximate the UST identified on Sanborn maps, addressed at 35 Norris Street from 1950-1986. As the well was dry and did not produce groundwater for collection LCS submitted an additional soil sample for laboratory analysis.

The following is a summary of the methods and results of the investigation.

Methods of Investigation

Limited and Focused Geophysical Survey

On October 10, 2017, LCS coordinated a limited and focused geophysical survey in an effort to better determine if historic underground storage tank (UST) system(s) are located in select areas on-site (Figure 3). Prior to collection of soil/fill samples, select areas were surveyed using a combination of ground penetrating radar (GPR) and/or utility tracing instruments.

Limited and Focused Subsurface Investigation

Soil

Soil samples were collected on October 24 and 25, 2017, with a truck and track-mounted percussion and hydraulically driven drive system equipped with an approximate 2-inch diameter, approximate 48-inch long macro-core sampler. Soil samples were also collected with a rubber track-mounted excavator while completing test pit excavations. Soil samples were collected within each test boring or test pit continuously from the ground surface until a depth of between approximately 3 and 30 feet below the ground surface (ft. bgs). Any downhole drilling equipment was decontaminated with an Alconox and tap water wash and tap water rinse between test borings. The cutting shoes were decontaminated in a similar manner between collection of each sample.

The physical characteristics of all soil samples were classified using the Unified Soil Classification System (USCS) (Visual-Manual Method) as a guide and placed in separate sealable containers to allow any vapors to accumulate in the headspace. After several minutes, the container was opened slightly and total volatile organic compound (VOC) concentrations in air within the sample container were measured using a photoionization detector (PID). (The PID is designed to detect VOCs, such as those associated with petroleum and some solvents.) Based on the field observations and/or screening results, soils were selected for analysis (see below).

Groundwater

Temporary groundwater monitoring wells TPMW1 through TPMW9 were installed within test borings BH1, BH6, BH8, BH11, BH15, BH17, BH19, BH22, and BH18, respectively. Generally, the bottoms of the wells were set to between 12 and 30 ft. bgs in an effort to target shallow groundwater. Each of the wells were constructed with one-inch diameter PVC screen and riser with a silica filter pack placed around the well screen. A bentonite seal was placed above the sand and the wells were covered with plastic caps, to prevent surface water from entering the wells, prior to sampling. Refer to the attached subsurface logs/well construction details for well specific well construction details.

The groundwater samples from temporary groundwater monitoring wells TPMW1 through TPMW9 were collected on October 27, 2017. Prior to sample collection, each well was developed by removing three to five well volumes from the well. New disposable dedicated PVC bailers were used for well development and sample collection activities. New dedicated and disposal tubing and a peristaltic pump were utilized for the collection of groundwater samples for laboratory analysis.

Sample Analysis

Following labeling of the laboratory-supplied sample containers, selected samples were placed on ice. The samples were then submitted, under standard chain-of-custody, to a New York State Department of Health (NYSDOH) approved laboratory for analysis in accordance with the United States Environmental Protection agency (USEPA) SW-846 Methods as summarized below.

The following table summarizes the specific analytical testing performed and their respective sample locations.

Sample Location	Analytical Testing Performed	Recognized Environmental Condition
Soil		
BH2 (2-4 ft. bgs)	CP-51+TCL VOCs and CP-51 SVOCs	Auto Repair/Welding Since 1931
BH3 (4-6 ft. bgs)		
BH6 (14-15 ft. bgs)	CP-51+TCL VOCs, TCL SVOCs, TAL Metals, and PCBs	Area of Drums
BH7 (1-3 ft. bgs)		
BH9 (6-8 ft. bgs)	CP-51 VOCs and CP-51 SVOCs	UST Identified on Sanborn Maps 1950-1986
BH10 (6-8 ft. bgs)		
BH13 (2-4 ft. bgs)	CP-51+TCL VOCs, TCL SVOCs, TAL Metals, and PCBs	Former Foundry
BH15 (10-12 ft. bgs)		
BH18 (4-6 ft. bgs)	TCL VOCs and Lead	Former Print Shop
BH21 (14-16 ft. bgs)		
TP1 (2-4 ft. bgs)	CP-51+TCL VOCs, TCL SVOCs, TAL Metals, and PCBs	Former Foundry
TP3 (4-6 ft. bgs)		
TP4 (5.5-7 ft. bgs)	CP-51 VOCs and CP-51 SVOCs	Two Fuel Tanks on Sanborn 1916-1986
TP5 (6-8 ft. bgs)	CP-51+TCL VOCs, TCL SVOCs, TAL Metals, and PCBs	Former Foundry
TP6 (2-3.5 ft. bgs)	CP-51 VOCs and CP-51 SVOCs	UST Identified on Sanborn Maps 1950-1986
Water		
TPMW1	CP-51+TCL VOCs and CP-51 SVOCs	Auto Repair/Welding Since 1931
TPMW2	CP-51+TCL VOCs, TCL SVOCs, TAL Metals, and PCBs	Former Foundry/Area of Drums
TPMW3	DRY	UST Identified on Sanborn Maps 1950-1986
TPMW4		
TPMW5	CP-51+TCL VOCs, TCL SVOCs, TAL Metals, and PCBs	Former Foundry
TPMW6	CP-51 VOCs and CP-51 SVOCs	Two Fuel Tanks on Sanborn 1916-1986
TPMW7		
TPMW8	TCL VOCs and Lead	Former Print Shop

ft. bgs = feet below ground surface

CP-51 = Commissioner Policy List volatile organic compounds via USEPA Test Method 8260

TCL VOCs = Target Compound List volatile organic compounds via USEPA Test Method 8260

TCL SVOCs = Target Compound List semi-volatile organic compounds via USEPA Test Method 8270

TAL Metals and Lead = Target Analyte List Metals via USEPA Test Method 6010/7000

PCBs = polychlorinated biphenyls via USEPA Test Method 8082

Results of Field Investigation

Limited and Focused Geophysical Survey South Site only

Based on the results Geophysical Survey, one anomaly was detected proximate the location of the UST depicted on the Sanborn maps from 1950-1986. The anomaly is approximately five foot by three foot in size. The anomaly was investigated through completion of a test pit excavation (TP6) as discussed below. The suspect pipe identified on the east side of 742 Hertel Avenue was investigated during the geophysical survey as well. It was determined that the pipe does not appear to be connected to a UST. The pipe appears to terminate to the soil.

Limited and Focused Subsurface Investigation

Six test pits and twenty two test borings (TP1 though TP6 and BH1 through BH22) were completed in accessible areas of the subject property. (See Figure 3.) A total of 212 soil samples were collected for geologic description. Fill material consisting of unconsolidated debris (piping, brick, asphalt, concrete, wood, metal, etc.) as well as gravel, clay, and sand, was noted within most test borings to a maximum depth of approximately 12 ft. bgs. Generally, the native soils encountered consisted of varying mixtures of sand and clay to the bottom of the test borings and test pits. Apparent groundwater was encountered in BH1, BH13, and BH18 between approximately 3.5 and 8.0 ft. bgs.

Equipment refusal was encountered within most test borings between approximately 3 and 25 ft. bgs. The cause of the equipment refusal could not be determined; however, is suspected to be due to debris and/or glacial till. Equipment refusal in the areas of the test pitting was due to remnants of the previous structures.

The test pits advanced in the area of the former foundry (TP1 – TP5) revealed large amounts of debris containing pipe, brick, asphalt, and other scrap metals. The test pit performed in the area of the anomaly (TP6) did not identify a UST but it did identify concrete overlain by asphalt. Beneath the concrete was sand and gravel to an approximate depth of 3 ft. bgs. The sand and gravel was underlain with native soils (i.e., sandy clay).

PID measurements were only slightly above total ambient air background VOC measurements (i.e., 0.0 parts per million, ppm) in most soil samples collected. A few samples contained elevated PID measurements. PID measurements ranged from 0.1 parts per million (ppm) to 57.0 ppm (TP4, ~4-6 ft. bgs). Petroleum-type odors and staining were detected in soil samples collected from test pit TP4 between approximately 5.5 and 7 ft. bgs. In LCS' experience, the PID measurements and field observations do not suggest the obvious presence of chemical impact proximate most of the areas investigated.

Refer to the attached subsurface logs for soil classification for each sample interval, field observations and PID measurements.

Investigation Analytical Results

The soil and groundwater samples collected and analyzed detected the following analytes. The respective concentrations as well as commonly-applied regulatory criteria are also listed for comparison. Analytes not detected are not shown.

SOIL TESTING RESULTS

VOCs by USEPA SW-846 Method 8260

Sample ID	BH2	BH3	BH6	BH7	BH9	BH10	BH13	BH15	BH18	BH21	TP1	TP3	TP4	TP5	TP6	CP-51 Soil Cleanup Levels	Part 375 (Unrestricted) Soil Cleanup Objectives	Part 375 (Residential) Soil Cleanup Objectives
Date Sampled	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17			
Sample Depth	2-4 ft. bgs	4-6 ft. bgs	14-15 ft. bgs	1-3 ft. bgs	6-8 ft. bgs	2-4 ft. bgs	10-12 ft. bgs	4-6 ft. bgs	14-16 ft. bgs	2-4 ft. bgs	4-6 ft. bgs	5.5-7 ft. bgs	6-8 ft. bgs	2-3.5 ft. bgs				
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg			
Acetone	118	<11.8	<11.6	13.5 J	NA	NA	19.3 J	32.8 J	<12	<11.7	33.1 J	<11.9	NA	80.8	NA	NL	50	100,000
Carbon Disulfide	0.440 J	<0.260	<0.257	1.72	NA	NA	13.4	1.24	<0.264	<0.258	1.73	0.549 J	NA	0.978 J	NA	NL	NL	NL
Cyclohexane	2.8	3.47	2.98	1.54	NA	NA	4.04	2.90	1.69	3.24	3.88	2.63	NA	<0.433	NA	NL	NL	NL
Methyl Cyclohexane	7.21	8.06	6.99	3.27	NA	NA	7.26	6.98	3.80	7.52	5.73	5.88	NA	0.773 J	NA	NL	NL	NL
2- Butanone	37.0	<5.51	<5.45	<5.65	NA	NA	7.22 J	6.54 J	<5.60	<5.45	6.12 J	<5.58	NA	21.7	NA	NL	120	100,000
Benzene	1.25 J	2.68	2.08	0.974 J	<1.55	<1.63	1.82	1.10 J	1.25	2.55	1.76	2.46	67.2	<0.334	<1.75	60	60	2,900
Trichloroethene	<0.362	<0.328	<0.325	2.43	NA	NA	<0.401	<0.340	<0.334	<0.325	0.439 J	<0.332	NA	<0.346	NA	NL	470	10,000
Toluene	1.78 J	4.02 J	2.94 J	1.14 J	<3.15	4.47 J	2.53 J	0.956 J	1.48 J	4.06 J	1.83 J	3.56 J	2.80	<0.538	4.48 J	700	700	100,000
Ethylbenzene	<0.385	0.502 J	0.372 J	<0.359	<1.54	<1.62	<0.426	<0.362	<0.355	0.515 J	<0.371	0.488 J	1.99	<0.368	7.03	1,000	1,000	30,000
m,p- Xylene	1.38 J	3.17	2.49	0.801 J	<4.76	<5.03	1.98 J	1.17 J	NA	NA	1.06 J	2.33 J	484	<0.411	33.0	260*	260*	100,000*
o-Xylene	0.555 J	0.887 J	0.748 J	<0.442	<0.931	<0.984	<0.526	<0.446	NA	NA	<0.458	0.800 J	2.05	<0.453	8.04	260*	260*	100,000*
Isopropylbenzene	<0.315	<0.286	<0.283	<0.294	<1.23	<1.29	<0.349	<0.296	<0.291	<0.283	<0.304	<0.290	3.83	<0.301	<1.39	2,300	NL	NL
n-Propylbenzene	<0.267	<0.242	<0.240	<0.249	<1.43	<1.51	<0.295	<0.251	NA	NA	<0.258	<0.245	8.03	<0.255	3.39	3,900	3,900	100,000
Sec- Butylbenzene	<0.261	<0.236	<0.234	<0.243	<1.24	<1.30	<0.288	<0.245	NA	NA	<0.251	<0.240	1,1.70	<0.249	2.21 J	11,000	11,000	100,000
p- Isopropyltoluene	<0.265	<0.240	<0.238	<0.246	<1.55	<1.63	<0.293	<0.249	NA	NA	0.401 J	<0.243	.470	<0.253	<1.75	10,000	NL	NL
Tert- Butylbenzene	<0.267	<0.242	<0.240	<0.249	<1.29	<1.36	<0.295	<0.251	NA	NA	<0.258	<0.245	0.883	<0.255	<1.45	5,900	5,900	100,000
1,2,4- Trimethylbenzene	0.929 J	1.45	1.15 J	0.292 J	1.33 J	<1.22	0.631 J	0.424 J	NA	NA	0.318 J	0.756 J	5.29	<0.261	11.8	3,600	3,600	47,000
1,3,5- Trimethylbenzene	0.557 J	0.653 J	0.532 J	<0.321	<1.95	<2.06	<0.382	<0.324	NA	NA	<0.333	<0.317	0.750	<0.329	3.09 J	8,400	8,400	47,000
n-Butylbenzene	<0.335	<0.304	<0.300	<0.312	<2.02	<2.14	<0.370	<0.314	NA	NA	<0.322	<0.307	17.70	<0.320	4.56	12,000	12,000	100,000
Naphthalene	<1.30	<1.18	<1.16	<1.21	<8.45	<8.93	<1.44	<1.22	<1.20	<1.17	<1.25	<1.19	4.80	<1.24	13.1 J	12,000	12,000	100,000

µg/kg = micrograms per kilogram
ft. bgs = feet below ground surface

NL = Not Listed

NA = Not Available

J = Indicates an estimated value

Part 375 Soil Cleanup Objectives = New York State Department of Environmental Conservation 6 NYCRR Part 375 Environmental Remediation Programs, December 14, 2006 (375-6.8, Soil Cleanup Objective Tables)

*= Based on the sum of the Total Xylenes.

CP-51 Soil Cleanup Levels = CP-51 Soil Cleanup Guidance October 21, 2010 (Table 3, Soil Cleanup Levels for Gasoline Contaminated Soil)

= Analyte detected above the CP-51 Soil Cleanup Levels and/or Part 375 (Unrestricted) Soil Cleanup Objectives.

Underlined = Analyte was detected above Part 375 (Residential) Soil Cleanup Objectives.

SVOCs by USEPA SW-846 Method 8270

Sample ID	BH2	BH3	BH6	BH7	BH9	BH10	BH13	BH15	BH18	BH21	CP-51 Soil Cleanup Levels	Part 375 (Unrestricted) Soil Cleanup Objectives	Part 375 (Residential) Soil Cleanup Objectives
Date Sampled	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17			
Sample Depth	2-4 ft. bgs	4-6 ft. bgs	14-15 ft. bgs	1-3 ft. bgs	6-8 ft. bgs	6-8 ft. bgs	2-4 ft. bgs	10-12 ft. bgs	4-6 ft. bgs	14-16 ft. bgs			
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg			
Naphthalene	<6.65	<6.04	<10.4	<107	<6.11	<5.97	<104	<10.8	NA	NA	12,000	12,000	100,000
Acenaphthene	<9.56	<8.67	<7.48	<77.5	<8.77	<8.58	<75	<7.82	NA	NA	20,000	20,000	100,000
Fluorene	<9.32	<8.46	<7.94	<82.4	<8.56	<8.37	<79.6	<8.31	NA	NA	30,000	30,000	100,000
Phenanthrene	<9.21	<8.35	<6.15	72.8 J	<8.45	<8.26	<61.7	13.4 J	NA	NA	100,000	100,000	100,000
Anthracene	<9.44	<8.57	<7.36	<76.3	<8.67	<8.47	<73.8	<7.7	NA	NA	100,000	100,000	100,000
Fluoranthene	<9.18	<8.33	<5.78	88.3 J	<8.43	<8.24	105 J	43.4	NA	NA	100,000	100,000	100,000
Pyrene	<10.1	<9.13	<14.3	<149	<9.24	<9.03	<144	32.2 J	NA	NA	100,000	100,000	100,000
Benzo(a)anthracene	<5.55	<5.04	<4.98	68.4 J	<5.09	<4.98	74.2 J	29.4 J	NA	NA	1,000	1,000	1,000
Chrysene	<10.2	<9.24	<6.46	<67	<9.34	<9.14	83.2 J	45.0	NA	NA	1,000	1,000	1,000
Benzo(b)fluoranthene	<9.01	<8.18	<8.09	97.3 J	<8.27	<8.09	106 J	59.3	NA	NA	1,000	1,000	1,000
Benzo(k)fluoranthene	<6.56	<5.95	<6.78	<70.3	<6.02	<5.89	<68	18.7 J	NA	NA	800	800	1,000
Benzo(a)pyrene	<6.51	<5.91	<6.38	<66.2	<5.98	<5.84	68.6 J	26.3 J	NA	NA	1,000	1,000	1,000
Indeno (1,2,3-cd) pyrene	<7.27	<6.6	<8.99	<93.3	<6.68	<6.53	<90.2	25.0 J	NA	NA	500	500	500
Dibenzo(a,h)anthracene	<7.66	<6.95	<9.56	<99.2	<7.04	<6.88	<95.9	<10	NA	NA	330	330	330
Benzo(g,h,i)perylene	<9.35	<8.48	<8.4	<87.1	<8.58	<8.39	<84.2	30.3 J	NA	NA	100,000	100,000	100,000

µg/kg = micrograms per kilogram

ft. bgs = feet below ground surface

NA = Not Analyzed

J = Indicates an estimated value.

Part 375 Soil Cleanup Objectives = New York State Department of Environmental Conservation 6 NYCRR Part 375 Environmental Remediation Programs, December 14, 2006 (375-6.8, Soil Cleanup Objective Tables)

CP-51 Soil Cleanup Levels = CP-51 Soil Cleanup Guidance October 21, 2010 (Table 3, Soil Cleanup Levels for Fuel Oil Contaminated Soil)

= Analyte detected above the CP-51 Soil Cleanup Levels and Part 375 (Unrestricted) Soil Cleanup Objective.

Underline = Analyte was detected above Part 375 (Residential) Soil Cleanup Objectives.

SVOCs by USEPA SW-846 Method 8270

Sample ID	TP1	TP3	TP4	TP5	TP6	CP-51 Soil Cleanup Levels	Part 375 (Unrestricted) Soil Cleanup Objectives	Part 375 (Residential) Soil Cleanup Objectives	Part 375 (Commercial) Soil Cleanup Objectives	Part 375 (Industrial) Soil Cleanup Objectives
Date Sampled	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17					
Sample Depth	2-4 ft. bgs	4-6 ft. bgs	5.5-7 ft. bgs	6-8 ft. bgs	2-3.5 ft. bgs	Units	µg/kg	µg/kg	µg/kg	µg/kg
Naphthalene	<943	<9.9	1,880	<110	63.3	12,000	12,000	100,000	500,000	1,000,000
Acenaphthene	<681	<7.15	7,070	<79.5	<9.92	20,000	20,000	100,000	500,000	1,000,000
Fluorene	<723	<7.6	8,880	<84.5	<9.68	30,000	30,000	100,000	500,000	1,000,000
Phenanthrene	<560	<5.88	19,900	<65.4	58.6	100,000	100,000	100,000	500,000	1,000,000
Anthracene	<670	<7.04	5,970	<78.3	10.2 J	100,000	100,000	100,000	500,000	1,000,000
Fluoranthene	1,610 J	<5.53	7,320	87.8 J	18.1 J	100,000	100,000	100,000	500,000	1,000,000
Pyrene	1,390 J	<13.7	8,980	<152	17.9 J	100,000	100,000	100,000	500,000	1,000,000
Benzo(a)anthracene	945 J	<4.77	1,560	66.3 J	12.6 J	1,000	1,000	1,000	5,600	11,000
Chrysene	1,000 J	<6.18	2,150	<68.7	11.5 J	1,000	1,000	1,000	56,000	110,000
Benzo(b)fluoranthene	1,450 J	7.77 J	1,520	96.9 J	<9.36	1,000	1,000	1,000	5,600	11,000
Benzo(k)fluoranthene	710 J	<6.48	415 J	<72.1	<6.81	800	800	1,000	56,000	110,000
Benzo(a)pyrene	1,020 J	<6.1	872	<67.9	<6.76	1,000	1,000	1,000	1,000	1,100
Indeno (1,2,3-cd) pyrene	<819	<8.6	459 J	<95.6	<7.55	500	500	500	5,600	11,000
Dibenzo(a,h)anthracene	<871	<9.15	180 J	<102	<7.96	330	330	330	560	1,100
Benzo(g,h,i)perylene	<765	<8.03	829	<89.3	<9.71	100,000	100,000	100,000	500,000	1,000,000

µg/kg = micrograms per kilogram

ft. bgs = feet below ground surface

NA = Not Analyzed

J = Indicates an estimated value.

Part 375 Soil Cleanup Objectives = New York State Department of Environmental Conservation 6 NYCRR Part 375 Environmental Remediation Programs, December 14, 2006 (375-6.8, Soil Cleanup Objective Tables)

CP-51 Soil Cleanup Levels = CP-51 Soil Cleanup Guidance October 21, 2010 (Table 3, Soil Cleanup Levels for Fuel Oil Contaminated Soil)

= Analyte detected above the CP-51 Soil Cleanup Levels and Part 375 (Unrestricted) Soil Cleanup Objectives.

Underlined = Analyte was detected above Part 375 (Residential) Soil Cleanup Objectives.

BOLD = Analyte was detected above Part 375 Commercial Use Criteria

PCBs by USEPA SW-846 Method 8082

Sample ID	BH2	BH3	BH6	BH7	BH9	BH10	BH13	BH15	BH18	BH21	TP1	TP3	TP4	TP5	TP6	Part 375 (Unrestricted) Soil Cleanup Objectives
Date Sampled	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	
Sample Depth	2-4 ft. bgs	4-6 ft. bgs	14-15 ft. bgs	1-3 ft. bgs	6-8 ft. bgs	6-8 ft. bgs	2-4 ft. bgs	10-12 ft. bgs	4-6 ft. bgs	14-16 ft. bgs	2-4 ft. bgs	4-6 ft. bgs	5.5-7 ft. bgs	6-8 ft. bgs	2-3.5 ft. bgs	
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Polychlorinated biphenyls	NA	NA	<3.67	<3.81	NA	NA	<3.68	<3.84	NA	NA	92.9	<3.51	NA	<3.9	NA	100

µg/kg = micrograms per kilogram

ft. bgs = feet below ground surface

NA = Not Analyzed

Part 375 = Determination of Soil Cleanup Objectives under Commercial Guidelines.

Part 375 Soil Cleanup Objectives = New York State Department of Environmental Conservation 6 NYCRR Part 375 Environmental Remediation Programs, December 14, 2006 (375-6.8, Soil Cleanup Objective Tables)

= Analyte detected above Part 375 (Unrestricted) Soil Cleanup Objectives.

Metals by USEPA SW-846 Methods 6010/7471A

Sample ID	BH2	BH3	BH6	BH7	BH9	BH10	BH13	BH15	BH18	BH21	TP1	TP3	TP4	TP5	TP6	Eastern USA Background Concentrations	Part 375 (Unrestricted) Soil Cleanup Objectives	Part 375 (Residential) Soil Cleanup Objectives
Date Sampled	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17	10/24/17			
Sample Depth	2-4 ft. bgs	4-6 ft. bgs	14-15 ft. bgs	1-3 ft. bgs	6-8 ft. bgs	6-8 ft. bgs	2-4 ft. bgs	10-12 ft. bgs	4-6 ft. bgs	14-16 ft. bgs	2-4 ft. bgs	4-6 ft. bgs	5.5-7 ft. bgs	6-8 ft. bgs	2-3.5 ft. bgs			
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Mercury	NA	NA	0.00367 J	0.0381	NA	NA	0.0447	0.00746 J	NA	NA	0.0569	0.00525 J	NA	0.0354	NA	0.001-0.2	0.18	0.81
Aluminum	NA	NA	10,800	16,200	NA	NA	9,620	15,100	NA	NA	5,640	9,370	NA	13,800	NA	33,000	NL	NL
Antimony	NA	NA	0.910 J	<0.906	NA	NA	<0.876	<0.914	NA	NA	1.4 J	<0.836	NA	0.963 J	NA	NL	NL	NL
Arsenic	NA	NA	3.69	5.18	NA	NA	3.77	4.39	NA	NA	4.87	3.41	NA	4.88	NA	3-12*	13	16
Barium	NA	NA	93.3	116	NA	NA	73.5	134	NA	NA	54.3	82.2	NA	89.6	NA	15-600	350	350
Beryllium	NA	NA	0.606	0.948	NA	NA	0.516	0.794	NA	NA	0.595	0.509	NA	0.822	NA	0-1.75	7.2	14
Cadmium	NA	NA	0.141 J	0.145 J	NA	NA	0.163 J	<0.0853	NA	NA	1.1	0.107 J	NA	0.406 J	NA	0.1-1	2.5	2.5
Calcium	NA	NA	59,100	67,900	NA	NA	86,700	69,900	NA	NA	84,900	25,100	NA	14,900	NA	130-35,000	NL	NL
Chromium	NA	NA	15.8	22.9	NA	NA	14.4	20.7	NA	NA	17.7	13.2	NA	27.6	NA	1.5-40*	1/30 ¹	22/36 ¹
Cobalt	NA	NA	9.65	13.8	NA	NA	8.07	13.3	NA	NA	3.72	7.14	NA	16.2	NA	2.5-60	NL	NL
Copper	NA	NA	18.6	27.0	NA	NA	18.0	21.1	NA	NA	41.0	19.9	NA	32.2	NA	1-50	50	270
Iron	NA	NA	21,300	30,400	NA	NA	18,100	28,500	NA	NA	19,500	19,700	NA	37,500	NA	2,000-550,000	NL	NL
Lead	NA	NA	10.9	22.1	NA	NA	20.4	9.94	8.21	9.94	151	27.9	NA	43.7	NA	**	63	400
Manganese	NA	NA	473	760	NA	NA	439	618	NA	NA	461	385	NA	3,080	NA	50-5,000	1,600	2,000
Magnesium	NA	NA	17,600	16,300	NA	NA	15,500	17,200	NA	NA	11,600	10,300	NA	6,280	NA	100-5,000	NL	NL
Nickel	NA	NA	22.5	32.7	NA	NA	22.0	30.6	NA	NA	18.0	17.0	NA	21.3	NA	0.5-25	30	140
Potassium	NA	NA	2,330	3,060	NA	NA	2,100	2,360	NA	NA	935	1,960	NA	1,580	NA	8,500-43,000	NL	NL
Sodium	NA	NA	211	224	NA	NA	176	254	NA	NA	211	111	NA	133	NA	6,000-8,000	NL	NL
Vanadium	NA	NA	23.2	34.3	NA	NA	20.2	30.3	NA	NA	11.7	19.3	NA	32.2	NA	1-300	NL	NL
Zinc	NA	NA	65.6	82.1	NA	NA	58.0	67.0	NA	NA	237	48.8	NA	96.8	NA	9-50	109	2,200

mg/kg = milligrams per kilogram

NL = Not Listed

NA = Not Available

J = Indicates an estimated value.

SB = Site Background Levels

* = New York State Background

¹ = Hexavalent Chromium/Trivalent Chromium

² = New York State Department of Environmental Conservation Memorandum – Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels, Appendix A, Table 4 (January 24, 1994 [Revised])

Part 375 Soil Cleanup Objectives = New York State Department of Environmental Conservation 6 NYCRR Part 375 Environmental Remediation Programs, December 14, 2006 (375-6.8, Soil Cleanup Objective Tables)

** = Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4- 61 mg/kg. Average background levels in metropolitan or suburban areas, or near highways, typically range between 200- 500 mg/kg.

Italics – Analyte detected above Eastern USA Background

 = Analyte that is detected above Part 375 (Unrestricted) Soil Cleanup Objectives

Bold = Analyte detected above Part 375 (Residential) Soil Cleanup Objectives

GROUNDWATER TESTING RESULTS

VOCs by USEPA-846 Method 8260

Sample ID	TPMW1	TPMW2	TPMW3	TPMW4	TPMW5	TPMW6	TPMW7	TPMW8	NYSDEC Groundwater Criteria (Class GA)
Date Sampled	10/27/17	10/27/17	Dry	10/27/17	10/27/17	10/27/17	10/27/17	10/27/17	
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Acetone	<10	<10		<10	23.0 J	NA	16.6 J	24.5	50
2- Butanone	<3.93	<3.93		<3.93	12.7	NA	<3.93	<3.93	50
Toluene	<0.412	<0.412		<0.412	0.767 J	<0.412	<0.412	<0.412	5
1,2,4-Trimethylbenzene	<0.373	<0.373		<0.373	0.495 J	<0.373	NA	NA	5
m,p- Xylene	<0.719	<0.719		<0.719	0.938 J	<0.719	NA	NA	5
o-Xylene	<0.341	<0.341		<0.341	0.594J	<0.341	NA	NA	5

µg/L = micrograms per liter

NA= Not Analyzed

NL = Not Listed

J = Indicates an estimated value.

U = Indicates compound was analyzed for, but not detected at or above the reporting limit.

NYSDEC Groundwater Criteria (Class GA) = 6 NYCRR Part 703 (June 1998 and April 2000 Addendum)

= Analyte detected above the NYSDEC Groundwater Criteria.

SVOCs by USEPA-846 Method 8270

Sample ID	TPMW1	TPMW2	TPMW3	TPMW4	TPMW5	TPMW6	TPMW7	TPMW8	NYSDEC Groundwater Criteria (Class GA)
Date Sampled	10/27/17	10/27/17	Dry	10/27/17	10/27/17	10/27/17	10/27/17	10/27/17	
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/l
Phenol	NA	<0.334		0.338 J	<0.334	NA	NA	NA	1*
Naphthalene	0.0782 J	<0.372		<0.372	<0.372	0.0730 J	NA	NA	10
Acenaphthylene	<0.452	<0.316		<0.316	<0.316	0.981 J	NA	NA	NL
Fluorene	<0.462	<0.323		<0.323	<0.323	0.800 J	NA	NA	50
Diethyl phthalate	NA	1.7 J		<0.282	0.377 J	NA	NA	NA	50
Di-n-butyl phthalate	NA	0.511 J		0.830 J	1.09 J	NA	NA	NA	50
Butyl benzyl phthalate	NA	0.925 J		<0.275	<0.275	NA	NA	NA	50
Bis (2-ethylhexyl) phthalate	NA	2.11 J		2.18 J	2.24 J	NA	NA	NA	5
Benzo(b)fluoranthene	0.130 J	<0.0896		<0.0896	<0.0896	<0.106	NA	NA	0.002

µg/l = micrograms per liter

NL = Not Listed

J = Indicates an estimated value.

* = Applies to the sum of all phenolic compounds (total phenols)

U = Indicates compound was analyzed for, but not detected at or above the reporting limit.

NYSDEC Groundwater Criteria (Class GA) = 6 NYCRR Part 703 (June 1998 and April 2000 Addendum)

= Analyte detected above the NYSDEC Groundwater Criteria.

Metals by USEPA SW-846 Methods 6010/7471A

Sample ID	TPMW1	TPMW2	TPMW3	TPMW4	TPMW5	TPMW6	TPMW7	TPMW8	NYSDEC Groundwater Criteria (Class GA)
Date Sampled	10/27/17	10/27/17	Dry	10/27/17	10/27/17	10/27/17	10/27/17	10/27/17	
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Antimony	NA	0.000773 J	Dry	<0.000754	<0.000754	NA	NA	NA	3
Barium	NA	0.0457		0.0623	0.0342	NA	NA	NA	1
Calcium	NA	133		119	474	NA	NA	NA	NL
Chromium	NA	0.00159 J		0.00188 J	0.00267 J	NA	NA	NA	0.05
Cobalt	NA	<0.0023		<0.0023	0.0204	NA	NA	NA	NL
Copper	NA	0.00556 J		0.00555 J	<0.0053	NA	NA	NA	200
Lead	NA	<0.00024		0.000259 J	0.000252 J	NA	0.00317 J	0.00667	0.025
Manganese	NA	0.145		0.133	2.6	NA	NA	NA	300
Magnesium	NA	281		251	965	NA	NA	NA	35,000
Nickel	NA	0.00787 J		0.00574 J	0.0359	NA	NA	NA	100
Potassium	NA	13.9		13.6	22.8	NA	NA	NA	NL
Selenium	NA	0.00134 J		0.00137 J	0.000656 J	NA	NA	NA	0.01
Sodium	NA	124		119	338	NA	NA	NA	20,000
Vanadium	NA	0.00335 J		0.00437 J	0.00371 J	NA	NA	NA	NL
Zinc	NA	0.00881 J		0.0121 J	0.0308 J	NA	NA	NA	2,000

mg/L = milligrams per liter

NL = Not Listed

U = Indicates element was analyzed for, but not detected at or above the reporting limit.

B = Indicates a value greater than or equal to the instruments detection limit, but less than the quantitation limit.

NYSDEC Groundwater Criteria (Class GA) = 6 NYCRR Part 703 (June 1998 and April 2000 Addendum)

= Analyte detected above the NYSDEC Groundwater Criteria.

PCBs by USEPA SW-846 Method 8082

No PCBs were detected at concentrations equal to or above the laboratory's method detection limits.

Conclusions

The purpose of this study was to assess the recognized environmental conditions identified in the June 9, 2017, Phase I Environmental Site Assessment (specifically, automotive repair and/or welding, former foundry, historical USTs located on the sanborn maps, and a former print shop). Select soil and groundwater samples were collected from the areas of the recognized environmental conditions and submitted for laboratory analysis.

Limited and Focused Geophysical Survey

Based on the results Geophysical Survey, one anomaly was detected proximate the location of the UST depicted on the Sanborn maps from 1950-1986. The anomaly is approximately five foot by three foot in size. The anomaly was investigated through completion of a test pit excavation (TP6) as discussed below. The suspect pipe identified on the east side of 742 Hertel Avenue was investigated during the geophysical survey as well. It was determined that the pipe does not appear to be connected to a UST. The pipe appears to terminate to the soil.

Limited and Focused Subsurface Investigation

Field Observations

Fill material consisting of unconsolidated debris (piping, brick, asphalt, concrete, wood, metal, etc.) as well as gravel, clay, and sand, was noted across the subject property to a maximum depth of approximately 12 ft. bgs. Generally, the native soils encountered consisted of varying mixtures of sand and clay. Shallow groundwater was encountered between approximately 3.5 and 8.0 ft. bgs. Groundwater is expected to generally flow in a west/northwesterly direction toward the Niagara River which is located approximately 1 ¾ miles from the subject property.

PID measurements were only slightly above total ambient air background VOC measurements (i.e., 0.0 parts per million, ppm) in most soil samples collected. A few samples contained elevated PID measurements. PID measurements ranged from 0.1 parts per million (ppm) to 57.0 ppm (TP4, ~4-6 ft. bgs). Petroleum-type odors and staining were detected in soil samples collected from test pit TP4 between approximately 5.5 and 7 ft. bgs. In LCS' experience, the PID measurements and field observations do not suggest the obvious presence of chemical impact proximate most of the areas investigated.

Laboratory Test Results

Soil laboratory results were compared with Eastern USA Background levels, New York State Department of Environmental Conservation (NYSDEC) Commissioner's Policy 51 (CP-51) Soil Cleanup Levels (SCLs) and select NYSDEC Part 375 Soil Cleanup Objectives (SCOs). The SCLs are commonly employed at petroleum bulk storage facilities for investigation and remediation purposes and SCOS are often employed at sites undergoing investigation and/or remediation through state programs (i.e., Brownfield Cleanup Program, State Superfund Program). For sites which will have their uses formally restricted (i.e., residential, commercial, industrial) documentation that soil/fill meets the criteria set forth by the SCOS for residential through industrial use are generally acceptable when institutional and/or engineering controls are in place (i.e., environmental easement, deed restriction, soil caps, etc.). The SCLs and SCOS are commonly utilized for guidance purposes in due diligence investigations for real estate transactions.

Groundwater laboratory results were compared to NYSDEC Groundwater Criteria for Class GA groundwater.

Soil

Three VOCs were detected at concentrations above the CP-51 SCLs Part 375 SCOs for Unrestricted Use in three of the fifteen samples collected and submitted for VOCs analysis. The following VOCs were detected in these samples at concentrations above the CP-51 and SCOs for Unrestricted Use:

- Acetone in BH2, and TP5
- Benzene and m,p- Xylene in TP4

Acetone is a common laboratory contaminant and the detection may not be attributable to chemical impact to the soils. Additionally, acetone is typically short-lived within the environment.

Four SVOCs were detected at concentrations above the CP-51 SCLs and Part 375 SCOs for Residential Use in two of the fifteen samples collected and submitted for SVOC analysis. The following SVOCs were detected in these samples at concentrations above the CP-51 SCLs and Part 375 SCOs for Residential Use:

- Benzo(a)anthracene, Chrysene, and Benzo(b)fluoranthene in TP4
- Benzo(b)fluoranthene and Benzo(a)pyrene, in TP1

Benzo(a)pyrene was also detected above Part 375 SCOs for Commercial Use, but below Part 375 SCOs for Industrial Use.

According to the laboratory analytical results, several metals were detected at concentrations above commonly-applied Eastern USA Background Concentrations. Of those metals three, nickel, lead, and zinc were identified at a concentration above Part 375 SCOs for Unrestricted Use. None of these metals were detected above Part 375 SCOs for Residential Use.

No additional compounds were identified within the soil samplings submitted for laboratory analysis at concentrations above commonly applied regulatory criteria.

Groundwater

One SVOC analyte [Benzo(b)fluoranthene] was detected at concentrations above NYSDEC Groundwater Criteria (Class GA) in one of the three groundwater samples (TPMW1) collected and submitted for VOC analysis.

No additional analytes (VOCS, metals or PCBs) were detected at concentrations at or above commonly applied groundwater criteria.

Recommendations

It should be noted that the impact identified in TP1 and TP4 is indicative of some on-site petroleum impact. LCS would advise that environmental legal counsel review this report and render a legal opinion as to whether notification of the NYSDEC is warranted. LCS does not expect that the NYSDEC would require further work at this time with regard to that impact.

Based upon the amount and types of various fill material and impacts identified to on-site soils/fill, LCS would advise that soils/fill be handled with caution as part of any future site development/excavation work. If impacted soils/fill are encountered during these activities such should be properly managed on-site or transported off-site for proper disposal. LCS would advise that redevelopment plans/budgets include contingencies to properly address impacted soils/fill, if encountered, during that work.

In addition, it should be understood that impacted groundwater encountered (if any) during redevelopment/excavation work would need to be properly handled. LCS would advise that redevelopment plans/budgets include contingencies to properly address impacted groundwater, if encountered, during that work.

If any unknown USTs are encountered during intrusive work (i.e., site redevelopment, utility work, etc.,) such would require proper handling at that time.

Thank you for allowing LCS to service your environmental needs. If you have any questions or require additional information, please do not hesitate to call our office.

Sincerely,



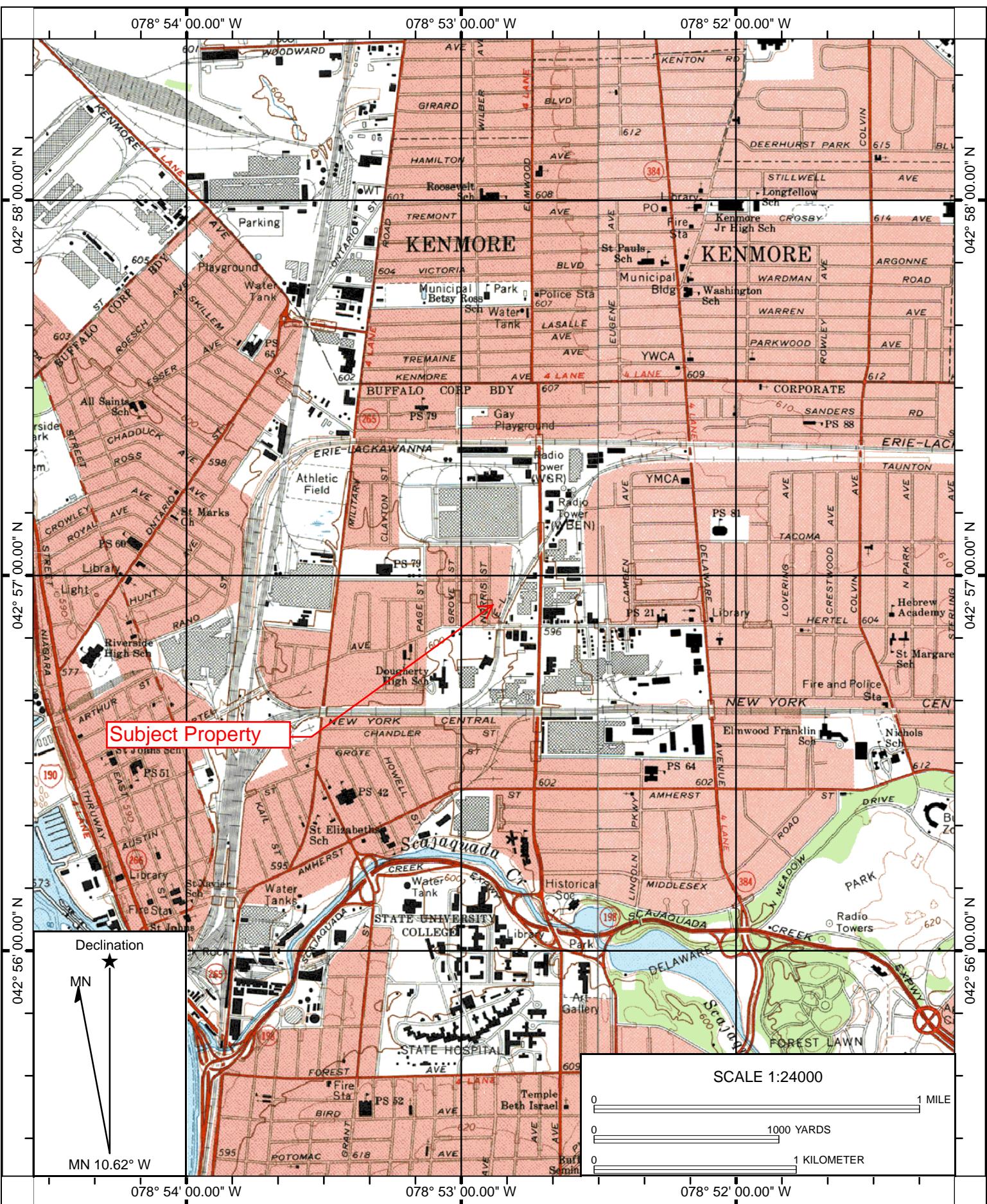
Brandon Stau
Environmental Analyst/Project Manager

Reviewed by:



Douglas B. Reid
Sr. VP, Environmental Services

SITE LOCATION MAP



Name: BUFFALO NW
Date: 04/27/17
Scale: 1 inch = 2,000 ft.

Location: 042° 56' 54.90" N 078° 52' 52.89" W
1965

PARCEL MAP

APPROXIMATE PROPERTY BOUNDARIES



FIGURE 2 - PARCEL MAP

1984 Elmwood Avenue, 15, 19, 35, 107, and
125 Norris Street, and 742, Hertel Avenue
Buffalo, New York 14207

Drawn by: BMS

Checked by: DBR

Approximate Scale in Feet
0 100 200

LCS Project #17B280.22

LCS INC.

SUBSURFACE INVESTIGATION MAP

APPROXIMATE PROPERTY BOUNDARIES

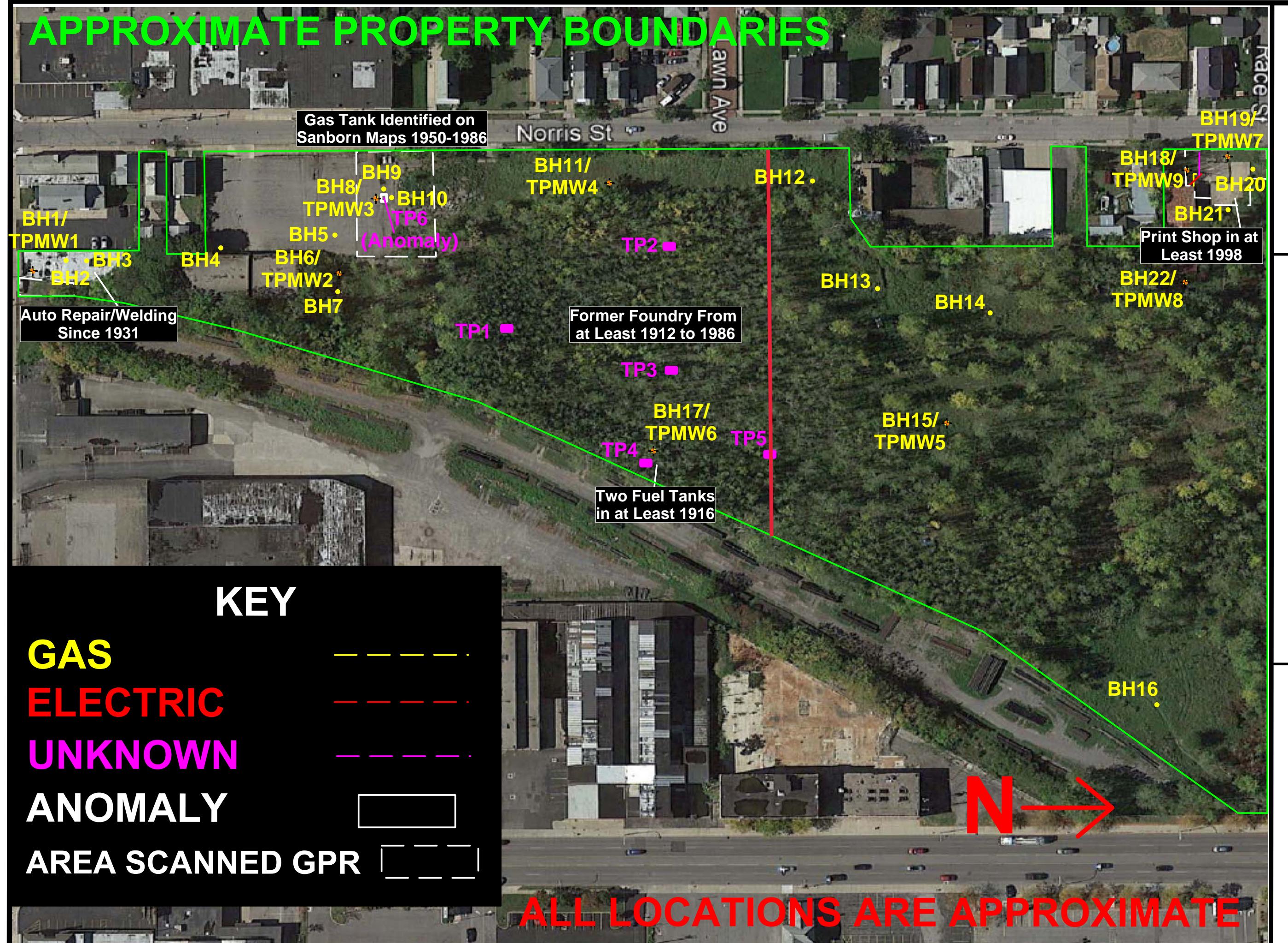


FIGURE 3 - SITE INVESTIGATION PLAN

1984 Elmwood Avenue, 15, 19, 35, 107, and
125 Norris Street, and 742, Hertel Avenue
Buffalo, New York 14207

LCS INC.

Drawn by: BMS
Checked by: DBR

Approximate Scale in Feet
0 100 200

SUBSURFACE LOGS



 LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION: Elmwood and Hertel Avenue, Buffalo, New York 14207 PROJECT No. 17B280.22
CLIENT: Uniland Development Company BORING/WELL No. BH1/TPMW1
DATE STARTED: 10/24/2017 DATE COMPLETED: 10/24/2017 RECORDED BY: BMS
GROUNDWATER DEPTH WHILE DRILLING: ~7.0 ft. bgs. AFTER COMPLETION: ~7.38 ft. bgs.
WEATHER: 70° F Sunny DRILL RIG: Geoprobe DRILLER: Core Down
DRILL SIZE/TYPE: Macro-core SAMPLE HAMMER: WEIGHT NA FALL NA

NOTES NA = Not Applicable

ft. bgs = feet below ground surface

Fill to ~3.8 ft. bas

No suspect odors detected

*SS - SPI IT-SPOON SAMPLE

U - UNDISTURBED TUBE

P - PISTON TUBE

C-CORE



 LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION: Elmwood and Hertel Avenue, Buffalo, New York 14207 PROJECT No. 17B280.22
CLIENT: Uniland Development Company BORING/WELL No. BH2
DATE STARTED: 10/24/2017 DATE COMPLETED: 10/24/2017 RECORDED BY: BMS
GROUNDWATER DEPTH WHILE DRILLING: NA AFTER COMPLETION: NA
WEATHER: 70° F Sunny DRILL RIG: Geoprobe DRILLER: Core Down
DRILL SIZE/TYPE: Macro-core SAMPLE HAMMER: WEIGHT NA FALL NA

NOTES NA = Not Applicable

ft. bgs = feet below ground surface

Fill to ~8.2 ft. bgs

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE

U - UNDISTURBED TUBE

P - PISTON TUBE

C - CORE



SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207			PROJECT No.	17B280.22	
CLIENT:	Uniland Development Company			BORING/WELL No.	BH3	
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017	RECORDED BY:	BMS	
GROUNDWATER DEPTH WHILE DRILLING:	NA		AFTER COMPLETION:	NA		
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe	DRILLER:	Core Down	
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	WEIGHT	NA	FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	5.2	0.5-2	U	-	-	20	0 – 0.5 ft. Concrete
2	0.8	2-4	U	-	-	20	0.5 – 2.2 ft. Black sandy gravel (coarse, semi-angular, loose, moist)
3	1.2	4-6	U	-	-	24	2.2 – 2.5 ft. White/gray gravelly sand (medium, loose, moist)
4	0.4	6-8	U	-	-	24	2.5 – 4.0 ft. Brown silty clay (low plasticity, stiff, moist)
5	0.5	8-10	U	-	-	24	4.0 – 12.0 ft. Brown clay (no plasticity, stiff, moist)
6	0.3	10-12	U	-	-	24	Refusal encountered at ~12.0 ft. bgs.

NOTES NA = Not Applicable

Fill to ~2.5 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH4
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
RECORDED BY:	JB		
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	NA
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe
DRILLER:	Core Down		
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER: WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)	
							0 – 0.5 ft. Asphalt	0.5 – 20.0 ft. Brown clay (high plasticity, stiff, moist)
1	0.0	0.5-2	U	-	-	18		
2	0.0	2-4	U	-	-	18		
3	0.0	4-6	U	-	-	24		
4	0.0	6-8	U	-	-	24		
5	0.0	8-10	U	-	-	24		
6	0.0	10-12	U	-	-	24		
7	0.0	12-14	U	-	-	24		
8	0.0	14-16	U	-	-	24		
9	0.0	16-18	U	-	-	24		
10	0.0	18-20	U	-	-	24		

NOTES NA = Not Applicable

Fill to ~0.5 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH5
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	NA
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER: WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.0	0.5-2	U	-	-	6	0 – 0.5 ft. Asphalt
2	0.0	2-4	U	-	-	6	0.5 – 20.0 ft. Brown clay (high plasticity, stiff, moist)
3	0.0	4-6	U	-	-	15	Refusal encountered at ~15.0 ft. bgs.
4	0.0	6-8	U	-	-	24	
5	0.0	8-10	U	-	-	24	
6	0.0	10-12	U	-	-	24	
7	0.0	12-14	U	-	-	24	
8	0.0	14-15	U	-	-	12	

NOTES NA = Not Applicable

Fill to ~0.5 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH6/TPMW2
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
RECORDED BY:	JB		
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	~26.39 ft. bgs.
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER: WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
							0 – 25.0 ft. Brown clay (high plasticity, stiff, moist)
1	0.0	0-2	U	-	-	6	
2	0.0	2-4	U	-	-	6	25.0 – 30.0 ft. Brown clay (high plasticity, soft, moist)
3	0.0	4-6	U	-	-	10	
4	0.0	6-8	U	-	-	14	
5	0.0	8-10	U	-	-	14	
6	0.0	10-12	U	-	-	24	
7	0.0	12-14	U	-	-	24	
8	0.0	14-16	U	-	-	24	
9	0.0	16-18	U	-	-	24	
10	0.0	18-20	U	-	-	24	
11	0.0	20-22	U	-	-	24	
12	0.0	22-24	U	-	-	24	
13	0.0	24-26	U	-	-	24	
14	0.0	26-28	U	-	-	24	
15	0.0	28-30	U	-	-	24	

NOTES NA = Not Applicable

No suspect fill detected

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH8/TPMW3
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	NA
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe Core Down
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	WEIGHT NA FALL NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)	
							0 – 0.5 ft. Asphalt	0.5 – 1.0 ft. Concrete
1	0.0	1-2	U	-	-	6	1.0 – 5.0 ft. Brown clay (high plasticity, stiff, moist)	
							5.0 – 20.0 ft. Brown clay (high plasticity, stiff, moist)	
2	0.0	2-4	U	-	-	6		
3	0.0	4-6	U	-	-	12		
4	0.0	6-8	U	-	-	24		
5	0.0	8-10	U	-	-	24		
6	0.0	10-12	U	-	-	24		
7	0.0	12-14	U	-	-	24		
8	0.0	14-16	U	-	-	24		
9	0.0	16-18	U	-	-	24		
10	0.0	18-20	U	-	-	24		

NOTES NA = Not Applicable

Fill to ~1.0 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH10
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	NA
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	Core Down
		WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	NA	0-2	U	-	-	0.0	0 – 0.5 ft. Asphalt
2	NA	2-4	U	-	-	0.0	0.5 – 1.0 ft. Concrete
3	0.0	4-6	U	-	-	12	1.0 – 20.0 ft. Brown clay (high plasticity, stiff, moist)
4	0.0	6-8	U	-	-	24	
5	0.0	8-10	U	-	-	24	
6	0.0	10-12	U	-	-	24	
7	0.0	12-14	U	-	-	24	
8	0.0	14-16	U	-	-	24	
9	0.0	16-18	U	-	-	24	
10	0.0	18-20	U	-	-	24	

NOTES NA = Not Applicable

Fill to ~1.0 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22			
CLIENT:	Uniland Development Company	BORING/WELL No.	BH14			
DATE STARTED:	10/25/2017	DATE COMPLETED:	10/25/2017			
GROUNDWATER DEPTH WHILE DRILLING:		NA	AFTER COMPLETION:	NA		
WEATHER:	55° F overcast	DRILL RIG:	Geoprobe	DRILLER:	Core Down	
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	WEIGHT	NA	FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.0	0-2	U	-	-	12	0 – 0.5ft. Brown silt (no plasticity, dry)
2	0.0	2-4	U	-	-	12	0.5 – 1.0 ft. Gray gravel (coarse, semi-angular, compact, dry)
3	0.0	4-6	U	-	-	12	1.0 – 4.0 ft. Brown clay (high plasticity, stiff, moist)
4	0.0	6-8	U	-	-	12	4.0 – 7.0 ft. Dark brown silt (no plasticity, moist)
5	0.0	8-10	U	-	-	24	7.0 – 16.0 ft. Brown clay (high plasticity, stiff, moist)
6	0.0	10-12	U	-	-	24	Refusal encountered at ~16.0 ft. bgs.
7	0.0	12-14	U	-	-	24	
8	0.0	14-16	U	-	-	24	

NOTES NA = Not Applicable

ft. bgs = feet below ground surface

Fill to ~7.0 ft. bgs

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH15/TPMW5
DATE STARTED:	10/25/2017	DATE COMPLETED:	10/25/2017
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	~27.68 ft. bgs.
WEATHER:	55° F overcast	DRILL RIG:	Geoprobe
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	Core Down
		WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.2	0-2	U	-	-	10	0 – 0.3 ft. Brown sandy silt (no plasticity, dry)
2	0.2	2-4	U	-	-	10	0.3 – 3.5 ft. Brown sandy clayey gravel (coarse, angular, loose, dry)
3	0.9	4-6	U	-	-	20	3.5 – 4.5 ft. Gray/white gravel (coarse, angular, loose, dry)
4	0.0	6-8	U	-	-	20	4.5 – 10.5 ft. Brown/black sand (fine, dense, moist)
5	0.0	8-10	U	-	-	20	10.5 – 15.8 ft. Brown/gray silty clay (low plasticity, medium stiff, moist)
6	0.1	10-12	U	-	-	20	15.8 – 20.0 ft. Brown clay (low plasticity, stiff, moist)
7	0.3	12-14	U	-	-	18	20.0 – 30.0 ft. Brown clay (high plasticity, soft, moist)
8	0.1	14-16	U	-	-	18	
9	0.3	16-18	U	-	-	24	
10	0.1	18-20	U	-	-	24	
11	0.2	20-22	U	-	-	24	
12	0.9	22-24	U	-	-	24	
13	0.1	24-26	U	-	-	24	
14	0.0	26-28	U	-	-	24	
15	0.0	28-30	U	-	-	24	

NOTES NA = Not Applicable

Fill to ~10.5 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE

U - UNDISTURBED TUBE

P - PISTON TUBE

C - CORE



LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH17/TPMW6
DATE STARTED:	10/25/2017	DATE COMPLETED:	10/25/2017
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	~16.78 ft. bgs.
WEATHER:	55° F overcast	DRILL RIG:	Geoprobe
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	Core Down
		WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
							0 – 5.0 ft. Brown gravelly silt (no plasticity, dry)
1	0.0	0-2	U	-	-	12	
2	0.0	2-4	U	-	-	12	5.0 – 8.0 ft. Brick and Debris
3	0.0	4-6	U	-	-	0	8.0 – 10.0 ft. Brown clay (high plasticity, stiff, moist)
4	0.0	6-8	U	-	-	0	10.0 – 25.0 ft. Brown clay (high plasticity, stiff, moist)
5	0.0	8-10	U	-	-	2	Refusal encountered at ~25.0 ft. bgs.
6	0.0	10-12	U	-	-	24	
7	0.0	12-14	U	-	-	24	
8	0.0	14-16	U	-	-	24	
9	0.0	16-18	U	-	-	24	
10	0.0	18-20	U	-	-	24	
11	0.0	20-22	U	-	-	24	
12	0.0	22-24	U	-	-	24	
13	0.0	24-25	U	-	-	12	

NOTES NA = Not Applicable

Fill to ~10.0 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH19/TPMW7
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
RECORDED BY:	BMS		
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	~18.06 ft. bgs.
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe
DRILLER:	Core Down		
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER: WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.0	0-2	U	-	-	5	0 – 1.0 ft. Brown clay (high plasticity, soft, moist)
2	0.0	2-4	U	-	-	5	1.0 – 30.0 ft. Brown clay (high plasticity, stiff, moist)
3	0.0	4-6	U	-	-	5	
4	0.0	6-8	U	-	-	5	
5	0.0	8-10	U	-	-	5	
6	0.0	10-12	U	-	-	6	
7	0.0	12-14	U	-	-	6	
8	0.0	14-16	U	-	-	5	
9	0.0	16-18	U	-	-	4	
10	0.0	18-20	U	-	-	4	
11	0.0	20-22	U	-	-	4	
12	0.0	22-24	U	-	-	4	
13	0.0	24-26	U	-	-	3	
14	0.0	26-28	U	-	-	1	
15	0.0	28-30	U	-	-	1	

NOTES NA = Not Applicable

No suspect fill detected

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE U - UNDISTURBED TUBE P - PISTON TUBE C - CORE



LCS Inc.

SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	BORING/WELL No.	BH22/TPMW8
DATE STARTED:	10/24/2017	DATE COMPLETED:	10/24/2017
GROUNDWATER DEPTH WHILE DRILLING:	NA	AFTER COMPLETION:	~18.62 ft. bgs.
WEATHER:	70° F Sunny	DRILL RIG:	Geoprobe
DRILL SIZE/TYPE:	Macro-core	SAMPLE HAMMER:	Core Down
		WEIGHT	NA
		FALL	NA

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Type *	Blows/6"	N	Recovery (Inches)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
							0 – 5.0 ft. Brown silt (no plasticity, dry)
1	0.0	0-2	U	-	-	4	
2	0.0	2-4	U	-	-	4	5.0 – 30.0 ft. Brown clay (high plasticity, stiff, moist)
3	0.0	4-6	U	-	-	14	
4	0.0	6-8	U	-	-	24	
5	0.0	8-10	U	-	-	24	
6	0.0	10-12	U	-	-	24	
7	0.0	12-14	U	-	-	24	
8	0.0	14-16	U	-	-	24	
9	0.0	16-18	U	-	-	24	
10	0.0	18-20	U	-	-	24	
11	0.0	20-22	U	-	-	24	
12	0.0	22-24	U	-	-	24	
13	0.0	24-26	U	-	-	24	
14	0.0	26-28	U	-	-	24	
15	0.0	28-30	U	-	-	24	

NOTES NA = Not Applicable

Fill to ~5.0 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected

*SS - SPLIT-SPOON SAMPLE

U - UNDISTURBED TUBE

P - PISTON TUBE

C - CORE



SUBSURFACE LOG

PROJECT/ LOCATION:	Elmwood and Hertel Avenue, Buffalo, New York 14207	PROJECT No.	17B280.22
CLIENT:	Uniland Development Company	TEST PIT No.	TP1
DATE STARTED:	10/25/2017	DATE COMPLETED:	10/25/2017
GROUNDWATER DEPTH WHILE EXCAVATING:	NA	AFTER COMPLETION:	NA
WEATHER:	55° F overcast	EQUIPMENT:	Kubota
		EXCAVATOR SIZE:	Mini Rubber Track

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.3	0-3	0 – 3.0 ft. Gray/black/brown sandy gravel (coarse, angular, compact, moist) (large boulders, brick, and railroad tie)
			Refusal encountered at ~3.0 ft. bgs due to foundation

NOTES NA = Not Applicable

Fill to ~3.0 ft. bgs

ft. bgs = feet below ground surface

No suspect odors detected



SUBSURFACE LOG

PROJECT/ LOCATION: Elmwood and Hertel Avenue, Buffalo, New York 14207 PROJECT No. 17B280.22

CLIENT: Uniland Development Company TEST PIT No. TP2

DATE STARTED: 10/25/2017 DATE COMPLETED: 10/25/2017 RECORDED BY: BMS

GROUNDWATER DEPTH WHILE EXCAVATING: NA AFTER COMPLETION: NA

WEATHER: 55° F overcast EQUIPMENT: Kubota EXCAVATOR SIZE: Mini Rubber Track

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.2	0-2	0 – 3.5 ft. Gray/black/brown sandy gravel (coarse, angular, compact, moist) (large boulders, brick, pipe, and railroad tie)
2	1.3	2-3.5	Refusal encountered at ~3.5 ft. bgs. due to foundation

NOTES NA = Not Applicable

ft. bgs = feet below ground surface

Fill to ~3.5 ft. bgs

No suspect odors detected



SUBSURFACE LOG

PROJECT/ LOCATION: Elmwood and Hertel Avenue, Buffalo, New York 14207 PROJECT No. 17B280.22
CLIENT: Uniland Development Company TEST PIT No. TP3
DATE STARTED: 10/25/2017 DATE COMPLETED: 10/25/2017 RECORDED BY: BMS
GROUNDWATER DEPTH WHILE EXCAVATING: NA AFTER COMPLETION: NA
WEATHER: 55° F overcast EQUIPMENT: Kubota EXCAVATOR SIZE: Mini Rubber Track

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.1	0-2	0 – 4.0 ft. Brown/gray sandy gravel (coarse, angular, dense, moist)
2	0.1	2-4	4.0 – 7.0 ft. Brown/tan gravelly sand (medium, medium dense, moist)
3	0.3	4-6	7.0 – 8.0 ft. Brown silty clay (medium plasticity, medium stiff, moist)
4	0.1	6-8	

NOTES NA = Not Applicable

ft. bgs = feet below ground surface

Fill to ~7.0 ft. bgs

No suspect odors detected



SUBSURFACE LOG

PROJECT/ LOCATION: Elmwood and Hertel Avenue, Buffalo, New York 14207 PROJECT No. 17B280.22
CLIENT: Uniland Development Company TEST PIT No. TP4
DATE STARTED: 10/25/2017 DATE COMPLETED: 10/25/2017 RECORDED BY: BMS
GROUNDWATER DEPTH WHILE EXCAVATING: NA AFTER COMPLETION: NA
WEATHER: 55° F overcast EQUIPMENT: Kubota EXCAVATOR SIZE: Mini Rubber Track

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.4	0-2	0 – 5.5 ft. Brown sandy gravel (coarse, angular, dense, moist) (railroad ties)
2	0.6	2-4	5.5 – 7.0 ft. Black/gray sandy gravel (coarse, semi-angular, dense, moist) (odor)
3	57.0	4-6	7.0 – 8.0 ft. Brown silty clay (medium plasticity, medium stiff, moist)
4	14.7	6-8	

NOTES NA = Not Applicable

ft. bgs = feet below ground surface

Fill to ~7.0 ft. bgs

Suspected petroleum-type odors and staining noted from ~5.5-7 ft. bgs



SUBSURFACE LOG

PROJECT/ LOCATION: Elmwood and Hertel Avenue, Buffalo, New York 14207 PROJECT No. 17B280.22
CLIENT: Uniland Development Company TEST PIT No. TP5
DATE STARTED: 10/25/2017 DATE COMPLETED: 10/25/2017 RECORDED BY: BMS
GROUNDWATER DEPTH WHILE EXCAVATING: NA AFTER COMPLETION: NA
WEATHER: 55° F overcast EQUIPMENT: Kubota EXCAVATOR SIZE: Mini Rubber Track

Sample No.	PID/HNu Reading (ppm)	Depth (Feet)	Material Classification and Description (Unified Soil Classification System-Visual Manual Method)
1	0.1	0-2	0 – 8.0 ft. Brown/gray sandy gravel (coarse, angular, dense, moist) (pipes, bricks, asphalt)
2	0.3	2-4	8.0 – 9.0 ft. Brown silty clay (low plasticity, medium stiff, moist)
3	0.8	4-6	
4	1.6	6-8	
5	1.4	8-9	

NOTES NA = Not Applicable
ft. bgs = feet below ground surface

Fill to ~8.0 ft. bgs
No suspect odors detected

WELL CONSTRUCTION DETAILS

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

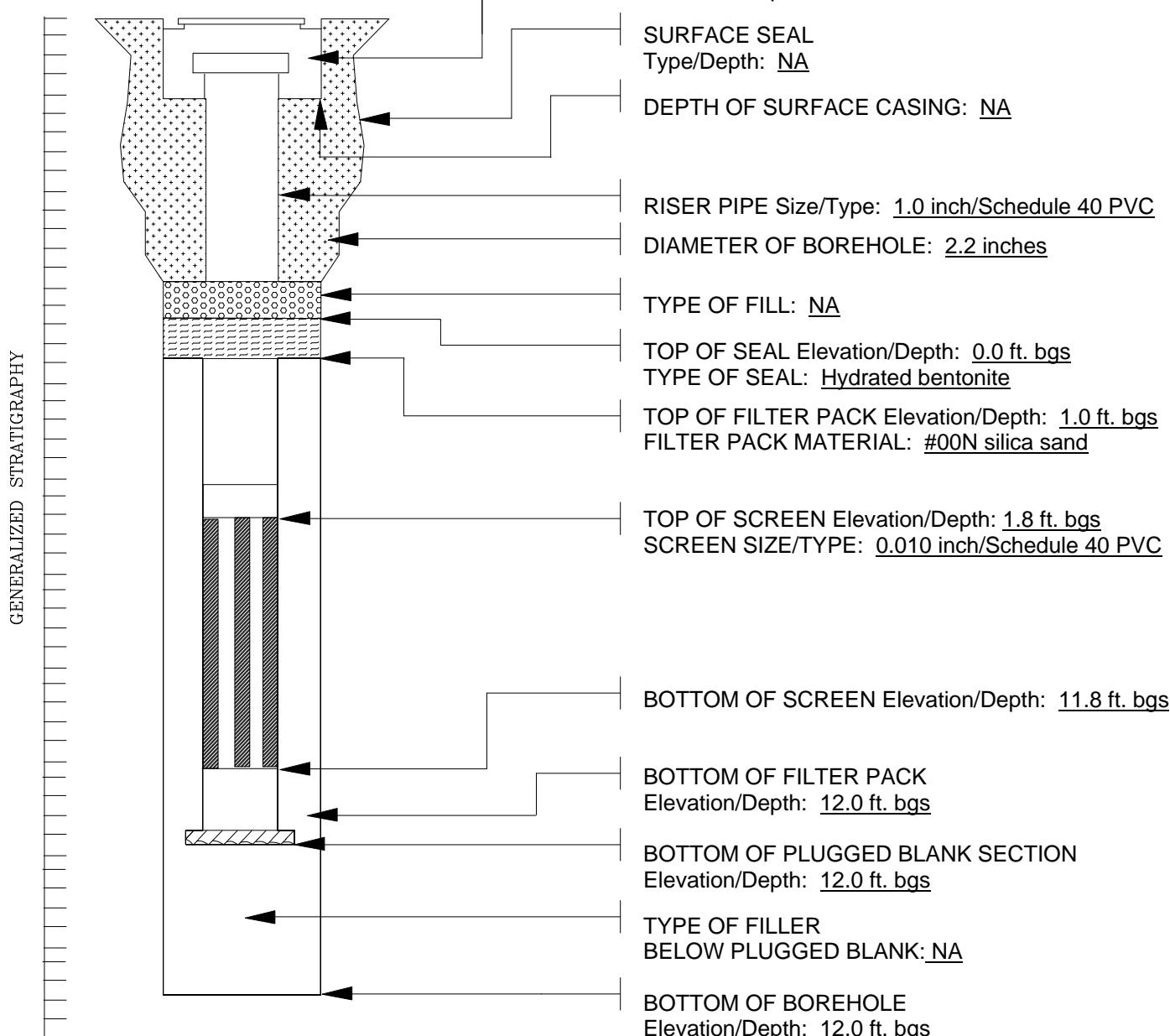
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW1

DATE COMPLETED: 10-24-2017

SUPERVISED BY: BMS



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

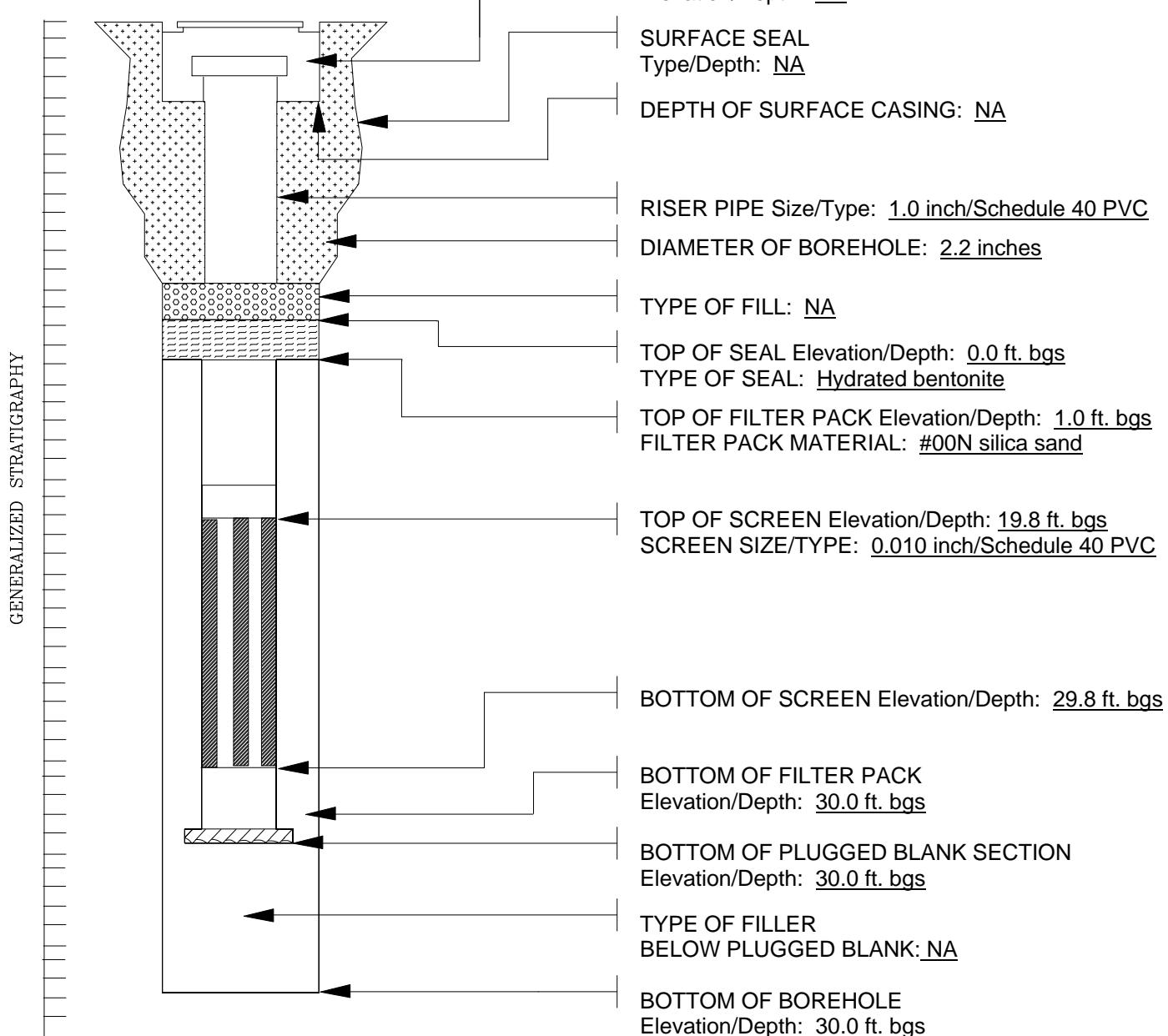
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW2

DATE COMPLETED: 10-24-2017

SUPERVISED BY: JB



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

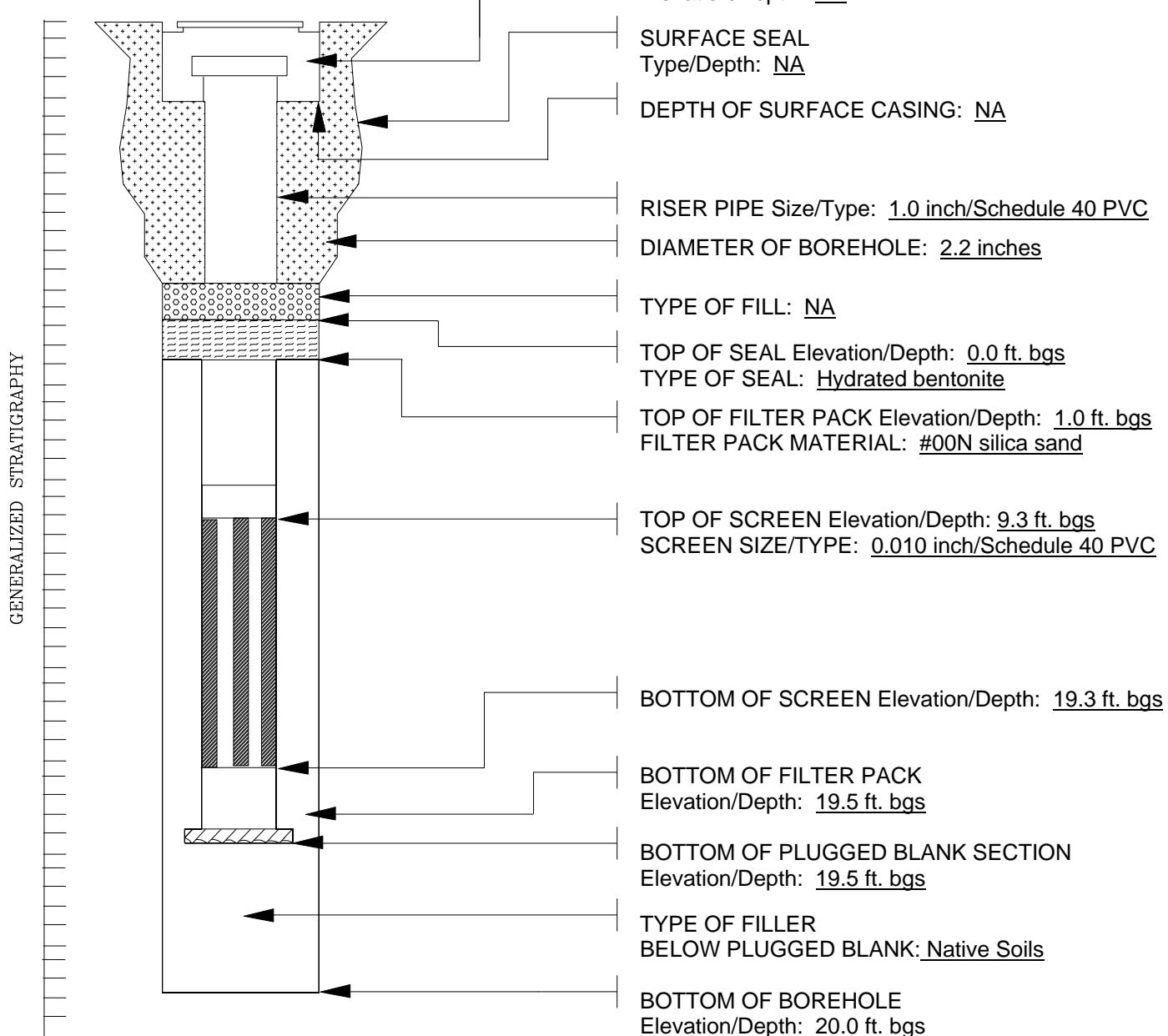
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW3

DATE COMPLETED: 10-24-2017

SUPERVISED BY: JB



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

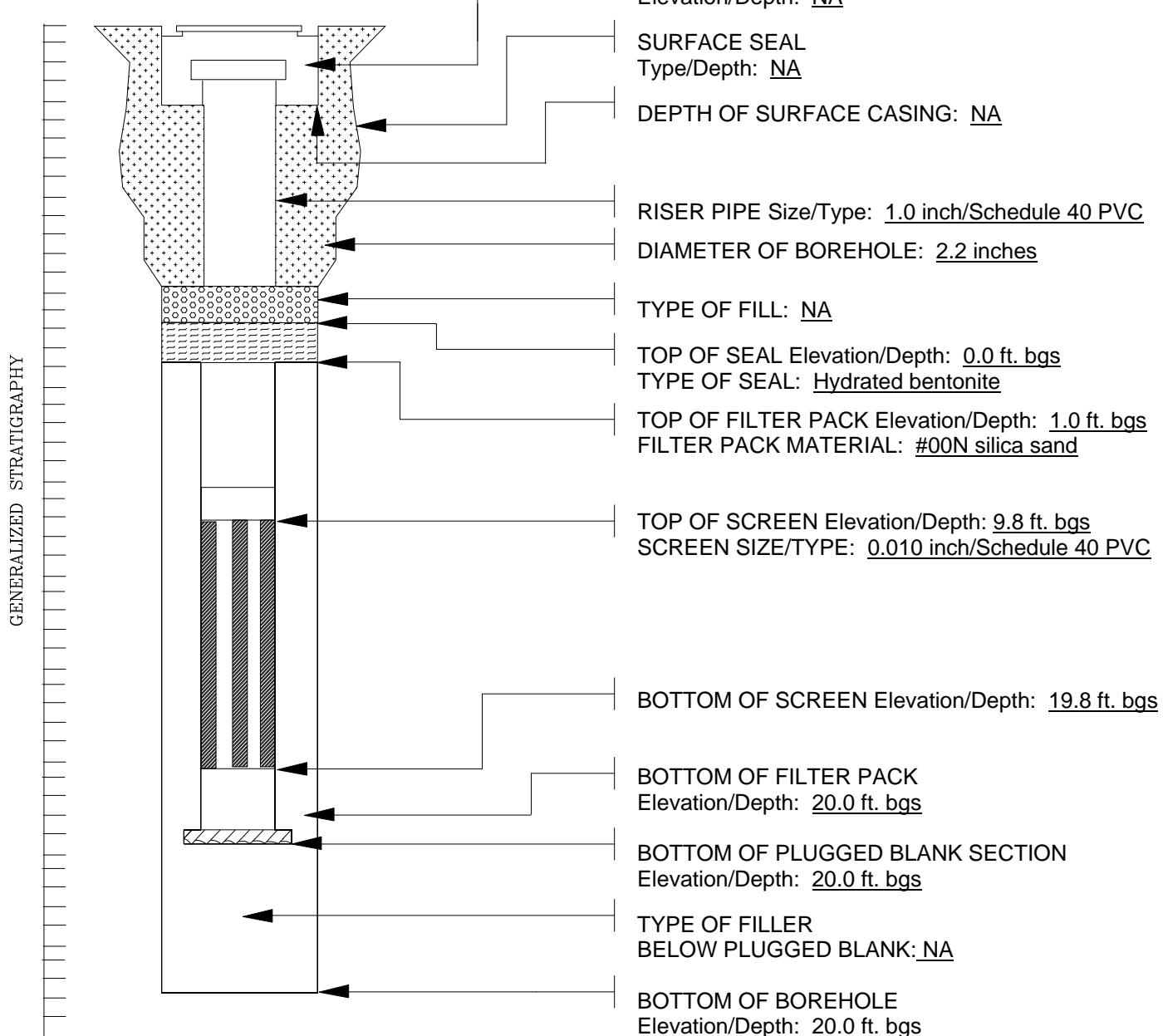
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW4

DATE COMPLETED: 10-24-2017

SUPERVISED BY: BMS



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

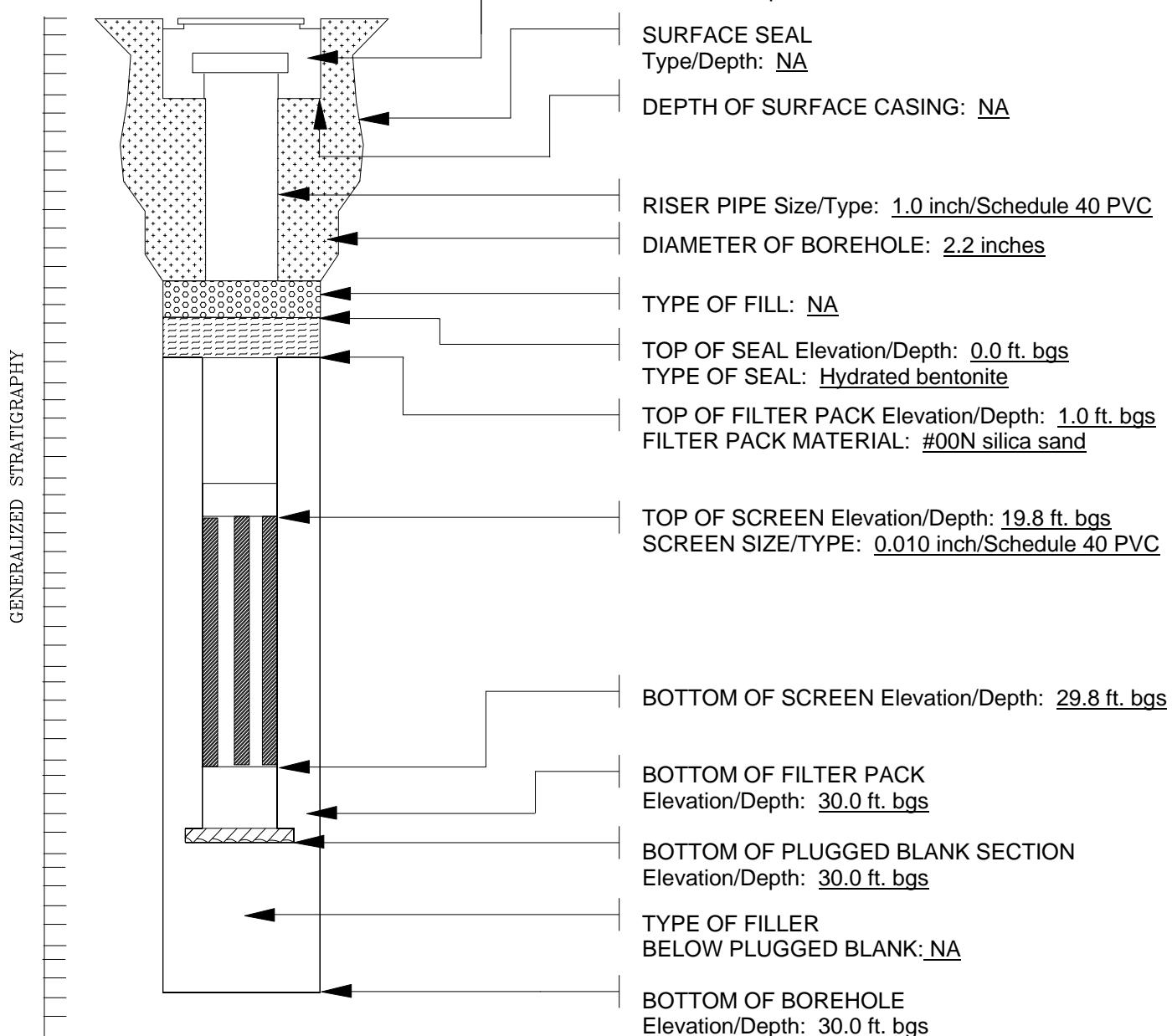
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW5

DATE COMPLETED: 10-25-2017

SUPERVISED BY: JB



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

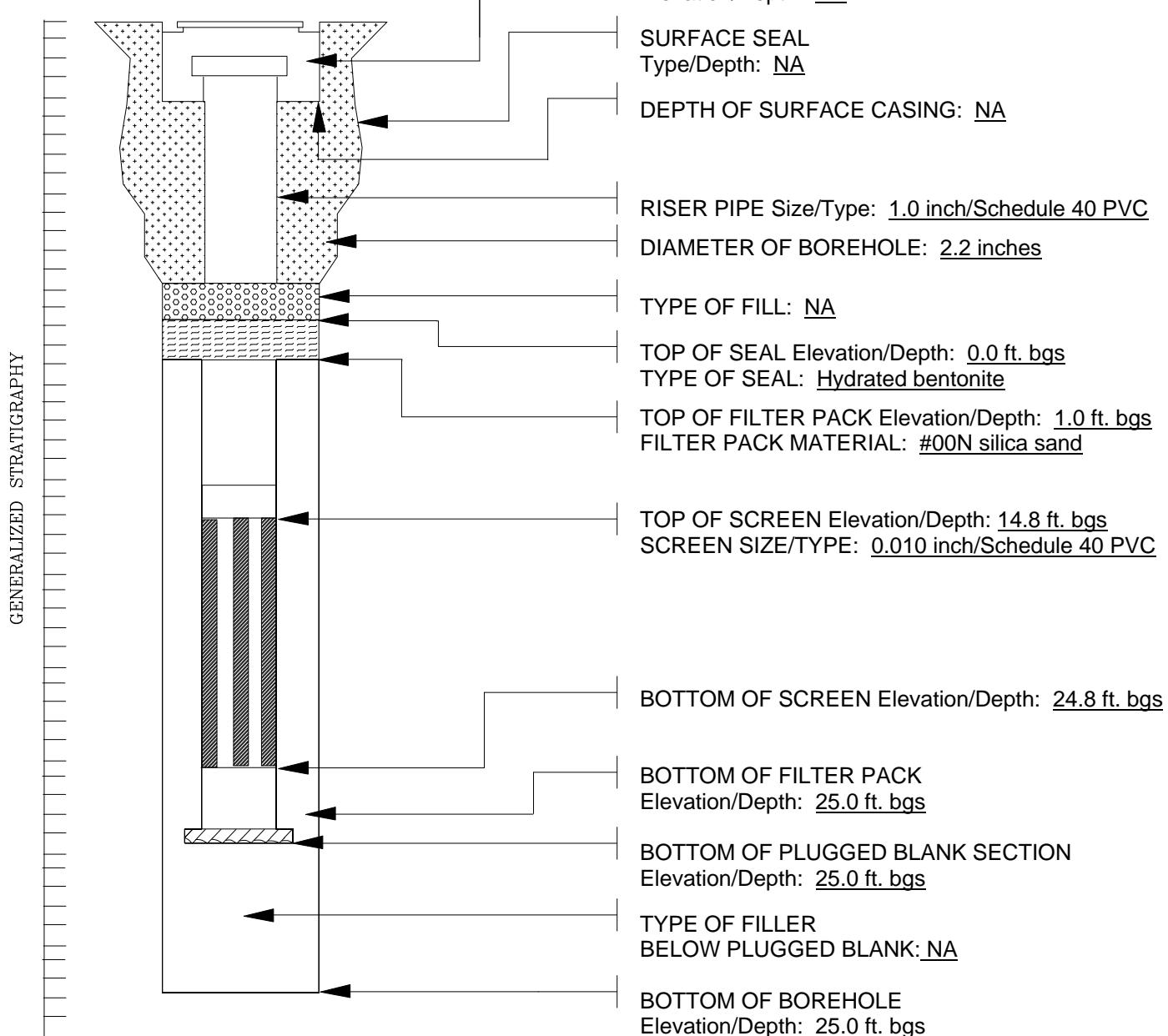
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW6

DATE COMPLETED: 10-25-2017

SUPERVISED BY: JB



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

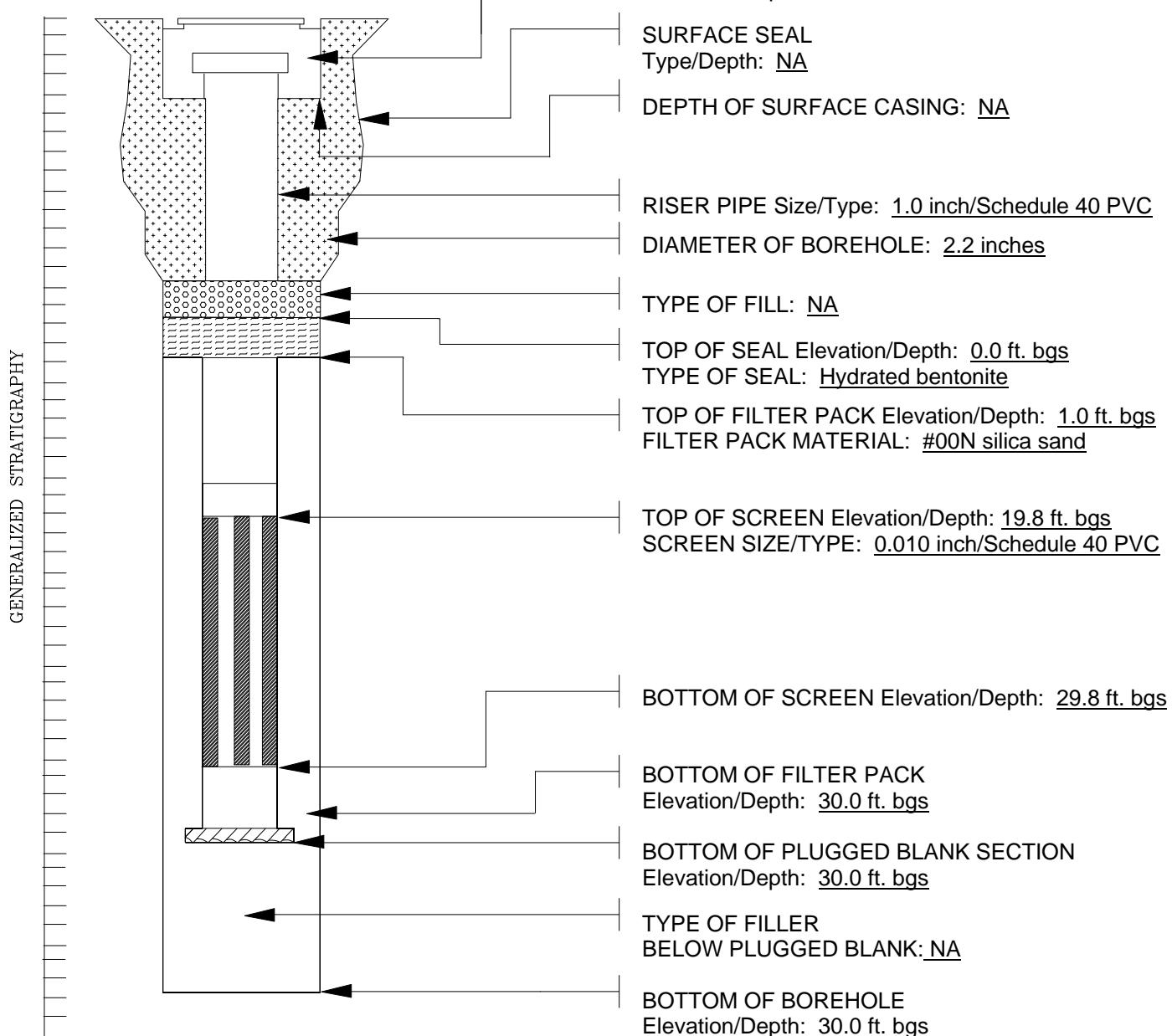
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW7

DATE COMPLETED: 10-24-2017

SUPERVISED BY: JB



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

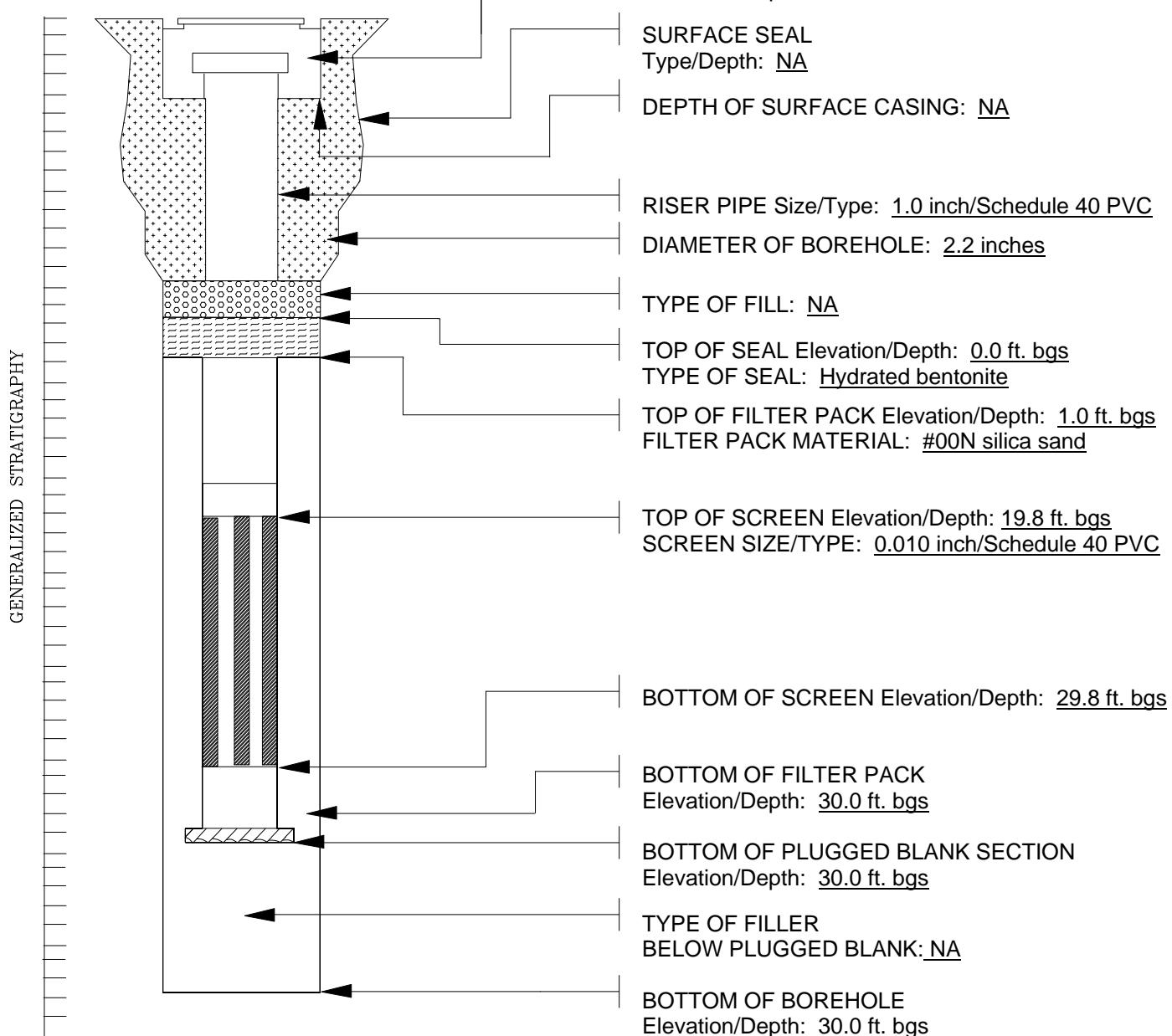
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW8

DATE COMPLETED: 10-24-2017

SUPERVISED BY: JB



NOTES

PROJECT/LOCATION: Elmwood and Hertel Avenue, Buffalo, New York

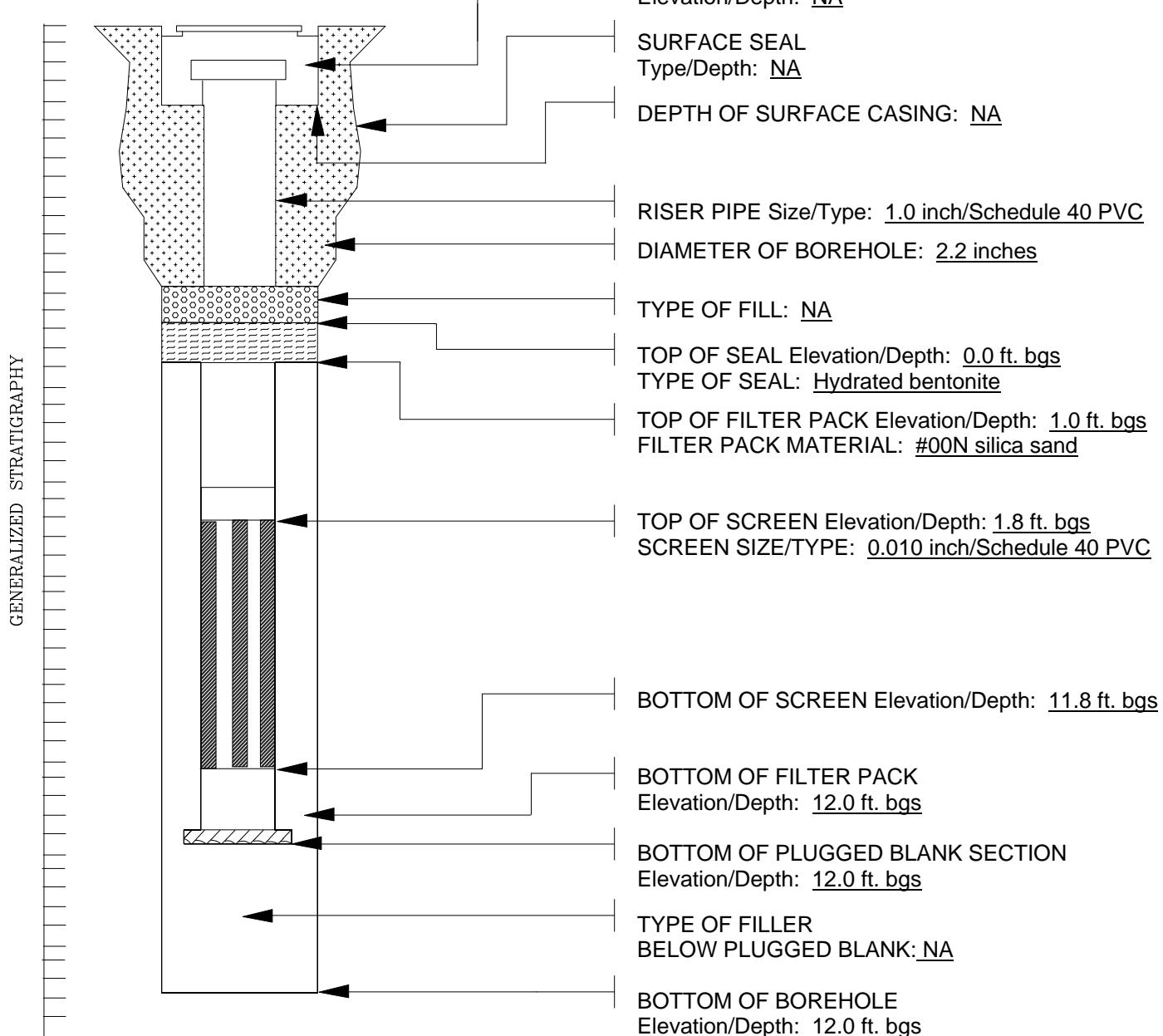
PROJECT No. 17B280.22

CLIENT: Uniland Development Company

WELL No. TPMW9

DATE COMPLETED: 10-24-2017

SUPERVISED BY: BMS



NOTES

GEOPHYSICAL SURVEY



GROUND
PENETRATING
RADAR
SYSTEMS, INC.

EXPERTS IN GPR

Wednesday, October 18, 2017

Lender Consulting Services

Attn: Joe Halleck

Site: 1984 Elmwood Avenue/15,19,35,107,125 Norris Street, and 742 Hertel Avenue, Buffalo, NY

Re: GPR Investigation for Underground Utilities and UST's

We appreciate the opportunity to provide this report for our work completed on 10/10/17.

PURPOSE

The purpose of this project was to search for underground anomalies, including utilities, and UST related items. Our inspection was conducted in three outdoor areas. The first area was on the north end of the parking lot of 19 Norris Avenue. The second area was around the concrete foundations at 125 Norris Avenue. The final spot was on the east side of the building located at 742 Hertel Avenue. These areas have been clearly distinguished in the following site sketches of the findings.

EQUIPMENT

- **Ground Penetrating Radar (GPR), Manufacturer: GSSI, Model: SIR-3000 processing unit with 400 MHz antenna.** GPR works by sending pulses of energy into a material and recording the strength and the time required for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical properties from the material it left. The strength of the reflection is determined by the contrast in signal speed between the two materials. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the conductivity of the materials. For more information, please visit: <http://www.geophysical.com/Documentation/Brochures/GSSI-UtilityScanBrochure.pdf>
- **RD7000 pipe locator, Manufacturer: Radiodetection.** The RD7000 can detect the electromagnetic fields from live power or radio frequency signals. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes, risers, or tracer wires. A tone is sent through the pipe or tracer wire at a specific frequency which can then be detected by the receiver. For more information, please visit: <http://www.spx.com/en/radiodetection/pd-rd7000/>

PROCESS

Our process began with using the RD7000 to locate pipes or utilities throughout the scan areas. We first swept all areas with the receiver to detect live power or radio frequency signals followed by connecting to any visible risers or tracer wires that were in the area provided that there was an exposed metallic surface. Locations and depths were painted or flagged on the surface. Depths cannot always be provided depending on the location method and can be prone to error.

Initial GPR scans were then collected in order to evaluate the data and calibrate the equipment. Based on these findings, a survey strategy is formed, typically consisting of scanning the entire area in a grid with 3'-5' scan spacing in order to locate any potential utilities, UST's, etc. that were not found with RD. The GPR data is interpreted in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above ground features, and utilization of services such as Dig Alert/Underground Service Alert.

At this site, our penetration depths were limited to 2.5'-3' throughout the area. Also, as on all projects, we could not see anomalies closer than, and running parallel to any above ground obstructions (walls, fences, cars). These types of obstructions were an issue at the 742 Hertel Avenue location. The area was in between two fences, the main building, and there was a parked car in the middle of it. These factors made the amount of scans in the area very limited. We did sweep this area with the RD and did not detect any pipes/utilities.

FINDINGS:

19 Norris Avenue: We did not detect any utilities within the area. We did, however, locate an anomaly that was approximately 5'x 3' and had a flat surface beneath the pavement. The surface of the anomaly was flat, which could mean the presence of a UST. The anomaly could also be a concrete structure from a previous building. The depth to the top of the anomaly is approximately 2'.

125 Norris Avenue: We did locate (3) pipes/utilities at this location. One is believed to be a gas line, as it can be traced to the riser entering the building still present on site. The second line is an electrical conduit running to the concrete pads. The third line, which comes from the street, is of an unknown type. No evidence of UST's, or related piping was found at this location.

742 Hertel Avenue: We did not locate any utilities, or evidence of UST's on this site. The parked car took up a large amount of the area needing to be scanned.

The following page will further explain the findings.

CLOSING

Ground Penetrating Radar Systems, Inc. has been in business for over 15 years, specializing in underground storage tank location, concrete scanning, utility locating, as well as shallow void detection throughout the US and Canada. I encourage you to visit our website (www.gp-radar.com) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this GPR Investigation.

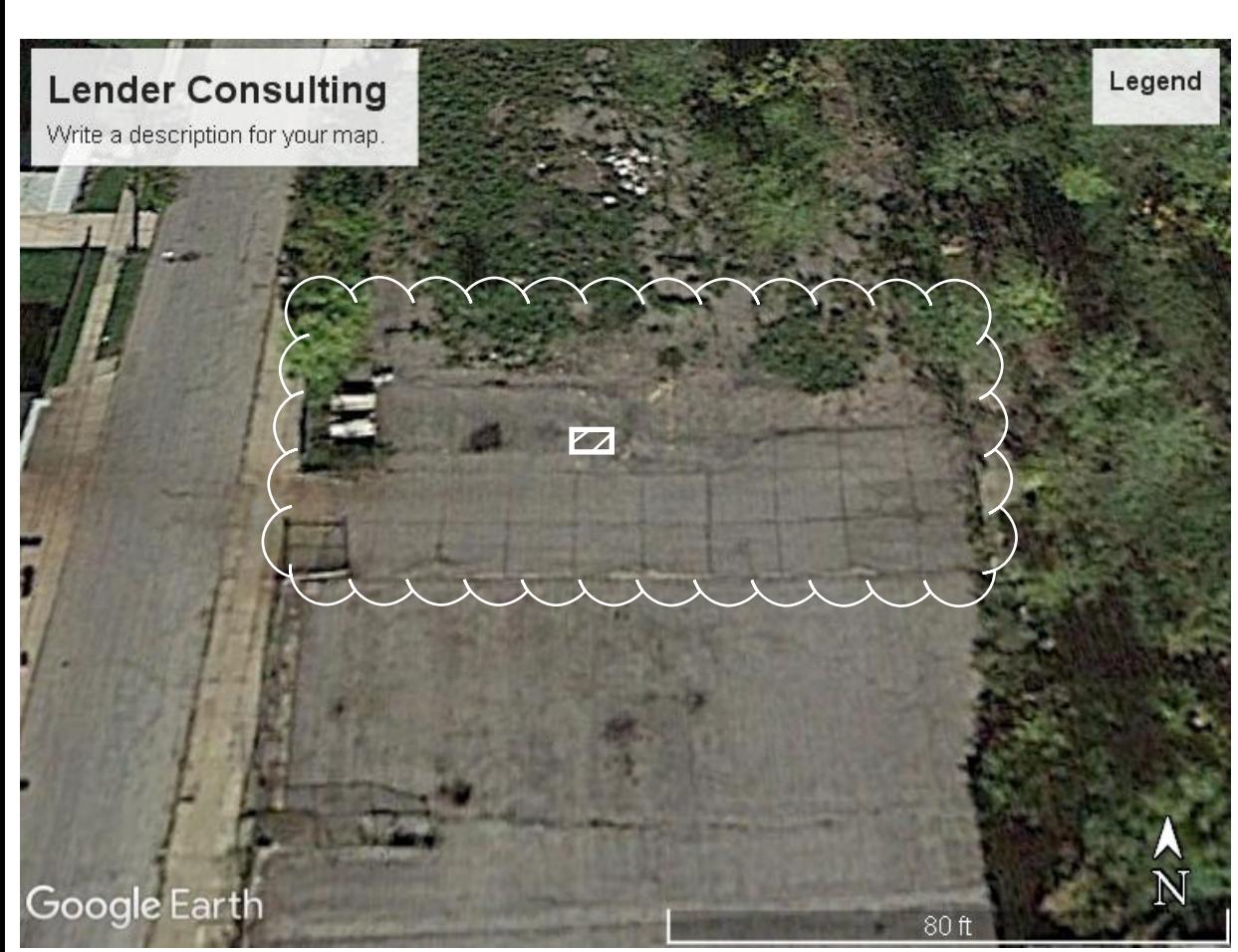
Signed,



Jim Bell
Project Manager- Upstate New York



Direct: 315-715-5137
jim.bell@gp-radar.com
www.gp-radar.com



Site Sketch:

19 Norris Avenue, Buffalo, NY



your map.



Site Sketch:

125 Norris Avenue, Buffalo, NY

GPRS
EXPERTS IN GPR

• Consulting

Description for your map.

Legend



Site Sketch:

742 Hertel Avenue, Buffalo, NY



ANALYTICAL RESULTS

November 06, 2017

Lender Consulting Services - NY

Sample Delivery Group: L947155
Samples Received: 10/28/2017
Project Number: 17B280.22
Description: Hertel 9 Norris

Report To: Mr. Doug Reid
40 La Riviere Dr., Ste. 120
Buffalo, NY 14202

Entire Report Reviewed By:



Alan Harvill

T. Alan Harvill
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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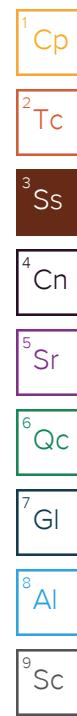
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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



		Collected by Brandon Stau	Collected date/time 10/27/17 00:00	Received date/time 10/28/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036815	1	11/02/17 04:56	11/02/17 04:56	DWR
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1036857	1.43	10/30/17 23:17	11/01/17 16:44	CLG
TPMW2 L947155-02 GW		Collected by Brandon Stau	Collected date/time 10/27/17 00:00	Received date/time 10/28/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1037867	1	11/01/17 22:12	11/03/17 03:43	EL
Metals (ICP) by Method 6010C	WG1038469	1	11/02/17 21:41	11/03/17 04:31	TRB
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/01/17 22:18	LAT
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/02/17 17:01	LAT
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/06/17 12:07	LAT
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037272	1	10/31/17 13:13	10/31/17 13:13	JHH
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038025	1	11/02/17 06:47	11/02/17 19:20	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270 D	WG1037643	1	11/02/17 12:03	11/04/17 11:55	JF
TPMW4 L947155-03 GW		Collected by Brandon Stau	Collected date/time 10/27/17 00:00	Received date/time 10/28/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1037867	1	11/01/17 22:12	11/03/17 03:46	EL
Metals (ICP) by Method 6010C	WG1038469	1	11/02/17 21:41	11/03/17 04:35	TRB
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/01/17 22:21	LAT
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/02/17 17:04	LAT
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/06/17 12:11	LAT
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037272	1	10/31/17 13:30	10/31/17 13:30	JHH
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038025	1	11/02/17 06:47	11/02/17 19:33	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270 D	WG1037643	1	11/02/17 12:03	11/04/17 12:19	JF
TPMW5 L947155-04 GW		Collected by Brandon Stau	Collected date/time 10/27/17 00:00	Received date/time 10/28/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1037867	1	11/01/17 22:12	11/03/17 03:48	EL
Metals (ICP) by Method 6010C	WG1038469	1	11/02/17 21:41	11/03/17 04:39	TRB
Metals (ICP) by Method 6010C	WG1038469	5	11/02/17 21:41	11/03/17 08:19	TRB
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/01/17 18:26	LAT
Metals (ICPMS) by Method 6020A	WG1037291	1	11/01/17 08:32	11/02/17 16:20	LAT
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037272	1	10/31/17 13:47	10/31/17 13:47	JHH
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038025	1	11/02/17 06:47	11/02/17 19:45	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270 D	WG1037643	1	11/02/17 12:03	11/04/17 12:43	JF
TPMW6 L947155-05 GW		Collected by Brandon Stau	Collected date/time 10/27/17 00:00	Received date/time 10/28/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036899	1	10/30/17 00:56	10/30/17 00:56	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036899	1	11/03/17 13:46	11/03/17 13:46	JHH
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1036857	1.18	10/30/17 23:17	11/01/17 17:09	CLG



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



TPMW7 L947155-06 GW

Collected by
Brandon Stau
10/27/17 00:00
Received date/time
10/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010C	WG1037234	1	10/31/17 10:44	10/31/17 17:06	ST
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1036899	1	10/30/17 01:16	10/30/17 01:16	BMB

TPMW8 L947155-07 GW

Collected by
Brandon Stau
10/27/17 00:00
Received date/time
10/28/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 6010C	WG1037234	1	10/31/17 10:44	10/31/17 17:09	ST
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1036899	1	10/30/17 01:36	10/30/17 01:36	BMB

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

T. Alan Harvill
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Acetone	U		10.0	50.0	1	11/02/2017 04:56	WG1036815	¹ Cp
Benzene	U		0.331	1.00	1	11/02/2017 04:56	WG1036815	² Tc
Bromochloromethane	U		0.520	1.00	1	11/02/2017 04:56	WG1036815	³ Ss
Bromodichloromethane	U		0.380	1.00	1	11/02/2017 04:56	WG1036815	⁴ Cn
Bromoform	U		0.469	1.00	1	11/02/2017 04:56	WG1036815	⁵ Sr
Bromomethane	U		0.866	5.00	1	11/02/2017 04:56	WG1036815	⁶ Qc
Carbon disulfide	U		0.275	1.00	1	11/02/2017 04:56	WG1036815	⁷ Gl
Carbon tetrachloride	U		0.379	1.00	1	11/02/2017 04:56	WG1036815	⁸ Al
Chlorobenzene	U		0.348	1.00	1	11/02/2017 04:56	WG1036815	⁹ Sc
Chlorodibromomethane	U		0.327	1.00	1	11/02/2017 04:56	WG1036815	
Chloroethane	U		0.453	5.00	1	11/02/2017 04:56	WG1036815	
Chloroform	U		0.324	5.00	1	11/02/2017 04:56	WG1036815	
Chloromethane	U		0.276	2.50	1	11/02/2017 04:56	WG1036815	
Cyclohexane	U		0.390	1.00	1	11/02/2017 04:56	WG1036815	
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	11/02/2017 04:56	WG1036815	
1,2-Dibromoethane	U		0.381	1.00	1	11/02/2017 04:56	WG1036815	
1,2-Dichlorobenzene	U		0.349	1.00	1	11/02/2017 04:56	WG1036815	
1,3-Dichlorobenzene	U		0.220	1.00	1	11/02/2017 04:56	WG1036815	
1,4-Dichlorobenzene	U		0.274	1.00	1	11/02/2017 04:56	WG1036815	
Dichlorodifluoromethane	U		0.551	5.00	1	11/02/2017 04:56	WG1036815	
1,1-Dichloroethane	U		0.259	1.00	1	11/02/2017 04:56	WG1036815	
1,2-Dichloroethane	U		0.361	1.00	1	11/02/2017 04:56	WG1036815	
1,1-Dichloroethene	U		0.398	1.00	1	11/02/2017 04:56	WG1036815	
cis-1,2-Dichloroethene	U		0.260	1.00	1	11/02/2017 04:56	WG1036815	
trans-1,2-Dichloroethene	U		0.396	1.00	1	11/02/2017 04:56	WG1036815	
1,2-Dichloropropane	U		0.306	1.00	1	11/02/2017 04:56	WG1036815	
cis-1,3-Dichloropropene	U		0.418	1.00	1	11/02/2017 04:56	WG1036815	
trans-1,3-Dichloropropene	U		0.419	1.00	1	11/02/2017 04:56	WG1036815	
Ethylbenzene	U		0.384	1.00	1	11/02/2017 04:56	WG1036815	
2-Hexanone	U		3.82	10.0	1	11/02/2017 04:56	WG1036815	
Isopropylbenzene	U		0.326	1.00	1	11/02/2017 04:56	WG1036815	
2-Butanone (MEK)	U		3.93	10.0	1	11/02/2017 04:56	WG1036815	
Methyl Acetate	U		4.30	20.0	1	11/02/2017 04:56	WG1036815	
Methyl Cyclohexane	U		0.380	1.00	1	11/02/2017 04:56	WG1036815	
Methylene Chloride	U		1.00	5.00	1	11/02/2017 04:56	WG1036815	
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	11/02/2017 04:56	WG1036815	
Methyl tert-butyl ether	U		0.367	1.00	1	11/02/2017 04:56	WG1036815	
Naphthalene	U		1.00	5.00	1	11/02/2017 04:56	WG1036815	
Styrene	U		0.307	1.00	1	11/02/2017 04:56	WG1036815	
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	11/02/2017 04:56	WG1036815	
Tetrachloroethene	U		0.372	1.00	1	11/02/2017 04:56	WG1036815	
Toluene	U		0.412	1.00	1	11/02/2017 04:56	WG1036815	
1,2,3-Trichlorobenzene	U		0.230	1.00	1	11/02/2017 04:56	WG1036815	
1,2,4-Trichlorobenzene	U		0.355	1.00	1	11/02/2017 04:56	WG1036815	
1,1,1-Trichloroethane	U		0.319	1.00	1	11/02/2017 04:56	WG1036815	
1,1,2-Trichloroethane	U		0.383	1.00	1	11/02/2017 04:56	WG1036815	
Trichloroethene	U		0.398	1.00	1	11/02/2017 04:56	WG1036815	
Trichlorofluoromethane	U		1.20	5.00	1	11/02/2017 04:56	WG1036815	
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	11/02/2017 04:56	WG1036815	
Vinyl chloride	U		0.259	1.00	1	11/02/2017 04:56	WG1036815	
o-Xylene	U		0.341	1.00	1	11/02/2017 04:56	WG1036815	
m&p-Xylenes	U		0.719	2.00	1	11/02/2017 04:56	WG1036815	
n-Butylbenzene	U		0.361	1.00	1	11/02/2017 04:56	WG1036815	
sec-Butylbenzene	U		0.365	1.00	1	11/02/2017 04:56	WG1036815	
tert-Butylbenzene	U		0.399	1.00	1	11/02/2017 04:56	WG1036815	
1,2,4-Trimethylbenzene	U		0.373	1.00	1	11/02/2017 04:56	WG1036815	



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	U		0.387	1.00	1	11/02/2017 04:56	WG1036815
n-Propylbenzene	U		0.349	1.00	1	11/02/2017 04:56	WG1036815
p-Isopropyltoluene	U		0.350	1.00	1	11/02/2017 04:56	WG1036815
(S) Toluene-d8	106			80.0-120		11/02/2017 04:56	WG1036815
(S) Dibromofluoromethane	100			76.0-123		11/02/2017 04:56	WG1036815
(S) a,a,a-Trifluorotoluene	100			80.0-120		11/02/2017 04:56	WG1036815
(S) 4-Bromofluorobenzene	93.3			80.0-120		11/02/2017 04:56	WG1036815

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.416	1.43	1.43	11/01/2017 16:44	WG1036857
Acenaphthylene	U		0.442	1.43	1.43	11/01/2017 16:44	WG1036857
Acenaphthene	U		0.452	1.43	1.43	11/01/2017 16:44	WG1036857
Benzo(a)anthracene	U		0.139	1.43	1.43	11/01/2017 16:44	WG1036857
Benzo(a)pyrene	U		0.486	1.43	1.43	11/01/2017 16:44	WG1036857
Benzo(b)fluoranthene	0.130	J	0.128	1.43	1.43	11/01/2017 16:44	WG1036857
Benzo(g,h,i)perylene	U	J3	0.230	1.43	1.43	11/01/2017 16:44	WG1036857
Benzo(k)fluoranthene	U		0.508	1.43	1.43	11/01/2017 16:44	WG1036857
Chrysene	U		0.475	1.43	1.43	11/01/2017 16:44	WG1036857
Dibenz(a,h)anthracene	U		0.399	1.43	1.43	11/01/2017 16:44	WG1036857
Fluoranthene	U		0.443	1.43	1.43	11/01/2017 16:44	WG1036857
Fluorene	U		0.462	1.43	1.43	11/01/2017 16:44	WG1036857
Indeno[1,2,3-cd]pyrene	U		0.399	1.43	1.43	11/01/2017 16:44	WG1036857
Naphthalene	0.0782	J	0.0425	1.43	1.43	11/01/2017 16:44	WG1036857
Phenanthrene	U		0.523	1.43	1.43	11/01/2017 16:44	WG1036857
Pyrene	U		0.472	1.43	1.43	11/01/2017 16:44	WG1036857
(S) Nitrobenzene-d5	71.8			10.0-147		11/01/2017 16:44	WG1036857
(S) 2-Fluorobiphenyl	82.7			15.0-137		11/01/2017 16:44	WG1036857
(S) p-Terphenyl-d14	76.9			12.0-126		11/01/2017 16:44	WG1036857

Sample Narrative:

L947155-01 WG1036857: Dilution due to sample volume



Mercury by Method 7470A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Mercury,Dissolved	U		0.0490	0.200	1	11/03/2017 03:43	WG1037867

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Aluminum,Dissolved	U		35.0	200	1	11/03/2017 04:31	WG1038469
Arsenic,Dissolved	U		6.50	10.0	1	11/03/2017 04:31	WG1038469
Barium,Dissolved	45.7		1.70	5.00	1	11/03/2017 04:31	WG1038469
Beryllium,Dissolved	U		0.700	2.00	1	11/03/2017 04:31	WG1038469
Cadmium,Dissolved	U		0.700	2.00	1	11/03/2017 04:31	WG1038469
Calcium,Dissolved	133000		46.3	1000	1	11/03/2017 04:31	WG1038469
Chromium,Dissolved	1.59	<u>B J</u>	1.40	10.0	1	11/03/2017 04:31	WG1038469
Cobalt,Dissolved	U		2.30	10.0	1	11/03/2017 04:31	WG1038469
Copper,Dissolved	5.56	<u>J</u>	5.30	10.0	1	11/03/2017 04:31	WG1038469
Iron,Dissolved	U		14.1	100	1	11/03/2017 04:31	WG1038469
Magnesium,Dissolved	281000		11.1	1000	1	11/03/2017 04:31	WG1038469
Manganese,Dissolved	145		1.20	10.0	1	11/03/2017 04:31	WG1038469
Nickel,Dissolved	7.87	<u>J</u>	4.90	10.0	1	11/03/2017 04:31	WG1038469
Potassium,Dissolved	13900		102	1000	1	11/03/2017 04:31	WG1038469
Silver,Dissolved	U		2.80	5.00	1	11/03/2017 04:31	WG1038469
Sodium,Dissolved	124000		98.5	1000	1	11/03/2017 04:31	WG1038469
Vanadium,Dissolved	3.35	<u>B J</u>	2.40	20.0	1	11/03/2017 04:31	WG1038469
Zinc,Dissolved	8.81	<u>J</u>	5.90	50.0	1	11/03/2017 04:31	WG1038469

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICPMS) by Method 6020A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Antimony,Dissolved	0.773	<u>J</u>	0.754	2.00	1	11/02/2017 17:01	WG1037291
Lead,Dissolved	U		0.240	2.00	1	11/06/2017 12:07	WG1037291
Selenium,Dissolved	1.34	<u>J</u>	0.380	2.00	1	11/01/2017 22:18	WG1037291
Thallium,Dissolved	U		0.190	2.00	1	11/06/2017 12:07	WG1037291

Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		10.0	50.0	1	10/31/2017 13:13	WG1037272
Benzene	U		0.331	1.00	1	10/31/2017 13:13	WG1037272
Bromochloromethane	U		0.520	1.00	1	10/31/2017 13:13	WG1037272
Bromodichloromethane	U		0.380	1.00	1	10/31/2017 13:13	WG1037272
Bromoform	U		0.469	1.00	1	10/31/2017 13:13	WG1037272
Bromomethane	U		0.866	5.00	1	10/31/2017 13:13	WG1037272
Carbon disulfide	U		0.275	1.00	1	10/31/2017 13:13	WG1037272
Carbon tetrachloride	U		0.379	1.00	1	10/31/2017 13:13	WG1037272
Chlorobenzene	U		0.348	1.00	1	10/31/2017 13:13	WG1037272
Chlorodibromomethane	U		0.327	1.00	1	10/31/2017 13:13	WG1037272
Chloroethane	U		0.453	5.00	1	10/31/2017 13:13	WG1037272
Chloroform	U		0.324	5.00	1	10/31/2017 13:13	WG1037272
Chloromethane	U		0.276	2.50	1	10/31/2017 13:13	WG1037272
Cyclohexane	U		0.390	1.00	1	10/31/2017 13:13	WG1037272
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/31/2017 13:13	WG1037272
1,2-Dibromoethane	U		0.381	1.00	1	10/31/2017 13:13	WG1037272
1,2-Dichlorobenzene	U		0.349	1.00	1	10/31/2017 13:13	WG1037272
1,3-Dichlorobenzene	U		0.220	1.00	1	10/31/2017 13:13	WG1037272
1,4-Dichlorobenzene	U		0.274	1.00	1	10/31/2017 13:13	WG1037272

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.551	5.00	1	10/31/2017 13:13	WG1037272
1,1-Dichloroethane	U		0.259	1.00	1	10/31/2017 13:13	WG1037272
1,2-Dichloroethane	U		0.361	1.00	1	10/31/2017 13:13	WG1037272
1,1-Dichloroethene	U		0.398	1.00	1	10/31/2017 13:13	WG1037272
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/31/2017 13:13	WG1037272
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/31/2017 13:13	WG1037272
1,2-Dichloropropane	U		0.306	1.00	1	10/31/2017 13:13	WG1037272
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/31/2017 13:13	WG1037272
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/31/2017 13:13	WG1037272
Ethylbenzene	U		0.384	1.00	1	10/31/2017 13:13	WG1037272
2-Hexanone	U		3.82	10.0	1	10/31/2017 13:13	WG1037272
Isopropylbenzene	U		0.326	1.00	1	10/31/2017 13:13	WG1037272
2-Butanone (MEK)	U		3.93	10.0	1	10/31/2017 13:13	WG1037272
Methyl Acetate	U		4.30	20.0	1	10/31/2017 13:13	WG1037272
Methyl Cyclohexane	U		0.380	1.00	1	10/31/2017 13:13	WG1037272
Methylene Chloride	U		1.00	5.00	1	10/31/2017 13:13	WG1037272
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/31/2017 13:13	WG1037272
Methyl tert-butyl ether	U		0.367	1.00	1	10/31/2017 13:13	WG1037272
Naphthalene	U		1.00	5.00	1	10/31/2017 13:13	WG1037272
Styrene	U		0.307	1.00	1	10/31/2017 13:13	WG1037272
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/31/2017 13:13	WG1037272
Tetrachloroethene	U		0.372	1.00	1	10/31/2017 13:13	WG1037272
Toluene	U		0.412	1.00	1	10/31/2017 13:13	WG1037272
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/31/2017 13:13	WG1037272
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/31/2017 13:13	WG1037272
1,1,1-Trichloroethane	U		0.319	1.00	1	10/31/2017 13:13	WG1037272
1,1,2-Trichloroethane	U		0.383	1.00	1	10/31/2017 13:13	WG1037272
Trichloroethene	U		0.398	1.00	1	10/31/2017 13:13	WG1037272
Trichlorofluoromethane	U		1.20	5.00	1	10/31/2017 13:13	WG1037272
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/31/2017 13:13	WG1037272
Vinyl chloride	U		0.259	1.00	1	10/31/2017 13:13	WG1037272
o-Xylene	U		0.341	1.00	1	10/31/2017 13:13	WG1037272
m&p-Xylenes	U		0.719	2.00	1	10/31/2017 13:13	WG1037272
n-Butylbenzene	U		0.361	1.00	1	10/31/2017 13:13	WG1037272
sec-Butylbenzene	U		0.365	1.00	1	10/31/2017 13:13	WG1037272
tert-Butylbenzene	U		0.399	1.00	1	10/31/2017 13:13	WG1037272
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/31/2017 13:13	WG1037272
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/31/2017 13:13	WG1037272
n-Propylbenzene	U		0.349	1.00	1	10/31/2017 13:13	WG1037272
p-Isopropyltoluene	U		0.350	1.00	1	10/31/2017 13:13	WG1037272
(S) Toluene-d8	108			80.0-120		10/31/2017 13:13	WG1037272
(S) Dibromofluoromethane	90.9			76.0-123		10/31/2017 13:13	WG1037272
(S) a,a,a-Trifluorotoluene	106			80.0-120		10/31/2017 13:13	WG1037272
(S) 4-Bromofluorobenzene	103			80.0-120		10/31/2017 13:13	WG1037272



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
PCB 1016	U		0.100	0.500	1	11/02/2017 19:20	WG1038025
PCB 1221	U		0.0730	0.500	1	11/02/2017 19:20	WG1038025
PCB 1232	U		0.0420	0.500	1	11/02/2017 19:20	WG1038025
PCB 1242	U		0.0470	0.500	1	11/02/2017 19:20	WG1038025
PCB 1248	U		0.0860	0.500	1	11/02/2017 19:20	WG1038025
PCB 1254	U		0.0470	0.500	1	11/02/2017 19:20	WG1038025
PCB 1260	U		0.120	0.500	1	11/02/2017 19:20	WG1038025
(S) Decachlorobiphenyl	43.8			10.0-144		11/02/2017 19:20	WG1038025



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Tetrachloro-m-xylene	55.2			10.0-135		11/02/2017 19:20	WG1038025

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.316	1.00	1	11/04/2017 11:55	WG1037643
Acenaphthylene	U		0.309	1.00	1	11/04/2017 11:55	WG1037643
Acetophenone	U		2.71	10.0	1	11/04/2017 11:55	WG1037643
Anthracene	U		0.291	1.00	1	11/04/2017 11:55	WG1037643
Atrazine	U		0.260	10.0	1	11/04/2017 11:55	WG1037643
Benzaldehyde	U	<u>J4</u>	1.40	10.0	1	11/04/2017 11:55	WG1037643
Benzo(a)anthracene	U		0.0975	1.00	1	11/04/2017 11:55	WG1037643
Benzo(b)fluoranthene	U		0.0896	1.00	1	11/04/2017 11:55	WG1037643
Benzo(k)fluoranthene	U		0.355	1.00	1	11/04/2017 11:55	WG1037643
Benzo(g,h,i)perylene	U		0.161	1.00	1	11/04/2017 11:55	WG1037643
Benzo(a)pyrene	U		0.340	1.00	1	11/04/2017 11:55	WG1037643
Biphenyl	U		0.325	10.0	1	11/04/2017 11:55	WG1037643
Bis(2-chlorethoxy)methane	U		0.329	10.0	1	11/04/2017 11:55	WG1037643
Bis(2-chloroethyl)ether	U		1.62	10.0	1	11/04/2017 11:55	WG1037643
Bis(2-chloroisopropyl)ether	U		0.445	10.0	1	11/04/2017 11:55	WG1037643
4-Bromophenyl-phenylether	U		0.335	10.0	1	11/04/2017 11:55	WG1037643
Caprolactam	U		2.59	10.0	1	11/04/2017 11:55	WG1037643
Carbazole	U		0.260	10.0	1	11/04/2017 11:55	WG1037643
4-Chloroaniline	U		0.382	10.0	1	11/04/2017 11:55	WG1037643
2-Chloronaphthalene	U		0.330	1.00	1	11/04/2017 11:55	WG1037643
4-Chlorophenyl-phenylether	U		0.303	10.0	1	11/04/2017 11:55	WG1037643
Chrysene	U		0.332	1.00	1	11/04/2017 11:55	WG1037643
Dibenz(a,h)anthracene	U		0.279	1.00	1	11/04/2017 11:55	WG1037643
Dibenzofuran	U		0.338	10.0	1	11/04/2017 11:55	WG1037643
3,3-Dichlorobenzidine	U		2.02	10.0	1	11/04/2017 11:55	WG1037643
2,4-Dinitrotoluene	U		1.65	10.0	1	11/04/2017 11:55	WG1037643
2,6-Dinitrotoluene	U		0.279	10.0	1	11/04/2017 11:55	WG1037643
Fluoranthene	U		0.310	1.00	1	11/04/2017 11:55	WG1037643
Fluorene	U		0.323	1.00	1	11/04/2017 11:55	WG1037643
Hexachlorobenzene	U		0.341	1.00	1	11/04/2017 11:55	WG1037643
Hexachloro-1,3-butadiene	U		0.329	10.0	1	11/04/2017 11:55	WG1037643
Hexachlorocyclopentadiene	U		2.33	10.0	1	11/04/2017 11:55	WG1037643
Hexachloroethane	U		0.365	10.0	1	11/04/2017 11:55	WG1037643
Indeno(1,2,3-cd)pyrene	U		0.279	1.00	1	11/04/2017 11:55	WG1037643
Isophorone	U		0.272	10.0	1	11/04/2017 11:55	WG1037643
2-Methylnaphthalene	U		0.311	1.00	1	11/04/2017 11:55	WG1037643
Naphthalene	U		0.372	1.00	1	11/04/2017 11:55	WG1037643
2-Nitroaniline	U		1.90	10.0	1	11/04/2017 11:55	WG1037643
3-Nitroaniline	U		0.308	10.0	1	11/04/2017 11:55	WG1037643
4-Nitroaniline	U		0.349	10.0	1	11/04/2017 11:55	WG1037643
Nitrobenzene	U		0.367	10.0	1	11/04/2017 11:55	WG1037643
n-Nitrosodiphenylamine	U		0.304	10.0	1	11/04/2017 11:55	WG1037643
n-Nitrosodi-n-propylamine	U		0.403	10.0	1	11/04/2017 11:55	WG1037643
Phenanthrene	U		0.366	1.00	1	11/04/2017 11:55	WG1037643
Benzylbutyl phthalate	0.925	<u>J</u>	0.275	3.00	1	11/04/2017 11:55	WG1037643
Bis(2-ethylhexyl)phthalate	2.11	<u>B J</u>	0.709	3.00	1	11/04/2017 11:55	WG1037643
Di-n-butyl phthalate	0.511	<u>J</u>	0.266	3.00	1	11/04/2017 11:55	WG1037643
Diethyl phthalate	1.70	<u>J</u>	0.282	3.00	1	11/04/2017 11:55	WG1037643
Dimethyl phthalate	U		0.283	3.00	1	11/04/2017 11:55	WG1037643
Di-n-octyl phthalate	U		0.278	1.00	1	11/04/2017 11:55	WG1037643
Pyrene	U		0.330	1.00	1	11/04/2017 11:55	WG1037643



Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0	1	11/04/2017 11:55	WG1037643	¹ Cp
4-Chloro-3-methylphenol	U		0.263	10.0	1	11/04/2017 11:55	WG1037643	² Tc
2-Chlorophenol	U		0.283	10.0	1	11/04/2017 11:55	WG1037643	³ Ss
2-Methylphenol	U		0.312	10.0	1	11/04/2017 11:55	WG1037643	⁴ Cn
3&4-Methyl Phenol	U		0.266	10.0	1	11/04/2017 11:55	WG1037643	⁵ Sr
2,4-Dichlorophenol	U		0.284	10.0	1	11/04/2017 11:55	WG1037643	⁶ Qc
2,4-Dimethylphenol	U		0.624	10.0	1	11/04/2017 11:55	WG1037643	⁷ Gl
4,6-Dinitro-2-methylphenol	U		2.62	10.0	1	11/04/2017 11:55	WG1037643	⁸ Al
2,4-Dinitrophenol	U		3.25	10.0	1	11/04/2017 11:55	WG1037643	
2-Nitrophenol	U		0.320	10.0	1	11/04/2017 11:55	WG1037643	
4-Nitrophenol	U		2.01	10.0	1	11/04/2017 11:55	WG1037643	
Pentachlorophenol	U		0.313	10.0	1	11/04/2017 11:55	WG1037643	
Phenol	U		0.334	10.0	1	11/04/2017 11:55	WG1037643	
2,4,5-Trichlorophenol	U		0.236	10.0	1	11/04/2017 11:55	WG1037643	
2,4,6-Trichlorophenol	U		0.297	10.0	1	11/04/2017 11:55	WG1037643	
(S) 2-Fluorophenol	59.5			10.0-120		11/04/2017 11:55	WG1037643	
(S) Phenol-d5	46.1			10.0-120		11/04/2017 11:55	WG1037643	
(S) Nitrobenzene-d5	105			10.0-126		11/04/2017 11:55	WG1037643	
(S) 2-Fluorobiphenyl	88.4			22.0-127		11/04/2017 11:55	WG1037643	
(S) 2,4,6-Tribromophenol	141			10.0-153		11/04/2017 11:55	WG1037643	
(S) p-Terphenyl-d14	76.3			29.0-141		11/04/2017 11:55	WG1037643	⁹ Sc



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0490	0.200	1	11/03/2017 03:46	WG1037867

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	U		35.0	200	1	11/03/2017 04:35	WG1038469
Arsenic,Dissolved	U		6.50	10.0	1	11/03/2017 04:35	WG1038469
Barium,Dissolved	62.3		1.70	5.00	1	11/03/2017 04:35	WG1038469
Beryllium,Dissolved	U		0.700	2.00	1	11/03/2017 04:35	WG1038469
Cadmium,Dissolved	U		0.700	2.00	1	11/03/2017 04:35	WG1038469
Calcium,Dissolved	119000		46.3	1000	1	11/03/2017 04:35	WG1038469
Chromium,Dissolved	1.88	<u>B J</u>	1.40	10.0	1	11/03/2017 04:35	WG1038469
Cobalt,Dissolved	U		2.30	10.0	1	11/03/2017 04:35	WG1038469
Copper,Dissolved	5.55	<u>J</u>	5.30	10.0	1	11/03/2017 04:35	WG1038469
Iron,Dissolved	U		14.1	100	1	11/03/2017 04:35	WG1038469
Magnesium,Dissolved	251000		11.1	1000	1	11/03/2017 04:35	WG1038469
Manganese,Dissolved	133		1.20	10.0	1	11/03/2017 04:35	WG1038469
Nickel,Dissolved	5.74	<u>J</u>	4.90	10.0	1	11/03/2017 04:35	WG1038469
Potassium,Dissolved	13600		102	1000	1	11/03/2017 04:35	WG1038469
Silver,Dissolved	U		2.80	5.00	1	11/03/2017 04:35	WG1038469
Sodium,Dissolved	119000		98.5	1000	1	11/03/2017 04:35	WG1038469
Vanadium,Dissolved	4.37	<u>B J</u>	2.40	20.0	1	11/03/2017 04:35	WG1038469
Zinc,Dissolved	12.1	<u>J</u>	5.90	50.0	1	11/03/2017 04:35	WG1038469

⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICPMS) by Method 6020A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Antimony,Dissolved	U		0.754	2.00	1	11/02/2017 17:04	WG1037291
Lead,Dissolved	0.259	<u>J</u>	0.240	2.00	1	11/06/2017 12:11	WG1037291
Selenium,Dissolved	1.37	<u>J</u>	0.380	2.00	1	11/01/2017 22:21	WG1037291
Thallium,Dissolved	U		0.190	2.00	1	11/06/2017 12:11	WG1037291

Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	10/31/2017 13:30	WG1037272
Benzene	U		0.331	1.00	1	10/31/2017 13:30	WG1037272
Bromochloromethane	U		0.520	1.00	1	10/31/2017 13:30	WG1037272
Bromodichloromethane	U		0.380	1.00	1	10/31/2017 13:30	WG1037272
Bromoform	U		0.469	1.00	1	10/31/2017 13:30	WG1037272
Bromomethane	U		0.866	5.00	1	10/31/2017 13:30	WG1037272
Carbon disulfide	U		0.275	1.00	1	10/31/2017 13:30	WG1037272
Carbon tetrachloride	U		0.379	1.00	1	10/31/2017 13:30	WG1037272
Chlorobenzene	U		0.348	1.00	1	10/31/2017 13:30	WG1037272
Chlorodibromomethane	U		0.327	1.00	1	10/31/2017 13:30	WG1037272
Chloroethane	U		0.453	5.00	1	10/31/2017 13:30	WG1037272
Chloroform	U		0.324	5.00	1	10/31/2017 13:30	WG1037272
Chloromethane	U		0.276	2.50	1	10/31/2017 13:30	WG1037272
Cyclohexane	U		0.390	1.00	1	10/31/2017 13:30	WG1037272
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/31/2017 13:30	WG1037272
1,2-Dibromoethane	U		0.381	1.00	1	10/31/2017 13:30	WG1037272
1,2-Dichlorobenzene	U		0.349	1.00	1	10/31/2017 13:30	WG1037272
1,3-Dichlorobenzene	U		0.220	1.00	1	10/31/2017 13:30	WG1037272
1,4-Dichlorobenzene	U		0.274	1.00	1	10/31/2017 13:30	WG1037272

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.551	5.00	1	10/31/2017 13:30	WG1037272
1,1-Dichloroethane	U		0.259	1.00	1	10/31/2017 13:30	WG1037272
1,2-Dichloroethane	U		0.361	1.00	1	10/31/2017 13:30	WG1037272
1,1-Dichloroethene	U		0.398	1.00	1	10/31/2017 13:30	WG1037272
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/31/2017 13:30	WG1037272
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/31/2017 13:30	WG1037272
1,2-Dichloropropane	U		0.306	1.00	1	10/31/2017 13:30	WG1037272
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/31/2017 13:30	WG1037272
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/31/2017 13:30	WG1037272
Ethylbenzene	U		0.384	1.00	1	10/31/2017 13:30	WG1037272
2-Hexanone	U		3.82	10.0	1	10/31/2017 13:30	WG1037272
Isopropylbenzene	U		0.326	1.00	1	10/31/2017 13:30	WG1037272
2-Butanone (MEK)	U		3.93	10.0	1	10/31/2017 13:30	WG1037272
Methyl Acetate	U		4.30	20.0	1	10/31/2017 13:30	WG1037272
Methyl Cyclohexane	U		0.380	1.00	1	10/31/2017 13:30	WG1037272
Methylene Chloride	U		1.00	5.00	1	10/31/2017 13:30	WG1037272
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/31/2017 13:30	WG1037272
Methyl tert-butyl ether	U		0.367	1.00	1	10/31/2017 13:30	WG1037272
Naphthalene	U		1.00	5.00	1	10/31/2017 13:30	WG1037272
Styrene	U		0.307	1.00	1	10/31/2017 13:30	WG1037272
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/31/2017 13:30	WG1037272
Tetrachloroethene	U		0.372	1.00	1	10/31/2017 13:30	WG1037272
Toluene	U		0.412	1.00	1	10/31/2017 13:30	WG1037272
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/31/2017 13:30	WG1037272
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/31/2017 13:30	WG1037272
1,1,1-Trichloroethane	U		0.319	1.00	1	10/31/2017 13:30	WG1037272
1,1,2-Trichloroethane	U		0.383	1.00	1	10/31/2017 13:30	WG1037272
Trichloroethene	U		0.398	1.00	1	10/31/2017 13:30	WG1037272
Trichlorofluoromethane	U		1.20	5.00	1	10/31/2017 13:30	WG1037272
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/31/2017 13:30	WG1037272
Vinyl chloride	U		0.259	1.00	1	10/31/2017 13:30	WG1037272
o-Xylene	U		0.341	1.00	1	10/31/2017 13:30	WG1037272
m&p-Xylenes	U		0.719	2.00	1	10/31/2017 13:30	WG1037272
n-Butylbenzene	U		0.361	1.00	1	10/31/2017 13:30	WG1037272
sec-Butylbenzene	U		0.365	1.00	1	10/31/2017 13:30	WG1037272
tert-Butylbenzene	U		0.399	1.00	1	10/31/2017 13:30	WG1037272
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/31/2017 13:30	WG1037272
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/31/2017 13:30	WG1037272
n-Propylbenzene	U		0.349	1.00	1	10/31/2017 13:30	WG1037272
p-Isopropyltoluene	U		0.350	1.00	1	10/31/2017 13:30	WG1037272
(S) Toluene-d8	106			80.0-120		10/31/2017 13:30	WG1037272
(S) Dibromofluoromethane	92.4			76.0-123		10/31/2017 13:30	WG1037272
(S) a,a,a-Trifluorotoluene	103			80.0-120		10/31/2017 13:30	WG1037272
(S) 4-Bromofluorobenzene	105			80.0-120		10/31/2017 13:30	WG1037272

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ Al
- ⁹ Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
PCB 1016	U		0.100	0.500	1	11/02/2017 19:33	WG1038025
PCB 1221	U		0.0730	0.500	1	11/02/2017 19:33	WG1038025
PCB 1232	U		0.0420	0.500	1	11/02/2017 19:33	WG1038025
PCB 1242	U		0.0470	0.500	1	11/02/2017 19:33	WG1038025
PCB 1248	U		0.0860	0.500	1	11/02/2017 19:33	WG1038025
PCB 1254	U		0.0470	0.500	1	11/02/2017 19:33	WG1038025
PCB 1260	U		0.120	0.500	1	11/02/2017 19:33	WG1038025
(S) Decachlorobiphenyl	65.2			10.0-144		11/02/2017 19:33	WG1038025



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Tetrachloro-m-xylene	44.7			10.0-135		11/02/2017 19:33	WG1038025

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.316	1.00	1	11/04/2017 12:19	WG1037643
Acenaphthylene	U		0.309	1.00	1	11/04/2017 12:19	WG1037643
Acetophenone	U		2.71	10.0	1	11/04/2017 12:19	WG1037643
Anthracene	U		0.291	1.00	1	11/04/2017 12:19	WG1037643
Atrazine	U		0.260	10.0	1	11/04/2017 12:19	WG1037643
Benzaldehyde	U	<u>J4</u>	1.40	10.0	1	11/04/2017 12:19	WG1037643
Benzo(a)anthracene	U		0.0975	1.00	1	11/04/2017 12:19	WG1037643
Benzo(b)fluoranthene	U		0.0896	1.00	1	11/04/2017 12:19	WG1037643
Benzo(k)fluoranthene	U		0.355	1.00	1	11/04/2017 12:19	WG1037643
Benzo(g,h,i)perylene	U		0.161	1.00	1	11/04/2017 12:19	WG1037643
Benzo(a)pyrene	U		0.340	1.00	1	11/04/2017 12:19	WG1037643
Biphenyl	U		0.325	10.0	1	11/04/2017 12:19	WG1037643
Bis(2-chlorethoxy)methane	U		0.329	10.0	1	11/04/2017 12:19	WG1037643
Bis(2-chloroethyl)ether	U		1.62	10.0	1	11/04/2017 12:19	WG1037643
Bis(2-chloroisopropyl)ether	U		0.445	10.0	1	11/04/2017 12:19	WG1037643
4-Bromophenyl-phenylether	U		0.335	10.0	1	11/04/2017 12:19	WG1037643
Caprolactam	U		2.59	10.0	1	11/04/2017 12:19	WG1037643
Carbazole	U		0.260	10.0	1	11/04/2017 12:19	WG1037643
4-Chloroaniline	U		0.382	10.0	1	11/04/2017 12:19	WG1037643
2-Chloronaphthalene	U		0.330	1.00	1	11/04/2017 12:19	WG1037643
4-Chlorophenyl-phenylether	U		0.303	10.0	1	11/04/2017 12:19	WG1037643
Chrysene	U		0.332	1.00	1	11/04/2017 12:19	WG1037643
Dibenz(a,h)anthracene	U		0.279	1.00	1	11/04/2017 12:19	WG1037643
Dibenzofuran	U		0.338	10.0	1	11/04/2017 12:19	WG1037643
3,3-Dichlorobenzidine	U		2.02	10.0	1	11/04/2017 12:19	WG1037643
2,4-Dinitrotoluene	U		1.65	10.0	1	11/04/2017 12:19	WG1037643
2,6-Dinitrotoluene	U		0.279	10.0	1	11/04/2017 12:19	WG1037643
Fluoranthene	U		0.310	1.00	1	11/04/2017 12:19	WG1037643
Fluorene	U		0.323	1.00	1	11/04/2017 12:19	WG1037643
Hexachlorobenzene	U		0.341	1.00	1	11/04/2017 12:19	WG1037643
Hexachloro-1,3-butadiene	U		0.329	10.0	1	11/04/2017 12:19	WG1037643
Hexachlorocyclopentadiene	U		2.33	10.0	1	11/04/2017 12:19	WG1037643
Hexachloroethane	U		0.365	10.0	1	11/04/2017 12:19	WG1037643
Indeno(1,2,3-cd)pyrene	U		0.279	1.00	1	11/04/2017 12:19	WG1037643
Isophorone	U		0.272	10.0	1	11/04/2017 12:19	WG1037643
2-Methylnaphthalene	U		0.311	1.00	1	11/04/2017 12:19	WG1037643
Naphthalene	U		0.372	1.00	1	11/04/2017 12:19	WG1037643
2-Nitroaniline	U		1.90	10.0	1	11/04/2017 12:19	WG1037643
3-Nitroaniline	U		0.308	10.0	1	11/04/2017 12:19	WG1037643
4-Nitroaniline	U		0.349	10.0	1	11/04/2017 12:19	WG1037643
Nitrobenzene	U		0.367	10.0	1	11/04/2017 12:19	WG1037643
n-Nitrosodiphenylamine	U		0.304	10.0	1	11/04/2017 12:19	WG1037643
n-Nitrosodi-n-propylamine	U		0.403	10.0	1	11/04/2017 12:19	WG1037643
Phenanthrene	U		0.366	1.00	1	11/04/2017 12:19	WG1037643
Benzylbutyl phthalate	U		0.275	3.00	1	11/04/2017 12:19	WG1037643
Bis(2-ethylhexyl)phthalate	2.18	<u>B_J</u>	0.709	3.00	1	11/04/2017 12:19	WG1037643
Di-n-butyl phthalate	0.830	<u>J</u>	0.266	3.00	1	11/04/2017 12:19	WG1037643
Diethyl phthalate	U		0.282	3.00	1	11/04/2017 12:19	WG1037643
Dimethyl phthalate	U		0.283	3.00	1	11/04/2017 12:19	WG1037643
Di-n-octyl phthalate	U		0.278	1.00	1	11/04/2017 12:19	WG1037643
Pyrene	U		0.330	1.00	1	11/04/2017 12:19	WG1037643



Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0	1	11/04/2017 12:19	WG1037643	¹ Cp
4-Chloro-3-methylphenol	U		0.263	10.0	1	11/04/2017 12:19	WG1037643	² Tc
2-Chlorophenol	U		0.283	10.0	1	11/04/2017 12:19	WG1037643	³ Ss
2-Methylphenol	U		0.312	10.0	1	11/04/2017 12:19	WG1037643	⁴ Cn
3&4-Methyl Phenol	U		0.266	10.0	1	11/04/2017 12:19	WG1037643	⁵ Sr
2,4-Dichlorophenol	U		0.284	10.0	1	11/04/2017 12:19	WG1037643	⁶ Qc
2,4-Dimethylphenol	U		0.624	10.0	1	11/04/2017 12:19	WG1037643	⁷ Gl
4,6-Dinitro-2-methylphenol	U		2.62	10.0	1	11/04/2017 12:19	WG1037643	⁸ Al
2,4-Dinitrophenol	U		3.25	10.0	1	11/04/2017 12:19	WG1037643	⁹ Sc
2-Nitrophenol	U		0.320	10.0	1	11/04/2017 12:19	WG1037643	
4-Nitrophenol	U		2.01	10.0	1	11/04/2017 12:19	WG1037643	
Pentachlorophenol	U		0.313	10.0	1	11/04/2017 12:19	WG1037643	
Phenol	0.338	J	0.334	10.0	1	11/04/2017 12:19	WG1037643	
2,4,5-Trichlorophenol	U		0.236	10.0	1	11/04/2017 12:19	WG1037643	
2,4,6-Trichlorophenol	U		0.297	10.0	1	11/04/2017 12:19	WG1037643	
(S) 2-Fluorophenol	53.2			10.0-120		11/04/2017 12:19	WG1037643	
(S) Phenol-d5	42.9			10.0-120		11/04/2017 12:19	WG1037643	
(S) Nitrobenzene-d5	87.7			10.0-126		11/04/2017 12:19	WG1037643	
(S) 2-Fluorobiphenyl	83.7			22.0-127		11/04/2017 12:19	WG1037643	
(S) 2,4,6-Tribromophenol	127			10.0-153		11/04/2017 12:19	WG1037643	
(S) p-Terphenyl-d14	70.9			29.0-141		11/04/2017 12:19	WG1037643	



Mercury by Method 7470A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Mercury,Dissolved	U		0.0490	0.200	1	11/03/2017 03:48	WG1037867

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Aluminum,Dissolved	U		35.0	200	1	11/03/2017 04:39	WG1038469
Arsenic,Dissolved	U		6.50	10.0	1	11/03/2017 04:39	WG1038469
Barium,Dissolved	34.2		1.70	5.00	1	11/03/2017 04:39	WG1038469
Beryllium,Dissolved	U		0.700	2.00	1	11/03/2017 04:39	WG1038469
Cadmium,Dissolved	U		0.700	2.00	1	11/03/2017 04:39	WG1038469
Calcium,Dissolved	474000		46.3	1000	1	11/03/2017 04:39	WG1038469
Chromium,Dissolved	2.67	<u>B J</u>	1.40	10.0	1	11/03/2017 04:39	WG1038469
Cobalt,Dissolved	20.4		2.30	10.0	1	11/03/2017 04:39	WG1038469
Copper,Dissolved	U		5.30	10.0	1	11/03/2017 04:39	WG1038469
Iron,Dissolved	U		14.1	100	1	11/03/2017 04:39	WG1038469
Magnesium,Dissolved	965000		55.5	5000	5	11/03/2017 08:19	WG1038469
Manganese,Dissolved	2600		1.20	10.0	1	11/03/2017 04:39	WG1038469
Nickel,Dissolved	35.9		4.90	10.0	1	11/03/2017 04:39	WG1038469
Potassium,Dissolved	22800		102	1000	1	11/03/2017 04:39	WG1038469
Silver,Dissolved	U		2.80	5.00	1	11/03/2017 04:39	WG1038469
Sodium,Dissolved	338000		98.5	1000	1	11/03/2017 04:39	WG1038469
Vanadium,Dissolved	3.71	<u>B J</u>	2.40	20.0	1	11/03/2017 04:39	WG1038469
Zinc,Dissolved	30.8	<u>J</u>	5.90	50.0	1	11/03/2017 04:39	WG1038469

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICPMS) by Method 6020A

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Antimony,Dissolved	U		0.754	2.00	1	11/01/2017 18:26	WG1037291
Lead,Dissolved	0.252	<u>J</u>	0.240	2.00	1	11/02/2017 16:20	WG1037291
Selenium,Dissolved	0.656	<u>J</u>	0.380	2.00	1	11/01/2017 18:26	WG1037291
Thallium,Dissolved	U		0.190	2.00	1	11/02/2017 16:20	WG1037291

Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	<u>Batch</u>
Acetone	23.0	<u>J</u>	10.0	50.0	1	10/31/2017 13:47	WG1037272
Benzene	U		0.331	1.00	1	10/31/2017 13:47	WG1037272
Bromochloromethane	U		0.520	1.00	1	10/31/2017 13:47	WG1037272
Bromodichloromethane	U		0.380	1.00	1	10/31/2017 13:47	WG1037272
Bromoform	U		0.469	1.00	1	10/31/2017 13:47	WG1037272
Bromomethane	U		0.866	5.00	1	10/31/2017 13:47	WG1037272
Carbon disulfide	U		0.275	1.00	1	10/31/2017 13:47	WG1037272
Carbon tetrachloride	U		0.379	1.00	1	10/31/2017 13:47	WG1037272
Chlorobenzene	U		0.348	1.00	1	10/31/2017 13:47	WG1037272
Chlorodibromomethane	U		0.327	1.00	1	10/31/2017 13:47	WG1037272
Chloroethane	U		0.453	5.00	1	10/31/2017 13:47	WG1037272
Chloroform	U		0.324	5.00	1	10/31/2017 13:47	WG1037272
Chloromethane	U		0.276	2.50	1	10/31/2017 13:47	WG1037272
Cyclohexane	U		0.390	1.00	1	10/31/2017 13:47	WG1037272
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/31/2017 13:47	WG1037272
1,2-Dibromoethane	U		0.381	1.00	1	10/31/2017 13:47	WG1037272
1,2-Dichlorobenzene	U		0.349	1.00	1	10/31/2017 13:47	WG1037272
1,3-Dichlorobenzene	U		0.220	1.00	1	10/31/2017 13:47	WG1037272
1,4-Dichlorobenzene	U		0.274	1.00	1	10/31/2017 13:47	WG1037272

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.551	5.00	1	10/31/2017 13:47	WG1037272
1,1-Dichloroethane	U		0.259	1.00	1	10/31/2017 13:47	WG1037272
1,2-Dichloroethane	U		0.361	1.00	1	10/31/2017 13:47	WG1037272
1,1-Dichloroethene	U		0.398	1.00	1	10/31/2017 13:47	WG1037272
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/31/2017 13:47	WG1037272
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/31/2017 13:47	WG1037272
1,2-Dichloropropane	U		0.306	1.00	1	10/31/2017 13:47	WG1037272
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/31/2017 13:47	WG1037272
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/31/2017 13:47	WG1037272
Ethylbenzene	U		0.384	1.00	1	10/31/2017 13:47	WG1037272
2-Hexanone	U		3.82	10.0	1	10/31/2017 13:47	WG1037272
Isopropylbenzene	U		0.326	1.00	1	10/31/2017 13:47	WG1037272
2-Butanone (MEK)	12.7		3.93	10.0	1	10/31/2017 13:47	WG1037272
Methyl Acetate	U		4.30	20.0	1	10/31/2017 13:47	WG1037272
Methyl Cyclohexane	U		0.380	1.00	1	10/31/2017 13:47	WG1037272
Methylene Chloride	U		1.00	5.00	1	10/31/2017 13:47	WG1037272
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/31/2017 13:47	WG1037272
Methyl tert-butyl ether	U		0.367	1.00	1	10/31/2017 13:47	WG1037272
Naphthalene	U		1.00	5.00	1	10/31/2017 13:47	WG1037272
Styrene	U		0.307	1.00	1	10/31/2017 13:47	WG1037272
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/31/2017 13:47	WG1037272
Tetrachloroethene	U		0.372	1.00	1	10/31/2017 13:47	WG1037272
Toluene	0.767	J	0.412	1.00	1	10/31/2017 13:47	WG1037272
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/31/2017 13:47	WG1037272
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/31/2017 13:47	WG1037272
1,1,1-Trichloroethane	U		0.319	1.00	1	10/31/2017 13:47	WG1037272
1,1,2-Trichloroethane	U		0.383	1.00	1	10/31/2017 13:47	WG1037272
Trichloroethene	U		0.398	1.00	1	10/31/2017 13:47	WG1037272
Trichlorofluoromethane	U		1.20	5.00	1	10/31/2017 13:47	WG1037272
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/31/2017 13:47	WG1037272
Vinyl chloride	U		0.259	1.00	1	10/31/2017 13:47	WG1037272
o-Xylene	0.594	J	0.341	1.00	1	10/31/2017 13:47	WG1037272
m&p-Xylenes	0.938	J	0.719	2.00	1	10/31/2017 13:47	WG1037272
n-Butylbenzene	U		0.361	1.00	1	10/31/2017 13:47	WG1037272
sec-Butylbenzene	U		0.365	1.00	1	10/31/2017 13:47	WG1037272
tert-Butylbenzene	U		0.399	1.00	1	10/31/2017 13:47	WG1037272
1,2,4-Trimethylbenzene	0.495	J	0.373	1.00	1	10/31/2017 13:47	WG1037272
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/31/2017 13:47	WG1037272
n-Propylbenzene	U		0.349	1.00	1	10/31/2017 13:47	WG1037272
p-Isopropyltoluene	U		0.350	1.00	1	10/31/2017 13:47	WG1037272
(S) Toluene-d8	108			80.0-120		10/31/2017 13:47	WG1037272
(S) Dibromofluoromethane	93.6			76.0-123		10/31/2017 13:47	WG1037272
(S) a,a,a-Trifluorotoluene	105			80.0-120		10/31/2017 13:47	WG1037272
(S) 4-Bromofluorobenzene	104			80.0-120		10/31/2017 13:47	WG1037272

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
PCB 1016	U		0.100	0.500	1	11/02/2017 19:45	WG1038025
PCB 1221	U		0.0730	0.500	1	11/02/2017 19:45	WG1038025
PCB 1232	U		0.0420	0.500	1	11/02/2017 19:45	WG1038025
PCB 1242	U		0.0470	0.500	1	11/02/2017 19:45	WG1038025
PCB 1248	U		0.0860	0.500	1	11/02/2017 19:45	WG1038025
PCB 1254	U		0.0470	0.500	1	11/02/2017 19:45	WG1038025
PCB 1260	U		0.120	0.500	1	11/02/2017 19:45	WG1038025
(S) Decachlorobiphenyl	69.7			10.0-144		11/02/2017 19:45	WG1038025



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
(S) Tetrachloro-m-xylene	58.6			10.0-135		11/02/2017 19:45	WG1038025

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.316	1.00	1	11/04/2017 12:43	WG1037643
Acenaphthylene	U		0.309	1.00	1	11/04/2017 12:43	WG1037643
Acetophenone	U		2.71	10.0	1	11/04/2017 12:43	WG1037643
Anthracene	U		0.291	1.00	1	11/04/2017 12:43	WG1037643
Atrazine	U		0.260	10.0	1	11/04/2017 12:43	WG1037643
Benzaldehyde	U	<u>J4</u>	1.40	10.0	1	11/04/2017 12:43	WG1037643
Benzo(a)anthracene	U		0.0975	1.00	1	11/04/2017 12:43	WG1037643
Benzo(b)fluoranthene	U		0.0896	1.00	1	11/04/2017 12:43	WG1037643
Benzo(k)fluoranthene	U		0.355	1.00	1	11/04/2017 12:43	WG1037643
Benzo(g,h,i)perylene	U		0.161	1.00	1	11/04/2017 12:43	WG1037643
Benzo(a)pyrene	U		0.340	1.00	1	11/04/2017 12:43	WG1037643
Biphenyl	U		0.325	10.0	1	11/04/2017 12:43	WG1037643
Bis(2-chlorethoxy)methane	U		0.329	10.0	1	11/04/2017 12:43	WG1037643
Bis(2-chloroethyl)ether	U		1.62	10.0	1	11/04/2017 12:43	WG1037643
Bis(2-chloroisopropyl)ether	U		0.445	10.0	1	11/04/2017 12:43	WG1037643
4-Bromophenyl-phenylether	U		0.335	10.0	1	11/04/2017 12:43	WG1037643
Caprolactam	U		2.59	10.0	1	11/04/2017 12:43	WG1037643
Carbazole	U		0.260	10.0	1	11/04/2017 12:43	WG1037643
4-Chloroaniline	U		0.382	10.0	1	11/04/2017 12:43	WG1037643
2-Chloronaphthalene	U		0.330	1.00	1	11/04/2017 12:43	WG1037643
4-Chlorophenyl-phenylether	U		0.303	10.0	1	11/04/2017 12:43	WG1037643
Chrysene	U		0.332	1.00	1	11/04/2017 12:43	WG1037643
Dibenz(a,h)anthracene	U		0.279	1.00	1	11/04/2017 12:43	WG1037643
Dibenzofuran	U		0.338	10.0	1	11/04/2017 12:43	WG1037643
3,3-Dichlorobenzidine	U		2.02	10.0	1	11/04/2017 12:43	WG1037643
2,4-Dinitrotoluene	U		1.65	10.0	1	11/04/2017 12:43	WG1037643
2,6-Dinitrotoluene	U		0.279	10.0	1	11/04/2017 12:43	WG1037643
Fluoranthene	U		0.310	1.00	1	11/04/2017 12:43	WG1037643
Fluorene	U		0.323	1.00	1	11/04/2017 12:43	WG1037643
Hexachlorobenzene	U		0.341	1.00	1	11/04/2017 12:43	WG1037643
Hexachloro-1,3-butadiene	U		0.329	10.0	1	11/04/2017 12:43	WG1037643
Hexachlorocyclopentadiene	U		2.33	10.0	1	11/04/2017 12:43	WG1037643
Hexachloroethane	U		0.365	10.0	1	11/04/2017 12:43	WG1037643
Indeno(1,2,3-cd)pyrene	U		0.279	1.00	1	11/04/2017 12:43	WG1037643
Isophorone	U		0.272	10.0	1	11/04/2017 12:43	WG1037643
2-Methylnaphthalene	U		0.311	1.00	1	11/04/2017 12:43	WG1037643
Naphthalene	U		0.372	1.00	1	11/04/2017 12:43	WG1037643
2-Nitroaniline	U		1.90	10.0	1	11/04/2017 12:43	WG1037643
3-Nitroaniline	U		0.308	10.0	1	11/04/2017 12:43	WG1037643
4-Nitroaniline	U		0.349	10.0	1	11/04/2017 12:43	WG1037643
Nitrobenzene	U		0.367	10.0	1	11/04/2017 12:43	WG1037643
n-Nitrosodiphenylamine	U		0.304	10.0	1	11/04/2017 12:43	WG1037643
n-Nitrosodi-n-propylamine	U		0.403	10.0	1	11/04/2017 12:43	WG1037643
Phenanthrene	U		0.366	1.00	1	11/04/2017 12:43	WG1037643
Benzylbutyl phthalate	U		0.275	3.00	1	11/04/2017 12:43	WG1037643
Bis(2-ethylhexyl)phthalate	2.24	<u>B_J</u>	0.709	3.00	1	11/04/2017 12:43	WG1037643
Di-n-butyl phthalate	1.09	<u>J</u>	0.266	3.00	1	11/04/2017 12:43	WG1037643
Diethyl phthalate	0.377	<u>J</u>	0.282	3.00	1	11/04/2017 12:43	WG1037643
Dimethyl phthalate	U		0.283	3.00	1	11/04/2017 12:43	WG1037643
Di-n-octyl phthalate	U		0.278	1.00	1	11/04/2017 12:43	WG1037643
Pyrene	U		0.330	1.00	1	11/04/2017 12:43	WG1037643



Semi Volatile Organic Compounds (GC/MS) by Method 8270 D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0	1	11/04/2017 12:43	WG1037643	¹ Cp
4-Chloro-3-methylphenol	U		0.263	10.0	1	11/04/2017 12:43	WG1037643	² Tc
2-Chlorophenol	U		0.283	10.0	1	11/04/2017 12:43	WG1037643	³ Ss
2-Methylphenol	U		0.312	10.0	1	11/04/2017 12:43	WG1037643	⁴ Cn
3&4-Methyl Phenol	U		0.266	10.0	1	11/04/2017 12:43	WG1037643	⁵ Sr
2,4-Dichlorophenol	U		0.284	10.0	1	11/04/2017 12:43	WG1037643	⁶ Qc
2,4-Dimethylphenol	U		0.624	10.0	1	11/04/2017 12:43	WG1037643	⁷ Gl
4,6-Dinitro-2-methylphenol	U		2.62	10.0	1	11/04/2017 12:43	WG1037643	⁸ Al
2,4-Dinitrophenol	U		3.25	10.0	1	11/04/2017 12:43	WG1037643	
2-Nitrophenol	U		0.320	10.0	1	11/04/2017 12:43	WG1037643	
4-Nitrophenol	U		2.01	10.0	1	11/04/2017 12:43	WG1037643	
Pentachlorophenol	U		0.313	10.0	1	11/04/2017 12:43	WG1037643	
Phenol	U		0.334	10.0	1	11/04/2017 12:43	WG1037643	
2,4,5-Trichlorophenol	U		0.236	10.0	1	11/04/2017 12:43	WG1037643	
2,4,6-Trichlorophenol	U		0.297	10.0	1	11/04/2017 12:43	WG1037643	
(S) 2-Fluorophenol	44.8			10.0-120		11/04/2017 12:43	WG1037643	
(S) Phenol-d5	29.6			10.0-120		11/04/2017 12:43	WG1037643	
(S) Nitrobenzene-d5	106			10.0-126		11/04/2017 12:43	WG1037643	
(S) 2-Fluorobiphenyl	91.9			22.0-127		11/04/2017 12:43	WG1037643	
(S) 2,4,6-Tribromophenol	141			10.0-153		11/04/2017 12:43	WG1037643	
(S) p-Terphenyl-d14	79.6			29.0-141		11/04/2017 12:43	WG1037643	⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	10/30/2017 00:56	WG1036899
n-Butylbenzene	U		0.361	1.00	1	10/30/2017 00:56	WG1036899
sec-Butylbenzene	U		0.365	1.00	1	10/30/2017 00:56	WG1036899
tert-Butylbenzene	U		0.399	1.00	1	10/30/2017 00:56	WG1036899
Ethylbenzene	U		0.384	1.00	1	10/30/2017 00:56	WG1036899
Isopropylbenzene	U		0.326	1.00	1	10/30/2017 00:56	WG1036899
p-Isopropyltoluene	U		0.350	1.00	1	10/30/2017 00:56	WG1036899
Methyl tert-butyl ether	U		0.367	1.00	1	10/30/2017 00:56	WG1036899
Naphthalene	U		1.00	5.00	1	11/03/2017 13:46	WG1036899
n-Propylbenzene	U		0.349	1.00	1	10/30/2017 00:56	WG1036899
1,2,4-Trimethylbenzene	U		0.373	1.00	1	10/30/2017 00:56	WG1036899
1,3,5-Trimethylbenzene	U		0.387	1.00	1	10/30/2017 00:56	WG1036899
Toluene	U		0.412	1.00	1	10/30/2017 00:56	WG1036899
o-Xylene	U		0.341	1.00	1	10/30/2017 00:56	WG1036899
m&p-Xylenes	U		0.719	2.00	1	10/30/2017 00:56	WG1036899
(S) Toluene-d8	102			80.0-120		11/03/2017 13:46	WG1036899
(S) Toluene-d8	105			80.0-120		10/30/2017 00:56	WG1036899
(S) Dibromofluoromethane	95.7			76.0-123		11/03/2017 13:46	WG1036899
(S) Dibromofluoromethane	99.5			76.0-123		10/30/2017 00:56	WG1036899
(S) a,a,a-Trifluorotoluene	100			80.0-120		10/30/2017 00:56	WG1036899
(S) a,a,a-Trifluorotoluene	104			80.0-120		11/03/2017 13:46	WG1036899
(S) 4-Bromofluorobenzene	98.6			80.0-120		11/03/2017 13:46	WG1036899
(S) 4-Bromofluorobenzene	103			80.0-120		10/30/2017 00:56	WG1036899

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.343	1.18	1.18	11/01/2017 17:09	WG1036857
Acenaphthylene	U		0.365	1.18	1.18	11/01/2017 17:09	WG1036857
Acenaphthene	0.981	J	0.373	1.18	1.18	11/01/2017 17:09	WG1036857
Benzo(a)anthracene	U		0.115	1.18	1.18	11/01/2017 17:09	WG1036857
Benzo(a)pyrene	U		0.401	1.18	1.18	11/01/2017 17:09	WG1036857
Benzo(b)fluoranthene	U		0.106	1.18	1.18	11/01/2017 17:09	WG1036857
Benzo(g,h,i)perylene	U	J3	0.190	1.18	1.18	11/01/2017 17:09	WG1036857
Benzo(k)fluoranthene	U		0.419	1.18	1.18	11/01/2017 17:09	WG1036857
Chrysene	U		0.392	1.18	1.18	11/01/2017 17:09	WG1036857
Dibenz(a,h)anthracene	U		0.329	1.18	1.18	11/01/2017 17:09	WG1036857
Fluoranthene	U		0.366	1.18	1.18	11/01/2017 17:09	WG1036857
Fluorene	0.800	J	0.381	1.18	1.18	11/01/2017 17:09	WG1036857
Indeno(1,2,3-cd)pyrene	U		0.329	1.18	1.18	11/01/2017 17:09	WG1036857
Naphthalene	0.0730	J	0.0350	1.18	1.18	11/01/2017 17:09	WG1036857
Phenanthrene	U		0.432	1.18	1.18	11/01/2017 17:09	WG1036857
Pyrene	U		0.389	1.18	1.18	11/01/2017 17:09	WG1036857
(S) Nitrobenzene-d5	62.7			10.0-147		11/01/2017 17:09	WG1036857
(S) 2-Fluorobiphenyl	73.4			15.0-137		11/01/2017 17:09	WG1036857
(S) p-Terphenyl-d14	74.4			12.0-126		11/01/2017 17:09	WG1036857

Sample Narrative:

L947155-05 WG1036857: Dilution due to sample volume

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Metals (ICP) by Method 6010C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	3.17	J	1.90	5.00	1	10/31/2017 17:06	WG1037234

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	16.6	J J4	10.0	50.0	1	10/30/2017 01:16	WG1036899
Benzene	U		0.331	1.00	1	10/30/2017 01:16	WG1036899
Bromochloromethane	U		0.520	1.00	1	10/30/2017 01:16	WG1036899
Bromodichloromethane	U		0.380	1.00	1	10/30/2017 01:16	WG1036899
Bromoform	U		0.469	1.00	1	10/30/2017 01:16	WG1036899
Bromomethane	U		0.866	5.00	1	10/30/2017 01:16	WG1036899
Carbon disulfide	U		0.275	1.00	1	10/30/2017 01:16	WG1036899
Carbon tetrachloride	U		0.379	1.00	1	10/30/2017 01:16	WG1036899
Chlorobenzene	U		0.348	1.00	1	10/30/2017 01:16	WG1036899
Chlorodibromomethane	U		0.327	1.00	1	10/30/2017 01:16	WG1036899
Chloroethane	U		0.453	5.00	1	10/30/2017 01:16	WG1036899
Chloroform	U		0.324	5.00	1	10/30/2017 01:16	WG1036899
Chloromethane	U		0.276	2.50	1	10/30/2017 01:16	WG1036899
Cyclohexane	U		0.390	1.00	1	10/30/2017 01:16	WG1036899
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/30/2017 01:16	WG1036899
1,2-Dibromoethane	U		0.381	1.00	1	10/30/2017 01:16	WG1036899
1,2-Dichlorobenzene	U		0.349	1.00	1	10/30/2017 01:16	WG1036899
1,3-Dichlorobenzene	U		0.220	1.00	1	10/30/2017 01:16	WG1036899
1,4-Dichlorobenzene	U		0.274	1.00	1	10/30/2017 01:16	WG1036899
Dichlorodifluoromethane	U		0.551	5.00	1	10/30/2017 01:16	WG1036899
1,1-Dichloroethane	U		0.259	1.00	1	10/30/2017 01:16	WG1036899
1,2-Dichloroethane	U		0.361	1.00	1	10/30/2017 01:16	WG1036899
1,1-Dichloroethene	U		0.398	1.00	1	10/30/2017 01:16	WG1036899
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/30/2017 01:16	WG1036899
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/30/2017 01:16	WG1036899
1,2-Dichloropropane	U		0.306	1.00	1	10/30/2017 01:16	WG1036899
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/30/2017 01:16	WG1036899
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/30/2017 01:16	WG1036899
Ethylbenzene	U		0.384	1.00	1	10/30/2017 01:16	WG1036899
2-Hexanone	U		3.82	10.0	1	10/30/2017 01:16	WG1036899
Isopropylbenzene	U		0.326	1.00	1	10/30/2017 01:16	WG1036899
2-Butanone (MEK)	U		3.93	10.0	1	10/30/2017 01:16	WG1036899
Methyl Acetate	U		4.30	20.0	1	10/30/2017 01:16	WG1036899
Methyl Cyclohexane	U		0.380	1.00	1	10/30/2017 01:16	WG1036899
Methylene Chloride	U		1.00	5.00	1	10/30/2017 01:16	WG1036899
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/30/2017 01:16	WG1036899
Methyl tert-butyl ether	U		0.367	1.00	1	10/30/2017 01:16	WG1036899
Naphthalene	U		1.00	5.00	1	10/30/2017 01:16	WG1036899
Styrene	U		0.307	1.00	1	10/30/2017 01:16	WG1036899
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/30/2017 01:16	WG1036899
Tetrachloroethene	U		0.372	1.00	1	10/30/2017 01:16	WG1036899
Toluene	U		0.412	1.00	1	10/30/2017 01:16	WG1036899
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/30/2017 01:16	WG1036899
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/30/2017 01:16	WG1036899
1,1,1-Trichloroethane	U		0.319	1.00	1	10/30/2017 01:16	WG1036899
1,1,2-Trichloroethane	U		0.383	1.00	1	10/30/2017 01:16	WG1036899
Trichloroethene	U		0.398	1.00	1	10/30/2017 01:16	WG1036899
Trichlorofluoromethane	U		1.20	5.00	1	10/30/2017 01:16	WG1036899
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/30/2017 01:16	WG1036899
Vinyl chloride	U		0.259	1.00	1	10/30/2017 01:16	WG1036899



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Xylenes, Total	U		1.06	3.00	1	10/30/2017 01:16	WG1036899	¹ Cp
(S) Toluene-d8	105			80.0-120		10/30/2017 01:16	WG1036899	² Tc
(S) Dibromofluoromethane	99.0			76.0-123		10/30/2017 01:16	WG1036899	³ Ss
(S) 4-Bromofluorobenzene	103			80.0-120		10/30/2017 01:16	WG1036899	⁴ Cn
								⁵ Sr
								⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Metals (ICP) by Method 6010C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Lead	6.67		1.90	5.00	1	10/31/2017 17:09	WG1037234

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	<u>Qualifier</u>	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	24.5	<u>JJ4</u>	10.0	50.0	1	10/30/2017 01:36	WG1036899
Benzene	U		0.331	1.00	1	10/30/2017 01:36	WG1036899
Bromochloromethane	U		0.520	1.00	1	10/30/2017 01:36	WG1036899
Bromodichloromethane	U		0.380	1.00	1	10/30/2017 01:36	WG1036899
Bromoform	U		0.469	1.00	1	10/30/2017 01:36	WG1036899
Bromomethane	U		0.866	5.00	1	10/30/2017 01:36	WG1036899
Carbon disulfide	U		0.275	1.00	1	10/30/2017 01:36	WG1036899
Carbon tetrachloride	U		0.379	1.00	1	10/30/2017 01:36	WG1036899
Chlorobenzene	U		0.348	1.00	1	10/30/2017 01:36	WG1036899
Chlorodibromomethane	U		0.327	1.00	1	10/30/2017 01:36	WG1036899
Chloroethane	U		0.453	5.00	1	10/30/2017 01:36	WG1036899
Chloroform	U		0.324	5.00	1	10/30/2017 01:36	WG1036899
Chloromethane	U		0.276	2.50	1	10/30/2017 01:36	WG1036899
Cyclohexane	U		0.390	1.00	1	10/30/2017 01:36	WG1036899
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/30/2017 01:36	WG1036899
1,2-Dibromoethane	U		0.381	1.00	1	10/30/2017 01:36	WG1036899
1,2-Dichlorobenzene	U		0.349	1.00	1	10/30/2017 01:36	WG1036899
1,3-Dichlorobenzene	U		0.220	1.00	1	10/30/2017 01:36	WG1036899
1,4-Dichlorobenzene	U		0.274	1.00	1	10/30/2017 01:36	WG1036899
Dichlorodifluoromethane	U		0.551	5.00	1	10/30/2017 01:36	WG1036899
1,1-Dichloroethane	U		0.259	1.00	1	10/30/2017 01:36	WG1036899
1,2-Dichloroethane	U		0.361	1.00	1	10/30/2017 01:36	WG1036899
1,1-Dichloroethene	U		0.398	1.00	1	10/30/2017 01:36	WG1036899
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/30/2017 01:36	WG1036899
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/30/2017 01:36	WG1036899
1,2-Dichloropropane	U		0.306	1.00	1	10/30/2017 01:36	WG1036899
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/30/2017 01:36	WG1036899
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/30/2017 01:36	WG1036899
Ethylbenzene	U		0.384	1.00	1	10/30/2017 01:36	WG1036899
2-Hexanone	U		3.82	10.0	1	10/30/2017 01:36	WG1036899
Isopropylbenzene	U		0.326	1.00	1	10/30/2017 01:36	WG1036899
2-Butanone (MEK)	U		3.93	10.0	1	10/30/2017 01:36	WG1036899
Methyl Acetate	U		4.30	20.0	1	10/30/2017 01:36	WG1036899
Methyl Cyclohexane	U		0.380	1.00	1	10/30/2017 01:36	WG1036899
Methylene Chloride	U		1.00	5.00	1	10/30/2017 01:36	WG1036899
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/30/2017 01:36	WG1036899
Methyl tert-butyl ether	U		0.367	1.00	1	10/30/2017 01:36	WG1036899
Naphthalene	U		1.00	5.00	1	10/30/2017 01:36	WG1036899
Styrene	U		0.307	1.00	1	10/30/2017 01:36	WG1036899
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/30/2017 01:36	WG1036899
Tetrachloroethene	U		0.372	1.00	1	10/30/2017 01:36	WG1036899
Toluene	U		0.412	1.00	1	10/30/2017 01:36	WG1036899
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/30/2017 01:36	WG1036899
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/30/2017 01:36	WG1036899
1,1,1-Trichloroethane	U		0.319	1.00	1	10/30/2017 01:36	WG1036899
1,1,2-Trichloroethane	U		0.383	1.00	1	10/30/2017 01:36	WG1036899
Trichloroethene	U		0.398	1.00	1	10/30/2017 01:36	WG1036899
Trichlorofluoromethane	U		1.20	5.00	1	10/30/2017 01:36	WG1036899
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	10/30/2017 01:36	WG1036899
Vinyl chloride	U		0.259	1.00	1	10/30/2017 01:36	WG1036899



Volatile Organic Compounds (GC/MS) by Method 8260B/8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	
Xylenes, Total	U		1.06	3.00	1	10/30/2017 01:36	WG1036899	¹ Cp
(S) Toluene-d8	106			80.0-120		10/30/2017 01:36	WG1036899	² Tc
(S) Dibromofluoromethane	97.7			76.0-123		10/30/2017 01:36	WG1036899	³ Ss
(S) 4-Bromofluorobenzene	105			80.0-120		10/30/2017 01:36	WG1036899	⁴ Cn
								⁵ Sr
								⁶ Qc
								⁷ Gl
								⁸ Al
								⁹ Sc



Method Blank (MB)

(MB) R3262730-1 11/03/17 03:20

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Mercury,Dissolved	U		0.0490	0.200

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262730-2 11/03/17 03:28 • (LCSD) R3262730-3 11/03/17 03:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Mercury,Dissolved	3.00	2.91	2.93	97	98	80-120			1	20

L946864-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946864-01 11/03/17 03:33 • (MS) R3262730-4 11/03/17 03:36 • (MSD) R3262730-5 11/03/17 03:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Mercury,Dissolved	3.00	U	3.19	3.35	106	112	1	75-125			5	20



Method Blank (MB)

(MB) R3261948-1 10/31/17 15:44

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Lead	U		1.90	5.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3261948-2 10/31/17 15:47 • (LCSD) R3261948-3 10/31/17 15:50

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead	1000	1040	1040	104	104	80-120			0	20

L946631-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946631-05 10/31/17 15:54 • (MS) R3261948-5 10/31/17 16:00 • (MSD) R3261948-6 10/31/17 16:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Lead	1000	17.9	1080	1080	106	106	1	75-125			0	20



Method Blank (MB)

(MB) R3262735-1 11/03/17 04:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	1 Cp
Aluminum,Dissolved	75.9	J	35.0	200	2 Tc
Arsenic,Dissolved	U		6.50	10.0	3 Ss
Barium,Dissolved	U		1.70	5.00	4 Cn
Beryllium,Dissolved	1.15	J	0.700	2.00	5 Sr
Cadmium,Dissolved	1.16	J	0.700	2.00	6 Qc
Calcium,Dissolved	U		46.3	1000	7 Gl
Chromium,Dissolved	1.69	J	1.40	10.0	8 Al
Cobalt,Dissolved	U		2.30	10.0	9 Sc
Copper,Dissolved	U		5.30	10.0	
Iron,Dissolved	27.1	J	14.1	100	
Magnesium,Dissolved	19.3	J	11.1	1000	
Manganese,Dissolved	1.37	J	1.20	10.0	
Nickel,Dissolved	U		4.90	10.0	
Potassium,Dissolved	U		102	1000	
Silver,Dissolved	U		2.80	5.00	
Sodium,Dissolved	U		98.5	1000	
Vanadium,Dissolved	2.93	J	2.40	20.0	
Zinc,Dissolved	U		5.90	50.0	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262735-2 11/03/17 04:12 • (LCSD) R3262735-3 11/03/17 04:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum,Dissolved	10000	10400	10400	104	104	80-120			0	20
Arsenic,Dissolved	1000	993	991	99	99	80-120			0	20
Barium,Dissolved	1000	1040	1040	104	104	80-120			0	20
Beryllium,Dissolved	1000	1010	1010	101	101	80-120			0	20
Cadmium,Dissolved	1000	993	992	99	99	80-120			0	20
Calcium,Dissolved	10000	10000	10100	100	101	80-120			0	20
Chromium,Dissolved	1000	997	995	100	99	80-120			0	20
Cobalt,Dissolved	1000	1040	1040	104	104	80-120			0	20
Copper,Dissolved	1000	1010	1010	101	101	80-120			0	20
Iron,Dissolved	10000	9980	10000	100	100	80-120			0	20
Magnesium,Dissolved	10000	10500	10500	105	105	80-120			0	20
Manganese,Dissolved	1000	994	989	99	99	80-120			0	20
Nickel,Dissolved	1000	1030	1030	103	103	80-120			0	20
Potassium,Dissolved	10000	9970	10000	100	100	80-120			1	20
Silver,Dissolved	200	187	187	93	93	80-120			0	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262735-2 11/03/17 04:12 • (LCSD) R3262735-3 11/03/17 04:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Sodium,Dissolved	10000	9950	9970	100	100	80-120			0	20
Vanadium,Dissolved	1000	1030	1020	103	102	80-120			1	20
Zinc,Dissolved	1000	1010	1010	101	101	80-120			0	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L947670-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L947670-03 11/03/17 04:19 • (MS) R3262735-5 11/03/17 04:25 • (MSD) R3262735-6 11/03/17 04:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%	%				%	%
Aluminum,Dissolved	10000	U	9930	9980	99	100	1	75-125			1	20
Arsenic,Dissolved	1000	6.63	1000	998	99	99	1	75-125			0	20
Barium,Dissolved	1000	76.3	1070	1070	100	100	1	75-125			0	20
Beryllium,Dissolved	1000	U	1010	1010	101	101	1	75-125			0	20
Cadmium,Dissolved	1000	U	983	985	98	99	1	75-125			0	20
Calcium,Dissolved	10000	85800	94300	94400	86	86	1	75-125			0	20
Chromium,Dissolved	1000	U	975	971	98	97	1	75-125			0	20
Cobalt,Dissolved	1000	U	1040	1040	104	104	1	75-125			0	20
Copper,Dissolved	1000	U	993	992	99	99	1	75-125			0	20
Iron,Dissolved	10000	9430	18800	18800	93	93	1	75-125			0	20
Magnesium,Dissolved	10000	13600	23400	23400	98	98	1	75-125			0	20
Manganese,Dissolved	1000	1980	2890	2890	91	91	1	75-125			0	20
Nickel,Dissolved	1000	U	1030	1030	103	103	1	75-125			0	20
Potassium,Dissolved	10000	10500	20000	20000	95	95	1	75-125			0	20
Silver,Dissolved	200	U	187	186	93	93	1	75-125			1	20
Sodium,Dissolved	10000	28300	36700	37000	84	87	1	75-125			1	20
Vanadium,Dissolved	1000	3.38	1010	1010	101	101	1	75-125			0	20
Zinc,Dissolved	1000	6.41	993	995	99	99	1	75-125			0	20



Method Blank (MB)

(MB) R3262373-1 11/01/17 18:15

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Antimony,Dissolved	U		0.754	2.00
Selenium,Dissolved	U		0.380	2.00

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Method Blank (MB)

(MB) R3262743-1 11/02/17 16:09

Analyte	MB Result ug/l	<u>MB Qualifier</u>	MB MDL ug/l	MB RDL ug/l
Lead,Dissolved	U		0.240	2.00
Thallium,Dissolved	U		0.190	2.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262373-2 11/01/17 18:19 • (LCSD) R3262373-3 11/01/17 18:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Antimony,Dissolved	50.0	50.5	51.0	101	102	80-120			1	20
Selenium,Dissolved	50.0	48.9	49.7	98	99	80-120			2	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262743-2 11/02/17 16:13 • (LCSD) R3262743-3 11/02/17 16:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Lead,Dissolved	50.0	48.8	49.4	98	99	80-120			1	20
Thallium,Dissolved	50.0	49.1	49.2	98	98	80-120			0	20

L947155-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L947155-04 11/01/17 18:26 • (MS) R3262373-5 11/01/17 18:33 • (MSD) R3262373-6 11/01/17 18:36

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution %	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Antimony,Dissolved	50.0	U	51.7	51.7	103	103	1	75-125			0	20
Selenium,Dissolved	50.0	0.656	50.9	49.5	100	98	1	75-125			3	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L947155-02,03,04

L947155-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L947155-04 11/02/17 16:20 • (MS) R3262743-5 11/02/17 16:27 • (MSD) R3262743-6 11/02/17 16:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Lead,Dissolved	50.0	0.252	49.0	49.4	98	98	1	75-125			1	20
Thallium,Dissolved	50.0	U	49.6	49.5	99	99	1	75-125			0	20

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3262830-3 10/29/17 20:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
p-Isopropyltoluene	U		0.350	1.00
Isopropylbenzene	U		0.326	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L947155-05,06,07

Method Blank (MB)

(MB) R3262830-3 10/29/17 20:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methyl tert-butyl ether	U		0.367	1.00
n-Propylbenzene	U		0.349	1.00
Naphthalene	U		1.00	5.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
Trichloroethene	U		0.398	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Trichlorofluoromethane	U		1.20	5.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	106		80.0-120	
(S) Dibromofluoromethane	98.6		76.0-123	
(S) a,a,a-Trifluorotoluene	101		80.0-120	
(S) 4-Bromofluorobenzene	105		80.0-120	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3262830-1 10/29/17 19:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	207	165	10.0-160	J4
Benzene	25.0	24.8	99.2	69.0-123	
n-Butylbenzene	25.0	24.8	99.2	72.0-126	
sec-Butylbenzene	25.0	24.8	99.1	74.0-121	
Bromodichloromethane	25.0	23.3	93.2	76.0-120	
tert-Butylbenzene	25.0	25.2	101	75.0-122	
Bromochloromethane	25.0	26.5	106	76.0-122	
Bromoform	25.0	22.3	89.2	67.0-132	
Bromomethane	25.0	12.3	49.1	18.0-160	



Laboratory Control Sample (LCS)

(LCS) R3262830-1 10/29/17 19:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Carbon disulfide	25.0	24.3	97.3	55.0-127	¹ Cp
Carbon tetrachloride	25.0	25.2	101	63.0-122	² Tc
Chlorobenzene	25.0	24.5	97.8	79.0-121	³ Ss
Chlorodibromomethane	25.0	24.4	97.7	75.0-125	⁴ Cn
Chloroethane	25.0	26.5	106	47.0-152	⁵ Sr
Chloroform	25.0	24.9	99.5	72.0-121	⁶ Qc
Chloromethane	25.0	22.8	91.3	48.0-139	⁷ Gl
Cyclohexane	25.0	26.8	107	70.0-130	⁸ Al
1,2-Dibromo-3-Chloropropane	25.0	18.7	74.8	64.0-127	⁹ Sc
1,2-Dibromoethane	25.0	25.8	103	77.0-123	
1,2-Dichlorobenzene	25.0	24.3	97.1	80.0-120	
1,3-Dichlorobenzene	25.0	24.3	97.1	72.0-123	
1,4-Dichlorobenzene	25.0	22.8	91.1	77.0-120	
Dichlorodifluoromethane	25.0	32.1	129	49.0-155	
1,1-Dichloroethane	25.0	25.6	102	70.0-126	
1,2-Dichloroethane	25.0	25.8	103	67.0-126	
1,1-Dichloroethene	25.0	25.9	104	64.0-129	
cis-1,2-Dichloroethene	25.0	24.0	96.0	73.0-120	
trans-1,2-Dichloroethene	25.0	25.2	101	71.0-121	
1,2-Dichloropropane	25.0	25.7	103	75.0-125	
cis-1,3-Dichloropropene	25.0	24.6	98.6	79.0-123	
trans-1,3-Dichloropropene	25.0	23.6	94.2	74.0-127	
Ethylbenzene	25.0	25.1	101	77.0-120	
p-Isopropyltoluene	25.0	24.6	98.3	74.0-126	
2-Hexanone	125	150	120	58.0-147	
Isopropylbenzene	25.0	25.5	102	75.0-120	
2-Butanone (MEK)	125	162	129	37.0-158	
Methyl Acetate	125	121	97.1	70.0-130	
Methyl Cyclohexane	25.0	25.8	103	70.0-130	
Methylene Chloride	25.0	22.1	88.3	66.0-121	
4-Methyl-2-pentanone (MIBK)	125	136	109	59.0-143	
Methyl tert-butyl ether	25.0	25.4	102	64.0-123	
n-Propylbenzene	25.0	25.1	100	79.0-120	
Naphthalene	25.0	16.2	64.6	62.0-128	
Styrene	25.0	25.5	102	78.0-124	
1,1,2,2-Tetrachloroethane	25.0	23.3	93.3	71.0-122	
Tetrachloroethene	25.0	25.5	102	70.0-127	
Toluene	25.0	23.9	95.5	77.0-120	
1,1,2-Trichlorotrifluoroethane	25.0	28.6	114	61.0-136	
1,2,3-Trichlorobenzene	25.0	18.2	72.8	61.0-133	



Laboratory Control Sample (LCS)

(LCS) R3262830-1 10/29/17 19:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,2,4-Trichlorobenzene	25.0	21.3	85.1	69.0-129	¹ Cp
1,1,1-Trichloroethane	25.0	26.0	104	68.0-122	² Tc
1,1,2-Trichloroethane	25.0	24.7	98.8	78.0-120	³ Ss
1,2,4-Trimethylbenzene	25.0	24.0	96.2	75.0-120	⁴ Cn
Trichloroethene	25.0	25.9	103	78.0-120	⁵ Sr
1,3,5-Trimethylbenzene	25.0	24.0	95.9	75.0-120	⁶ Qc
Trichlorofluoromethane	25.0	30.9	124	56.0-137	⁷ Gl
o-Xylene	25.0	24.6	98.4	78.0-120	⁸ Al
m&p-Xylenes	50.0	49.0	98.1	77.0-120	⁹ Sc
Vinyl chloride	25.0	28.6	115	64.0-133	
Xylenes, Total	75.0	73.6	98.1	77.0-120	
(S) Toluene-d8		102		80.0-120	
(S) Dibromofluoromethane		100		76.0-123	
(S) a,a,a-Trifluorotoluene		101		80.0-120	
(S) 4-Bromofluorobenzene		103		80.0-120	

L946873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946873-07 10/29/17 21:53 • (MS) R3262830-4 10/30/17 01:56 • (MSD) R3262830-5 10/30/17 02:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	U	160	143	128	114	1	10.0-139			11.2	25
Benzene	25.0	U	23.5	20.5	93.9	82.1	1	34.0-147			13.4	20
Bromodichloromethane	25.0	U	22.8	19.9	91.4	79.7	1	52.0-135			13.6	20
Bromochloromethane	25.0	U	23.3	19.8	93.4	79.0	1	53.0-138			16.6	20
n-Butylbenzene	25.0	U	23.9	21.3	95.7	85.4	1	50.0-144			11.4	20
Bromoform	25.0	U	23.7	20.3	95.0	81.3	1	50.0-146			15.4	20
sec-Butylbenzene	25.0	U	24.9	22.0	99.6	87.9	1	48.0-143			12.5	20
Bromomethane	25.0	U	12.8	11.0	51.1	44.0	1	10.0-160			14.9	23
tert-Butylbenzene	25.0	U	26.0	22.7	104	90.8	1	50.0-142			13.5	20
Carbon disulfide	25.0	U	17.4	15.6	69.6	62.5	1	10.0-147			10.8	20
Carbon tetrachloride	25.0	U	23.9	20.4	95.6	81.7	1	41.0-138			15.6	20
Chlorobenzene	25.0	U	24.4	21.3	97.7	85.3	1	52.0-141			13.5	20
Chlorodibromomethane	25.0	U	24.7	21.4	99.0	85.4	1	54.0-142			14.7	20
Chloroethane	25.0	U	21.8	19.5	87.1	78.1	1	23.0-160			10.9	20
Chloroform	25.0	U	25.3	22.4	101	89.5	1	50.0-139			12.2	20
Chloromethane	25.0	U	17.4	15.8	69.7	63.3	1	14.0-151			9.55	20
Cyclohexane	25.0	U	24.4	21.1	97.8	84.4	1	70.0-130			14.7	20
1,2-Dibromo-3-Chloropropane	25.0	U	26.3	23.6	105	94.4	1	49.0-144			10.7	24



L946873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946873-07 10/29/17 21:53 • (MS) R3262830-4 10/30/17 01:56 • (MSD) R3262830-5 10/30/17 02:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
1,2-Dibromoethane	25.0	U	26.6	23.1	106	92.6	1	54.0-140			13.9	20
1,2-Dichlorobenzene	25.0	U	24.6	21.7	98.5	86.9	1	56.0-139			12.5	20
1,3-Dichlorobenzene	25.0	U	24.3	21.3	97.3	85.0	1	50.0-141			13.5	20
1,4-Dichlorobenzene	25.0	U	22.7	20.0	90.7	79.8	1	53.0-136			12.7	20
Dichlorodifluoromethane	25.0	U	25.4	22.2	102	88.7	1	20.0-160			13.6	21
1,1-Dichloroethane	25.0	U	25.2	21.8	101	87.2	1	47.0-143			14.6	20
1,2-Dichloroethane	25.0	U	26.0	22.9	104	91.5	1	47.0-141			12.7	20
1,1-Dichloroethene	25.0	U	23.6	20.5	94.3	82.0	1	31.0-148			13.9	20
cis-1,2-Dichloroethene	25.0	U	23.6	21.2	94.4	84.6	1	43.0-142			10.9	20
trans-1,2-Dichloroethene	25.0	U	23.3	21.1	93.3	84.4	1	36.0-141			10.0	20
1,2-Dichloropropane	25.0	U	24.3	21.6	97.0	86.3	1	51.0-141			11.7	20
cis-1,3-Dichloropropene	25.0	U	23.0	20.1	92.1	80.3	1	53.0-139			13.7	20
trans-1,3-Dichloropropene	25.0	U	22.6	19.5	90.5	78.2	1	51.0-143			14.7	20
Ethylbenzene	25.0	U	24.8	21.5	99.3	86.2	1	42.0-147			14.1	20
2-Hexanone	125	U	177	148	141	119	1	36.0-145			17.4	23
p-Isopropyltoluene	25.0	U	24.9	21.6	99.7	86.3	1	49.0-146			14.5	20
Isopropylbenzene	25.0	U	25.4	22.6	102	90.3	1	48.0-141			11.9	20
2-Butanone (MEK)	125	U	177	153	142	123	1	12.0-149			14.6	24
Methyl Acetate	125	U	157	137	125	109	1	70.0-130			13.5	20.8
Methyl Cyclohexane	25.0	U	23.2	20.9	93.0	83.7	1	70.0-130			10.5	20.8
Methylene Chloride	25.0	U	21.6	18.8	86.4	75.4	1	42.0-135			13.6	20
4-Methyl-2-pentanone (MIBK)	125	U	183	158	146	126	1	44.0-160			14.7	22
Methyl tert-butyl ether	25.0	U	27.2	23.1	109	92.5	1	42.0-142			16.3	20
Naphthalene	25.0	U	22.0	19.7	87.9	78.9	1	42.0-146			10.8	24
n-Propylbenzene	25.0	U	24.9	22.0	99.5	87.8	1	47.0-144			12.5	20
Styrene	25.0	U	26.1	22.7	104	90.7	1	47.0-147			14.0	20
1,1,2,2-Tetrachloroethane	25.0	U	27.4	23.4	109	93.6	1	46.0-149			15.6	20
Tetrachloroethene	25.0	U	24.1	20.8	96.3	83.0	1	38.0-147			14.7	20
Toluene	25.0	U	23.0	20.0	91.9	79.9	1	42.0-141			14.0	20
1,1,2-Trichlorotrifluoroethane	25.0	U	27.9	24.8	111	99.0	1	40.0-151			11.8	21
1,2,3-Trichlorobenzene	25.0	U	22.2	20.2	88.7	80.7	1	45.0-145			9.39	22
1,2,4-Trichlorobenzene	25.0	U	23.5	20.9	94.2	83.6	1	49.0-147			11.9	21
1,1,1-Trichloroethane	25.0	U	25.2	21.7	101	86.9	1	46.0-140			14.8	20
1,1,2-Trichloroethane	25.0	U	25.7	21.9	103	87.5	1	54.0-139			15.9	20
Trichloroethene	25.0	U	24.9	22.2	99.7	88.6	1	32.0-156			11.8	20
Trichlorofluoromethane	25.0	U	27.7	24.5	111	98.1	1	32.0-152			12.2	20
1,2,4-Trimethylbenzene	25.0	U	24.6	21.2	98.3	85.0	1	41.0-146			14.5	20
1,3,5-Trimethylbenzene	25.0	U	24.6	21.3	98.3	85.0	1	44.0-143			14.6	20
Vinyl chloride	25.0	U	21.1	18.9	84.5	75.7	1	24.0-153			10.9	20
o-Xylene	25.0	U	24.7	21.1	98.8	84.5	1	44.0-146			15.6	20

ACCOUNT:

Lender Consulting Services - NY

PROJECT:

17B280.22

SDG:

L947155

DATE/TIME:

11/06/17 15:35

PAGE:

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L946873-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946873-07 10/29/17 21:53 • (MS) R3262830-4 10/30/17 01:56 • (MSD) R3262830-5 10/30/17 02:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Xylenes, Total	75.0	U	73.0	63.3	97.3	84.4	1	41.0-148			14.2	20
m&p-Xylenes	50.0	U	48.3	42.2	96.7	84.5	1	41.0-147			13.5	20
(S) Toluene-d8				101	101			80.0-120				
(S) Dibromofluoromethane				101	98.0			76.0-123				
(S) a,a,a-Trifluorotoluene				99.6	101			80.0-120				
(S) 4-Bromofluorobenzene				104	104			80.0-120				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3262439-2 11/01/17 21:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Acetone	U		10.0	50.0	¹ Cp
Benzene	U		0.331	1.00	² Tc
Bromodichloromethane	U		0.380	1.00	³ Ss
Bromochloromethane	U		0.520	1.00	⁴ Cn
Bromoform	U		0.469	1.00	⁵ Sr
Bromomethane	U		0.866	5.00	⁶ Qc
n-Butylbenzene	U		0.361	1.00	⁷ Gl
sec-Butylbenzene	U		0.365	1.00	⁸ Al
tert-Butylbenzene	U		0.399	1.00	⁹ Sc
Carbon disulfide	U		0.275	1.00	
Carbon tetrachloride	U		0.379	1.00	
Chlorobenzene	U		0.348	1.00	
Chlorodibromomethane	U		0.327	1.00	
Chloroethane	U		0.453	5.00	
Chloroform	U		0.324	5.00	
Chloromethane	U		0.276	2.50	
Cyclohexane	U		0.390	1.00	
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	
1,2-Dibromoethane	U		0.381	1.00	
1,2-Dichlorobenzene	U		0.349	1.00	
1,3-Dichlorobenzene	U		0.220	1.00	
1,4-Dichlorobenzene	U		0.274	1.00	
Dichlorodifluoromethane	U		0.551	5.00	
1,1-Dichloroethane	U		0.259	1.00	
1,2-Dichloroethane	U		0.361	1.00	
1,1-Dichloroethene	U		0.398	1.00	
cis-1,2-Dichloroethene	U		0.260	1.00	
trans-1,2-Dichloroethene	U		0.396	1.00	
1,2-Dichloropropane	U		0.306	1.00	
cis-1,3-Dichloropropene	U		0.418	1.00	
trans-1,3-Dichloropropene	U		0.419	1.00	
Ethylbenzene	U		0.384	1.00	
2-Hexanone	U		3.82	10.0	
Isopropylbenzene	U		0.326	1.00	
p-Isopropyltoluene	U		0.350	1.00	
2-Butanone (MEK)	U		3.93	10.0	
Methyl Acetate	U		4.30	20.0	
Methyl Cyclohexane	U		0.380	1.00	
Methylene Chloride	U		1.00	5.00	
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	



Method Blank (MB)

(MB) R3262439-2 11/01/17 21:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Methyl tert-butyl ether	U		0.367	1.00	¹ Cp
Naphthalene	U		1.00	5.00	² Tc
n-Propylbenzene	U		0.349	1.00	³ Ss
Styrene	U		0.307	1.00	⁴ Cn
1,1,2,2-Tetrachloroethane	U		0.130	1.00	⁵ Sr
Tetrachloroethene	U		0.372	1.00	⁶ Qc
Toluene	U		0.412	1.00	⁷ Gl
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	⁸ Al
1,2,3-Trichlorobenzene	U		0.230	1.00	⁹ Sc
1,2,4-Trichlorobenzene	U		0.355	1.00	
1,1,1-Trichloroethane	U		0.319	1.00	
1,1,2-Trichloroethane	U		0.383	1.00	
Trichloroethene	U		0.398	1.00	
Trichlorofluoromethane	U		1.20	5.00	
1,2,4-Trimethylbenzene	U		0.373	1.00	
1,3,5-Trimethylbenzene	U		0.387	1.00	
Vinyl chloride	U		0.259	1.00	
o-Xylene	U		0.341	1.00	
m&p-Xylenes	U		0.719	2.00	
(S) Toluene-d8	104		80.0-120		
(S) Dibromofluoromethane	100		76.0-123		
(S) a,a,a-Trifluorotoluene	100		80.0-120		
(S) 4-Bromofluorobenzene	96.7		80.0-120		

Laboratory Control Sample (LCS)

(LCS) R3262439-1 11/01/17 20:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	101	80.9	10.0-160	
Benzene	25.0	24.1	96.5	69.0-123	
Bromodichloromethane	25.0	25.0	99.9	76.0-120	
Bromochloromethane	25.0	26.4	106	76.0-122	
Bromoform	25.0	25.4	101	67.0-132	
Bromomethane	25.0	24.8	99.1	18.0-160	
n-Butylbenzene	25.0	24.9	99.8	72.0-126	
sec-Butylbenzene	25.0	25.6	103	74.0-121	
tert-Butylbenzene	25.0	24.4	97.5	75.0-122	
Carbon disulfide	25.0	23.5	93.8	55.0-127	



Laboratory Control Sample (LCS)

(LCS) R3262439-1 11/01/17 20:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	
Carbon tetrachloride	25.0	25.5	102	63.0-122		¹ Cp
Chlorobenzene	25.0	25.4	102	79.0-121		² Tc
Chlorodibromomethane	25.0	26.5	106	75.0-125		³ Ss
Chloroethane	25.0	28.1	112	47.0-152		⁴ Cn
Chloroform	25.0	25.3	101	72.0-121		⁵ Sr
Chloromethane	25.0	22.0	87.9	48.0-139		⁶ Qc
Cyclohexane	25.0	24.6	98.4	70.0-130		⁷ Gl
1,2-Dibromo-3-Chloropropane	25.0	25.1	100	64.0-127		⁸ Al
1,2-Dibromoethane	25.0	25.6	102	77.0-123		⁹ Sc
1,2-Dichlorobenzene	25.0	24.5	97.9	80.0-120		
1,3-Dichlorobenzene	25.0	25.4	101	72.0-123		
1,4-Dichlorobenzene	25.0	24.5	97.9	77.0-120		
Dichlorodifluoromethane	25.0	22.8	91.1	49.0-155		
1,1-Dichloroethane	25.0	25.6	102	70.0-126		
1,2-Dichloroethane	25.0	25.4	101	67.0-126		
1,1-Dichloroethylene	25.0	25.8	103	64.0-129		
cis-1,2-Dichloroethylene	25.0	24.7	99.0	73.0-120		
trans-1,2-Dichloroethylene	25.0	24.5	98.0	71.0-121		
1,2-Dichloropropane	25.0	25.6	102	75.0-125		
cis-1,3-Dichloropropene	25.0	24.9	99.6	79.0-123		
trans-1,3-Dichloropropene	25.0	25.3	101	74.0-127		
Ethylbenzene	25.0	25.3	101	77.0-120		
2-Hexanone	125	122	97.8	58.0-147		
Isopropylbenzene	25.0	25.4	102	75.0-120		
p-Isopropyltoluene	25.0	25.8	103	74.0-126		
2-Butanone (MEK)	125	129	104	37.0-158		
Methyl Acetate	125	123	98.1	70.0-130		
Methyl Cyclohexane	25.0	24.2	96.7	70.0-130		
Methylene Chloride	25.0	22.5	90.1	66.0-121		
4-Methyl-2-pentanone (MIBK)	125	122	97.8	59.0-143		
Methyl tert-butyl ether	25.0	25.2	101	64.0-123		
Naphthalene	25.0	25.5	102	62.0-128		
n-Propylbenzene	25.0	25.2	101	79.0-120		
Styrene	25.0	25.5	102	78.0-124		
1,1,2,2-Tetrachloroethane	25.0	23.6	94.6	71.0-122		
Tetrachloroethene	25.0	26.4	106	70.0-127		
Toluene	25.0	25.1	101	77.0-120		
1,1,2-Trichlorotrifluoroethane	25.0	25.0	99.9	61.0-136		
1,2,3-Trichlorobenzene	25.0	25.9	103	61.0-133		
1,2,4-Trichlorobenzene	25.0	25.2	101	69.0-129		



Laboratory Control Sample (LCS)

(LCS) R3262439-1 11/01/17 20:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,1,1-Trichloroethane	25.0	25.5	102	68.0-122	¹ Cp
1,1,2-Trichloroethane	25.0	25.5	102	78.0-120	² Tc
Trichloroethene	25.0	25.3	101	78.0-120	³ Ss
Trichlorofluoromethane	25.0	25.7	103	56.0-137	⁴ Cn
1,2,4-Trimethylbenzene	25.0	25.4	102	75.0-120	⁵ Sr
1,3,5-Trimethylbenzene	25.0	25.1	100	75.0-120	⁶ Qc
Vinyl chloride	25.0	25.4	102	64.0-133	⁷ Gl
o-Xylene	25.0	25.1	101	78.0-120	⁸ Al
m&p-Xylenes	50.0	51.9	104	77.0-120	⁹ Sc
(S) Toluene-d8		103	80.0-120		
(S) Dibromofluoromethane		99.5	76.0-123		
(S) a,a,a-Trifluorotoluene		102	80.0-120		
(S) 4-Bromofluorobenzene		99.8	80.0-120		



Method Blank (MB)

(MB) R3262127-2 10/31/17 10:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3262127-2 10/31/17 10:23

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
o-Xylene	U		0.341	1.00
m&p-Xylenes	U		0.719	2.00
(S) Toluene-d8	108		80.0-120	
(S) Dibromofluoromethane	91.1		76.0-123	
(S) a,a,a-Trifluorotoluene	105		80.0-120	
(S) 4-Bromofluorobenzene	105		80.0-120	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3262127-1 10/31/17 09:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	99.7	79.8	10.0-160	
Benzene	25.0	21.7	87.0	69.0-123	
Bromodichloromethane	25.0	22.8	91.3	76.0-120	
Bromochloromethane	25.0	22.2	88.6	76.0-122	
Bromoform	25.0	24.5	98.1	67.0-132	
Bromomethane	25.0	26.4	105	18.0-160	
n-Butylbenzene	25.0	24.4	97.5	72.0-126	
sec-Butylbenzene	25.0	23.9	95.8	74.0-121	
tert-Butylbenzene	25.0	23.5	93.8	75.0-122	
Carbon disulfide	25.0	25.6	102	55.0-127	



Laboratory Control Sample (LCS)

(LCS) R3262127-1 10/31/17 09:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	
Carbon tetrachloride	25.0	21.0	84.0	63.0-122		¹ Cp
Chlorobenzene	25.0	23.9	95.8	79.0-121		² Tc
Chlorodibromomethane	25.0	24.8	99.4	75.0-125		³ Ss
Chloroethane	25.0	24.6	98.2	47.0-152		⁴ Cn
Chloroform	25.0	22.0	87.8	72.0-121		⁵ Sr
Chloromethane	25.0	20.9	83.7	48.0-139		⁶ Qc
Cyclohexane	25.0	21.0	83.9	70.0-130		⁷ Gl
1,2-Dibromo-3-Chloropropane	25.0	23.2	92.9	64.0-127		⁸ Al
1,2-Dibromoethane	25.0	24.2	96.7	77.0-123		⁹ Sc
1,2-Dichlorobenzene	25.0	23.8	95.0	80.0-120		
1,3-Dichlorobenzene	25.0	23.1	92.4	72.0-123		
1,4-Dichlorobenzene	25.0	23.4	93.7	77.0-120		
Dichlorodifluoromethane	25.0	21.0	83.9	49.0-155		
1,1-Dichloroethane	25.0	21.7	86.9	70.0-126		
1,2-Dichloroethane	25.0	20.6	82.4	67.0-126		
1,1-Dichloroethene	25.0	21.9	87.4	64.0-129		
cis-1,2-Dichloroethene	25.0	21.8	87.0	73.0-120		
trans-1,2-Dichloroethene	25.0	21.7	86.7	71.0-121		
1,2-Dichloropropane	25.0	24.1	96.2	75.0-125		
cis-1,3-Dichloropropene	25.0	24.5	98.1	79.0-123		
trans-1,3-Dichloropropene	25.0	25.5	102	74.0-127		
Ethylbenzene	25.0	24.8	99.3	77.0-120		
2-Hexanone	125	109	87.5	58.0-147		
Isopropylbenzene	25.0	23.7	95.0	75.0-120		
p-Isopropyltoluene	25.0	24.7	99.0	74.0-126		
2-Butanone (MEK)	125	99.1	79.3	37.0-158		
Methyl Acetate	125	112	89.6	70.0-130		
Methyl Cyclohexane	25.0	27.3	109	70.0-130		
Methylene Chloride	25.0	20.7	82.8	66.0-121		
4-Methyl-2-pentanone (MIBK)	125	113	90.1	59.0-143		
Methyl tert-butyl ether	25.0	21.2	84.9	64.0-123		
Naphthalene	25.0	22.9	91.4	62.0-128		
n-Propylbenzene	25.0	23.4	93.8	79.0-120		
Styrene	25.0	24.3	97.4	78.0-124		
1,1,2,2-Tetrachloroethane	25.0	22.3	89.1	71.0-122		
Tetrachloroethene	25.0	24.9	99.6	70.0-127		
Toluene	25.0	24.2	97.0	77.0-120		
1,1,2-Trichlorotrifluoroethane	25.0	22.4	89.7	61.0-136		
1,2,3-Trichlorobenzene	25.0	23.5	93.8	61.0-133		
1,2,4-Trichlorobenzene	25.0	23.5	93.9	69.0-129		



Laboratory Control Sample (LCS)

(LCS) R3262127-1 10/31/17 09:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,1,1-Trichloroethane	25.0	21.8	87.3	68.0-122	¹ Cp
1,1,2-Trichloroethane	25.0	23.9	95.5	78.0-120	² Tc
Trichloroethene	25.0	24.2	96.7	78.0-120	³ Ss
Trichlorofluoromethane	25.0	21.0	84.1	56.0-137	⁴ Cn
1,2,4-Trimethylbenzene	25.0	22.9	91.5	75.0-120	⁵ Sr
1,3,5-Trimethylbenzene	25.0	23.2	92.9	75.0-120	⁶ Qc
Vinyl chloride	25.0	20.5	82.0	64.0-133	⁷ Gl
o-Xylene	25.0	24.2	97.0	78.0-120	⁸ Al
m&p-Xylenes	50.0	48.2	96.4	77.0-120	⁹ Sc
(S) Toluene-d8		105	80.0-120		
(S) Dibromofluoromethane		90.0	76.0-123		
(S) a,a,a-Trifluorotoluene		104	80.0-120		
(S) 4-Bromofluorobenzene		103	80.0-120		



L947155-02,03,04

Method Blank (MB)

(MB) R3262777-1 11/02/17 17:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
PCB 1260	U		0.120	0.500
PCB 1016	U		0.100	0.500
PCB 1221	U		0.0730	0.500
PCB 1232	U		0.0420	0.500
PCB 1242	U		0.0470	0.500
PCB 1248	U		0.0860	0.500
PCB 1254	U		0.0470	0.500
(S) Decachlorobiphenyl	86.0		10.0-144	
(S) Tetrachloro-m-xylene	62.3		10.0-135	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262777-2 11/02/17 17:16 • (LCSD) R3262777-3 11/02/17 17:28

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits %
PCB 1260	2.50	1.85	2.27	74.2	90.8	45.0-142			20.2	24
PCB 1016	2.50	1.59	1.70	63.6	68.1	41.0-134			6.94	23
(S) Decachlorobiphenyl				82.0	78.1	10.0-144				
(S) Tetrachloro-m-xylene				47.3	47.3	10.0-135				



Method Blank (MB)

(MB) R3263320-3 11/04/17 11:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Acetophenone	U		2.71	10.0
Anthracene	U		0.291	1.00
Atrazine	U		0.260	10.0
Benzaldehyde	U		1.40	10.0
Benzo(a)anthracene	U		0.0975	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(a)pyrene	U		0.340	1.00
Biphenyl	U		0.325	10.0
Bis(2-chlorethoxy)methane	U		0.329	10.0
Bis(2-chloroethyl)ether	U		1.62	10.0
Bis(2-chloroisopropyl)ether	U		0.445	10.0
4-Bromophenyl-phenylether	U		0.335	10.0
Caprolactam	U		2.59	10.0
Carbazole	U		0.260	10.0
4-Chloroaniline	U		0.382	10.0
2-Chloronaphthalene	U		0.330	1.00
4-Chlorophenyl-phenylether	U		0.303	10.0
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
Dibenzofuran	U		0.338	10.0
3,3-Dichlorobenzidine	U		2.02	10.0
2,4-Dinitrotoluene	U		1.65	10.0
2,6-Dinitrotoluene	U		0.279	10.0
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Hexachlorobenzene	U		0.341	1.00
Hexachloro-1,3-butadiene	U		0.329	10.0
Hexachlorocyclopentadiene	U		2.33	10.0
Hexachloroethane	U		0.365	10.0
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Isophorone	U		0.272	10.0
2-Methylnaphthalene	U		0.311	1.00
Naphthalene	U		0.372	1.00
2-Nitroaniline	U		1.90	10.0
3-Nitroaniline	U		0.308	10.0
4-Nitroaniline	U		0.349	10.0

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3263320-3 11/04/17 11:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	
Nitrobenzene	U		0.367	10.0	¹ Cp
n-Nitrosodiphenylamine	U		0.304	10.0	² Tc
n-Nitrosodi-n-propylamine	U		0.403	10.0	³ Ss
Phenanthrene	U		0.366	1.00	⁴ Cn
Benzylbutyl phthalate	U		0.275	3.00	⁵ Sr
Bis(2-ethylhexyl)phthalate	1.95	J	0.709	3.00	⁶ Qc
Di-n-butyl phthalate	U		0.266	3.00	⁷ Gl
Diethyl phthalate	U		0.282	3.00	⁸ Al
Dimethyl phthalate	U		0.283	3.00	⁹ Sc
Di-n-octyl phthalate	U		0.278	1.00	
Pyrene	U		0.330	1.00	
4-Chloro-3-methylphenol	U		0.263	10.0	
2-Chlorophenol	U		0.283	10.0	
2-Methylphenol	U		0.312	10.0	
3&4-Methyl Phenol	U		0.266	10.0	
2,4-Dichlorophenol	U		0.284	10.0	
2,4-Dimethylphenol	U		0.624	10.0	
4,6-Dinitro-2-methylphenol	U		2.62	10.0	
2,4-Dinitrophenol	U		3.25	10.0	
2-Nitrophenol	U		0.320	10.0	
4-Nitrophenol	U		2.01	10.0	
Pentachlorophenol	U		0.313	10.0	
Phenol	U		0.334	10.0	
1,2,4,5-Tetrachlorobenzene	U		2.41	10.0	
2,4,5-Trichlorophenol	U		0.236	10.0	
2,4,6-Trichlorophenol	U		0.297	10.0	
(S) Nitrobenzene-d5	91.6			10.0-126	
(S) 2-Fluorobiphenyl	87.4			22.0-127	
(S) p-Terphenyl-d14	77.6			29.0-141	
(S) Phenol-d5	41.4			10.0-120	
(S) 2-Fluorophenol	67.3			10.0-120	
(S) 2,4,6-Tribromophenol	118			10.0-153	



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263320-1 11/04/17 10:44 • (LCSD) R3263320-2 11/04/17 11:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthene	50.0	40.3	36.9	80.6	73.7	42.0-120			8.99	22
Acenaphthylene	50.0	44.5	41.2	89.1	82.4	43.0-120			7.74	22
Acetophenone	50.0	46.8	41.6	93.6	83.3	28.0-120			11.7	27
Anthracene	50.0	44.0	42.7	88.0	85.3	44.0-120			3.11	20
Atrazine	50.0	56.5	51.9	113	104	45.0-123			8.53	27
Benzaldehyde	50.0	68.9	81.6	138	163	10.0-138	J4		16.9	40
Benzo(a)anthracene	50.0	42.6	40.4	85.2	80.9	44.0-120			5.17	20
Benzo(b)fluoranthene	50.0	42.9	39.5	85.8	79.1	40.0-120			8.19	21
Benzo(k)fluoranthene	50.0	41.1	38.1	82.2	76.2	41.0-120			7.48	22
Benzo(g,h,i)perylene	50.0	47.9	43.9	95.7	87.8	45.0-121			8.67	20
Benzo(a)pyrene	50.0	43.5	40.6	87.1	81.1	41.0-120			7.05	20
Biphenyl	50.0	41.5	37.1	83.0	74.2	37.0-120			11.2	27
Bis(2-chlorethoxy)methane	50.0	39.7	37.0	79.4	74.0	36.0-120			7.05	25
Bis(2-chloroethyl)ether	50.0	46.3	41.1	92.7	82.2	24.0-120			12.1	29
Bis(2-chloroisopropyl)ether	50.0	37.1	34.4	74.3	68.9	32.0-120			7.55	29
4-Bromophenyl-phenylether	50.0	47.2	45.8	94.5	91.6	42.0-121			3.07	21
Caprolactam	50.0	14.0	14.6	27.9	29.2	10.0-120			4.53	31
Carbazole	50.0	42.5	41.6	85.0	83.2	45.0-121			2.12	22
4-Chloroaniline	50.0	45.5	42.8	91.1	85.6	23.0-120			6.16	28
2-Chloronaphthalene	50.0	40.2	37.2	80.4	74.4	37.0-120			7.71	24
4-Chlorophenyl-phenylether	50.0	45.3	40.7	90.6	81.4	44.0-120			10.6	21
Chrysene	50.0	42.2	41.0	84.5	82.0	45.0-120			3.05	20
Dibenz(a,h)anthracene	50.0	48.8	45.2	97.5	90.4	44.0-121			7.65	21
Dibenzofuran	50.0	40.8	38.4	81.6	76.8	42.0-120			6.10	21
3,3-Dichlorobenzidine	50.0	47.4	45.5	94.8	90.9	29.0-153			4.15	23
2,4-Dinitrotoluene	50.0	45.3	42.7	90.6	85.5	47.0-127			5.88	21
2,6-Dinitrotoluene	50.0	40.9	37.9	81.7	75.7	42.0-120			7.65	22
Fluoranthene	50.0	45.8	45.2	91.7	90.4	46.0-121			1.38	20
Fluorene	50.0	44.6	39.9	89.2	79.7	45.0-120			11.2	21
Hexachlorobenzene	50.0	52.0	51.2	104	102	41.0-124			1.63	21
Hexachloro-1,3-butadiene	50.0	39.5	34.4	78.9	68.8	26.0-120			13.7	31
Hexachlorocyclopentadiene	50.0	37.4	33.1	74.8	66.2	10.0-120			12.2	31
Hexachloroethane	50.0	37.8	30.3	75.5	60.7	22.0-120			21.8	34
Indeno(1,2,3-cd)pyrene	50.0	49.9	45.8	99.9	91.7	45.0-123			8.58	21
Isophorone	50.0	44.5	42.4	89.0	84.8	37.0-120			4.87	24
2-Methylnaphthalene	50.0	33.2	30.8	66.4	61.5	35.0-120			7.67	25
Naphthalene	50.0	33.9	32.1	67.9	64.3	33.0-120			5.50	28
2-Nitroaniline	50.0	42.6	38.3	85.2	76.5	43.0-120			10.8	23
3-Nitroaniline	50.0	41.4	38.9	82.8	77.8	35.0-123			6.28	25
4-Nitroaniline	50.0	44.4	42.4	88.8	84.8	23.0-160			4.57	26

ACCOUNT:

Lender Consulting Services - NY

PROJECT:

17B280.22

SDG:

L947155

DATE/TIME:

11/06/17 15:35

PAGE:

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263320-1 11/04/17 10:44 • (LCSD) R3263320-2 11/04/17 11:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Nitrobenzene	50.0	42.0	39.0	84.1	78.1	31.0-120			7.38	28
n-Nitrosodiphenylamine	50.0	41.3	40.7	82.7	81.4	44.0-120			1.60	21
n-Nitrosodi-n-propylamine	50.0	47.1	41.7	94.1	83.3	29.0-120			12.2	27
Phenanthrene	50.0	41.1	40.1	82.3	80.3	42.0-120			2.44	20
Benzylbutyl phthalate	50.0	39.7	37.4	79.4	74.8	36.0-123			5.97	22
Bis(2-ethylhexyl)phthalate	50.0	42.1	38.0	84.3	76.0	37.0-121			10.3	21
Di-n-butyl phthalate	50.0	46.5	45.5	93.0	90.9	43.0-122			2.25	21
Diethyl phthalate	50.0	46.7	42.2	93.5	84.4	48.0-123			10.2	20
Dimethyl phthalate	50.0	45.7	40.3	91.5	80.6	47.0-120			12.7	20
Di-n-octyl phthalate	50.0	41.6	38.8	83.2	77.5	38.0-120			7.02	22
Pyrene	50.0	41.2	38.8	82.4	77.5	43.0-120			6.02	21
4-Chloro-3-methylphenol	50.0	42.2	37.2	84.5	74.5	39.0-120			12.6	22
2-Chlorophenol	50.0	39.7	34.2	79.3	68.3	28.0-120			14.9	29
2-Methylphenol	50.0	38.3	32.5	76.6	64.9	26.0-120			16.5	27
3&4-Methyl Phenol	50.0	41.6	34.7	83.2	69.4	27.0-120			18.1	28
2,4-Dichlorophenol	50.0	39.2	36.7	78.3	73.4	37.0-120			6.47	26
2,4-Dimethylphenol	50.0	41.1	36.9	82.2	73.7	35.0-120			10.9	25
4,6-Dinitro-2-methylphenol	50.0	39.1	37.2	78.1	74.4	34.0-125			4.85	27
2,4-Dinitrophenol	50.0	27.6	21.3	55.2	42.6	10.0-120			25.8	40
2-Nitrophenol	50.0	39.2	36.4	78.4	72.8	35.0-120			7.43	28
4-Nitrophenol	50.0	15.9	12.4	31.8	24.9	10.0-120			24.5	35
Pentachlorophenol	50.0	29.9	30.5	59.8	61.1	20.0-126			2.16	32
Phenol	50.0	22.5	18.3	44.9	36.5	10.0-120			20.6	34
1,2,4,5-Tetrachlorobenzene	50.0	50.9	47.6	102	95.2	31.0-120			6.70	26
2,4,5-Trichlorophenol	50.0	48.5	42.7	97.0	85.3	44.0-124			12.9	24
2,4,6-Trichlorophenol	50.0	46.9	44.7	93.8	89.4	40.0-122			4.84	24
(S) Nitrobenzene-d5				102	97.5	10.0-126				
(S) 2-Fluorobiphenyl				96.8	90.5	22.0-127				
(S) p-Terphenyl-d14				78.3	88.6	29.0-141				
(S) Phenol-d5				51.5	42.6	10.0-120				
(S) 2-Fluorophenol				81.5	64.6	10.0-120				
(S) 2,4,6-Tribromophenol				150	155	10.0-153	J1			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

[L947155-01,05](#)

Method Blank (MB)

(MB) R3262229-3 11/01/17 15:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.291	1.00
Acenaphthene	U		0.316	1.00
Acenaphthylene	U		0.309	1.00
Benzo(a)anthracene	U		0.0975	1.00
Benzo(a)pyrene	U		0.340	1.00
Benzo(b)fluoranthene	U		0.0896	1.00
Benzo(g,h,i)perylene	U		0.161	1.00
Benzo(k)fluoranthene	U		0.355	1.00
Chrysene	U		0.332	1.00
Dibenz(a,h)anthracene	U		0.279	1.00
Fluoranthene	U		0.310	1.00
Fluorene	U		0.323	1.00
Indeno(1,2,3-cd)pyrene	U		0.279	1.00
Naphthalene	U		0.0297	1.00
Phenanthrene	U		0.366	1.00
Pyrene	U		0.330	1.00
(S) Nitrobenzene-d5	74.2		10.0-147	
(S) 2-Fluorobiphenyl	86.5		15.0-137	
(S) p-Terphenyl-d14	79.4		12.0-126	

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262229-1 11/01/17 14:12 • (LCSD) R3262229-2 11/01/17 14:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	10.0	7.39	7.60	73.9	76.0	39.0-121			2.71	23
Acenaphthylene	10.0	7.09	7.30	70.9	73.0	37.0-125			2.87	23
Anthracene	10.0	7.02	7.10	70.2	71.0	37.0-125			1.11	23
Benzo(a)anthracene	10.0	7.02	7.09	70.2	70.9	39.0-126			0.960	22
Benzo(b)fluoranthene	10.0	6.62	7.55	66.2	75.5	35.0-130			13.2	22
Benzo(k)fluoranthene	10.0	7.52	7.25	75.2	72.5	35.0-129			3.74	29
Benzo(g,h,i)perylene	10.0	4.83	6.60	48.3	66.0	36.0-138	J3		31.0	25
Benzo(a)pyrene	10.0	6.93	7.15	69.3	71.5	37.0-135			3.21	21
Chrysene	10.0	7.48	7.69	74.8	76.9	40.0-128			2.75	23
Dibenz(a,h)anthracene	10.0	5.08	6.35	50.8	63.5	34.0-135			22.3	24
Fluoranthene	10.0	8.21	8.13	82.1	81.3	42.0-136			0.930	23
Fluorene	10.0	7.23	7.56	72.3	75.6	40.0-125			4.40	22
Naphthalene	10.0	7.26	7.31	72.6	73.1	37.0-120			0.590	23
Phenanthrene	10.0	7.13	7.09	71.3	70.9	37.0-126			0.610	22

ACCOUNT:

Lender Consulting Services - NY

PROJECT:

17B280.22

SDG:

L947155

DATE/TIME:

11/06/17 15:35

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262229-1 11/01/17 14:12 • (LCSD) R3262229-2 11/01/17 14:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Pyrene	10.0	7.40	8.22	74.0	82.2	33.0-141			10.4	23
Indeno(1,2,3-cd)pyrene	10.0	5.16	6.45	51.6	64.5	34.0-138			22.1	24
(S) Nitrobenzene-d5				80.4	75.0	10.0-147				
(S) 2-Fluorobiphenyl				91.1	83.8	15.0-137				
(S) p-Terphenyl-d14				83.9	84.4	12.0-126				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.	¹ Cp
RDL	Reported Detection Limit.	² Tc
Rec.	Recovery.	³ Ss
RPD	Relative Percent Difference.	⁴ Cn
SDG	Sample Delivery Group.	⁵ Sr
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	⁶ Qc
U	Not detected at the Reporting Limit (or MDL where applicable).	⁷ Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁸ Al
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	⁹ Sc
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

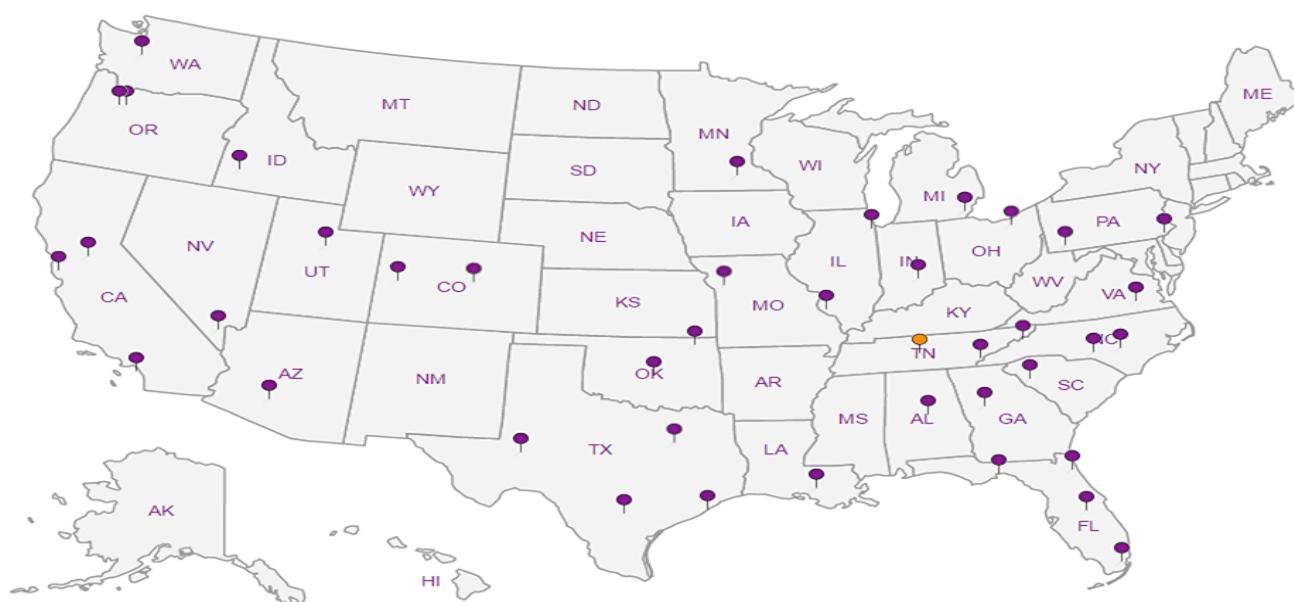
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Company Name/Address:

Lender Consulting Services, Inc
40 LaRiviere Drive, Suite 120
Buffalo, NY 14202

Billing Information:

Accounts Payable
40 LaRiviere Drive, Suite 120
Buffalo, NY 14202

Report to:

Doug Reid

Project

Hertel 9 Noirs

Description:

City/State
Collected: Buffalo NY

Phone: 800-474-6802

Client Project #

17B280.22

Fax: 716-845-6164

Lab Project #

Collected by (print):

Brandon Stew

Site/Facility ID #

P.O. #

17B280.22

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day	200%
Next Day	100%
Two Day	50%
Three Day	25%

Date Results Needed

Email?	No	Yes
FAX?	No	Yes

No.
of

Cntrs

Immediately

Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	CPSI + TCE VOC	TCE VOC	CPSI SVOC	TCE SVOC	PCBS	Lead	CPSI VOC	
TPMW1	G	GW	-	10-27		3	X	X						-01
TPMW2	G	GW	-	10-27		6	X		X X X					-02
TPMW3	Dry			10-27										
TPMW4	G	GW	-	10-27		6	X		X X X					-03
TPMW5	G	GW	-	10-27		6	X		X X X					-04
TPMW6	G	GW	-	10-27		3		X				X		-05
TPMW7	G	GW	-	10-27		3		X				X		-06
TPMW8	G	GW	-	10-27		3		X				X		-07

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Lab Filter & Preservative TPMW2, TPMW4, TMW5 5781 0507 6033

Flow _____ Other _____

Hold #

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Samples returned via: UPS FedEx Courier

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:

1.3

30

COC Seal Intact: Y N NA

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

pH Checked:

NCF:

10/28/17

08:45

Chain of Custody Page 3 of 3



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5658
Phone: 800-767-5859
Fax: 615-758-5859



L# 947155

D009

Acctnum: LCSBNY

Template:

Prelogin:

TSR: 364 Alan Harvill

PB:

Shipped Via:

Rem./Contaminant Sample # (lab only)

ESC LAB SCIENCES
Cooler Receipt Form

Client: <i>UCBNY</i>	SDG#	<i>947155</i>	
Cooler Received/Opened On: 10/28/17	Temperature:	<i>1.3</i>	
Received By: Kevin Turner			
Signature: <i>Kev Turner</i>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?			
Bottles arrive intact?			
Correct bottles used?			
Sufficient volume sent?			
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?		<i>nope</i>	

November 08, 2017

Lender Consulting Services - NY

Sample Delivery Group: L946990
Samples Received: 10/27/2017
Project Number: 17B280.22
Description: Elmwood & Hertel Ave

Report To: Mr. Doug Reid
40 La Riviere Dr., Ste. 120
Buffalo, NY 14202

Entire Report Reviewed By:



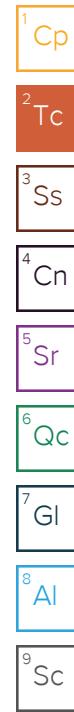
Alan Harvill

T. Alan Harvill
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



				Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Total Solids by Method 2540 G-2011	WG1038102	1	11/02/17 13:06	11/02/17 13:24	KDW	¹ Cp
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/24/17 00:00	10/30/17 12:10	DWR	² Tc
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	1	11/05/17 11:05	11/06/17 05:54	CLG	³ Ss
				Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Total Solids by Method 2540 G-2011	WG1038099	1	11/02/17 13:50	11/02/17 14:01	KDW	⁴ Cn
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/24/17 00:00	10/30/17 12:30	DWR	⁵ Sr
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	1	11/05/17 11:05	11/06/17 06:19	CLG	⁶ Qc
				Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Total Solids by Method 2540 G-2011	WG1038101	1	11/02/17 13:28	11/02/17 13:48	KDW	⁷ Gl
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:19	ABL	⁸ Al
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 02:47	TRB	⁹ Sc
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/24/17 00:00	10/30/17 12:50	DWR	
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 15:03	JNS	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	1	11/02/17 08:15	11/03/17 09:10	KMP	
				Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Total Solids by Method 2540 G-2011	WG1038102	1	11/02/17 13:06	11/02/17 13:24	KDW	
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:21	ABL	
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 02:50	TRB	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/24/17 00:00	10/30/17 13:10	DWR	
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 15:16	JNS	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	10	11/02/17 08:15	11/03/17 15:21	KMP	
				Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Total Solids by Method 2540 G-2011	WG1038098	1	11/02/17 14:03	11/02/17 14:14	KDW	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	1	10/24/17 00:00	11/02/17 01:51	JHH	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	1	10/24/17 00:00	11/03/17 11:19	JHH	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	1	11/05/17 11:05	11/06/17 06:44	CLG	
				Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	
Total Solids by Method 2540 G-2011	WG1038101	1	11/02/17 13:28	11/02/17 13:48	KDW	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	1.08	10/24/17 00:00	11/02/17 02:07	JHH	
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	1.08	10/24/17 00:00	11/03/17 11:38	JHH	
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	1	11/05/17 11:05	11/06/17 07:10	CLG	

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038102	1	11/02/17 13:06	11/02/17 13:24	KDW
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:27	ABL
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 03:00	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1.23	10/25/17 00:00	10/30/17 15:29	DWR
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 15:28	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	10	11/02/17 08:15	11/03/17 15:45	KMP
			Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038098	1	11/02/17 14:03	11/02/17 14:14	KDW
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:30	ABL
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 03:03	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/25/17 00:00	10/30/17 15:49	DWR
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 15:41	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	1	11/02/17 08:15	11/03/17 09:33	KMP
			Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038102	1	11/02/17 13:06	11/02/17 13:24	KDW
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 03:07	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/24/17 00:00	10/30/17 16:08	DWR
			Collected by Brandon Stau	Collected date/time 10/24/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038099	1	11/02/17 13:50	11/02/17 14:01	KDW
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 03:10	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/24/17 00:00	10/30/17 16:28	DWR
			Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038101	1	11/02/17 13:28	11/02/17 13:48	KDW
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:32	ABL
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 02:30	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1.18	10/25/17 00:00	10/30/17 16:48	DWR
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 15:53	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	100	11/02/17 08:15	11/07/17 18:57	CJR

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



		Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038098	1	11/02/17 14:03	11/02/17 14:14	KDW
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:34	ABL
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 03:13	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1.07	10/25/17 00:00	10/30/17 17:08	DWR
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 16:06	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	1	11/02/17 08:15	11/03/17 09:56	KMP
		Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038098	1	11/02/17 14:03	11/02/17 14:14	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	1.26	10/25/17 00:00	11/02/17 02:23	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	12.6	10/25/17 00:00	11/03/17 12:16	JHH
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	20	11/05/17 11:05	11/06/17 16:51	CLG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	5	11/05/17 11:05	11/06/17 08:25	CLG
		Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038098	1	11/02/17 14:03	11/02/17 14:14	KDW
Mercury by Method 7471B	WG1036765	1	11/02/17 15:01	11/03/17 10:36	ABL
Metals (ICP) by Method 6010C	WG1038437	1	11/02/17 15:49	11/03/17 03:17	TRB
Metals (ICP) by Method 6010C	WG1038437	10	11/02/17 15:49	11/03/17 10:58	TRB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036996	1	10/25/17 00:00	10/30/17 17:28	DWR
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1038449	1	11/05/17 06:40	11/06/17 16:43	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1037943	10	11/02/17 08:15	11/03/17 16:08	KMP
		Collected by Brandon Stau	Collected date/time 10/25/17 00:00	Received date/time 10/27/17 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1038102	1	11/02/17 13:06	11/02/17 13:24	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1037545	1	10/25/17 00:00	11/02/17 02:39	JHH
Semi Volatile Organic Compounds (GC/MS) by Method 8270D	WG1039312	1	11/05/17 11:05	11/06/17 07:35	CLG

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

T. Alan Harvill
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	77.1		1	11/02/2017 13:24	WG1038102

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	118		13.0	64.8	1	10/30/2017 12:10	WG1036996
Benzene	1.25	J	0.350	1.30	1	10/30/2017 12:10	WG1036996
Bromochloromethane	U		0.506	1.30	1	10/30/2017 12:10	WG1036996
Bromodichloromethane	U		0.329	1.30	1	10/30/2017 12:10	WG1036996
Bromoform	U		0.550	1.30	1	10/30/2017 12:10	WG1036996
Bromomethane	U		1.74	6.48	1	10/30/2017 12:10	WG1036996
Carbon disulfide	0.440	J	0.287	1.30	1	10/30/2017 12:10	WG1036996
Carbon tetrachloride	U		0.425	1.30	1	10/30/2017 12:10	WG1036996
Chlorobenzene	U		0.275	1.30	1	10/30/2017 12:10	WG1036996
Chlorodibromomethane	U		0.484	1.30	1	10/30/2017 12:10	WG1036996
Chloroethane	U		1.23	6.48	1	10/30/2017 12:10	WG1036996
Chloroform	U		0.297	6.48	1	10/30/2017 12:10	WG1036996
Chloromethane	U		0.486	3.24	1	10/30/2017 12:10	WG1036996
Cyclohexane	2.80		0.454	1.30	1	10/30/2017 12:10	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.36	6.48	1	10/30/2017 12:10	WG1036996
1,2-Dibromoethane	U		0.445	1.30	1	10/30/2017 12:10	WG1036996
Dichlorodifluoromethane	U		0.925	6.48	1	10/30/2017 12:10	WG1036996
1,1-Dichloroethane	U		0.258	1.30	1	10/30/2017 12:10	WG1036996
1,2-Dichloroethane	U		0.344	1.30	1	10/30/2017 12:10	WG1036996
1,2-Dichlorobenzene	U		0.396	1.30	1	10/30/2017 12:10	WG1036996
1,3-Dichlorobenzene	U		0.310	1.30	1	10/30/2017 12:10	WG1036996
1,4-Dichlorobenzene	U		0.293	1.30	1	10/30/2017 12:10	WG1036996
1,1-Dichloroethene	U		0.393	1.30	1	10/30/2017 12:10	WG1036996
cis-1,2-Dichloroethene	U		0.305	1.30	1	10/30/2017 12:10	WG1036996
trans-1,2-Dichloroethene	U		0.342	1.30	1	10/30/2017 12:10	WG1036996
1,2-Dichloropropane	U		0.464	1.30	1	10/30/2017 12:10	WG1036996
cis-1,3-Dichloropropene	U		0.340	1.30	1	10/30/2017 12:10	WG1036996
trans-1,3-Dichloropropene	U		0.346	1.30	1	10/30/2017 12:10	WG1036996
Ethylbenzene	U		0.385	1.30	1	10/30/2017 12:10	WG1036996
2-Hexanone	U		1.78	13.0	1	10/30/2017 12:10	WG1036996
Isopropylbenzene	U		0.315	13.0	1	10/30/2017 12:10	WG1036996
2-Butanone (MEK)	37.0		6.07	13.0	1	10/30/2017 12:10	WG1036996
Methyl Acetate	U		7.91	25.9	1	10/30/2017 12:10	WG1036996
Methyl Cyclohexane	7.21		0.493	1.30	1	10/30/2017 12:10	WG1036996
Methylene Chloride	U		1.30	6.48	1	10/30/2017 12:10	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.44	13.0	1	10/30/2017 12:10	WG1036996
Methyl tert-butyl ether	U		0.275	1.30	1	10/30/2017 12:10	WG1036996
Naphthalene	U		1.30	6.48	1	10/30/2017 12:10	WG1036996
Styrene	U		0.303	1.30	1	10/30/2017 12:10	WG1036996
1,1,2,2-Tetrachloroethane	U		0.473	1.30	1	10/30/2017 12:10	WG1036996
Tetrachloroethene	U		0.358	1.30	1	10/30/2017 12:10	WG1036996
Toluene	1.78	J	0.563	6.48	1	10/30/2017 12:10	WG1036996
1,2,3-Trichlorobenzene	U		0.397	1.30	1	10/30/2017 12:10	WG1036996
1,2,4-Trichlorobenzene	U		0.503	1.30	1	10/30/2017 12:10	WG1036996
1,1,1-Trichloroethane	U		0.371	1.30	1	10/30/2017 12:10	WG1036996
1,1,2-Trichloroethane	U		0.359	1.30	1	10/30/2017 12:10	WG1036996
Trichloroethene	U		0.362	1.30	1	10/30/2017 12:10	WG1036996
Trichlorofluoromethane	U		0.495	6.48	1	10/30/2017 12:10	WG1036996
1,1,2-Trichlorotrifluoroethane	U		0.473	1.30	1	10/30/2017 12:10	WG1036996
Vinyl chloride	U		0.377	1.30	1	10/30/2017 12:10	WG1036996



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
o-Xylene	0.555	J	0.475	1.30	1	10/30/2017 12:10	WG1036996
m&p-Xylenes	1.38	J	0.431	2.59	1	10/30/2017 12:10	WG1036996
n-Butylbenzene	U	JO	0.335	1.30	1	10/30/2017 12:10	WG1036996
sec-Butylbenzene	U		0.261	1.30	1	10/30/2017 12:10	WG1036996
tert-Butylbenzene	U		0.267	1.30	1	10/30/2017 12:10	WG1036996
1,2,4-Trimethylbenzene	0.929	J	0.274	1.30	1	10/30/2017 12:10	WG1036996
1,3,5-Trimethylbenzene	0.557	J	0.345	1.30	1	10/30/2017 12:10	WG1036996
n-Propylbenzene	U		0.267	1.30	1	10/30/2017 12:10	WG1036996
p-Isopropyltoluene	U	JO	0.265	1.30	1	10/30/2017 12:10	WG1036996
(S) Toluene-d8	92.9			80.0-120		10/30/2017 12:10	WG1036996
(S) Dibromofluoromethane	111			74.0-131		10/30/2017 12:10	WG1036996
(S) a,a,a-Trifluorotoluene	100			80.0-120		10/30/2017 12:10	WG1036996
(S) 4-Bromofluorobenzene	99.7			64.0-132		10/30/2017 12:10	WG1036996

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Anthracene	U	J3	9.44	42.8	1	11/06/2017 05:54	WG1039312
Acenaphthylene	U	J3	9.74	42.8	1	11/06/2017 05:54	WG1039312
Acenaphthene	U	J3	9.56	42.8	1	11/06/2017 05:54	WG1039312
Benzo(a)anthracene	U	J3	5.55	42.8	1	11/06/2017 05:54	WG1039312
Benzo(a)pyrene	U	J3	6.51	42.8	1	11/06/2017 05:54	WG1039312
Benzo(b)fluoranthene	U	J3	9.01	42.8	1	11/06/2017 05:54	WG1039312
Benzo(g,h,i)perylene	U	J3	9.35	42.8	1	11/06/2017 05:54	WG1039312
Benzo(k)fluoranthene	U	J3	6.56	42.8	1	11/06/2017 05:54	WG1039312
Chrysene	U	J3	10.2	42.8	1	11/06/2017 05:54	WG1039312
Dibenzo(a,h)anthracene	U	J3	7.66	42.8	1	11/06/2017 05:54	WG1039312
Fluoranthene	U	J3	9.18	42.8	1	11/06/2017 05:54	WG1039312
Fluorene	U	J3	9.32	42.8	1	11/06/2017 05:54	WG1039312
Indeno(1,2,3-cd)pyrene	U	J3	7.27	42.8	1	11/06/2017 05:54	WG1039312
Naphthalene	U	J3	6.65	42.8	1	11/06/2017 05:54	WG1039312
Phenanthrene	U	J3	9.21	42.8	1	11/06/2017 05:54	WG1039312
Pyrene	U	J3	10.1	42.8	1	11/06/2017 05:54	WG1039312
(S) Nitrobenzene-d5	52.6			31.0-146		11/06/2017 05:54	WG1039312
(S) 2-Fluorobiphenyl	43.3			31.0-130		11/06/2017 05:54	WG1039312
(S) p-Terphenyl-d14	39.7			20.0-127		11/06/2017 05:54	WG1039312





Total Solids by Method 2540 G-2011

Analyte	Result	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	85.0	%	1	11/02/2017 14:01	WG1038099

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry)	<u>Qualifier</u>	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		11.8	58.8	1	10/30/2017 12:30	WG1036996
Benzene	2.68		0.318	1.18	1	10/30/2017 12:30	WG1036996
Bromochloromethane	U		0.459	1.18	1	10/30/2017 12:30	WG1036996
Bromodichloromethane	U		0.299	1.18	1	10/30/2017 12:30	WG1036996
Bromoform	U		0.499	1.18	1	10/30/2017 12:30	WG1036996
Bromomethane	U		1.58	5.88	1	10/30/2017 12:30	WG1036996
Carbon disulfide	U		0.260	1.18	1	10/30/2017 12:30	WG1036996
Carbon tetrachloride	U		0.386	1.18	1	10/30/2017 12:30	WG1036996
Chlorobenzene	U		0.249	1.18	1	10/30/2017 12:30	WG1036996
Chlorodibromomethane	U		0.439	1.18	1	10/30/2017 12:30	WG1036996
Chloroethane	U		1.11	5.88	1	10/30/2017 12:30	WG1036996
Chloroform	U		0.269	5.88	1	10/30/2017 12:30	WG1036996
Chloromethane	U		0.441	2.94	1	10/30/2017 12:30	WG1036996
Cyclohexane	3.47		0.412	1.18	1	10/30/2017 12:30	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.24	5.88	1	10/30/2017 12:30	WG1036996
1,2-Dibromoethane	U		0.404	1.18	1	10/30/2017 12:30	WG1036996
Dichlorodifluoromethane	U		0.839	5.88	1	10/30/2017 12:30	WG1036996
1,1-Dichloroethane	U		0.234	1.18	1	10/30/2017 12:30	WG1036996
1,2-Dichloroethane	U		0.312	1.18	1	10/30/2017 12:30	WG1036996
1,2-Dichlorobenzene	U		0.359	1.18	1	10/30/2017 12:30	WG1036996
1,3-Dichlorobenzene	U		0.281	1.18	1	10/30/2017 12:30	WG1036996
1,4-Dichlorobenzene	U		0.266	1.18	1	10/30/2017 12:30	WG1036996
1,1-Dichloroethene	U		0.356	1.18	1	10/30/2017 12:30	WG1036996
cis-1,2-Dichloroethene	U		0.276	1.18	1	10/30/2017 12:30	WG1036996
trans-1,2-Dichloroethene	U		0.311	1.18	1	10/30/2017 12:30	WG1036996
1,2-Dichloropropane	U		0.421	1.18	1	10/30/2017 12:30	WG1036996
cis-1,3-Dichloropropene	U		0.308	1.18	1	10/30/2017 12:30	WG1036996
trans-1,3-Dichloropropene	U		0.314	1.18	1	10/30/2017 12:30	WG1036996
Ethylbenzene	0.502	J	0.349	1.18	1	10/30/2017 12:30	WG1036996
2-Hexanone	U		1.61	11.8	1	10/30/2017 12:30	WG1036996
Isopropylbenzene	U		0.286	11.8	1	10/30/2017 12:30	WG1036996
2-Butanone (MEK)	U		5.51	11.8	1	10/30/2017 12:30	WG1036996
Methyl Acetate	U		7.18	23.5	1	10/30/2017 12:30	WG1036996
Methyl Cyclohexane	8.06		0.447	1.18	1	10/30/2017 12:30	WG1036996
Methylene Chloride	U		1.18	5.88	1	10/30/2017 12:30	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.21	11.8	1	10/30/2017 12:30	WG1036996
Methyl tert-butyl ether	U		0.249	1.18	1	10/30/2017 12:30	WG1036996
Naphthalene	U		1.18	5.88	1	10/30/2017 12:30	WG1036996
Styrene	U		0.275	1.18	1	10/30/2017 12:30	WG1036996
1,1,2,2-Tetrachloroethane	U		0.429	1.18	1	10/30/2017 12:30	WG1036996
Tetrachloroethene	U		0.325	1.18	1	10/30/2017 12:30	WG1036996
Toluene	4.02	J	0.511	5.88	1	10/30/2017 12:30	WG1036996
1,2,3-Trichlorobenzene	U		0.360	1.18	1	10/30/2017 12:30	WG1036996
1,2,4-Trichlorobenzene	U		0.456	1.18	1	10/30/2017 12:30	WG1036996
1,1,1-Trichloroethane	U		0.336	1.18	1	10/30/2017 12:30	WG1036996
1,1,2-Trichloroethane	U		0.326	1.18	1	10/30/2017 12:30	WG1036996
Trichloroethene	U		0.328	1.18	1	10/30/2017 12:30	WG1036996
Trichlorofluoromethane	U		0.449	5.88	1	10/30/2017 12:30	WG1036996
1,1,2-Trichlorotrifluoroethane	U		0.429	1.18	1	10/30/2017 12:30	WG1036996
Vinyl chloride	U		0.342	1.18	1	10/30/2017 12:30	WG1036996



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
o-Xylene	0.887	J	0.431	1.18	1	10/30/2017 12:30	WG1036996
m&p-Xylenes	3.17		0.391	2.35	1	10/30/2017 12:30	WG1036996
n-Butylbenzene	U	JO	0.304	1.18	1	10/30/2017 12:30	WG1036996
sec-Butylbenzene	U		0.236	1.18	1	10/30/2017 12:30	WG1036996
tert-Butylbenzene	U		0.242	1.18	1	10/30/2017 12:30	WG1036996
1,2,4-Trimethylbenzene	1.45		0.248	1.18	1	10/30/2017 12:30	WG1036996
1,3,5-Trimethylbenzene	0.653	J	0.313	1.18	1	10/30/2017 12:30	WG1036996
n-Propylbenzene	U		0.242	1.18	1	10/30/2017 12:30	WG1036996
p-Isopropyltoluene	U	JO	0.240	1.18	1	10/30/2017 12:30	WG1036996
(S) Toluene-d8	93.5			80.0-120		10/30/2017 12:30	WG1036996
(S) Dibromofluoromethane	111			74.0-131		10/30/2017 12:30	WG1036996
(S) a,a,a-Trifluorotoluene	102			80.0-120		10/30/2017 12:30	WG1036996
(S) 4-Bromofluorobenzene	92.3			64.0-132		10/30/2017 12:30	WG1036996

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Anthracene	U	J3	8.57	38.8	1	11/06/2017 06:19	WG1039312
Acenaphthylene	U	J3	8.84	38.8	1	11/06/2017 06:19	WG1039312
Acenaphthene	U	J3	8.67	38.8	1	11/06/2017 06:19	WG1039312
Benzo(a)anthracene	U	J3	5.04	38.8	1	11/06/2017 06:19	WG1039312
Benzo(a)pyrene	U	J3	5.91	38.8	1	11/06/2017 06:19	WG1039312
Benzo(b)fluoranthene	U	J3	8.18	38.8	1	11/06/2017 06:19	WG1039312
Benzo(g,h,i)perylene	U	J3	8.48	38.8	1	11/06/2017 06:19	WG1039312
Benzo(k)fluoranthene	U	J3	5.95	38.8	1	11/06/2017 06:19	WG1039312
Chrysene	U	J3	9.24	38.8	1	11/06/2017 06:19	WG1039312
Dibenzo(a,h)anthracene	U	J3	6.95	38.8	1	11/06/2017 06:19	WG1039312
Fluoranthene	U	J3	8.33	38.8	1	11/06/2017 06:19	WG1039312
Fluorene	U	J3	8.46	38.8	1	11/06/2017 06:19	WG1039312
Indeno(1,2,3-cd)pyrene	U	J3	6.60	38.8	1	11/06/2017 06:19	WG1039312
Naphthalene	U	J3	6.04	38.8	1	11/06/2017 06:19	WG1039312
Phenanthrene	U	J3	8.35	38.8	1	11/06/2017 06:19	WG1039312
Pyrene	U	J3	9.13	38.8	1	11/06/2017 06:19	WG1039312
(S) Nitrobenzene-d5	60.3			31.0-146		11/06/2017 06:19	WG1039312
(S) 2-Fluorobiphenyl	44.2			31.0-130		11/06/2017 06:19	WG1039312
(S) p-Terphenyl-d14	45.3			20.0-127		11/06/2017 06:19	WG1039312



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	85.9		1	11/02/2017 13:48	WG1038101

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	6.76	J	3.26	23.3	1	11/03/2017 10:19	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	10800000		4080	11600	1	11/03/2017 02:47	WG1038437
Antimony	910	J	873	2330	1	11/03/2017 02:47	WG1038437
Arsenic	3690		757	2330	1	11/03/2017 02:47	WG1038437
Barium	93300		198	582	1	11/03/2017 02:47	WG1038437
Beryllium	606		81.5	233	1	11/03/2017 02:47	WG1038437
Cadmium	141	J	81.5	582	1	11/03/2017 02:47	WG1038437
Calcium	59100000		5390	116000	1	11/03/2017 02:47	WG1038437
Chromium	15800		163	1160	1	11/03/2017 02:47	WG1038437
Cobalt	9650		268	1160	1	11/03/2017 02:47	WG1038437
Copper	18600		617	2330	1	11/03/2017 02:47	WG1038437
Iron	21300000		1640	11600	1	11/03/2017 02:47	WG1038437
Lead	10900		221	582	1	11/03/2017 02:47	WG1038437
Magnesium	17600000		1290	116000	1	11/03/2017 02:47	WG1038437
Manganese	473000		140	1160	1	11/03/2017 02:47	WG1038437
Nickel	22500		571	2330	1	11/03/2017 02:47	WG1038437
Potassium	2330000		11900	116000	1	11/03/2017 02:47	WG1038437
Selenium	U		862	2330	1	11/03/2017 02:47	WG1038437
Silver	U		326	1160	1	11/03/2017 02:47	WG1038437
Sodium	211000		11500	116000	1	11/03/2017 02:47	WG1038437
Thallium	U		757	2330	1	11/03/2017 02:47	WG1038437
Vanadium	23200		279	2330	1	11/03/2017 02:47	WG1038437
Zinc	65600		687	5820	1	11/03/2017 02:47	WG1038437

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		11.6	58.2	1	10/30/2017 12:50	WG1036996
Benzene	2.08		0.314	1.16	1	10/30/2017 12:50	WG1036996
Bromochloromethane	U		0.454	1.16	1	10/30/2017 12:50	WG1036996
Bromodichloromethane	U		0.296	1.16	1	10/30/2017 12:50	WG1036996
Bromoform	U		0.494	1.16	1	10/30/2017 12:50	WG1036996
Bromomethane	U		1.56	5.82	1	10/30/2017 12:50	WG1036996
Carbon disulfide	U		0.257	1.16	1	10/30/2017 12:50	WG1036996
Carbon tetrachloride	U		0.382	1.16	1	10/30/2017 12:50	WG1036996
Chlorobenzene	U		0.247	1.16	1	10/30/2017 12:50	WG1036996
Chlorodibromomethane	U		0.434	1.16	1	10/30/2017 12:50	WG1036996
Chloroethane	U		1.10	5.82	1	10/30/2017 12:50	WG1036996
Chloroform	U		0.267	5.82	1	10/30/2017 12:50	WG1036996
Chloromethane	U		0.437	2.91	1	10/30/2017 12:50	WG1036996
Cyclohexane	2.98		0.408	1.16	1	10/30/2017 12:50	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.22	5.82	1	10/30/2017 12:50	WG1036996
1,2-Dibromoethane	U		0.399	1.16	1	10/30/2017 12:50	WG1036996
Dichlorodifluoromethane	U		0.830	5.82	1	10/30/2017 12:50	WG1036996
1,1-Dichloroethane	U		0.232	1.16	1	10/30/2017 12:50	WG1036996

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.309	1.16	1	10/30/2017 12:50	WG1036996
1,2-Dichlorobenzene	U		0.355	1.16	1	10/30/2017 12:50	WG1036996
1,3-Dichlorobenzene	U		0.278	1.16	1	10/30/2017 12:50	WG1036996
1,4-Dichlorobenzene	U		0.263	1.16	1	10/30/2017 12:50	WG1036996
1,1-Dichloroethene	U		0.353	1.16	1	10/30/2017 12:50	WG1036996
cis-1,2-Dichloroethene	U		0.274	1.16	1	10/30/2017 12:50	WG1036996
trans-1,2-Dichloroethene	U		0.307	1.16	1	10/30/2017 12:50	WG1036996
1,2-Dichloropropane	U		0.417	1.16	1	10/30/2017 12:50	WG1036996
cis-1,3-Dichloropropene	U		0.305	1.16	1	10/30/2017 12:50	WG1036996
trans-1,3-Dichloropropene	U		0.311	1.16	1	10/30/2017 12:50	WG1036996
Ethylbenzene	0.372	J	0.346	1.16	1	10/30/2017 12:50	WG1036996
2-Hexanone	U		1.60	11.6	1	10/30/2017 12:50	WG1036996
Isopropylbenzene	U		0.283	11.6	1	10/30/2017 12:50	WG1036996
2-Butanone (MEK)	U		5.45	11.6	1	10/30/2017 12:50	WG1036996
Methyl Acetate	U		7.10	23.3	1	10/30/2017 12:50	WG1036996
Methyl Cyclohexane	6.99		0.442	1.16	1	10/30/2017 12:50	WG1036996
Methylene Chloride	U		1.16	5.82	1	10/30/2017 12:50	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.19	11.6	1	10/30/2017 12:50	WG1036996
Methyl tert-butyl ether	U		0.247	1.16	1	10/30/2017 12:50	WG1036996
Naphthalene	U		1.16	5.82	1	10/30/2017 12:50	WG1036996
Styrene	U		0.272	1.16	1	10/30/2017 12:50	WG1036996
1,1,2,2-Tetrachloroethane	U		0.425	1.16	1	10/30/2017 12:50	WG1036996
Tetrachloroethene	U		0.321	1.16	1	10/30/2017 12:50	WG1036996
Toluene	2.94	J	0.505	5.82	1	10/30/2017 12:50	WG1036996
1,2,3-Trichlorobenzene	U		0.356	1.16	1	10/30/2017 12:50	WG1036996
1,2,4-Trichlorobenzene	U		0.452	1.16	1	10/30/2017 12:50	WG1036996
1,1,1-Trichloroethane	U		0.333	1.16	1	10/30/2017 12:50	WG1036996
1,1,2-Trichloroethane	U		0.323	1.16	1	10/30/2017 12:50	WG1036996
Trichloroethene	U		0.325	1.16	1	10/30/2017 12:50	WG1036996
Trichlorofluoromethane	U		0.445	5.82	1	10/30/2017 12:50	WG1036996
1,1,2-Trichlorotrifluoroethane	U		0.425	1.16	1	10/30/2017 12:50	WG1036996
Vinyl chloride	U		0.339	1.16	1	10/30/2017 12:50	WG1036996
o-Xylene	0.748	J	0.426	1.16	1	10/30/2017 12:50	WG1036996
m&p-Xylenes	2.49		0.387	2.33	1	10/30/2017 12:50	WG1036996
n-Butylbenzene	U	JO	0.300	1.16	1	10/30/2017 12:50	WG1036996
sec-Butylbenzene	U		0.234	1.16	1	10/30/2017 12:50	WG1036996
tert-Butylbenzene	U		0.240	1.16	1	10/30/2017 12:50	WG1036996
1,2,4-Trimethylbenzene	1.15	J	0.246	1.16	1	10/30/2017 12:50	WG1036996
1,3,5-Trimethylbenzene	0.532	J	0.310	1.16	1	10/30/2017 12:50	WG1036996
n-Propylbenzene	U		0.240	1.16	1	10/30/2017 12:50	WG1036996
p-Isopropyltoluene	U	JO	0.238	1.16	1	10/30/2017 12:50	WG1036996
(S) Toluene-d8	92.3			80.0-120		10/30/2017 12:50	WG1036996
(S) Dibromofluoromethane	114			74.0-131		10/30/2017 12:50	WG1036996
(S) a,a,a-Trifluorotoluene	99.5			80.0-120		10/30/2017 12:50	WG1036996
(S) 4-Bromofluorobenzene	93.5			64.0-132		10/30/2017 12:50	WG1036996

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	4.08	19.8	1	11/06/2017 15:03	WG1038449
PCB 1221	U		6.25	19.8	1	11/06/2017 15:03	WG1038449
PCB 1232	U		4.86	19.8	1	11/06/2017 15:03	WG1038449
PCB 1242	U		3.70	19.8	1	11/06/2017 15:03	WG1038449
PCB 1248	U		3.67	19.8	1	11/06/2017 15:03	WG1038449
PCB 1254	U		5.50	19.8	1	11/06/2017 15:03	WG1038449
PCB 1260	U	J3	5.75	19.8	1	11/06/2017 15:03	WG1038449



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	83.6			10.0-148		11/06/2017 15:03	WG1038449
(S) Tetrachloro-m-xylene	89.0			21.0-146		11/06/2017 15:03	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		7.48	38.4	1	11/03/2017 09:10	WG1037943
Acenaphthylene	U		7.81	38.4	1	11/03/2017 09:10	WG1037943
Acetophenone	U		87.6	388	1	11/03/2017 09:10	WG1037943
Anthracene	U		7.36	38.4	1	11/03/2017 09:10	WG1037943
Atrazine	U		109	388	1	11/03/2017 09:10	WG1037943
Benzaldehyde	U		61.9	388	1	11/03/2017 09:10	WG1037943
Benzo(a)anthracene	U		4.98	38.4	1	11/03/2017 09:10	WG1037943
Benzo(b)fluoranthene	U		8.09	38.4	1	11/03/2017 09:10	WG1037943
Benzo(k)fluoranthene	U		6.78	38.4	1	11/03/2017 09:10	WG1037943
Benzo(g,h,i)perylene	U		8.40	38.4	1	11/03/2017 09:10	WG1037943
Benzo(a)pyrene	U		6.38	38.4	1	11/03/2017 09:10	WG1037943
Biphenyl	U		6.85	388	1	11/03/2017 09:10	WG1037943
Bis(2-chlorethoxy)methane	U		8.97	388	1	11/03/2017 09:10	WG1037943
Bis(2-chloroethyl)ether	U		10.4	388	1	11/03/2017 09:10	WG1037943
Bis(2-chloroisopropyl)ether	U		8.85	388	1	11/03/2017 09:10	WG1037943
4-Bromophenyl-phenylether	U		13.3	388	1	11/03/2017 09:10	WG1037943
Caprolactam	U		121	388	1	11/03/2017 09:10	WG1037943
Carbazole	U		6.10	388	1	11/03/2017 09:10	WG1037943
4-Chloroaniline	U		41.0	388	1	11/03/2017 09:10	WG1037943
2-Chloronaphthalene	U		7.44	38.4	1	11/03/2017 09:10	WG1037943
4-Chlorophenyl-phenylether	U		7.30	388	1	11/03/2017 09:10	WG1037943
Chrysene	U		6.46	38.4	1	11/03/2017 09:10	WG1037943
Dibenz(a,h)anthracene	U		9.56	38.4	1	11/03/2017 09:10	WG1037943
Dibenzofuran	U		6.03	388	1	11/03/2017 09:10	WG1037943
3,3-Dichlorobenzidine	U		92.5	388	1	11/03/2017 09:10	WG1037943
2,4-Dinitrotoluene	U		7.07	388	1	11/03/2017 09:10	WG1037943
2,6-Dinitrotoluene	U		8.58	388	1	11/03/2017 09:10	WG1037943
Fluoranthene	U		5.78	38.4	1	11/03/2017 09:10	WG1037943
Fluorene	U		7.94	38.4	1	11/03/2017 09:10	WG1037943
Hexachlorobenzene	U		9.97	388	1	11/03/2017 09:10	WG1037943
Hexachloro-1,3-butadiene	U		11.6	388	1	11/03/2017 09:10	WG1037943
Hexachlorocyclopentadiene	U		68.4	388	1	11/03/2017 09:10	WG1037943
Hexachloroethane	U		15.6	388	1	11/03/2017 09:10	WG1037943
Indeno(1,2,3-cd)pyrene	U		8.99	38.4	1	11/03/2017 09:10	WG1037943
Isophorone	U		6.08	388	1	11/03/2017 09:10	WG1037943
2-Methylnaphthalene	U		10.0	38.4	1	11/03/2017 09:10	WG1037943
Naphthalene	U		10.4	38.4	1	11/03/2017 09:10	WG1037943
2-Nitroaniline	U		8.79	388	1	11/03/2017 09:10	WG1037943
3-Nitroaniline	U		9.90	388	1	11/03/2017 09:10	WG1037943
4-Nitroaniline	U		7.44	388	1	11/03/2017 09:10	WG1037943
Nitrobenzene	U		8.09	388	1	11/03/2017 09:10	WG1037943
n-Nitrosodiphenylamine	U		6.92	388	1	11/03/2017 09:10	WG1037943
n-Nitrosodi-n-propylamine	U		10.5	388	1	11/03/2017 09:10	WG1037943
Phenanthrene	U		6.15	38.4	1	11/03/2017 09:10	WG1037943
Benzylbutyl phthalate	U		12.0	388	1	11/03/2017 09:10	WG1037943
Bis(2-ethylhexyl)phthalate	U		14.0	388	1	11/03/2017 09:10	WG1037943
Di-n-butyl phthalate	U		12.7	388	1	11/03/2017 09:10	WG1037943
Diethyl phthalate	U		8.05	388	1	11/03/2017 09:10	WG1037943
Dimethyl phthalate	U		6.29	388	1	11/03/2017 09:10	WG1037943
Di-n-octyl phthalate	U		10.6	388	1	11/03/2017 09:10	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	U		14.3	38.4	1	11/03/2017 09:10	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		88.7	388	1	11/03/2017 09:10	WG1037943	² Tc
4-Chloro-3-methylphenol	U		5.55	388	1	11/03/2017 09:10	WG1037943	³ Ss
2-Chlorophenol	U		9.68	388	1	11/03/2017 09:10	WG1037943	⁴ Cn
2-Methylphenol	U		11.5	388	1	11/03/2017 09:10	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		9.12	388	1	11/03/2017 09:10	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		8.69	388	1	11/03/2017 09:10	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		54.8	388	1	11/03/2017 09:10	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		144	388	1	11/03/2017 09:10	WG1037943	
2,4-Dinitrophenol	U		114	388	1	11/03/2017 09:10	WG1037943	
2-Nitrophenol	U		15.1	388	1	11/03/2017 09:10	WG1037943	
4-Nitrophenol	U		61.1	388	1	11/03/2017 09:10	WG1037943	
Pentachlorophenol	U		55.9	388	1	11/03/2017 09:10	WG1037943	
Phenol	U		8.09	388	1	11/03/2017 09:10	WG1037943	
2,4,5-Trichlorophenol	U		12.1	388	1	11/03/2017 09:10	WG1037943	
2,4,6-Trichlorophenol	U		9.07	388	1	11/03/2017 09:10	WG1037943	
(S) 2-Fluorophenol	86.8			20.0-120		11/03/2017 09:10	WG1037943	
(S) Phenol-d5	74.7			20.0-120		11/03/2017 09:10	WG1037943	
(S) Nitrobenzene-d5	75.4			18.0-125		11/03/2017 09:10	WG1037943	
(S) 2-Fluorobiphenyl	77.3			28.0-120		11/03/2017 09:10	WG1037943	
(S) 2,4,6-Tribromophenol	67.3			17.0-137		11/03/2017 09:10	WG1037943	
(S) p-Terphenyl-d14	63.2			13.0-131		11/03/2017 09:10	WG1037943	⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	82.8		1	11/02/2017 13:24	WG1038102

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	47.1		3.38	24.2	1	11/03/2017 10:21	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	16200000		4230	12100	1	11/03/2017 02:50	WG1038437
Antimony	U		906	2420	1	11/03/2017 02:50	WG1038437
Arsenic	5180		785	2420	1	11/03/2017 02:50	WG1038437
Barium	116000		205	604	1	11/03/2017 02:50	WG1038437
Beryllium	948		84.6	242	1	11/03/2017 02:50	WG1038437
Cadmium	145	J	84.6	604	1	11/03/2017 02:50	WG1038437
Calcium	67900000		5590	121000	1	11/03/2017 02:50	WG1038437
Chromium	22900		169	1210	1	11/03/2017 02:50	WG1038437
Cobalt	13800		278	1210	1	11/03/2017 02:50	WG1038437
Copper	27000		640	2420	1	11/03/2017 02:50	WG1038437
Iron	30400000		1700	12100	1	11/03/2017 02:50	WG1038437
Lead	22100		230	604	1	11/03/2017 02:50	WG1038437
Magnesium	16300000		1340	121000	1	11/03/2017 02:50	WG1038437
Manganese	760000		145	1210	1	11/03/2017 02:50	WG1038437
Nickel	32700		592	2420	1	11/03/2017 02:50	WG1038437
Potassium	3050000		12300	121000	1	11/03/2017 02:50	WG1038437
Selenium	U		894	2420	1	11/03/2017 02:50	WG1038437
Silver	U		338	1210	1	11/03/2017 02:50	WG1038437
Sodium	224000		11900	121000	1	11/03/2017 02:50	WG1038437
Thallium	U		785	2420	1	11/03/2017 02:50	WG1038437
Vanadium	34300		290	2420	1	11/03/2017 02:50	WG1038437
Zinc	82100		713	6040	1	11/03/2017 02:50	WG1038437

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	13.5	J	12.1	60.4	1	10/30/2017 13:10	WG1036996
Benzene	0.974	J	0.326	1.21	1	10/30/2017 13:10	WG1036996
Bromochloromethane	U		0.471	1.21	1	10/30/2017 13:10	WG1036996
Bromodichloromethane	U		0.307	1.21	1	10/30/2017 13:10	WG1036996
Bromoform	U		0.512	1.21	1	10/30/2017 13:10	WG1036996
Bromomethane	U		1.62	6.04	1	10/30/2017 13:10	WG1036996
Carbon disulfide	1.72		0.267	1.21	1	10/30/2017 13:10	WG1036996
Carbon tetrachloride	U		0.396	1.21	1	10/30/2017 13:10	WG1036996
Chlorobenzene	U		0.256	1.21	1	10/30/2017 13:10	WG1036996
Chlorodibromomethane	U		0.451	1.21	1	10/30/2017 13:10	WG1036996
Chloroethane	U		1.14	6.04	1	10/30/2017 13:10	WG1036996
Chloroform	U		0.277	6.04	1	10/30/2017 13:10	WG1036996
Chloromethane	U		0.453	3.02	1	10/30/2017 13:10	WG1036996
Cyclohexane	1.54		0.423	1.21	1	10/30/2017 13:10	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.27	6.04	1	10/30/2017 13:10	WG1036996
1,2-Dibromoethane	U		0.414	1.21	1	10/30/2017 13:10	WG1036996
Dichlorodifluoromethane	U		0.861	6.04	1	10/30/2017 13:10	WG1036996
1,1-Dichloroethane	U		0.240	1.21	1	10/30/2017 13:10	WG1036996

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
1,2-Dichloroethane	U		0.320	1.21	1	10/30/2017 13:10	WG1036996	¹ Cp
1,2-Dichlorobenzene	U		0.368	1.21	1	10/30/2017 13:10	WG1036996	² Tc
1,3-Dichlorobenzene	U		0.289	1.21	1	10/30/2017 13:10	WG1036996	³ Ss
1,4-Dichlorobenzene	U		0.273	1.21	1	10/30/2017 13:10	WG1036996	⁴ Cn
1,1-Dichloroethene	U		0.366	1.21	1	10/30/2017 13:10	WG1036996	⁵ Sr
cis-1,2-Dichloroethene	U		0.284	1.21	1	10/30/2017 13:10	WG1036996	⁶ Qc
trans-1,2-Dichloroethene	U		0.319	1.21	1	10/30/2017 13:10	WG1036996	⁷ Gl
1,2-Dichloropropane	U		0.432	1.21	1	10/30/2017 13:10	WG1036996	⁸ Al
cis-1,3-Dichloropropene	U		0.316	1.21	1	10/30/2017 13:10	WG1036996	⁹ Sc
trans-1,3-Dichloropropene	U		0.323	1.21	1	10/30/2017 13:10	WG1036996	
Ethylbenzene	U		0.359	1.21	1	10/30/2017 13:10	WG1036996	
2-Hexanone	U		1.65	12.1	1	10/30/2017 13:10	WG1036996	
Isopropylbenzene	U		0.294	12.1	1	10/30/2017 13:10	WG1036996	
2-Butanone (MEK)	U		5.65	12.1	1	10/30/2017 13:10	WG1036996	
Methyl Acetate	U		7.37	24.2	1	10/30/2017 13:10	WG1036996	
Methyl Cyclohexane	3.27		0.459	1.21	1	10/30/2017 13:10	WG1036996	
Methylene Chloride	U		1.21	6.04	1	10/30/2017 13:10	WG1036996	
4-Methyl-2-pentanone (MIBK)	U		2.27	12.1	1	10/30/2017 13:10	WG1036996	
Methyl tert-butyl ether	U		0.256	1.21	1	10/30/2017 13:10	WG1036996	
Naphthalene	U		1.21	6.04	1	10/30/2017 13:10	WG1036996	
Styrene	U		0.283	1.21	1	10/30/2017 13:10	WG1036996	
1,1,2,2-Tetrachloroethane	U		0.441	1.21	1	10/30/2017 13:10	WG1036996	
Tetrachloroethene	U		0.333	1.21	1	10/30/2017 13:10	WG1036996	
Toluene	1.14	<u>J</u>	0.524	6.04	1	10/30/2017 13:10	WG1036996	
1,2,3-Trichlorobenzene	U		0.370	1.21	1	10/30/2017 13:10	WG1036996	
1,2,4-Trichlorobenzene	U		0.469	1.21	1	10/30/2017 13:10	WG1036996	
1,1,1-Trichloroethane	U		0.345	1.21	1	10/30/2017 13:10	WG1036996	
1,1,2-Trichloroethane	U		0.335	1.21	1	10/30/2017 13:10	WG1036996	
Trichloroethene	2.43		0.337	1.21	1	10/30/2017 13:10	WG1036996	
Trichlorofluoromethane	U		0.461	6.04	1	10/30/2017 13:10	WG1036996	
1,1,2-Trichlorotrifluoroethane	U		0.441	1.21	1	10/30/2017 13:10	WG1036996	
Vinyl chloride	U		0.352	1.21	1	10/30/2017 13:10	WG1036996	
o-Xylene	U		0.442	1.21	1	10/30/2017 13:10	WG1036996	
m&p-Xylenes	0.801	<u>J</u>	0.401	2.42	1	10/30/2017 13:10	WG1036996	
n-Butylbenzene	U	<u>JO</u>	0.312	1.21	1	10/30/2017 13:10	WG1036996	
sec-Butylbenzene	U		0.243	1.21	1	10/30/2017 13:10	WG1036996	
tert-Butylbenzene	U		0.249	1.21	1	10/30/2017 13:10	WG1036996	
1,2,4-Trimethylbenzene	0.292	<u>J</u>	0.255	1.21	1	10/30/2017 13:10	WG1036996	
1,3,5-Trimethylbenzene	U		0.321	1.21	1	10/30/2017 13:10	WG1036996	
n-Propylbenzene	U		0.249	1.21	1	10/30/2017 13:10	WG1036996	
p-Isopropyltoluene	U	<u>JO</u>	0.246	1.21	1	10/30/2017 13:10	WG1036996	
(S) Toluene-d8	92.6			80.0-120		10/30/2017 13:10	WG1036996	
(S) Dibromofluoromethane	115			74.0-131		10/30/2017 13:10	WG1036996	
(S) a,a,a-Trifluorotoluene	103			80.0-120		10/30/2017 13:10	WG1036996	
(S) 4-Bromofluorobenzene	95.0			64.0-132		10/30/2017 13:10	WG1036996	

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	<u>J3</u>	4.23	20.5	1	11/06/2017 15:16	WG1038449
PCB 1221	U		6.49	20.5	1	11/06/2017 15:16	WG1038449
PCB 1232	U		5.04	20.5	1	11/06/2017 15:16	WG1038449
PCB 1242	U		3.84	20.5	1	11/06/2017 15:16	WG1038449
PCB 1248	U		3.81	20.5	1	11/06/2017 15:16	WG1038449
PCB 1254	U		5.70	20.5	1	11/06/2017 15:16	WG1038449
PCB 1260	U	<u>J3</u>	5.97	20.5	1	11/06/2017 15:16	WG1038449



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	60.0			10.0-148		11/06/2017 15:16	WG1038449
(S) Tetrachloro-m-xylene	68.7			21.0-146		11/06/2017 15:16	WG1038449

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		77.5	399	10	11/03/2017 15:21	WG1037943
Acenaphthylene	U		81.1	399	10	11/03/2017 15:21	WG1037943
Acetophenone	U		908	4020	10	11/03/2017 15:21	WG1037943
Anthracene	U		76.3	399	10	11/03/2017 15:21	WG1037943
Atrazine	U		1130	4020	10	11/03/2017 15:21	WG1037943
Benzaldehyde	U		643	4020	10	11/03/2017 15:21	WG1037943
Benzo(a)anthracene	68.4	J	51.7	399	10	11/03/2017 15:21	WG1037943
Benzo(b)fluoranthene	97.3	J	84.0	399	10	11/03/2017 15:21	WG1037943
Benzo(k)fluoranthene	U		70.3	399	10	11/03/2017 15:21	WG1037943
Benzo(g,h,i)perylene	U		87.1	399	10	11/03/2017 15:21	WG1037943
Benzo(a)pyrene	U		66.2	399	10	11/03/2017 15:21	WG1037943
Biphenyl	U		71.0	4020	10	11/03/2017 15:21	WG1037943
Bis(2-chlorethoxy)methane	U		93.0	4020	10	11/03/2017 15:21	WG1037943
Bis(2-chloroethyl)ether	U		108	4020	10	11/03/2017 15:21	WG1037943
Bis(2-chloroisopropyl)ether	U		91.8	4020	10	11/03/2017 15:21	WG1037943
4-Bromophenyl-phenylether	U		138	4020	10	11/03/2017 15:21	WG1037943
Caprolactam	U		1260	4020	10	11/03/2017 15:21	WG1037943
Carbazole	U		63.3	4020	10	11/03/2017 15:21	WG1037943
4-Chloroaniline	U		425	4020	10	11/03/2017 15:21	WG1037943
2-Chloronaphthalene	U		77.2	399	10	11/03/2017 15:21	WG1037943
4-Chlorophenyl-phenylether	U		75.7	4020	10	11/03/2017 15:21	WG1037943
Chrysene	U		67.0	399	10	11/03/2017 15:21	WG1037943
Dibenz(a,h)anthracene	U		99.2	399	10	11/03/2017 15:21	WG1037943
Dibenzofuran	U		62.6	4020	10	11/03/2017 15:21	WG1037943
3,3-Dichlorobenzidine	U		959	4020	10	11/03/2017 15:21	WG1037943
2,4-Dinitrotoluene	U		73.3	4020	10	11/03/2017 15:21	WG1037943
2,6-Dinitrotoluene	U		89.0	4020	10	11/03/2017 15:21	WG1037943
Fluoranthene	88.3	J	59.9	399	10	11/03/2017 15:21	WG1037943
Fluorene	U		82.4	399	10	11/03/2017 15:21	WG1037943
Hexachlorobenzene	U		103	4020	10	11/03/2017 15:21	WG1037943
Hexachloro-1,3-butadiene	U		121	4020	10	11/03/2017 15:21	WG1037943
Hexachlorocyclopentadiene	U		709	4020	10	11/03/2017 15:21	WG1037943
Hexachloroethane	U		162	4020	10	11/03/2017 15:21	WG1037943
Indeno(1,2,3-cd)pyrene	U		93.3	399	10	11/03/2017 15:21	WG1037943
Isophorone	U		63.1	4020	10	11/03/2017 15:21	WG1037943
2-Methylnaphthalene	U		104	399	10	11/03/2017 15:21	WG1037943
Naphthalene	U		107	399	10	11/03/2017 15:21	WG1037943
2-Nitroaniline	U		91.2	4020	10	11/03/2017 15:21	WG1037943
3-Nitroaniline	U		103	4020	10	11/03/2017 15:21	WG1037943
4-Nitroaniline	U		77.2	4020	10	11/03/2017 15:21	WG1037943
Nitrobenzene	U		84.0	4020	10	11/03/2017 15:21	WG1037943
n-Nitrosodiphenylamine	U		71.8	4020	10	11/03/2017 15:21	WG1037943
n-Nitrosodi-n-propylamine	U		109	4020	10	11/03/2017 15:21	WG1037943
Phenanthrene	72.8	J	63.8	399	10	11/03/2017 15:21	WG1037943
Benzylbutyl phthalate	U		124	4020	10	11/03/2017 15:21	WG1037943
Bis(2-ethylhexyl)phthalate	U		145	4020	10	11/03/2017 15:21	WG1037943
Di-n-butyl phthalate	U		132	4020	10	11/03/2017 15:21	WG1037943
Diethyl phthalate	U		83.5	4020	10	11/03/2017 15:21	WG1037943
Dimethyl phthalate	U		65.2	4020	10	11/03/2017 15:21	WG1037943
Di-n-octyl phthalate	U		110	4020	10	11/03/2017 15:21	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	U		149	399	10	11/03/2017 15:21	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		920	4020	10	11/03/2017 15:21	WG1037943	² Tc
4-Chloro-3-methylphenol	U		57.6	4020	10	11/03/2017 15:21	WG1037943	³ Ss
2-Chlorophenol	U		100	4020	10	11/03/2017 15:21	WG1037943	⁴ Cn
2-Methylphenol	U		119	4020	10	11/03/2017 15:21	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		94.6	4020	10	11/03/2017 15:21	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		90.1	4020	10	11/03/2017 15:21	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		569	4020	10	11/03/2017 15:21	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		1500	4020	10	11/03/2017 15:21	WG1037943	
2,4-Dinitrophenol	U		1180	4020	10	11/03/2017 15:21	WG1037943	
2-Nitrophenol	U		157	4020	10	11/03/2017 15:21	WG1037943	
4-Nitrophenol	U		634	4020	10	11/03/2017 15:21	WG1037943	
Pentachlorophenol	U		580	4020	10	11/03/2017 15:21	WG1037943	
Phenol	U		84.0	4020	10	11/03/2017 15:21	WG1037943	
2,4,5-Trichlorophenol	U		126	4020	10	11/03/2017 15:21	WG1037943	
2,4,6-Trichlorophenol	U		94.1	4020	10	11/03/2017 15:21	WG1037943	
(S) 2-Fluorophenol	84.4			20.0-120		11/03/2017 15:21	WG1037943	
(S) Phenol-d5	72.4			20.0-120		11/03/2017 15:21	WG1037943	
(S) Nitrobenzene-d5	72.7			18.0-125		11/03/2017 15:21	WG1037943	
(S) 2-Fluorobiphenyl	81.9			28.0-120		11/03/2017 15:21	WG1037943	
(S) 2,4,6-Tribromophenol	59.0			17.0-137		11/03/2017 15:21	WG1037943	
(S) p-Terphenyl-d14	63.2			13.0-131		11/03/2017 15:21	WG1037943	⁹ Sc

Sample Narrative:

L946990-04 WG1037943: Dilution due to matrix impact during extract concentration procedure



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	84.0		1	11/02/2017 14:14	WG1038098

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Benzene	U		1.55	2.98	1	11/02/2017 01:51	WG1037545
n-Butylbenzene	U		2.02	2.98	1	11/03/2017 11:19	WG1037545
sec-Butylbenzene	U		1.24	2.98	1	11/03/2017 11:19	WG1037545
tert-Butylbenzene	U		1.29	2.98	1	11/02/2017 01:51	WG1037545
Ethylbenzene	U		1.54	2.98	1	11/03/2017 11:19	WG1037545
Isopropylbenzene	U		1.23	2.98	1	11/03/2017 11:19	WG1037545
p-Isopropyltoluene	U		1.55	2.98	1	11/02/2017 01:51	WG1037545
Methyl tert-butyl ether	U		1.16	5.95	1	11/02/2017 01:51	WG1037545
Naphthalene	U		8.45	14.9	1	11/03/2017 11:19	WG1037545
n-Propylbenzene	U		1.43	2.98	1	11/03/2017 11:19	WG1037545
1,2,4-Trimethylbenzene	1.33	B J	1.15	2.98	1	11/03/2017 11:19	WG1037545
1,3,5-Trimethylbenzene	U		1.95	2.98	1	11/03/2017 11:19	WG1037545
Toluene	U		3.15	5.95	1	11/02/2017 01:51	WG1037545
o-Xylene	U		0.931	2.98	1	11/03/2017 11:19	WG1037545
m&p-Xylenes	U		4.76	8.93	1	11/03/2017 11:19	WG1037545
(S) Toluene-d8	115			80.0-120		11/02/2017 01:51	WG1037545
(S) Toluene-d8	108			80.0-120		11/03/2017 11:19	WG1037545
(S) Dibromofluoromethane	99.8			74.0-131		11/02/2017 01:51	WG1037545
(S) Dibromofluoromethane	81.9			74.0-131		11/03/2017 11:19	WG1037545
(S) a,a,a-Trifluorotoluene	99.9			80.0-120		11/02/2017 01:51	WG1037545
(S) a,a,a-Trifluorotoluene	103			80.0-120		11/03/2017 11:19	WG1037545
(S) 4-Bromofluorobenzene	112			64.0-132		11/02/2017 01:51	WG1037545
(S) 4-Bromofluorobenzene	105			64.0-132		11/03/2017 11:19	WG1037545

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Anthracene	U	J3	8.67	39.3	1	11/06/2017 06:44	WG1039312
Acenaphthylene	U	J3	8.94	39.3	1	11/06/2017 06:44	WG1039312
Acenaphthene	U	J3	8.77	39.3	1	11/06/2017 06:44	WG1039312
Benzo(a)anthracene	U	J3	5.09	39.3	1	11/06/2017 06:44	WG1039312
Benzo(a)pyrene	U	J3	5.98	39.3	1	11/06/2017 06:44	WG1039312
Benzo(b)fluoranthene	U	J3	8.27	39.3	1	11/06/2017 06:44	WG1039312
Benzo(g,h,i)perylene	U	J3	8.58	39.3	1	11/06/2017 06:44	WG1039312
Benzo(k)fluoranthene	U	J3	6.02	39.3	1	11/06/2017 06:44	WG1039312
Chrysene	U	J3	9.34	39.3	1	11/06/2017 06:44	WG1039312
Dibenz(a,h)anthracene	U	J3	7.04	39.3	1	11/06/2017 06:44	WG1039312
Fluoranthene	U	J3	8.43	39.3	1	11/06/2017 06:44	WG1039312
Fluorene	U	J3	8.56	39.3	1	11/06/2017 06:44	WG1039312
Indeno(1,2,3-cd)pyrene	U	J3	6.68	39.3	1	11/06/2017 06:44	WG1039312
Naphthalene	U	J3	6.11	39.3	1	11/06/2017 06:44	WG1039312
Phenanthrene	U	J3	8.45	39.3	1	11/06/2017 06:44	WG1039312
Pyrene	U	J3	9.24	39.3	1	11/06/2017 06:44	WG1039312
(S) Nitrobenzene-d5	58.9			31.0-146		11/06/2017 06:44	WG1039312
(S) 2-Fluorobiphenyl	47.6			31.0-130		11/06/2017 06:44	WG1039312
(S) p-Terphenyl-d14	47.1			20.0-127		11/06/2017 06:44	WG1039312

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	85.9		1	11/02/2017 13:48	WG1038101

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Benzene	U		1.63	3.14	1.08	11/02/2017 02:07	WG1037545
n-Butylbenzene	U		2.14	3.14	1.08	11/02/2017 02:07	WG1037545
sec-Butylbenzene	U		1.30	3.14	1.08	11/02/2017 02:07	WG1037545
tert-Butylbenzene	U		1.36	3.14	1.08	11/02/2017 02:07	WG1037545
Ethylbenzene	U		1.62	3.14	1.08	11/03/2017 11:38	WG1037545
Isopropylbenzene	U		1.29	3.14	1.08	11/02/2017 02:07	WG1037545
p-Isopropyltoluene	U		1.63	3.14	1.08	11/02/2017 02:07	WG1037545
Methyl tert-butyl ether	U		1.22	6.29	1.08	11/02/2017 02:07	WG1037545
Naphthalene	U		8.93	15.7	1.08	11/02/2017 02:07	WG1037545
n-Propylbenzene	U		1.51	3.14	1.08	11/03/2017 11:38	WG1037545
1,2,4-Trimethylbenzene	U		1.22	3.14	1.08	11/03/2017 11:38	WG1037545
1,3,5-Trimethylbenzene	U		2.06	3.14	1.08	11/03/2017 11:38	WG1037545
Toluene	4.47	<u>J</u>	3.33	6.29	1.08	11/02/2017 02:07	WG1037545
o-Xylene	U		0.984	3.14	1.08	11/03/2017 11:38	WG1037545
m&p-Xylenes	U		5.03	9.43	1.08	11/03/2017 11:38	WG1037545
(S) Toluene-d8	110			80.0-120		11/02/2017 02:07	WG1037545
(S) Toluene-d8	104			80.0-120		11/03/2017 11:38	WG1037545
(S) Dibromofluoromethane	86.7			74.0-131		11/02/2017 02:07	WG1037545
(S) Dibromofluoromethane	87.9			74.0-131		11/03/2017 11:38	WG1037545
(S) a,a,a-Trifluorotoluene	103			80.0-120		11/02/2017 02:07	WG1037545
(S) a,a,a-Trifluorotoluene	104			80.0-120		11/03/2017 11:38	WG1037545
(S) 4-Bromofluorobenzene	106			64.0-132		11/02/2017 02:07	WG1037545
(S) 4-Bromofluorobenzene	105			64.0-132		11/03/2017 11:38	WG1037545

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Anthracene	U	<u>J3</u>	8.47	38.4	1	11/06/2017 07:10	WG1039312
Acenaphthylene	U	<u>J3</u>	8.74	38.4	1	11/06/2017 07:10	WG1039312
Acenaphthene	U	<u>J3</u>	8.58	38.4	1	11/06/2017 07:10	WG1039312
Benzo(a)anthracene	U	<u>J3</u>	4.98	38.4	1	11/06/2017 07:10	WG1039312
Benzo(a)pyrene	U	<u>J3</u>	5.84	38.4	1	11/06/2017 07:10	WG1039312
Benzo(b)fluoranthene	U	<u>J3</u>	8.09	38.4	1	11/06/2017 07:10	WG1039312
Benzo(g,h,i)perylene	U	<u>J3</u>	8.39	38.4	1	11/06/2017 07:10	WG1039312
Benzo(k)fluoranthene	U	<u>J3</u>	5.89	38.4	1	11/06/2017 07:10	WG1039312
Chrysene	U	<u>J3</u>	9.14	38.4	1	11/06/2017 07:10	WG1039312
Dibenz(a,h)anthracene	U	<u>J3</u>	6.88	38.4	1	11/06/2017 07:10	WG1039312
Fluoranthene	U	<u>J3</u>	8.24	38.4	1	11/06/2017 07:10	WG1039312
Fluorene	U	<u>J3</u>	8.37	38.4	1	11/06/2017 07:10	WG1039312
Indeno(1,2,3-cd)pyrene	U	<u>J3</u>	6.53	38.4	1	11/06/2017 07:10	WG1039312
Naphthalene	U	<u>J3</u>	5.97	38.4	1	11/06/2017 07:10	WG1039312
Phenanthrene	U	<u>J3</u>	8.26	38.4	1	11/06/2017 07:10	WG1039312
Pyrene	U	<u>J3</u>	9.03	38.4	1	11/06/2017 07:10	WG1039312
(S) Nitrobenzene-d5	60.2			31.0-146		11/06/2017 07:10	WG1039312
(S) 2-Fluorobiphenyl	58.5			31.0-130		11/06/2017 07:10	WG1039312
(S) p-Terphenyl-d14	51.6			20.0-127		11/06/2017 07:10	WG1039312

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	85.6		1	11/02/2017 13:24	WG1038102

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	44.7		3.27	23.4	1	11/03/2017 10:27	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	9620000		4090	11700	1	11/03/2017 03:00	WG1038437
Antimony	U		876	2340	1	11/03/2017 03:00	WG1038437
Arsenic	3770		759	2340	1	11/03/2017 03:00	WG1038437
Barium	73500		199	584	1	11/03/2017 03:00	WG1038437
Beryllium	516		81.7	234	1	11/03/2017 03:00	WG1038437
Cadmium	163	J	81.7	584	1	11/03/2017 03:00	WG1038437
Calcium	86700000		5410	117000	1	11/03/2017 03:00	WG1038437
Chromium	14400		163	1170	1	11/03/2017 03:00	WG1038437
Cobalt	8070		269	1170	1	11/03/2017 03:00	WG1038437
Copper	18000		619	2340	1	11/03/2017 03:00	WG1038437
Iron	18100000		1650	11700	1	11/03/2017 03:00	WG1038437
Lead	20400		222	584	1	11/03/2017 03:00	WG1038437
Magnesium	15500000		1300	117000	1	11/03/2017 03:00	WG1038437
Manganese	439000		140	1170	1	11/03/2017 03:00	WG1038437
Nickel	22000		572	2340	1	11/03/2017 03:00	WG1038437
Potassium	2100000		11900	117000	1	11/03/2017 03:00	WG1038437
Selenium	U		864	2340	1	11/03/2017 03:00	WG1038437
Silver	U		327	1170	1	11/03/2017 03:00	WG1038437
Sodium	176000		11500	117000	1	11/03/2017 03:00	WG1038437
Thallium	U		759	2340	1	11/03/2017 03:00	WG1038437
Vanadium	20200		280	2340	1	11/03/2017 03:00	WG1038437
Zinc	58000		689	5840	1	11/03/2017 03:00	WG1038437

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	19.3	J	14.4	71.8	1.23	10/30/2017 15:29	WG1036996
Benzene	1.82		0.388	1.44	1.23	10/30/2017 15:29	WG1036996
Bromochloromethane	U		0.561	1.44	1.23	10/30/2017 15:29	WG1036996
Bromodichloromethane	U		0.364	1.44	1.23	10/30/2017 15:29	WG1036996
Bromoform	U		0.610	1.44	1.23	10/30/2017 15:29	WG1036996
Bromomethane	U		1.93	7.18	1.23	10/30/2017 15:29	WG1036996
Carbon disulfide	13.4		0.318	1.44	1.23	10/30/2017 15:29	WG1036996
Carbon tetrachloride	U		0.471	1.44	1.23	10/30/2017 15:29	WG1036996
Chlorobenzene	U		0.305	1.44	1.23	10/30/2017 15:29	WG1036996
Chlorodibromomethane	U		0.536	1.44	1.23	10/30/2017 15:29	WG1036996
Chloroethane	U		1.35	7.18	1.23	10/30/2017 15:29	WG1036996
Chloroform	U		0.329	7.18	1.23	10/30/2017 15:29	WG1036996
Chloromethane	U		0.538	3.59	1.23	10/30/2017 15:29	WG1036996
Cyclohexane	4.04		0.502	1.44	1.23	10/30/2017 15:29	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.51	7.18	1.23	10/30/2017 15:29	WG1036996
1,2-Dibromoethane	U		0.493	1.44	1.23	10/30/2017 15:29	WG1036996
Dichlorodifluoromethane	U		1.02	7.18	1.23	10/30/2017 15:29	WG1036996
1,1-Dichloroethane	U		0.286	1.44	1.23	10/30/2017 15:29	WG1036996

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
1,2-Dichloroethane	U		0.381	1.44	1.23	10/30/2017 15:29	WG1036996	¹ Cp
1,2-Dichlorobenzene	U		0.438	1.44	1.23	10/30/2017 15:29	WG1036996	² Tc
1,3-Dichlorobenzene	U		0.343	1.44	1.23	10/30/2017 15:29	WG1036996	³ Ss
1,4-Dichlorobenzene	U		0.325	1.44	1.23	10/30/2017 15:29	WG1036996	⁴ Cn
1,1-Dichloroethene	U		0.436	1.44	1.23	10/30/2017 15:29	WG1036996	⁵ Sr
cis-1,2-Dichloroethene	U		0.337	1.44	1.23	10/30/2017 15:29	WG1036996	⁶ Qc
trans-1,2-Dichloroethene	U		0.380	1.44	1.23	10/30/2017 15:29	WG1036996	⁷ Gl
1,2-Dichloropropane	U		0.514	1.44	1.23	10/30/2017 15:29	WG1036996	⁸ Al
cis-1,3-Dichloropropene	U		0.376	1.44	1.23	10/30/2017 15:29	WG1036996	⁹ Sc
trans-1,3-Dichloropropene	U		0.383	1.44	1.23	10/30/2017 15:29	WG1036996	
Ethylbenzene	U		0.426	1.44	1.23	10/30/2017 15:29	WG1036996	
2-Hexanone	U		1.96	14.4	1.23	10/30/2017 15:29	WG1036996	
Isopropylbenzene	U		0.349	14.4	1.23	10/30/2017 15:29	WG1036996	
2-Butanone (MEK)	7.22	J	6.73	14.4	1.23	10/30/2017 15:29	WG1036996	
Methyl Acetate	U		8.76	28.7	1.23	10/30/2017 15:29	WG1036996	
Methyl Cyclohexane	7.26		0.545	1.44	1.23	10/30/2017 15:29	WG1036996	
Methylene Chloride	U		1.44	7.18	1.23	10/30/2017 15:29	WG1036996	
4-Methyl-2-pentanone (MIBK)	U		2.70	14.4	1.23	10/30/2017 15:29	WG1036996	
Methyl tert-butyl ether	U		0.305	1.44	1.23	10/30/2017 15:29	WG1036996	
Naphthalene	U		1.44	7.18	1.23	10/30/2017 15:29	WG1036996	
Styrene	U		0.336	1.44	1.23	10/30/2017 15:29	WG1036996	
1,1,2,2-Tetrachloroethane	U		0.524	1.44	1.23	10/30/2017 15:29	WG1036996	
Tetrachloroethene	U		0.396	1.44	1.23	10/30/2017 15:29	WG1036996	
Toluene	2.53	J	0.624	7.18	1.23	10/30/2017 15:29	WG1036996	
1,2,3-Trichlorobenzene	U		0.439	1.44	1.23	10/30/2017 15:29	WG1036996	
1,2,4-Trichlorobenzene	U		0.557	1.44	1.23	10/30/2017 15:29	WG1036996	
1,1,1-Trichloroethane	U		0.411	1.44	1.23	10/30/2017 15:29	WG1036996	
1,1,2-Trichloroethane	U		0.398	1.44	1.23	10/30/2017 15:29	WG1036996	
Trichloroethene	U		0.401	1.44	1.23	10/30/2017 15:29	WG1036996	
Trichlorofluoromethane	U		0.549	7.18	1.23	10/30/2017 15:29	WG1036996	
1,1,2-Trichlorotrifluoroethane	U		0.524	1.44	1.23	10/30/2017 15:29	WG1036996	
Vinyl chloride	U		0.418	1.44	1.23	10/30/2017 15:29	WG1036996	
o-Xylene	U		0.526	1.44	1.23	10/30/2017 15:29	WG1036996	
m&p-Xylenes	1.98	J	0.476	2.87	1.23	10/30/2017 15:29	WG1036996	
n-Butylbenzene	U	JO	0.370	1.44	1.23	10/30/2017 15:29	WG1036996	
sec-Butylbenzene	U		0.288	1.44	1.23	10/30/2017 15:29	WG1036996	
tert-Butylbenzene	U		0.295	1.44	1.23	10/30/2017 15:29	WG1036996	
1,2,4-Trimethylbenzene	0.631	J	0.304	1.44	1.23	10/30/2017 15:29	WG1036996	
1,3,5-Trimethylbenzene	U		0.382	1.44	1.23	10/30/2017 15:29	WG1036996	
n-Propylbenzene	U		0.295	1.44	1.23	10/30/2017 15:29	WG1036996	
p-Isopropyltoluene	U	JO	0.293	1.44	1.23	10/30/2017 15:29	WG1036996	
(S) Toluene-d8	92.7			80.0-120		10/30/2017 15:29	WG1036996	
(S) Dibromofluoromethane	114			74.0-131		10/30/2017 15:29	WG1036996	
(S) a,a,a-Trifluorotoluene	102			80.0-120		10/30/2017 15:29	WG1036996	
(S) 4-Bromofluorobenzene	95.8			64.0-132		10/30/2017 15:29	WG1036996	

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	4.09	19.9	1	11/06/2017 15:28	WG1038449
PCB 1221	U		6.27	19.9	1	11/06/2017 15:28	WG1038449
PCB 1232	U		4.87	19.9	1	11/06/2017 15:28	WG1038449
PCB 1242	U		3.71	19.9	1	11/06/2017 15:28	WG1038449
PCB 1248	U		3.68	19.9	1	11/06/2017 15:28	WG1038449
PCB 1254	U		5.51	19.9	1	11/06/2017 15:28	WG1038449
PCB 1260	U	J3	5.77	19.9	1	11/06/2017 15:28	WG1038449



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	48.3			10.0-148		11/06/2017 15:28	WG1038449
(S) Tetrachloro-m-xylene	59.4			21.0-146		11/06/2017 15:28	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		75.0	385	10	11/03/2017 15:45	WG1037943
Acenaphthylene	U		78.4	385	10	11/03/2017 15:45	WG1037943
Acetophenone	U		878	3890	10	11/03/2017 15:45	WG1037943
Anthracene	U		73.8	385	10	11/03/2017 15:45	WG1037943
Atrazine	U		1100	3890	10	11/03/2017 15:45	WG1037943
Benzaldehyde	U		621	3890	10	11/03/2017 15:45	WG1037943
Benzo(a)anthracene	74.2	J	50.0	385	10	11/03/2017 15:45	WG1037943
Benzo(b)fluoranthene	106	J	81.2	385	10	11/03/2017 15:45	WG1037943
Benzo(k)fluoranthene	U		68.0	385	10	11/03/2017 15:45	WG1037943
Benzo(g,h,i)perylene	U		84.2	385	10	11/03/2017 15:45	WG1037943
Benzo(a)pyrene	68.6	J	64.0	385	10	11/03/2017 15:45	WG1037943
Biphenyl	U		68.7	3890	10	11/03/2017 15:45	WG1037943
Bis(2-chlorethoxy)methane	U		89.9	3890	10	11/03/2017 15:45	WG1037943
Bis(2-chloroethyl)ether	U		105	3890	10	11/03/2017 15:45	WG1037943
Bis(2-chloroisopropyl)ether	U		88.8	3890	10	11/03/2017 15:45	WG1037943
4-Bromophenyl-phenylether	U		133	3890	10	11/03/2017 15:45	WG1037943
Caprolactam	U		1210	3890	10	11/03/2017 15:45	WG1037943
Carbazole	U		61.2	3890	10	11/03/2017 15:45	WG1037943
4-Chloroaniline	U		411	3890	10	11/03/2017 15:45	WG1037943
2-Chloronaphthalene	U		74.6	385	10	11/03/2017 15:45	WG1037943
4-Chlorophenyl-phenylether	U		73.2	3890	10	11/03/2017 15:45	WG1037943
Chrysene	83.2	J	64.8	385	10	11/03/2017 15:45	WG1037943
Dibenz(a,h)anthracene	U		95.9	385	10	11/03/2017 15:45	WG1037943
Dibenzofuran	U		60.5	3890	10	11/03/2017 15:45	WG1037943
3,3-Dichlorobenzidine	U		927	3890	10	11/03/2017 15:45	WG1037943
2,4-Dinitrotoluene	U		70.9	3890	10	11/03/2017 15:45	WG1037943
2,6-Dinitrotoluene	U		86.1	3890	10	11/03/2017 15:45	WG1037943
Fluoranthene	105	J	57.9	385	10	11/03/2017 15:45	WG1037943
Fluorene	U		79.6	385	10	11/03/2017 15:45	WG1037943
Hexachlorobenzene	U		100	3890	10	11/03/2017 15:45	WG1037943
Hexachloro-1,3-butadiene	U		117	3890	10	11/03/2017 15:45	WG1037943
Hexachlorocyclopentadiene	U		686	3890	10	11/03/2017 15:45	WG1037943
Hexachloroethane	U		156	3890	10	11/03/2017 15:45	WG1037943
Indeno(1,2,3-cd)pyrene	U		90.2	385	10	11/03/2017 15:45	WG1037943
Isophorone	U		61.0	3890	10	11/03/2017 15:45	WG1037943
2-Methylnaphthalene	U		101	385	10	11/03/2017 15:45	WG1037943
Naphthalene	U		104	385	10	11/03/2017 15:45	WG1037943
2-Nitroaniline	U		88.2	3890	10	11/03/2017 15:45	WG1037943
3-Nitroaniline	U		99.3	3890	10	11/03/2017 15:45	WG1037943
4-Nitroaniline	U		74.6	3890	10	11/03/2017 15:45	WG1037943
Nitrobenzene	U		81.2	3890	10	11/03/2017 15:45	WG1037943
n-Nitrosodiphenylamine	U		69.4	3890	10	11/03/2017 15:45	WG1037943
n-Nitrosodi-n-propylamine	U		106	3890	10	11/03/2017 15:45	WG1037943
Phenanthrene	U		61.7	385	10	11/03/2017 15:45	WG1037943
Benzylbutyl phthalate	U		120	3890	10	11/03/2017 15:45	WG1037943
Bis(2-ethylhexyl)phthalate	U		140	3890	10	11/03/2017 15:45	WG1037943
Di-n-butyl phthalate	U		127	3890	10	11/03/2017 15:45	WG1037943
Diethyl phthalate	U		80.7	3890	10	11/03/2017 15:45	WG1037943
Dimethyl phthalate	U		63.1	3890	10	11/03/2017 15:45	WG1037943
Di-n-octyl phthalate	U		106	3890	10	11/03/2017 15:45	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	U		144	385	10	11/03/2017 15:45	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		890	3890	10	11/03/2017 15:45	WG1037943	² Tc
4-Chloro-3-methylphenol	U		55.7	3890	10	11/03/2017 15:45	WG1037943	³ Ss
2-Chlorophenol	U		97.0	3890	10	11/03/2017 15:45	WG1037943	⁴ Cn
2-Methylphenol	U		115	3890	10	11/03/2017 15:45	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		91.4	3890	10	11/03/2017 15:45	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		87.1	3890	10	11/03/2017 15:45	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		550	3890	10	11/03/2017 15:45	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		1450	3890	10	11/03/2017 15:45	WG1037943	
2,4-Dinitrophenol	U		1140	3890	10	11/03/2017 15:45	WG1037943	
2-Nitrophenol	U		152	3890	10	11/03/2017 15:45	WG1037943	
4-Nitrophenol	U		613	3890	10	11/03/2017 15:45	WG1037943	
Pentachlorophenol	U		561	3890	10	11/03/2017 15:45	WG1037943	
Phenol	U		81.2	3890	10	11/03/2017 15:45	WG1037943	
2,4,5-Trichlorophenol	U		121	3890	10	11/03/2017 15:45	WG1037943	
2,4,6-Trichlorophenol	U		91.0	3890	10	11/03/2017 15:45	WG1037943	
(S) 2-Fluorophenol	85.8			20.0-120		11/03/2017 15:45	WG1037943	
(S) Phenol-d5	79.6			20.0-120		11/03/2017 15:45	WG1037943	
(S) Nitrobenzene-d5	73.5			18.0-125		11/03/2017 15:45	WG1037943	
(S) 2-Fluorobiphenyl	83.1			28.0-120		11/03/2017 15:45	WG1037943	
(S) 2,4,6-Tribromophenol	57.5			17.0-137		11/03/2017 15:45	WG1037943	
(S) p-Terphenyl-d14	63.4			13.0-131		11/03/2017 15:45	WG1037943	⁹ Sc

Sample Narrative:

L946990-07 WG1037943: Dilution due to matrix impact during extract concentration procedure



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	82.1		1	11/02/2017 14:14	WG1038098

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	7.46	J	3.41	24.4	1	11/03/2017 10:30	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	15100000		4270	12200	1	11/03/2017 03:03	WG1038437
Antimony	U		914	2440	1	11/03/2017 03:03	WG1038437
Arsenic	4390		792	2440	1	11/03/2017 03:03	WG1038437
Barium	134000		207	609	1	11/03/2017 03:03	WG1038437
Beryllium	794		85.3	244	1	11/03/2017 03:03	WG1038437
Cadmium	U		85.3	609	1	11/03/2017 03:03	WG1038437
Calcium	69900000		5640	122000	1	11/03/2017 03:03	WG1038437
Chromium	20700		171	1220	1	11/03/2017 03:03	WG1038437
Cobalt	13300		280	1220	1	11/03/2017 03:03	WG1038437
Copper	21100		646	2440	1	11/03/2017 03:03	WG1038437
Iron	28500000		1720	12200	1	11/03/2017 03:03	WG1038437
Lead	9950		232	609	1	11/03/2017 03:03	WG1038437
Magnesium	17200000		1350	122000	1	11/03/2017 03:03	WG1038437
Manganese	618000		146	1220	1	11/03/2017 03:03	WG1038437
Nickel	30600		597	2440	1	11/03/2017 03:03	WG1038437
Potassium	2360000		12400	122000	1	11/03/2017 03:03	WG1038437
Selenium	U		902	2440	1	11/03/2017 03:03	WG1038437
Silver	U		341	1220	1	11/03/2017 03:03	WG1038437
Sodium	254000		12000	122000	1	11/03/2017 03:03	WG1038437
Thallium	U		792	2440	1	11/03/2017 03:03	WG1038437
Vanadium	30300		292	2440	1	11/03/2017 03:03	WG1038437
Zinc	67000		719	6090	1	11/03/2017 03:03	WG1038437

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	32.8	J	12.2	60.9	1	10/30/2017 15:49	WG1036996
Benzene	1.10	J	0.329	1.22	1	10/30/2017 15:49	WG1036996
Bromochloromethane	U		0.475	1.22	1	10/30/2017 15:49	WG1036996
Bromodichloromethane	U		0.310	1.22	1	10/30/2017 15:49	WG1036996
Bromoform	U		0.517	1.22	1	10/30/2017 15:49	WG1036996
Bromomethane	U		1.63	6.09	1	10/30/2017 15:49	WG1036996
Carbon disulfide	1.24		0.269	1.22	1	10/30/2017 15:49	WG1036996
Carbon tetrachloride	U		0.400	1.22	1	10/30/2017 15:49	WG1036996
Chlorobenzene	U		0.258	1.22	1	10/30/2017 15:49	WG1036996
Chlorodibromomethane	U		0.455	1.22	1	10/30/2017 15:49	WG1036996
Chloroethane	U		1.15	6.09	1	10/30/2017 15:49	WG1036996
Chloroform	U		0.279	6.09	1	10/30/2017 15:49	WG1036996
Chloromethane	U		0.457	3.05	1	10/30/2017 15:49	WG1036996
Cyclohexane	2.90		0.427	1.22	1	10/30/2017 15:49	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.28	6.09	1	10/30/2017 15:49	WG1036996
1,2-Dibromoethane	U		0.418	1.22	1	10/30/2017 15:49	WG1036996
Dichlorodifluoromethane	U		0.869	6.09	1	10/30/2017 15:49	WG1036996
1,1-Dichloroethane	U		0.242	1.22	1	10/30/2017 15:49	WG1036996



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.323	1.22	1	10/30/2017 15:49	WG1036996
1,2-Dichlorobenzene	U		0.372	1.22	1	10/30/2017 15:49	WG1036996
1,3-Dichlorobenzene	U		0.291	1.22	1	10/30/2017 15:49	WG1036996
1,4-Dichlorobenzene	U		0.275	1.22	1	10/30/2017 15:49	WG1036996
1,1-Dichloroethene	U		0.369	1.22	1	10/30/2017 15:49	WG1036996
cis-1,2-Dichloroethene	U		0.286	1.22	1	10/30/2017 15:49	WG1036996
trans-1,2-Dichloroethene	U		0.322	1.22	1	10/30/2017 15:49	WG1036996
1,2-Dichloropropane	U		0.436	1.22	1	10/30/2017 15:49	WG1036996
cis-1,3-Dichloropropene	U		0.319	1.22	1	10/30/2017 15:49	WG1036996
trans-1,3-Dichloropropene	U		0.325	1.22	1	10/30/2017 15:49	WG1036996
Ethylbenzene	U		0.362	1.22	1	10/30/2017 15:49	WG1036996
2-Hexanone	U		1.67	12.2	1	10/30/2017 15:49	WG1036996
Isopropylbenzene	U		0.296	12.2	1	10/30/2017 15:49	WG1036996
2-Butanone (MEK)	6.54	J	5.70	12.2	1	10/30/2017 15:49	WG1036996
Methyl Acetate	U		7.43	24.4	1	10/30/2017 15:49	WG1036996
Methyl Cyclohexane	6.98		0.463	1.22	1	10/30/2017 15:49	WG1036996
Methylene Chloride	U		1.22	6.09	1	10/30/2017 15:49	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.29	12.2	1	10/30/2017 15:49	WG1036996
Methyl tert-butyl ether	U		0.258	1.22	1	10/30/2017 15:49	WG1036996
Naphthalene	U		1.22	6.09	1	10/30/2017 15:49	WG1036996
Styrene	U		0.285	1.22	1	10/30/2017 15:49	WG1036996
1,1,2,2-Tetrachloroethane	U		0.445	1.22	1	10/30/2017 15:49	WG1036996
Tetrachloroethene	U		0.336	1.22	1	10/30/2017 15:49	WG1036996
Toluene	0.956	J	0.529	6.09	1	10/30/2017 15:49	WG1036996
1,2,3-Trichlorobenzene	U		0.373	1.22	1	10/30/2017 15:49	WG1036996
1,2,4-Trichlorobenzene	U		0.473	1.22	1	10/30/2017 15:49	WG1036996
1,1,1-Trichloroethane	U		0.349	1.22	1	10/30/2017 15:49	WG1036996
1,1,2-Trichloroethane	U		0.338	1.22	1	10/30/2017 15:49	WG1036996
Trichloroethene	U		0.340	1.22	1	10/30/2017 15:49	WG1036996
Trichlorofluoromethane	U		0.466	6.09	1	10/30/2017 15:49	WG1036996
1,1,2-Trichlorotrifluoroethane	U		0.445	1.22	1	10/30/2017 15:49	WG1036996
Vinyl chloride	U		0.355	1.22	1	10/30/2017 15:49	WG1036996
o-Xylene	U		0.446	1.22	1	10/30/2017 15:49	WG1036996
m&p-Xylenes	1.17	J	0.405	2.44	1	10/30/2017 15:49	WG1036996
n-Butylbenzene	U	JO	0.314	1.22	1	10/30/2017 15:49	WG1036996
sec-Butylbenzene	U		0.245	1.22	1	10/30/2017 15:49	WG1036996
tert-Butylbenzene	U		0.251	1.22	1	10/30/2017 15:49	WG1036996
1,2,4-Trimethylbenzene	0.424	J	0.257	1.22	1	10/30/2017 15:49	WG1036996
1,3,5-Trimethylbenzene	U		0.324	1.22	1	10/30/2017 15:49	WG1036996
n-Propylbenzene	U		0.251	1.22	1	10/30/2017 15:49	WG1036996
p-Isopropyltoluene	U	JO	0.249	1.22	1	10/30/2017 15:49	WG1036996
(S) Toluene-d8	91.3			80.0-120		10/30/2017 15:49	WG1036996
(S) Dibromofluoromethane	116			74.0-131		10/30/2017 15:49	WG1036996
(S) a,a,a-Trifluorotoluene	102			80.0-120		10/30/2017 15:49	WG1036996
(S) 4-Bromofluorobenzene	95.2			64.0-132		10/30/2017 15:49	WG1036996

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	4.27	20.7	1	11/06/2017 15:41	WG1038449
PCB 1221	U		6.54	20.7	1	11/06/2017 15:41	WG1038449
PCB 1232	U		5.08	20.7	1	11/06/2017 15:41	WG1038449
PCB 1242	U		3.88	20.7	1	11/06/2017 15:41	WG1038449
PCB 1248	U		3.84	20.7	1	11/06/2017 15:41	WG1038449
PCB 1254	U		5.75	20.7	1	11/06/2017 15:41	WG1038449
PCB 1260	U	J3	6.02	20.7	1	11/06/2017 15:41	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	56.9			10.0-148		11/06/2017 15:41	WG1038449
(S) Tetrachloro-m-xylene	66.9			21.0-146		11/06/2017 15:41	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		7.82	40.2	1	11/03/2017 09:33	WG1037943
Acenaphthylene	U		8.18	40.2	1	11/03/2017 09:33	WG1037943
Acetophenone	U		91.6	406	1	11/03/2017 09:33	WG1037943
Anthracene	U		7.70	40.2	1	11/03/2017 09:33	WG1037943
Atrazine	U		114	406	1	11/03/2017 09:33	WG1037943
Benzaldehyde	U		64.8	406	1	11/03/2017 09:33	WG1037943
Benzo(a)anthracene	29.4	J	5.22	40.2	1	11/03/2017 09:33	WG1037943
Benzo(b)fluoranthene	59.3		8.47	40.2	1	11/03/2017 09:33	WG1037943
Benzo(k)fluoranthene	18.7	J	7.09	40.2	1	11/03/2017 09:33	WG1037943
Benzo(g,h,i)perylene	30.3	J	8.79	40.2	1	11/03/2017 09:33	WG1037943
Benzo(a)pyrene	26.3	J	6.68	40.2	1	11/03/2017 09:33	WG1037943
Biphenyl	U		7.17	406	1	11/03/2017 09:33	WG1037943
Bis(2-chlorethoxy)methane	U		9.38	406	1	11/03/2017 09:33	WG1037943
Bis(2-chloroethyl)ether	U		10.9	406	1	11/03/2017 09:33	WG1037943
Bis(2-chloroisopropyl)ether	U		9.26	406	1	11/03/2017 09:33	WG1037943
4-Bromophenyl-phenylether	U		13.9	406	1	11/03/2017 09:33	WG1037943
Caprolactam	U		127	406	1	11/03/2017 09:33	WG1037943
Carbazole	U		6.39	406	1	11/03/2017 09:33	WG1037943
4-Chloroaniline	U		42.9	406	1	11/03/2017 09:33	WG1037943
2-Chloronaphthalene	U		7.79	40.2	1	11/03/2017 09:33	WG1037943
4-Chlorophenyl-phenylether	U		7.64	406	1	11/03/2017 09:33	WG1037943
Chrysene	45.0		6.76	40.2	1	11/03/2017 09:33	WG1037943
Dibenz(a,h)anthracene	U		10.0	40.2	1	11/03/2017 09:33	WG1037943
Dibenzofuran	U		6.31	406	1	11/03/2017 09:33	WG1037943
3,3-Dichlorobenzidine	U		96.8	406	1	11/03/2017 09:33	WG1037943
2,4-Dinitrotoluene	U		7.40	406	1	11/03/2017 09:33	WG1037943
2,6-Dinitrotoluene	U		8.98	406	1	11/03/2017 09:33	WG1037943
Fluoranthene	43.4		6.04	40.2	1	11/03/2017 09:33	WG1037943
Fluorene	U		8.31	40.2	1	11/03/2017 09:33	WG1037943
Hexachlorobenzene	U		10.4	406	1	11/03/2017 09:33	WG1037943
Hexachloro-1,3-butadiene	U		12.2	406	1	11/03/2017 09:33	WG1037943
Hexachlorocyclopentadiene	U		71.5	406	1	11/03/2017 09:33	WG1037943
Hexachloroethane	U		16.3	406	1	11/03/2017 09:33	WG1037943
Indeno(1,2,3-cd)pyrene	25.0	J	9.41	40.2	1	11/03/2017 09:33	WG1037943
Isophorone	U		6.36	406	1	11/03/2017 09:33	WG1037943
2-Methylnaphthalene	U		10.5	40.2	1	11/03/2017 09:33	WG1037943
Naphthalene	U		10.8	40.2	1	11/03/2017 09:33	WG1037943
2-Nitroaniline	U		9.20	406	1	11/03/2017 09:33	WG1037943
3-Nitroaniline	U		10.4	406	1	11/03/2017 09:33	WG1037943
4-Nitroaniline	U		7.79	406	1	11/03/2017 09:33	WG1037943
Nitrobenzene	U		8.47	406	1	11/03/2017 09:33	WG1037943
n-Nitrosodiphenylamine	U		7.24	406	1	11/03/2017 09:33	WG1037943
n-Nitrosodi-n-propylamine	U		11.0	406	1	11/03/2017 09:33	WG1037943
Phenanthrene	13.4	J	6.43	40.2	1	11/03/2017 09:33	WG1037943
Benzylbutyl phthalate	U		12.6	406	1	11/03/2017 09:33	WG1037943
Bis(2-ethylhexyl)phthalate	U		14.6	406	1	11/03/2017 09:33	WG1037943
Di-n-butyl phthalate	U		13.3	406	1	11/03/2017 09:33	WG1037943
Diethyl phthalate	U		8.42	406	1	11/03/2017 09:33	WG1037943
Dimethyl phthalate	U		6.58	406	1	11/03/2017 09:33	WG1037943
Di-n-octyl phthalate	U		11.1	406	1	11/03/2017 09:33	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	32.2	J	15.0	40.2	1	11/03/2017 09:33	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		92.9	406	1	11/03/2017 09:33	WG1037943	² Tc
4-Chloro-3-methylphenol	U		5.81	406	1	11/03/2017 09:33	WG1037943	³ Ss
2-Chlorophenol	U		10.1	406	1	11/03/2017 09:33	WG1037943	⁴ Cn
2-Methylphenol	U		12.0	406	1	11/03/2017 09:33	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		9.54	406	1	11/03/2017 09:33	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		9.09	406	1	11/03/2017 09:33	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		57.4	406	1	11/03/2017 09:33	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		151	406	1	11/03/2017 09:33	WG1037943	
2,4-Dinitrophenol	U		119	406	1	11/03/2017 09:33	WG1037943	
2-Nitrophenol	U		15.8	406	1	11/03/2017 09:33	WG1037943	
4-Nitrophenol	U		64.0	406	1	11/03/2017 09:33	WG1037943	
Pentachlorophenol	U		58.5	406	1	11/03/2017 09:33	WG1037943	
Phenol	U		8.47	406	1	11/03/2017 09:33	WG1037943	
2,4,5-Trichlorophenol	U		12.7	406	1	11/03/2017 09:33	WG1037943	
2,4,6-Trichlorophenol	U		9.49	406	1	11/03/2017 09:33	WG1037943	
(S) 2-Fluorophenol	75.9			20.0-120		11/03/2017 09:33	WG1037943	
(S) Phenol-d5	64.7			20.0-120		11/03/2017 09:33	WG1037943	
(S) Nitrobenzene-d5	65.4			18.0-125		11/03/2017 09:33	WG1037943	
(S) 2-Fluorobiphenyl	73.2			28.0-120		11/03/2017 09:33	WG1037943	
(S) 2,4,6-Tribromophenol	70.1			17.0-137		11/03/2017 09:33	WG1037943	
(S) p-Terphenyl-d14	64.3			13.0-131		11/03/2017 09:33	WG1037943	⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	83.6		1	11/02/2017 13:24	WG1038102

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Lead	8210		227	598	1	11/03/2017 03:07	WG1038437

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		12.0	59.8	1	10/30/2017 16:08	WG1036996
Benzene	1.25		0.323	1.20	1	10/30/2017 16:08	WG1036996
Bromochloromethane	U		0.466	1.20	1	10/30/2017 16:08	WG1036996
Bromodichloromethane	U		0.304	1.20	1	10/30/2017 16:08	WG1036996
Bromoform	U		0.507	1.20	1	10/30/2017 16:08	WG1036996
Bromomethane	U		1.60	5.98	1	10/30/2017 16:08	WG1036996
Carbon disulfide	U		0.264	1.20	1	10/30/2017 16:08	WG1036996
Carbon tetrachloride	U		0.392	1.20	1	10/30/2017 16:08	WG1036996
Chlorobenzene	U		0.254	1.20	1	10/30/2017 16:08	WG1036996
Chlorodibromomethane	U		0.446	1.20	1	10/30/2017 16:08	WG1036996
Chloroethane	U		1.13	5.98	1	10/30/2017 16:08	WG1036996
Chloroform	U		0.274	5.98	1	10/30/2017 16:08	WG1036996
Chloromethane	U		0.448	2.99	1	10/30/2017 16:08	WG1036996
Cyclohexane	1.69		0.419	1.20	1	10/30/2017 16:08	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.26	5.98	1	10/30/2017 16:08	WG1036996
1,2-Dibromoethane	U		0.410	1.20	1	10/30/2017 16:08	WG1036996
Dichlorodifluoromethane	U		0.853	5.98	1	10/30/2017 16:08	WG1036996
1,1-Dichloroethane	U		0.238	1.20	1	10/30/2017 16:08	WG1036996
1,2-Dichloroethane	U		0.317	1.20	1	10/30/2017 16:08	WG1036996
1,2-Dichlorobenzene	U		0.365	1.20	1	10/30/2017 16:08	WG1036996
1,3-Dichlorobenzene	U		0.286	1.20	1	10/30/2017 16:08	WG1036996
1,4-Dichlorobenzene	U		0.270	1.20	1	10/30/2017 16:08	WG1036996
1,1-Dichloroethene	U		0.362	1.20	1	10/30/2017 16:08	WG1036996
cis-1,2-Dichloroethene	U		0.281	1.20	1	10/30/2017 16:08	WG1036996
trans-1,2-Dichloroethene	U		0.316	1.20	1	10/30/2017 16:08	WG1036996
1,2-Dichloropropane	U		0.428	1.20	1	10/30/2017 16:08	WG1036996
cis-1,3-Dichloropropene	U		0.313	1.20	1	10/30/2017 16:08	WG1036996
trans-1,3-Dichloropropene	U		0.319	1.20	1	10/30/2017 16:08	WG1036996
Ethylbenzene	U		0.355	1.20	1	10/30/2017 16:08	WG1036996
2-Hexanone	U		1.64	12.0	1	10/30/2017 16:08	WG1036996
Isopropylbenzene	U		0.291	12.0	1	10/30/2017 16:08	WG1036996
2-Butanone (MEK)	U		5.60	12.0	1	10/30/2017 16:08	WG1036996
Methyl Acetate	U		7.29	23.9	1	10/30/2017 16:08	WG1036996
Methyl Cyclohexane	3.80		0.454	1.20	1	10/30/2017 16:08	WG1036996
Methylene Chloride	U		1.20	5.98	1	10/30/2017 16:08	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.25	12.0	1	10/30/2017 16:08	WG1036996
Methyl tert-butyl ether	U		0.254	1.20	1	10/30/2017 16:08	WG1036996
Naphthalene	U		1.20	5.98	1	10/30/2017 16:08	WG1036996
Styrene	U		0.280	1.20	1	10/30/2017 16:08	WG1036996
1,1,2,2-Tetrachloroethane	U		0.436	1.20	1	10/30/2017 16:08	WG1036996
Tetrachloroethene	U		0.330	1.20	1	10/30/2017 16:08	WG1036996
Toluene	1.48	J	0.519	5.98	1	10/30/2017 16:08	WG1036996
1,2,3-Trichlorobenzene	U		0.366	1.20	1	10/30/2017 16:08	WG1036996
1,2,4-Trichlorobenzene	U		0.464	1.20	1	10/30/2017 16:08	WG1036996
1,1,1-Trichloroethane	U		0.342	1.20	1	10/30/2017 16:08	WG1036996



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
1,1,2-Trichloroethane	U		0.331	1.20	1	10/30/2017 16:08	WG1036996	¹ Cp
Trichloroethene	U		0.334	1.20	1	10/30/2017 16:08	WG1036996	² Tc
Trichlorofluoromethane	U		0.457	5.98	1	10/30/2017 16:08	WG1036996	³ Ss
1,1,2-Trichlorotrifluoroethane	U		0.436	1.20	1	10/30/2017 16:08	WG1036996	⁴ Cn
Vinyl chloride	U		0.348	1.20	1	10/30/2017 16:08	WG1036996	⁵ Sr
Xylenes, Total	1.27	J	0.835	3.59	1	10/30/2017 16:08	WG1036996	⁶ Qc
(S) Toluene-d8	93.1			80.0-120		10/30/2017 16:08	WG1036996	⁷ GI
(S) Dibromofluoromethane	114			74.0-131		10/30/2017 16:08	WG1036996	⁸ AI
(S) a,a,a-Trifluorotoluene	103			80.0-120		10/30/2017 16:08	WG1036996	⁹ Sc
(S) 4-Bromofluorobenzene	93.3			64.0-132		10/30/2017 16:08	WG1036996	



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	85.8		1	11/02/2017 14:01	WG1038099

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Lead	9940		221	583	1	11/03/2017 03:10	WG1038437

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		11.7	58.3	1	10/30/2017 16:28	WG1036996
Benzene	2.55		0.315	1.17	1	10/30/2017 16:28	WG1036996
Bromochloromethane	U		0.454	1.17	1	10/30/2017 16:28	WG1036996
Bromodichloromethane	U		0.296	1.17	1	10/30/2017 16:28	WG1036996
Bromoform	U		0.494	1.17	1	10/30/2017 16:28	WG1036996
Bromomethane	U		1.56	5.83	1	10/30/2017 16:28	WG1036996
Carbon disulfide	U		0.258	1.17	1	10/30/2017 16:28	WG1036996
Carbon tetrachloride	U		0.382	1.17	1	10/30/2017 16:28	WG1036996
Chlorobenzene	U		0.247	1.17	1	10/30/2017 16:28	WG1036996
Chlorodibromomethane	U		0.435	1.17	1	10/30/2017 16:28	WG1036996
Chloroethane	U		1.10	5.83	1	10/30/2017 16:28	WG1036996
Chloroform	U		0.267	5.83	1	10/30/2017 16:28	WG1036996
Chloromethane	U		0.437	2.91	1	10/30/2017 16:28	WG1036996
Cyclohexane	3.24		0.408	1.17	1	10/30/2017 16:28	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.22	5.83	1	10/30/2017 16:28	WG1036996
1,2-Dibromoethane	U		0.400	1.17	1	10/30/2017 16:28	WG1036996
Dichlorodifluoromethane	U		0.831	5.83	1	10/30/2017 16:28	WG1036996
1,1-Dichloroethane	U		0.232	1.17	1	10/30/2017 16:28	WG1036996
1,2-Dichloroethane	U		0.309	1.17	1	10/30/2017 16:28	WG1036996
1,2-Dichlorobenzene	U		0.355	1.17	1	10/30/2017 16:28	WG1036996
1,3-Dichlorobenzene	U		0.278	1.17	1	10/30/2017 16:28	WG1036996
1,4-Dichlorobenzene	U		0.263	1.17	1	10/30/2017 16:28	WG1036996
cis-1,2-Dichloroethene	U		0.353	1.17	1	10/30/2017 16:28	WG1036996
trans-1,2-Dichloroethene	U		0.274	1.17	1	10/30/2017 16:28	WG1036996
1,2-Dichloropropene	U		0.308	1.17	1	10/30/2017 16:28	WG1036996
cis-1,3-Dichloropropene	U		0.417	1.17	1	10/30/2017 16:28	WG1036996
trans-1,3-Dichloropropene	U		0.305	1.17	1	10/30/2017 16:28	WG1036996
Ethylbenzene	0.515	J	0.346	1.17	1	10/30/2017 16:28	WG1036996
2-Hexanone	U		1.60	11.7	1	10/30/2017 16:28	WG1036996
Isopropylbenzene	U		0.283	11.7	1	10/30/2017 16:28	WG1036996
2-Butanone (MEK)	U		5.45	11.7	1	10/30/2017 16:28	WG1036996
Methyl Acetate	U		7.11	23.3	1	10/30/2017 16:28	WG1036996
Methyl Cyclohexane	7.52		0.443	1.17	1	10/30/2017 16:28	WG1036996
Methylene Chloride	U		1.17	5.83	1	10/30/2017 16:28	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.19	11.7	1	10/30/2017 16:28	WG1036996
Methyl tert-butyl ether	U		0.247	1.17	1	10/30/2017 16:28	WG1036996
Naphthalene	U		1.17	5.83	1	10/30/2017 16:28	WG1036996
Styrene	U		0.273	1.17	1	10/30/2017 16:28	WG1036996
1,1,2,2-Tetrachloroethane	U		0.425	1.17	1	10/30/2017 16:28	WG1036996
Tetrachloroethene	U		0.322	1.17	1	10/30/2017 16:28	WG1036996
Toluene	4.06	J	0.506	5.83	1	10/30/2017 16:28	WG1036996
1,2,3-Trichlorobenzene	U		0.357	1.17	1	10/30/2017 16:28	WG1036996
1,2,4-Trichlorobenzene	U		0.452	1.17	1	10/30/2017 16:28	WG1036996
1,1,1-Trichloroethane	U		0.333	1.17	1	10/30/2017 16:28	WG1036996



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
1,1,2-Trichloroethane	U		0.323	1.17	1	10/30/2017 16:28	WG1036996	¹ Cp
Trichloroethene	U		0.325	1.17	1	10/30/2017 16:28	WG1036996	² Tc
Trichlorofluoromethane	U		0.445	5.83	1	10/30/2017 16:28	WG1036996	³ Ss
1,1,2-Trichlorotrifluoroethane	U		0.425	1.17	1	10/30/2017 16:28	WG1036996	⁴ Cn
Vinyl chloride	U		0.339	1.17	1	10/30/2017 16:28	WG1036996	⁵ Sr
Xylenes, Total	4.32		0.813	3.50	1	10/30/2017 16:28	WG1036996	⁶ Qc
(S) Toluene-d8	91.6			80.0-120		10/30/2017 16:28	WG1036996	⁷ GI
(S) Dibromofluoromethane	107			74.0-131		10/30/2017 16:28	WG1036996	⁸ AI
(S) a,a,a-Trifluorotoluene	101			80.0-120		10/30/2017 16:28	WG1036996	⁹ SC
(S) 4-Bromofluorobenzene	96.2			64.0-132		10/30/2017 16:28	WG1036996	



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	94.3		1	11/02/2017 13:48	WG1038101

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	56.9		2.97	21.2	1	11/03/2017 10:32	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	5640000	V	3710	10600	1	11/03/2017 02:30	WG1038437
Antimony	1400	J	796	2120	1	11/03/2017 02:30	WG1038437
Arsenic	4870		689	2120	1	11/03/2017 02:30	WG1038437
Barium	54300		180	530	1	11/03/2017 02:30	WG1038437
Beryllium	595		74.3	212	1	11/03/2017 02:30	WG1038437
Cadmium	1100		74.3	530	1	11/03/2017 02:30	WG1038437
Calcium	84900000	O1 V	4910	106000	1	11/03/2017 02:30	WG1038437
Chromium	17700		149	1060	1	11/03/2017 02:30	WG1038437
Cobalt	3720		244	1060	1	11/03/2017 02:30	WG1038437
Copper	41000		562	2120	1	11/03/2017 02:30	WG1038437
Iron	19500000	O1 V	1500	10600	1	11/03/2017 02:30	WG1038437
Lead	151000	J5	202	530	1	11/03/2017 02:30	WG1038437
Magnesium	11600000	V	1180	106000	1	11/03/2017 02:30	WG1038437
Manganese	461000	J3 V	127	1060	1	11/03/2017 02:30	WG1038437
Nickel	18000		520	2120	1	11/03/2017 02:30	WG1038437
Potassium	935000	O1	10800	106000	1	11/03/2017 02:30	WG1038437
Selenium	U		785	2120	1	11/03/2017 02:30	WG1038437
Silver	U		297	1060	1	11/03/2017 02:30	WG1038437
Sodium	211000		10400	106000	1	11/03/2017 02:30	WG1038437
Thallium	U		689	2120	1	11/03/2017 02:30	WG1038437
Vanadium	11700		255	2120	1	11/03/2017 02:30	WG1038437
Zinc	237000	J3 J6	626	5300	1	11/03/2017 02:30	WG1038437

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	33.1	J	12.5	62.6	1.18	10/30/2017 16:48	WG1036996
Benzene	1.76		0.338	1.25	1.18	10/30/2017 16:48	WG1036996
Bromochloromethane	U		0.488	1.25	1.18	10/30/2017 16:48	WG1036996
Bromodichloromethane	U		0.318	1.25	1.18	10/30/2017 16:48	WG1036996
Bromoform	U		0.530	1.25	1.18	10/30/2017 16:48	WG1036996
Bromomethane	U		1.68	6.26	1.18	10/30/2017 16:48	WG1036996
Carbon disulfide	1.73		0.277	1.25	1.18	10/30/2017 16:48	WG1036996
Carbon tetrachloride	U		0.411	1.25	1.18	10/30/2017 16:48	WG1036996
Chlorobenzene	U		0.265	1.25	1.18	10/30/2017 16:48	WG1036996
Chlorodibromomethane	U		0.467	1.25	1.18	10/30/2017 16:48	WG1036996
Chloroethane	U		1.19	6.26	1.18	10/30/2017 16:48	WG1036996
Chloroform	U		0.286	6.26	1.18	10/30/2017 16:48	WG1036996
Chloromethane	U		0.469	3.13	1.18	10/30/2017 16:48	WG1036996
Cyclohexane	3.88		0.438	1.25	1.18	10/30/2017 16:48	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.32	6.26	1.18	10/30/2017 16:48	WG1036996
1,2-Dibromoethane	U		0.430	1.25	1.18	10/30/2017 16:48	WG1036996
Dichlorodifluoromethane	U		0.892	6.26	1.18	10/30/2017 16:48	WG1036996
1,1-Dichloroethane	U		0.249	1.25	1.18	10/30/2017 16:48	WG1036996

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
1,2-Dichloroethane	U		0.332	1.25	1.18	10/30/2017 16:48	WG1036996	¹ Cp
1,2-Dichlorobenzene	U		0.382	1.25	1.18	10/30/2017 16:48	WG1036996	² Tc
1,3-Dichlorobenzene	U		0.299	1.25	1.18	10/30/2017 16:48	WG1036996	³ Ss
1,4-Dichlorobenzene	U		0.283	1.25	1.18	10/30/2017 16:48	WG1036996	⁴ Cn
1,1-Dichloroethene	U		0.380	1.25	1.18	10/30/2017 16:48	WG1036996	⁵ Sr
cis-1,2-Dichloroethene	U		0.294	1.25	1.18	10/30/2017 16:48	WG1036996	⁶ Qc
trans-1,2-Dichloroethene	U		0.331	1.25	1.18	10/30/2017 16:48	WG1036996	⁷ Gl
1,2-Dichloropropane	U		0.448	1.25	1.18	10/30/2017 16:48	WG1036996	⁸ Al
cis-1,3-Dichloropropene	U		0.328	1.25	1.18	10/30/2017 16:48	WG1036996	⁹ Sc
trans-1,3-Dichloropropene	U		0.334	1.25	1.18	10/30/2017 16:48	WG1036996	
Ethylbenzene	U		0.371	1.25	1.18	10/30/2017 16:48	WG1036996	
2-Hexanone	U		1.72	12.5	1.18	10/30/2017 16:48	WG1036996	
Isopropylbenzene	U		0.304	12.5	1.18	10/30/2017 16:48	WG1036996	
2-Butanone (MEK)	6.12	J	5.86	12.5	1.18	10/30/2017 16:48	WG1036996	
Methyl Acetate	U		7.64	25.0	1.18	10/30/2017 16:48	WG1036996	
Methyl Cyclohexane	5.73		0.475	1.25	1.18	10/30/2017 16:48	WG1036996	
Methylene Chloride	U		1.25	6.26	1.18	10/30/2017 16:48	WG1036996	
4-Methyl-2-pentanone (MIBK)	U		2.35	12.5	1.18	10/30/2017 16:48	WG1036996	
Methyl tert-butyl ether	U		0.265	1.25	1.18	10/30/2017 16:48	WG1036996	
Naphthalene	U		1.25	6.26	1.18	10/30/2017 16:48	WG1036996	
Styrene	U		0.293	1.25	1.18	10/30/2017 16:48	WG1036996	
1,1,2,2-Tetrachloroethane	U		0.457	1.25	1.18	10/30/2017 16:48	WG1036996	
Tetrachloroethene	U		0.346	1.25	1.18	10/30/2017 16:48	WG1036996	
Toluene	1.83	J	0.543	6.26	1.18	10/30/2017 16:48	WG1036996	
1,2,3-Trichlorobenzene	U		0.383	1.25	1.18	10/30/2017 16:48	WG1036996	
1,2,4-Trichlorobenzene	U		0.486	1.25	1.18	10/30/2017 16:48	WG1036996	
1,1,1-Trichloroethane	U		0.357	1.25	1.18	10/30/2017 16:48	WG1036996	
1,1,2-Trichloroethane	U		0.347	1.25	1.18	10/30/2017 16:48	WG1036996	
Trichloroethene	0.439	J	0.349	1.25	1.18	10/30/2017 16:48	WG1036996	
Trichlorofluoromethane	U		0.478	6.26	1.18	10/30/2017 16:48	WG1036996	
1,1,2-Trichlorotrifluoroethane	U		0.457	1.25	1.18	10/30/2017 16:48	WG1036996	
Vinyl chloride	U		0.364	1.25	1.18	10/30/2017 16:48	WG1036996	
o-Xylene	U		0.458	1.25	1.18	10/30/2017 16:48	WG1036996	
m&p-Xylenes	1.06	J	0.416	2.50	1.18	10/30/2017 16:48	WG1036996	
n-Butylbenzene	U	JO	0.322	1.25	1.18	10/30/2017 16:48	WG1036996	
sec-Butylbenzene	U		0.251	1.25	1.18	10/30/2017 16:48	WG1036996	
tert-Butylbenzene	U		0.258	1.25	1.18	10/30/2017 16:48	WG1036996	
1,2,4-Trimethylbenzene	0.318	J	0.264	1.25	1.18	10/30/2017 16:48	WG1036996	
1,3,5-Trimethylbenzene	U		0.333	1.25	1.18	10/30/2017 16:48	WG1036996	
n-Propylbenzene	U		0.258	1.25	1.18	10/30/2017 16:48	WG1036996	
p-Isopropyltoluene	0.401	J JO	0.256	1.25	1.18	10/30/2017 16:48	WG1036996	
(S) Toluene-d8	92.5			80.0-120		10/30/2017 16:48	WG1036996	
(S) Dibromofluoromethane	114			74.0-131		10/30/2017 16:48	WG1036996	
(S) a,a,a-Trifluorotoluene	102			80.0-120		10/30/2017 16:48	WG1036996	
(S) 4-Bromofluorobenzene	97.5			64.0-132		10/30/2017 16:48	WG1036996	

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	3.71	18.0	1	11/06/2017 15:53	WG1038449
PCB 1221	U		5.70	18.0	1	11/06/2017 15:53	WG1038449
PCB 1232	U		4.42	18.0	1	11/06/2017 15:53	WG1038449
PCB 1242	U		3.37	18.0	1	11/06/2017 15:53	WG1038449
PCB 1248	92.9		3.34	18.0	1	11/06/2017 15:53	WG1038449
PCB 1254	U		5.01	18.0	1	11/06/2017 15:53	WG1038449
PCB 1260	U	J3	5.24	18.0	1	11/06/2017 15:53	WG1038449



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	83.2			10.0-148		11/06/2017 15:53	WG1038449
(S) Tetrachloro-m-xylene	83.6			21.0-146		11/06/2017 15:53	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		681	3500	100	11/07/2017 18:57	WG1037943
Acenaphthylene	U		712	3500	100	11/07/2017 18:57	WG1037943
Acetophenone	U		7980	35300	100	11/07/2017 18:57	WG1037943
Anthracene	U		670	3500	100	11/07/2017 18:57	WG1037943
Atrazine	U		9950	35300	100	11/07/2017 18:57	WG1037943
Benzaldehyde	U		5640	35300	100	11/07/2017 18:57	WG1037943
Benzo(a)anthracene	945	J	454	3500	100	11/07/2017 18:57	WG1037943
Benzo(b)fluoranthene	1450	J	737	3500	100	11/07/2017 18:57	WG1037943
Benzo(k)fluoranthene	710	J	617	3500	100	11/07/2017 18:57	WG1037943
Benzo(g,h,i)perylene	U		765	3500	100	11/07/2017 18:57	WG1037943
Benzo(a)pyrene	1120	J	581	3500	100	11/07/2017 18:57	WG1037943
Biphenyl	U		624	35300	100	11/07/2017 18:57	WG1037943
Bis(2-chlorethoxy)methane	U		817	35300	100	11/07/2017 18:57	WG1037943
Bis(2-chloroethyl)ether	U		950	35300	100	11/07/2017 18:57	WG1037943
Bis(2-chloroisopropyl)ether	U		806	35300	100	11/07/2017 18:57	WG1037943
4-Bromophenyl-phenylether	U		1210	35300	100	11/07/2017 18:57	WG1037943
Caprolactam	U		11000	35300	100	11/07/2017 18:57	WG1037943
Carbazole	U		556	35300	100	11/07/2017 18:57	WG1037943
4-Chloroaniline	U		3730	35300	100	11/07/2017 18:57	WG1037943
2-Chloronaphthalene	U		678	3500	100	11/07/2017 18:57	WG1037943
4-Chlorophenyl-phenylether	U		665	35300	100	11/07/2017 18:57	WG1037943
Chrysene	1000	J	589	3500	100	11/07/2017 18:57	WG1037943
Dibenz(a,h)anthracene	U		871	3500	100	11/07/2017 18:57	WG1037943
Dibenzofuran	U		549	35300	100	11/07/2017 18:57	WG1037943
3,3-Dichlorobenzidine	U		8420	35300	100	11/07/2017 18:57	WG1037943
2,4-Dinitrotoluene	U		644	35300	100	11/07/2017 18:57	WG1037943
2,6-Dinitrotoluene	U		782	35300	100	11/07/2017 18:57	WG1037943
Fluoranthene	1610	J	526	3500	100	11/07/2017 18:57	WG1037943
Fluorene	U		723	3500	100	11/07/2017 18:57	WG1037943
Hexachlorobenzene	U		908	35300	100	11/07/2017 18:57	WG1037943
Hexachloro-1,3-butadiene	U		1060	35300	100	11/07/2017 18:57	WG1037943
Hexachlorocyclopentadiene	U	JO	6230	35300	100	11/07/2017 18:57	WG1037943
Hexachloroethane	U		1420	35300	100	11/07/2017 18:57	WG1037943
Indeno(1,2,3-cd)pyrene	U		819	3500	100	11/07/2017 18:57	WG1037943
Isophorone	U		554	35300	100	11/07/2017 18:57	WG1037943
2-Methylnaphthalene	U		913	3500	100	11/07/2017 18:57	WG1037943
Naphthalene	U		943	3500	100	11/07/2017 18:57	WG1037943
2-Nitroaniline	U		801	35300	100	11/07/2017 18:57	WG1037943
3-Nitroaniline	U		902	35300	100	11/07/2017 18:57	WG1037943
4-Nitroaniline	U		678	35300	100	11/07/2017 18:57	WG1037943
Nitrobenzene	U		737	35300	100	11/07/2017 18:57	WG1037943
n-Nitrosodiphenylamine	U		630	35300	100	11/07/2017 18:57	WG1037943
n-Nitrosodi-n-propylamine	U		961	35300	100	11/07/2017 18:57	WG1037943
Phenanthrene	U		560	3500	100	11/07/2017 18:57	WG1037943
Benzylbutyl phthalate	U		1090	35300	100	11/07/2017 18:57	WG1037943
Bis(2-ethylhexyl)phthalate	U		1270	35300	100	11/07/2017 18:57	WG1037943
Di-n-butyl phthalate	U		1160	35300	100	11/07/2017 18:57	WG1037943
Diethyl phthalate	U		733	35300	100	11/07/2017 18:57	WG1037943
Dimethyl phthalate	U		573	35300	100	11/07/2017 18:57	WG1037943
Di-n-octyl phthalate	U		962	35300	100	11/07/2017 18:57	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	1390	J	1300	3500	100	11/07/2017 18:57	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		8080	35300	100	11/07/2017 18:57	WG1037943	² Tc
4-Chloro-3-methylphenol	U		506	35300	100	11/07/2017 18:57	WG1037943	³ Ss
2-Chlorophenol	U		881	35300	100	11/07/2017 18:57	WG1037943	⁴ Cn
2-Methylphenol	U		1050	35300	100	11/07/2017 18:57	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		831	35300	100	11/07/2017 18:57	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		791	35300	100	11/07/2017 18:57	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		5000	35300	100	11/07/2017 18:57	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		13200	35300	100	11/07/2017 18:57	WG1037943	⁹ Sc
2,4-Dinitrophenol	U		10400	35300	100	11/07/2017 18:57	WG1037943	
2-Nitrophenol	U		1380	35300	100	11/07/2017 18:57	WG1037943	
4-Nitrophenol	U		5570	35300	100	11/07/2017 18:57	WG1037943	
Pentachlorophenol	U		5090	35300	100	11/07/2017 18:57	WG1037943	
Phenol	U		737	35300	100	11/07/2017 18:57	WG1037943	
2,4,5-Trichlorophenol	U		1100	35300	100	11/07/2017 18:57	WG1037943	
2,4,6-Trichlorophenol	U		826	35300	100	11/07/2017 18:57	WG1037943	
(S) 2-Fluorophenol	81.4	J7		20.0-120		11/07/2017 18:57	WG1037943	
(S) Phenol-d5	74.2	J7		20.0-120		11/07/2017 18:57	WG1037943	
(S) Nitrobenzene-d5	75.7	J7		18.0-125		11/07/2017 18:57	WG1037943	
(S) 2-Fluorobiphenyl	76.0	J7		28.0-120		11/07/2017 18:57	WG1037943	
(S) 2,4,6-Tribromophenol	24.9	J7		17.0-137		11/07/2017 18:57	WG1037943	
(S) p-Terphenyl-d14	60.2	J7		13.0-131		11/07/2017 18:57	WG1037943	

Sample Narrative:

L946990-11 WG1037943: Dilution due to matrix



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	89.8		1	11/02/2017 14:14	WG1038098

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	5.25	J	3.12	22.3	1	11/03/2017 10:34	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	9370000		3900	11100	1	11/03/2017 03:13	WG1038437
Antimony	U		836	2230	1	11/03/2017 03:13	WG1038437
Arsenic	3410		724	2230	1	11/03/2017 03:13	WG1038437
Barium	82200		189	557	1	11/03/2017 03:13	WG1038437
Beryllium	509		78.0	223	1	11/03/2017 03:13	WG1038437
Cadmium	107	J	78.0	557	1	11/03/2017 03:13	WG1038437
Calcium	25100000		5160	111000	1	11/03/2017 03:13	WG1038437
Chromium	13200		156	1110	1	11/03/2017 03:13	WG1038437
Cobalt	7140		256	1110	1	11/03/2017 03:13	WG1038437
Copper	19900		590	2230	1	11/03/2017 03:13	WG1038437
Iron	19700000		1570	11100	1	11/03/2017 03:13	WG1038437
Lead	27900		212	557	1	11/03/2017 03:13	WG1038437
Magnesium	10300000		1240	111000	1	11/03/2017 03:13	WG1038437
Manganese	385000		134	1110	1	11/03/2017 03:13	WG1038437
Nickel	17000		546	2230	1	11/03/2017 03:13	WG1038437
Potassium	1960000		11400	111000	1	11/03/2017 03:13	WG1038437
Selenium	U		824	2230	1	11/03/2017 03:13	WG1038437
Silver	U		312	1110	1	11/03/2017 03:13	WG1038437
Sodium	111000		11000	111000	1	11/03/2017 03:13	WG1038437
Thallium	U		724	2230	1	11/03/2017 03:13	WG1038437
Vanadium	19300		267	2230	1	11/03/2017 03:13	WG1038437
Zinc	48800		657	5570	1	11/03/2017 03:13	WG1038437

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	U		11.9	59.6	1.07	10/30/2017 17:08	WG1036996
Benzene	2.46		0.322	1.19	1.07	10/30/2017 17:08	WG1036996
Bromochloromethane	U		0.465	1.19	1.07	10/30/2017 17:08	WG1036996
Bromodichloromethane	U		0.303	1.19	1.07	10/30/2017 17:08	WG1036996
Bromoform	U		0.506	1.19	1.07	10/30/2017 17:08	WG1036996
Bromomethane	U		1.59	5.96	1.07	10/30/2017 17:08	WG1036996
Carbon disulfide	0.549	J	0.263	1.19	1.07	10/30/2017 17:08	WG1036996
Carbon tetrachloride	U		0.391	1.19	1.07	10/30/2017 17:08	WG1036996
Chlorobenzene	U		0.253	1.19	1.07	10/30/2017 17:08	WG1036996
Chlorodibromomethane	U		0.444	1.19	1.07	10/30/2017 17:08	WG1036996
Chloroethane	U		1.13	5.96	1.07	10/30/2017 17:08	WG1036996
Chloroform	U		0.273	5.96	1.07	10/30/2017 17:08	WG1036996
Chloromethane	U		0.447	2.98	1.07	10/30/2017 17:08	WG1036996
Cyclohexane	2.63		0.417	1.19	1.07	10/30/2017 17:08	WG1036996
1,2-Dibromo-3-Chloropropane	U		1.25	5.96	1.07	10/30/2017 17:08	WG1036996
1,2-Dibromoethane	U		0.409	1.19	1.07	10/30/2017 17:08	WG1036996
Dichlorodifluoromethane	U		0.850	5.96	1.07	10/30/2017 17:08	WG1036996
1,1-Dichloroethane	U		0.237	1.19	1.07	10/30/2017 17:08	WG1036996

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.316	1.19	1.07	10/30/2017 17:08	WG1036996
1,2-Dichlorobenzene	U		0.363	1.19	1.07	10/30/2017 17:08	WG1036996
1,3-Dichlorobenzene	U		0.285	1.19	1.07	10/30/2017 17:08	WG1036996
1,4-Dichlorobenzene	U		0.270	1.19	1.07	10/30/2017 17:08	WG1036996
1,1-Dichloroethene	U		0.361	1.19	1.07	10/30/2017 17:08	WG1036996
cis-1,2-Dichloroethene	U		0.280	1.19	1.07	10/30/2017 17:08	WG1036996
trans-1,2-Dichloroethene	U		0.314	1.19	1.07	10/30/2017 17:08	WG1036996
1,2-Dichloropropane	U		0.427	1.19	1.07	10/30/2017 17:08	WG1036996
cis-1,3-Dichloropropene	U		0.312	1.19	1.07	10/30/2017 17:08	WG1036996
trans-1,3-Dichloropropene	U		0.319	1.19	1.07	10/30/2017 17:08	WG1036996
Ethylbenzene	0.488	J	0.354	1.19	1.07	10/30/2017 17:08	WG1036996
2-Hexanone	U		1.63	11.9	1.07	10/30/2017 17:08	WG1036996
Isopropylbenzene	U		0.290	11.9	1.07	10/30/2017 17:08	WG1036996
2-Butanone (MEK)	U		5.58	11.9	1.07	10/30/2017 17:08	WG1036996
Methyl Acetate	U		7.27	23.8	1.07	10/30/2017 17:08	WG1036996
Methyl Cyclohexane	5.88		0.453	1.19	1.07	10/30/2017 17:08	WG1036996
Methylene Chloride	U		1.19	5.96	1.07	10/30/2017 17:08	WG1036996
4-Methyl-2-pentanone (MIBK)	U		2.24	11.9	1.07	10/30/2017 17:08	WG1036996
Methyl tert-butyl ether	U		0.253	1.19	1.07	10/30/2017 17:08	WG1036996
Naphthalene	U		1.19	5.96	1.07	10/30/2017 17:08	WG1036996
Styrene	U		0.279	1.19	1.07	10/30/2017 17:08	WG1036996
1,1,2,2-Tetrachloroethane	U		0.434	1.19	1.07	10/30/2017 17:08	WG1036996
Tetrachloroethene	U		0.329	1.19	1.07	10/30/2017 17:08	WG1036996
Toluene	3.56	J	0.517	5.96	1.07	10/30/2017 17:08	WG1036996
1,2,3-Trichlorobenzene	U		0.364	1.19	1.07	10/30/2017 17:08	WG1036996
1,2,4-Trichlorobenzene	U		0.462	1.19	1.07	10/30/2017 17:08	WG1036996
1,1,1-Trichloroethane	U		0.341	1.19	1.07	10/30/2017 17:08	WG1036996
1,1,2-Trichloroethane	U		0.330	1.19	1.07	10/30/2017 17:08	WG1036996
Trichloroethene	U		0.332	1.19	1.07	10/30/2017 17:08	WG1036996
Trichlorofluoromethane	U		0.456	5.96	1.07	10/30/2017 17:08	WG1036996
1,1,2-Trichlorotrifluoroethane	U		0.434	1.19	1.07	10/30/2017 17:08	WG1036996
Vinyl chloride	U		0.346	1.19	1.07	10/30/2017 17:08	WG1036996
o-Xylene	0.800	J	0.437	1.19	1.07	10/30/2017 17:08	WG1036996
m&p-Xylenes	2.33	J	0.395	2.38	1.07	10/30/2017 17:08	WG1036996
n-Butylbenzene	U	JO	0.307	1.19	1.07	10/30/2017 17:08	WG1036996
sec-Butylbenzene	U		0.240	1.19	1.07	10/30/2017 17:08	WG1036996
tert-Butylbenzene	U		0.245	1.19	1.07	10/30/2017 17:08	WG1036996
1,2,4-Trimethylbenzene	0.756	J	0.252	1.19	1.07	10/30/2017 17:08	WG1036996
1,3,5-Trimethylbenzene	U		0.317	1.19	1.07	10/30/2017 17:08	WG1036996
n-Propylbenzene	U		0.245	1.19	1.07	10/30/2017 17:08	WG1036996
p-Isopropyltoluene	U	JO	0.243	1.19	1.07	10/30/2017 17:08	WG1036996
(S) Toluene-d8	93.2			80.0-120		10/30/2017 17:08	WG1036996
(S) Dibromofluoromethane	109			74.0-131		10/30/2017 17:08	WG1036996
(S) a,a,a-Trifluorotoluene	100			80.0-120		10/30/2017 17:08	WG1036996
(S) 4-Bromofluorobenzene	95.6			64.0-132		10/30/2017 17:08	WG1036996

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		3.90	18.9	1	11/06/2017 16:06	WG1038449
PCB 1221	U		5.98	18.9	1	11/06/2017 16:06	WG1038449
PCB 1232	U		4.65	18.9	1	11/06/2017 16:06	WG1038449
PCB 1242	U		3.54	18.9	1	11/06/2017 16:06	WG1038449
PCB 1248	U		3.51	18.9	1	11/06/2017 16:06	WG1038449
PCB 1254	U		5.26	18.9	1	11/06/2017 16:06	WG1038449
PCB 1260	U		5.50	18.9	1	11/06/2017 16:06	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	78.4			10.0-148		11/06/2017 16:06	WG1038449
(S) Tetrachloro-m-xylene	93.8			21.0-146		11/06/2017 16:06	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		7.15	36.8	1	11/03/2017 09:56	WG1037943
Acenaphthylene	U		7.47	36.8	1	11/03/2017 09:56	WG1037943
Acetophenone	U		83.8	371	1	11/03/2017 09:56	WG1037943
Anthracene	U		7.04	36.8	1	11/03/2017 09:56	WG1037943
Atrazine	U		104	371	1	11/03/2017 09:56	WG1037943
Benzaldehyde	U		59.3	371	1	11/03/2017 09:56	WG1037943
Benzo(a)anthracene	U		4.77	36.8	1	11/03/2017 09:56	WG1037943
Benzo(b)fluoranthene	7.77	J	7.74	36.8	1	11/03/2017 09:56	WG1037943
Benzo(k)fluoranthene	U		6.48	36.8	1	11/03/2017 09:56	WG1037943
Benzo(g,h,i)perylene	U		8.03	36.8	1	11/03/2017 09:56	WG1037943
Benzo(a)pyrene	U		6.10	36.8	1	11/03/2017 09:56	WG1037943
Biphenyl	U		6.55	371	1	11/03/2017 09:56	WG1037943
Bis(2-chlorethoxy)methane	U		8.58	371	1	11/03/2017 09:56	WG1037943
Bis(2-chloroethyl)ether	U		9.98	371	1	11/03/2017 09:56	WG1037943
Bis(2-chloroisopropyl)ether	U		8.47	371	1	11/03/2017 09:56	WG1037943
4-Bromophenyl-phenylether	U		12.7	371	1	11/03/2017 09:56	WG1037943
Caprolactam	U		116	371	1	11/03/2017 09:56	WG1037943
Carbazole	U		5.84	371	1	11/03/2017 09:56	WG1037943
4-Chloroaniline	U		39.2	371	1	11/03/2017 09:56	WG1037943
2-Chloronaphthalene	U		7.12	36.8	1	11/03/2017 09:56	WG1037943
4-Chlorophenyl-phenylether	U		6.98	371	1	11/03/2017 09:56	WG1037943
Chrysene	U		6.18	36.8	1	11/03/2017 09:56	WG1037943
Dibenz(a,h)anthracene	U		9.15	36.8	1	11/03/2017 09:56	WG1037943
Dibenzofuran	U		5.77	371	1	11/03/2017 09:56	WG1037943
3,3-Dichlorobenzidine	U		88.5	371	1	11/03/2017 09:56	WG1037943
2,4-Dinitrotoluene	U		6.76	371	1	11/03/2017 09:56	WG1037943
2,6-Dinitrotoluene	U		8.21	371	1	11/03/2017 09:56	WG1037943
Fluoranthene	U		5.53	36.8	1	11/03/2017 09:56	WG1037943
Fluorene	U		7.60	36.8	1	11/03/2017 09:56	WG1037943
Hexachlorobenzene	U		9.54	371	1	11/03/2017 09:56	WG1037943
Hexachloro-1,3-butadiene	U		11.1	371	1	11/03/2017 09:56	WG1037943
Hexachlorocyclopentadiene	U		65.4	371	1	11/03/2017 09:56	WG1037943
Hexachloroethane	U		14.9	371	1	11/03/2017 09:56	WG1037943
Indeno(1,2,3-cd)pyrene	U		8.60	36.8	1	11/03/2017 09:56	WG1037943
Isophorone	U		5.82	371	1	11/03/2017 09:56	WG1037943
2-Methylnaphthalene	U		9.59	36.8	1	11/03/2017 09:56	WG1037943
Naphthalene	U		9.90	36.8	1	11/03/2017 09:56	WG1037943
2-Nitroaniline	U		8.41	371	1	11/03/2017 09:56	WG1037943
3-Nitroaniline	U		9.47	371	1	11/03/2017 09:56	WG1037943
4-Nitroaniline	U		7.12	371	1	11/03/2017 09:56	WG1037943
Nitrobenzene	U		7.74	371	1	11/03/2017 09:56	WG1037943
n-Nitrosodiphenylamine	U		6.62	371	1	11/03/2017 09:56	WG1037943
n-Nitrosodi-n-propylamine	U		10.1	371	1	11/03/2017 09:56	WG1037943
Phenanthrene	U		5.88	36.8	1	11/03/2017 09:56	WG1037943
Benzylbutyl phthalate	U		11.5	371	1	11/03/2017 09:56	WG1037943
Bis(2-ethylhexyl)phthalate	U		13.4	371	1	11/03/2017 09:56	WG1037943
Di-n-butyl phthalate	U		12.1	371	1	11/03/2017 09:56	WG1037943
Diethyl phthalate	U		7.70	371	1	11/03/2017 09:56	WG1037943
Dimethyl phthalate	U		6.02	371	1	11/03/2017 09:56	WG1037943
Di-n-octyl phthalate	U		10.1	371	1	11/03/2017 09:56	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	U		13.7	36.8	1	11/03/2017 09:56	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		84.9	371	1	11/03/2017 09:56	WG1037943	² Tc
4-Chloro-3-methylphenol	U		5.31	371	1	11/03/2017 09:56	WG1037943	³ Ss
2-Chlorophenol	U		9.26	371	1	11/03/2017 09:56	WG1037943	⁴ Cn
2-Methylphenol	U		11.0	371	1	11/03/2017 09:56	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		8.72	371	1	11/03/2017 09:56	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		8.31	371	1	11/03/2017 09:56	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		52.5	371	1	11/03/2017 09:56	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		138	371	1	11/03/2017 09:56	WG1037943	
2,4-Dinitrophenol	U		109	371	1	11/03/2017 09:56	WG1037943	
2-Nitrophenol	U		14.5	371	1	11/03/2017 09:56	WG1037943	
4-Nitrophenol	U		58.5	371	1	11/03/2017 09:56	WG1037943	
Pentachlorophenol	U		53.5	371	1	11/03/2017 09:56	WG1037943	
Phenol	U		7.74	371	1	11/03/2017 09:56	WG1037943	
2,4,5-Trichlorophenol	U		11.6	371	1	11/03/2017 09:56	WG1037943	
2,4,6-Trichlorophenol	U		8.68	371	1	11/03/2017 09:56	WG1037943	
(S) 2-Fluorophenol	80.9			20.0-120		11/03/2017 09:56	WG1037943	
(S) Phenol-d5	69.9			20.0-120		11/03/2017 09:56	WG1037943	
(S) Nitrobenzene-d5	67.5			18.0-125		11/03/2017 09:56	WG1037943	
(S) 2-Fluorobiphenyl	73.5			28.0-120		11/03/2017 09:56	WG1037943	
(S) 2,4,6-Tribromophenol	70.2			17.0-137		11/03/2017 09:56	WG1037943	
(S) p-Terphenyl-d14	61.4			13.0-131		11/03/2017 09:56	WG1037943	⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.4		1	11/02/2017 14:14	WG1038098

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Benzene	67.2		1.92	3.69	1.26	11/02/2017 02:23	WG1037545
n-Butylbenzene	1770		2.51	3.69	1.26	11/02/2017 02:23	WG1037545
sec-Butylbenzene	1170		1.53	3.69	1.26	11/02/2017 02:23	WG1037545
tert-Butylbenzene	88.3		1.59	3.69	1.26	11/02/2017 02:23	WG1037545
Ethylbenzene	199		19.0	36.9	12.6	11/03/2017 12:16	WG1037545
Isopropylbenzene	383		1.52	3.69	1.26	11/02/2017 02:23	WG1037545
p-Isopropyltoluene	47.0		1.92	3.69	1.26	11/02/2017 02:23	WG1037545
Methyl tert-butyl ether	U		1.43	7.38	1.26	11/02/2017 02:23	WG1037545
Naphthalene	480		10.5	18.4	1.26	11/02/2017 02:23	WG1037545
n-Propylbenzene	804		1.77	3.69	1.26	11/02/2017 02:23	WG1037545
1,2,4-Trimethylbenzene	529		1.43	3.69	1.26	11/02/2017 02:23	WG1037545
1,3,5-Trimethylbenzene	75.0		2.42	3.69	1.26	11/02/2017 02:23	WG1037545
Toluene	280		39.1	73.8	12.6	11/03/2017 12:16	WG1037545
o-Xylene	205		11.5	36.9	12.6	11/03/2017 12:16	WG1037545
m&p-Xylenes	484		59.0	111	12.6	11/03/2017 12:16	WG1037545
(S) Toluene-d8	16.6	J2		80.0-120		11/02/2017 02:23	WG1037545
(S) Toluene-d8	60.0	J2		80.0-120		11/03/2017 12:16	WG1037545
(S) Dibromofluoromethane	105			74.0-131		11/02/2017 02:23	WG1037545
(S) Dibromofluoromethane	99.5			74.0-131		11/03/2017 12:16	WG1037545
(S) a,a,a-Trifluorotoluene	99.7			80.0-120		11/02/2017 02:23	WG1037545
(S) a,a,a-Trifluorotoluene	106			80.0-120		11/03/2017 12:16	WG1037545
(S) 4-Bromofluorobenzene	366	J1		64.0-132		11/02/2017 02:23	WG1037545
(S) 4-Bromofluorobenzene	133	J1		64.0-132		11/03/2017 12:16	WG1037545

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Anthracene	5970	J3	42.6	193	5	11/06/2017 08:25	WG1039312
Acenaphthylene	U	J3	44.0	193	5	11/06/2017 08:25	WG1039312
Acenaphthene	7070	J3	43.1	193	5	11/06/2017 08:25	WG1039312
Benzo(a)anthracene	1560	J3	25.1	193	5	11/06/2017 08:25	WG1039312
Benzo(a)pyrene	872	J3	117	773	20	11/06/2017 16:51	WG1039312
Benzo(b)fluoranthene	1520	J3	163	773	20	11/06/2017 16:51	WG1039312
Benzo(g,h,i)perylene	829	J3	169	773	20	11/06/2017 16:51	WG1039312
Benzo(k)fluoranthene	415	J J3	118	773	20	11/06/2017 16:51	WG1039312
Chrysene	2150	J3	45.9	193	5	11/06/2017 08:25	WG1039312
Dibenz(a,h)anthracene	180	J J3	138	773	20	11/06/2017 16:51	WG1039312
Fluoranthene	7320	J3	41.5	193	5	11/06/2017 08:25	WG1039312
Fluorene	8880	J3	42.2	193	5	11/06/2017 08:25	WG1039312
Indeno(1,2,3-cd)pyrene	459	J J3	131	773	20	11/06/2017 16:51	WG1039312
Naphthalene	1880	J3	30.0	193	5	11/06/2017 08:25	WG1039312
Phenanthrene	19900	J3	41.6	193	5	11/06/2017 08:25	WG1039312
Pyrene	8980	J3	45.4	193	5	11/06/2017 08:25	WG1039312
(S) Nitrobenzene-d5	57.0			31.0-146		11/06/2017 08:25	WG1039312
(S) Nitrobenzene-d5	59.0	J7		31.0-146		11/06/2017 16:51	WG1039312
(S) 2-Fluorobiphenyl	74.5			31.0-130		11/06/2017 08:25	WG1039312
(S) 2-Fluorobiphenyl	63.4	J7		31.0-130		11/06/2017 16:51	WG1039312
(S) p-Terphenyl-d14	64.5			20.0-127		11/06/2017 08:25	WG1039312
(S) p-Terphenyl-d14	66.0	J7		20.0-127		11/06/2017 16:51	WG1039312

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Sample Narrative: L946990-13 WG1039312: IS/SURR failed on lower dilution.							¹ Cp ² Tc ³ Ss ⁴ Cn ⁵ Sr ⁶ Qc ⁷ Gl ⁸ Al ⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	80.7		1	11/02/2017 14:14	WG1038098

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

Mercury by Method 7471B

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Mercury	35.4		3.47	24.8	1	11/03/2017 10:36	WG1036765

Metals (ICP) by Method 6010C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Aluminum	13800000		4330	12400	1	11/03/2017 03:17	WG1038437
Antimony	963	J	929	2480	1	11/03/2017 03:17	WG1038437
Arsenic	4880		805	2480	1	11/03/2017 03:17	WG1038437
Barium	89600		211	619	1	11/03/2017 03:17	WG1038437
Beryllium	822		86.7	248	1	11/03/2017 03:17	WG1038437
Cadmium	406	J	86.7	619	1	11/03/2017 03:17	WG1038437
Calcium	14900000		5730	124000	1	11/03/2017 03:17	WG1038437
Chromium	27600		173	1240	1	11/03/2017 03:17	WG1038437
Cobalt	16200		285	1240	1	11/03/2017 03:17	WG1038437
Copper	32200		656	2480	1	11/03/2017 03:17	WG1038437
Iron	37500000		1750	12400	1	11/03/2017 03:17	WG1038437
Lead	43700		235	619	1	11/03/2017 03:17	WG1038437
Magnesium	6280000		1370	124000	1	11/03/2017 03:17	WG1038437
Manganese	3080000		1490	12400	10	11/03/2017 10:58	WG1038437
Nickel	21300		607	2480	1	11/03/2017 03:17	WG1038437
Potassium	1580000		12600	124000	1	11/03/2017 03:17	WG1038437
Selenium	U		916	2480	1	11/03/2017 03:17	WG1038437
Silver	U		347	1240	1	11/03/2017 03:17	WG1038437
Sodium	133000		12200	124000	1	11/03/2017 03:17	WG1038437
Thallium	U		805	2480	1	11/03/2017 03:17	WG1038437
Vanadium	32200		297	2480	1	11/03/2017 03:17	WG1038437
Zinc	96800		731	6190	1	11/03/2017 03:17	WG1038437

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Acetone	80.8		12.4	61.9	1	10/30/2017 17:28	WG1036996
Benzene	U		0.334	1.24	1	10/30/2017 17:28	WG1036996
Bromochloromethane	U		0.483	1.24	1	10/30/2017 17:28	WG1036996
Bromodichloromethane	U		0.315	1.24	1	10/30/2017 17:28	WG1036996
Bromoform	U	J3	0.525	1.24	1	10/30/2017 17:28	WG1036996
Bromomethane	U		1.66	6.19	1	10/30/2017 17:28	WG1036996
Carbon disulfide	0.978	J	0.274	1.24	1	10/30/2017 17:28	WG1036996
Carbon tetrachloride	U		0.406	1.24	1	10/30/2017 17:28	WG1036996
Chlorobenzene	U		0.263	1.24	1	10/30/2017 17:28	WG1036996
Chlorodibromomethane	U	J3	0.462	1.24	1	10/30/2017 17:28	WG1036996
Chloroethane	U		1.17	6.19	1	10/30/2017 17:28	WG1036996
Chloroform	U		0.284	6.19	1	10/30/2017 17:28	WG1036996
Chloromethane	U		0.464	3.10	1	10/30/2017 17:28	WG1036996
Cyclohexane	U	J6	0.433	1.24	1	10/30/2017 17:28	WG1036996
1,2-Dibromo-3-Chloropropane	U	J3	1.30	6.19	1	10/30/2017 17:28	WG1036996
1,2-Dibromoethane	U	J3	0.425	1.24	1	10/30/2017 17:28	WG1036996
Dichlorodifluoromethane	U		0.883	6.19	1	10/30/2017 17:28	WG1036996
1,1-Dichloroethane	U		0.246	1.24	1	10/30/2017 17:28	WG1036996



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
1,2-Dichloroethane	U		0.328	1.24	1	10/30/2017 17:28	WG1036996	¹ Cp
1,2-Dichlorobenzene	U	J3	0.378	1.24	1	10/30/2017 17:28	WG1036996	² Tc
1,3-Dichlorobenzene	U	J3	0.296	1.24	1	10/30/2017 17:28	WG1036996	³ Ss
1,4-Dichlorobenzene	U	J3	0.280	1.24	1	10/30/2017 17:28	WG1036996	⁴ Cn
1,1-Dichloroethene	U		0.375	1.24	1	10/30/2017 17:28	WG1036996	⁵ Sr
cis-1,2-Dichloroethene	U		0.291	1.24	1	10/30/2017 17:28	WG1036996	⁶ Qc
trans-1,2-Dichloroethene	U		0.327	1.24	1	10/30/2017 17:28	WG1036996	⁷ Gl
1,2-Dichloropropane	U		0.443	1.24	1	10/30/2017 17:28	WG1036996	⁸ Al
cis-1,3-Dichloropropene	U		0.324	1.24	1	10/30/2017 17:28	WG1036996	⁹ Sc
trans-1,3-Dichloropropene	U	J3	0.331	1.24	1	10/30/2017 17:28	WG1036996	
Ethylbenzene	U		0.368	1.24	1	10/30/2017 17:28	WG1036996	
2-Hexanone	U	J3	1.70	12.4	1	10/30/2017 17:28	WG1036996	
Isopropylbenzene	U		0.301	12.4	1	10/30/2017 17:28	WG1036996	
2-Butanone (MEK)	21.7		5.80	12.4	1	10/30/2017 17:28	WG1036996	
Methyl Acetate	U	J6	7.55	24.8	1	10/30/2017 17:28	WG1036996	
Methyl Cyclohexane	0.773	JJ6	0.471	1.24	1	10/30/2017 17:28	WG1036996	
Methylene Chloride	U		1.24	6.19	1	10/30/2017 17:28	WG1036996	
4-Methyl-2-pentanone (MIBK)	U		2.33	12.4	1	10/30/2017 17:28	WG1036996	
Methyl tert-butyl ether	U		0.263	1.24	1	10/30/2017 17:28	WG1036996	
Naphthalene	U	J3	1.24	6.19	1	10/30/2017 17:28	WG1036996	
Styrene	U		0.290	1.24	1	10/30/2017 17:28	WG1036996	
1,1,2,2-Tetrachloroethane	U	J3	0.452	1.24	1	10/30/2017 17:28	WG1036996	
Tetrachloroethene	U		0.342	1.24	1	10/30/2017 17:28	WG1036996	
Toluene	U		0.538	6.19	1	10/30/2017 17:28	WG1036996	
1,2,3-Trichlorobenzene	U	J3	0.379	1.24	1	10/30/2017 17:28	WG1036996	
1,2,4-Trichlorobenzene	U	J3	0.481	1.24	1	10/30/2017 17:28	WG1036996	
1,1,1-Trichloroethane	U		0.354	1.24	1	10/30/2017 17:28	WG1036996	
1,1,2-Trichloroethane	U		0.343	1.24	1	10/30/2017 17:28	WG1036996	
Trichloroethene	U		0.346	1.24	1	10/30/2017 17:28	WG1036996	
Trichlorofluoromethane	U		0.473	6.19	1	10/30/2017 17:28	WG1036996	
1,1,2-Trichlorotrifluoroethane	U		0.452	1.24	1	10/30/2017 17:28	WG1036996	
Vinyl chloride	U		0.360	1.24	1	10/30/2017 17:28	WG1036996	
o-Xylene	U		0.453	1.24	1	10/30/2017 17:28	WG1036996	
m&p-Xylenes	U		0.411	2.48	1	10/30/2017 17:28	WG1036996	
n-Butylbenzene	U	JO	0.320	1.24	1	10/30/2017 17:28	WG1036996	
sec-Butylbenzene	U		0.249	1.24	1	10/30/2017 17:28	WG1036996	
tert-Butylbenzene	U		0.255	1.24	1	10/30/2017 17:28	WG1036996	
1,2,4-Trimethylbenzene	U		0.261	1.24	1	10/30/2017 17:28	WG1036996	
1,3,5-Trimethylbenzene	U		0.329	1.24	1	10/30/2017 17:28	WG1036996	
n-Propylbenzene	U		0.255	1.24	1	10/30/2017 17:28	WG1036996	
p-Isopropyltoluene	U	JO	0.253	1.24	1	10/30/2017 17:28	WG1036996	
(S) Toluene-d8	92.3			80.0-120		10/30/2017 17:28	WG1036996	
(S) Dibromofluoromethane	110			74.0-131		10/30/2017 17:28	WG1036996	
(S) a,a,a-Trifluorotoluene	101			80.0-120		10/30/2017 17:28	WG1036996	
(S) 4-Bromofluorobenzene	93.4			64.0-132		10/30/2017 17:28	WG1036996	

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	4.33	21.1	1	11/06/2017 16:43	WG1038449
PCB 1221	U		6.65	21.1	1	11/06/2017 16:43	WG1038449
PCB 1232	U		5.16	21.1	1	11/06/2017 16:43	WG1038449
PCB 1242	U		3.94	21.1	1	11/06/2017 16:43	WG1038449
PCB 1248	U		3.90	21.1	1	11/06/2017 16:43	WG1038449
PCB 1254	U		5.85	21.1	1	11/06/2017 16:43	WG1038449
PCB 1260	U	J3	6.12	21.1	1	11/06/2017 16:43	WG1038449



Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
(S) Decachlorobiphenyl	77.3			10.0-148		11/06/2017 16:43	WG1038449
(S) Tetrachloro-m-xylene	84.1			21.0-146		11/06/2017 16:43	WG1038449

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		79.5	409	10	11/03/2017 16:08	WG1037943
Acenaphthylene	U		83.1	409	10	11/03/2017 16:08	WG1037943
Acetophenone	U		931	4120	10	11/03/2017 16:08	WG1037943
Anthracene	U		78.3	409	10	11/03/2017 16:08	WG1037943
Atrazine	U		1160	4120	10	11/03/2017 16:08	WG1037943
Benzaldehyde	U		659	4120	10	11/03/2017 16:08	WG1037943
Benzo(a)anthracene	66.3	J	53.0	409	10	11/03/2017 16:08	WG1037943
Benzo(b)fluoranthene	96.9	J	86.1	409	10	11/03/2017 16:08	WG1037943
Benzo(k)fluoranthene	U		72.1	409	10	11/03/2017 16:08	WG1037943
Benzo(g,h,i)perylene	U		89.3	409	10	11/03/2017 16:08	WG1037943
Benzo(a)pyrene	U		67.9	409	10	11/03/2017 16:08	WG1037943
Biphenyl	U		72.8	4120	10	11/03/2017 16:08	WG1037943
Bis(2-chlorethoxy)methane	U		95.4	4120	10	11/03/2017 16:08	WG1037943
Bis(2-chloroethyl)ether	U		111	4120	10	11/03/2017 16:08	WG1037943
Bis(2-chloroisopropyl)ether	U		94.1	4120	10	11/03/2017 16:08	WG1037943
4-Bromophenyl-phenylether	U		141	4120	10	11/03/2017 16:08	WG1037943
Caprolactam	U		1290	4120	10	11/03/2017 16:08	WG1037943
Carbazole	U		64.9	4120	10	11/03/2017 16:08	WG1037943
4-Chloroaniline	U		436	4120	10	11/03/2017 16:08	WG1037943
2-Chloronaphthalene	U		79.1	409	10	11/03/2017 16:08	WG1037943
4-Chlorophenyl-phenylether	U		77.7	4120	10	11/03/2017 16:08	WG1037943
Chrysene	U		68.7	409	10	11/03/2017 16:08	WG1037943
Dibenz(a,h)anthracene	U		102	409	10	11/03/2017 16:08	WG1037943
Dibenzofuran	U		64.2	4120	10	11/03/2017 16:08	WG1037943
3,3-Dichlorobenzidine	U		983	4120	10	11/03/2017 16:08	WG1037943
2,4-Dinitrotoluene	U		75.2	4120	10	11/03/2017 16:08	WG1037943
2,6-Dinitrotoluene	U		91.3	4120	10	11/03/2017 16:08	WG1037943
Fluoranthene	87.8	J	61.4	409	10	11/03/2017 16:08	WG1037943
Fluorene	U		84.5	409	10	11/03/2017 16:08	WG1037943
Hexachlorobenzene	U		106	4120	10	11/03/2017 16:08	WG1037943
Hexachloro-1,3-butadiene	U		124	4120	10	11/03/2017 16:08	WG1037943
Hexachlorocyclopentadiene	U		727	4120	10	11/03/2017 16:08	WG1037943
Hexachloroethane	U		166	4120	10	11/03/2017 16:08	WG1037943
Indeno(1,2,3-cd)pyrene	U		95.6	409	10	11/03/2017 16:08	WG1037943
Isophorone	U		64.6	4120	10	11/03/2017 16:08	WG1037943
2-Methylnaphthalene	U		107	409	10	11/03/2017 16:08	WG1037943
Naphthalene	U		110	409	10	11/03/2017 16:08	WG1037943
2-Nitroaniline	U		93.5	4120	10	11/03/2017 16:08	WG1037943
3-Nitroaniline	U		105	4120	10	11/03/2017 16:08	WG1037943
4-Nitroaniline	U		79.1	4120	10	11/03/2017 16:08	WG1037943
Nitrobenzene	U		86.1	4120	10	11/03/2017 16:08	WG1037943
n-Nitrosodiphenylamine	U		73.6	4120	10	11/03/2017 16:08	WG1037943
n-Nitrosodi-n-propylamine	U		112	4120	10	11/03/2017 16:08	WG1037943
Phenanthrene	U		65.4	409	10	11/03/2017 16:08	WG1037943
Benzylbutyl phthalate	U		128	4120	10	11/03/2017 16:08	WG1037943
Bis(2-ethylhexyl)phthalate	U		149	4120	10	11/03/2017 16:08	WG1037943
Di-n-butyl phthalate	U		135	4120	10	11/03/2017 16:08	WG1037943
Diethyl phthalate	U		85.6	4120	10	11/03/2017 16:08	WG1037943
Dimethyl phthalate	U		66.9	4120	10	11/03/2017 16:08	WG1037943
Di-n-octyl phthalate	U		112	4120	10	11/03/2017 16:08	WG1037943



Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	Qualifier	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	Batch	
Pyrene	U		152	409	10	11/03/2017 16:08	WG1037943	¹ Cp
1,2,4,5-Tetrachlorobenzene	U		944	4120	10	11/03/2017 16:08	WG1037943	² Tc
4-Chloro-3-methylphenol	U		59.1	4120	10	11/03/2017 16:08	WG1037943	³ Ss
2-Chlorophenol	U		103	4120	10	11/03/2017 16:08	WG1037943	⁴ Cn
2-Methylphenol	U		122	4120	10	11/03/2017 16:08	WG1037943	⁵ Sr
3&4-Methyl Phenol	U		97.0	4120	10	11/03/2017 16:08	WG1037943	⁶ Qc
2,4-Dichlorophenol	U		92.4	4120	10	11/03/2017 16:08	WG1037943	⁷ Gl
2,4-Dimethylphenol	U		583	4120	10	11/03/2017 16:08	WG1037943	⁸ Al
4,6-Dinitro-2-methylphenol	U		1540	4120	10	11/03/2017 16:08	WG1037943	⁹ Sc
2,4-Dinitrophenol	U		1210	4120	10	11/03/2017 16:08	WG1037943	
2-Nitrophenol	U		161	4120	10	11/03/2017 16:08	WG1037943	
4-Nitrophenol	U		650	4120	10	11/03/2017 16:08	WG1037943	
Pentachlorophenol	U		594	4120	10	11/03/2017 16:08	WG1037943	
Phenol	U		86.1	4120	10	11/03/2017 16:08	WG1037943	
2,4,5-Trichlorophenol	U		129	4120	10	11/03/2017 16:08	WG1037943	
2,4,6-Trichlorophenol	U		96.5	4120	10	11/03/2017 16:08	WG1037943	
(S) 2-Fluorophenol	85.7			20.0-120		11/03/2017 16:08	WG1037943	
(S) Phenol-d5	75.0			20.0-120		11/03/2017 16:08	WG1037943	
(S) Nitrobenzene-d5	69.4			18.0-125		11/03/2017 16:08	WG1037943	
(S) 2-Fluorobiphenyl	80.0			28.0-120		11/03/2017 16:08	WG1037943	
(S) 2,4,6-Tribromophenol	65.1			17.0-137		11/03/2017 16:08	WG1037943	
(S) p-Terphenyl-d14	62.9			13.0-131		11/03/2017 16:08	WG1037943	

Sample Narrative:

L946990-14 WG1037943: Dilution due to matrix impact during extract concentration procedure



Total Solids by Method 2540 G-2011

Analyte	Result %	<u>Qualifier</u>	Dilution	Analysis date / time	<u>Batch</u>
Total Solids	74.3		1	11/02/2017 13:24	WG1038102

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Benzene	U		1.75	3.37	1	11/02/2017 02:39	WG1037545
n-Butylbenzene	4.56	<u>B</u>	2.29	3.37	1	11/02/2017 02:39	WG1037545
sec-Butylbenzene	2.21	<u>B J</u>	1.40	3.37	1	11/02/2017 02:39	WG1037545
tert-Butylbenzene	U		1.45	3.37	1	11/02/2017 02:39	WG1037545
Ethylbenzene	7.03		1.74	3.37	1	11/02/2017 02:39	WG1037545
Isopropylbenzene	U		1.39	3.37	1	11/02/2017 02:39	WG1037545
p-Isopropyltoluene	U		1.75	3.37	1	11/02/2017 02:39	WG1037545
Methyl tert-butyl ether	U		1.31	6.73	1	11/02/2017 02:39	WG1037545
Naphthalene	13.1	<u>J</u>	9.56	16.8	1	11/02/2017 02:39	WG1037545
n-Propylbenzene	3.39	<u>B</u>	1.62	3.37	1	11/02/2017 02:39	WG1037545
1,2,4-Trimethylbenzene	11.8	<u>B</u>	1.31	3.37	1	11/02/2017 02:39	WG1037545
1,3,5-Trimethylbenzene	3.09	<u>J</u>	2.21	3.37	1	11/02/2017 02:39	WG1037545
Toluene	4.48	<u>J</u>	3.57	6.73	1	11/02/2017 02:39	WG1037545
o-Xylene	8.04		1.05	3.37	1	11/02/2017 02:39	WG1037545
m&p-Xylenes	33.0		5.39	10.1	1	11/02/2017 02:39	WG1037545
(S) Toluene-d8	100			80.0-120		11/02/2017 02:39	WG1037545
(S) Dibromofluoromethane	106			74.0-131		11/02/2017 02:39	WG1037545
(S) a,a,a-Trifluorotoluene	105			80.0-120		11/02/2017 02:39	WG1037545
(S) 4-Bromofluorobenzene	114			64.0-132		11/02/2017 02:39	WG1037545

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D

Analyte	Result (dry) ug/kg	<u>Qualifier</u>	MDL (dry) ug/kg	RDL (dry) ug/kg	Dilution	Analysis date / time	<u>Batch</u>
Anthracene	10.2	<u>J J3</u>	9.80	44.4	1	11/06/2017 07:35	WG1039312
Acenaphthylene	U	<u>J3</u>	10.1	44.4	1	11/06/2017 07:35	WG1039312
Acenaphthene	U	<u>J3</u>	9.92	44.4	1	11/06/2017 07:35	WG1039312
Benzo(a)anthracene	12.6	<u>J J3</u>	5.76	44.4	1	11/06/2017 07:35	WG1039312
Benzo(a)pyrene	U	<u>J3</u>	6.76	44.4	1	11/06/2017 07:35	WG1039312
Benzo(b)fluoranthene	U	<u>J3</u>	9.36	44.4	1	11/06/2017 07:35	WG1039312
Benzo(g,h,i)perylene	U	<u>J3</u>	9.71	44.4	1	11/06/2017 07:35	WG1039312
Benzo(k)fluoranthene	U	<u>J3</u>	6.81	44.4	1	11/06/2017 07:35	WG1039312
Chrysene	11.5	<u>J J3</u>	10.6	44.4	1	11/06/2017 07:35	WG1039312
Dibenz(a,h)anthracene	U	<u>J3</u>	7.96	44.4	1	11/06/2017 07:35	WG1039312
Fluoranthene	18.1	<u>J J3</u>	9.53	44.4	1	11/06/2017 07:35	WG1039312
Fluorene	U	<u>J3</u>	9.68	44.4	1	11/06/2017 07:35	WG1039312
Indeno(1,2,3-cd)pyrene	U	<u>J3</u>	7.55	44.4	1	11/06/2017 07:35	WG1039312
Naphthalene	63.3	<u>J3</u>	6.91	44.4	1	11/06/2017 07:35	WG1039312
Phenanthrene	58.6	<u>J3</u>	9.56	44.4	1	11/06/2017 07:35	WG1039312
Pyrene	17.9	<u>J J3</u>	10.4	44.4	1	11/06/2017 07:35	WG1039312
(S) Nitrobenzene-d5	54.9			31.0-146		11/06/2017 07:35	WG1039312
(S) 2-Fluorobiphenyl	36.6			31.0-130		11/06/2017 07:35	WG1039312
(S) p-Terphenyl-d14	39.0			20.0-127		11/06/2017 07:35	WG1039312

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Method Blank (MB)

(MB) R3262752-1 11/02/17 14:14

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.0011			

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L946915-02 Original Sample (OS) • Duplicate (DUP)

(OS) L946915-02 11/02/17 14:14 • (DUP) R3262752-3 11/02/17 14:14

Analyte	Original Result %	DUP Result %	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Total Solids	81.0	80.6	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3262752-2 11/02/17 14:14

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.0	100	85-115	

⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3262750-1 11/02/17 14:01

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%

Total Solids 0.0005

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L946884-13 Original Sample (OS) • Duplicate (DUP)

(OS) L946884-13 11/02/17 14:01 • (DUP) R3262750-3 11/02/17 14:01

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%

Total Solids 89.5 89.8 1 0 5

Laboratory Control Sample (LCS)

(LCS) R3262750-2 11/02/17 14:01

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	

Total Solids 50.0 50.0 100 85-115

⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3262749-1 11/02/17 13:48

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
Total Solids	0.0006			

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L946884-22 Original Sample (OS) • Duplicate (DUP)

(OS) L946884-22 11/02/17 13:48 • (DUP) R3262749-3 11/02/17 13:48

Analyte	Original Result %	DUP Result %	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Total Solids	83.7	84.6	1	1		5

Laboratory Control Sample (LCS)

(LCS) R3262749-2 11/02/17 13:48

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.0	100	85-115	

⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3262748-1 11/02/17 13:24

Analyte	MB Result %	<u>MB Qualifier</u>	MB MDL %	MB RDL %
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Total Solids 0.0007

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L946915-03 Original Sample (OS) • Duplicate (DUP)

(OS) L946915-03 11/02/17 13:24 • (DUP) R3262748-3 11/02/17 13:24

Analyte	Original Result %	DUP Result %	Dilution %	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
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Total Solids 91.0 91.3 1 0 5

Laboratory Control Sample (LCS)

(LCS) R3262748-2 11/02/17 13:24

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
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Total Solids 50.0 50.0 100 85-115

⁷Gl⁸Al⁹Sc



L946990-03,04,07,08,11,12,14

Method Blank (MB)

(MB) R3262897-1 11/03/17 09:35

Analyte	MB Result ug/kg	<u>MB Qualifier</u>	MB MDL ug/kg	MB RDL ug/kg
Mercury	U		2.80	20.0

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262897-2 11/03/17 09:37 • (LCSD) R3262897-3 11/03/17 09:39

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Mercury	300	244	241	81	80	80-120			1	20

L946825-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946825-05 11/03/17 09:41 • (MS) R3262897-4 11/03/17 09:43 • (MSD) R3262897-5 11/03/17 09:46

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Mercury	316	39.7	304	312	84	86	1	75-125			3	20



L946990-03,04,07,08,09,10,11,12,14

Method Blank (MB)

(MB) R3262734-1 11/03/17 02:20

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg															
Aluminum	U		3500	10000															¹ Cp
Antimony	U		750	2000															² Tc
Arsenic	U		650	2000															³ Ss
Barium	U		170	500															⁴ Cn
Beryllium	U		70.0	200															⁵ Sr
Cadmium	U		70.0	500															⁶ Qc
Calcium	U		4630	100000															⁷ Gl
Chromium	U		140	1000															⁸ Al
Cobalt	U		230	1000															⁹ Sc
Copper	U		530	2000															
Iron	1840	<u>J</u>	1410	10000															
Lead	U		190	500															
Magnesium	U		1110	100000															
Manganese	U		120	1000															
Nickel	U		490	2000															
Potassium	40100	<u>J</u>	10200	100000															
Selenium	U		740	2000															
Silver	U		280	1000															
Sodium	U		9850	100000															
Thallium	U		650	2000															
Vanadium	540	<u>J</u>	240	2000															
Zinc	U		590	5000															

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262734-2 11/03/17 02:23 • (LCSD) R3262734-3 11/03/17 02:26

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aluminum	1000000	1030000	1060000	103	106	80-120			3	20
Antimony	100000	99200	102000	99	102	80-120			3	20
Arsenic	100000	97400	101000	97	101	80-120			3	20
Barium	100000	103000	106000	103	106	80-120			3	20
Beryllium	100000	101000	105000	101	105	80-120			4	20
Cadmium	100000	97800	101000	98	101	80-120			3	20
Calcium	1000000	996000	1030000	100	103	80-120			3	20
Chromium	100000	100000	103000	100	103	80-120			3	20
Cobalt	100000	103000	106000	103	106	80-120			3	20
Copper	100000	99200	103000	99	103	80-120			4	20
Iron	1000000	1000000	1040000	100	104	80-120			3	20

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262734-2 11/03/17 02:23 • (LCSD) R3262734-3 11/03/17 02:26

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead	1000000	98800	103000	99	103	80-120			4	20
Magnesium	1000000	1040000	1080000	104	108	80-120			4	20
Manganese	100000	98500	102000	98	102	80-120			3	20
Nickel	100000	101000	105000	101	105	80-120			3	20
Potassium	1000000	1000000	1040000	100	104	80-120			4	20
Selenium	100000	97300	101000	97	101	80-120			4	20
Silver	20000	18400	19000	92	95	80-120			3	20
Sodium	1000000	994000	1030000	99	103	80-120			4	20
Thallium	100000	101000	104000	101	104	80-120			3	20
Vanadium	100000	101000	104000	101	104	80-120			3	20
Zinc	100000	99900	104000	100	104	80-120			4	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L946990-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946990-11 11/03/17 02:30 • (MS) R3262734-6 11/03/17 02:40 • (MSD) R3262734-7 11/03/17 02:43

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	1060000	5640000	6940000	7460000	122	171	1	75-125	V		7	20
Antimony	106000	1400	99400	95700	92	89	1	75-125			4	20
Arsenic	106000	4870	116000	111000	105	100	1	75-125			5	20
Barium	106000	54300	184000	163000	123	103	1	75-125			12	20
Beryllium	106000	595	111000	106000	104	100	1	75-125			4	20
Cadmium	106000	1100	112000	108000	104	100	1	75-125			4	20
Calcium	1060000	84900000	106000000	115000000	1950	2810	1	75-125	E V	E V	8	20
Chromium	106000	17700	117000	120000	94	96	1	75-125			2	20
Cobalt	106000	3720	127000	116000	116	106	1	75-125			9	20
Copper	106000	41000	147000	140000	100	93	1	75-125			5	20
Iron	1060000	19500000	14500000	14700000	0	0	1	75-125	V	V	2	20
Lead	106000	151000	259000	300000	101	140	1	75-125	J5		15	20
Magnesium	1060000	11600000	11400000	10600000	0	0	1	75-125	V	V	8	20
Manganese	106000	461000	1210000	833000	709	351	1	75-125	E V	J3 V	37	20
Nickel	106000	18000	130000	124000	106	100	1	75-125			4	20
Potassium	1060000	935000	1890000	2040000	90	104	1	75-125			8	20
Selenium	106000	U	110000	106000	104	100	1	75-125			4	20
Silver	21200	U	21700	20900	102	99	1	75-125			4	20
Sodium	1060000	211000	1330000	1310000	106	104	1	75-125			1	20
Thallium	106000	U	106000	101000	100	95	1	75-125			5	20
Vanadium	106000	11700	119000	116000	102	98	1	75-125			3	20
Zinc	106000	237000	255000	368000	18	123	1	75-125	J6	J3	36	20

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Method Blank (MB)

(MB) R3261540-3 10/30/17 10:43

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg	
Acetone	U		10.0	50.0	¹ Cp
Benzene	U		0.270	1.00	² Tc
Bromodichloromethane	U		0.254	1.00	³ Ss
Bromochloromethane	U		0.390	1.00	⁴ Cn
Bromoform	U		0.424	1.00	⁵ Sr
Bromomethane	U		1.34	5.00	⁶ Qc
n-Butylbenzene	U		0.258	1.00	⁷ Gl
sec-Butylbenzene	U		0.201	1.00	⁸ Al
tert-Butylbenzene	U		0.206	1.00	⁹ Sc
Carbon disulfide	U		0.221	1.00	
Carbon tetrachloride	U		0.328	1.00	
Chlorobenzene	U		0.212	1.00	
Chlorodibromomethane	U		0.373	1.00	
Chloroethane	U		0.946	5.00	
Chloroform	U		0.229	5.00	
Chloromethane	U		0.375	2.50	
Cyclohexane	U		0.350	1.00	
1,2-Dibromo-3-Chloropropane	U		1.05	5.00	
1,2-Dibromoethane	U		0.343	1.00	
1,2-Dichlorobenzene	U		0.305	1.00	
1,3-Dichlorobenzene	U		0.239	1.00	
1,4-Dichlorobenzene	U		0.226	1.00	
Dichlorodifluoromethane	U		0.713	5.00	
1,1-Dichloroethane	U		0.199	1.00	
1,2-Dichloroethane	U		0.265	1.00	
1,1-Dichloroethene	U		0.303	1.00	
cis-1,2-Dichloroethene	U		0.235	1.00	
trans-1,2-Dichloroethene	U		0.264	1.00	
1,2-Dichloropropane	U		0.358	1.00	
cis-1,3-Dichloropropene	U		0.262	1.00	
trans-1,3-Dichloropropene	U		0.267	1.00	
Ethylbenzene	U		0.297	1.00	
2-Hexanone	U		1.37	10.0	
Isopropylbenzene	U		0.243	10.0	
p-Isopropyltoluene	U		0.204	1.00	
2-Butanone (MEK)	U		4.68	10.0	
Methyl Acetate	U		6.10	20.0	
Methyl Cyclohexane	U		0.380	1.00	
Methylene Chloride	U		1.00	5.00	
4-Methyl-2-pentanone (MIBK)	U		1.88	10.0	

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Method Blank (MB)

(MB) R3261540-3 10/30/17 10:43

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Methyl tert-butyl ether	U		0.212	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.206	1.00
Styrene	U		0.234	1.00
1,1,2,2-Tetrachloroethane	U		0.365	1.00
Tetrachloroethene	U		0.276	1.00
Toluene	U		0.434	5.00
1,1,2-Trichlorotrifluoroethane	U		0.365	1.00
1,2,3-Trichlorobenzene	U		0.306	1.00
1,2,4-Trichlorobenzene	U		0.388	1.00
1,1,1-Trichloroethane	U		0.286	1.00
1,1,2-Trichloroethane	U		0.277	1.00
Trichloroethene	U		0.279	1.00
Trichlorofluoromethane	U		0.382	5.00
1,2,4-Trimethylbenzene	U		0.211	1.00
1,3,5-Trimethylbenzene	U		0.266	1.00
Vinyl chloride	U		0.291	1.00
Xylenes, Total	U		0.698	3.00
o-Xylene	U		0.366	1.00
m&p-Xylenes	U		0.332	2.00
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	101			74.0-131
(S) a,a,a-Trifluorotoluene	104			80.0-120
(S) 4-Bromofluorobenzene	94.1			64.0-132

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3261540-1 10/30/17 09:43 • (LCSD) R3261540-2 10/30/17 10:03

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	125	133	100	107	11.0-160			6.43	23
Benzene	25.0	25.0	25.5	100	102	71.0-124			1.75	20
Bromodichloromethane	25.0	23.4	24.5	93.7	98.0	75.0-120			4.46	20
Bromoform	25.0	25.8	26.2	103	105	65.0-133			1.59	20
Bromomethane	25.0	27.4	28.7	110	115	26.0-160			4.65	20
n-Butylbenzene	25.0	30.5	30.3	122	121	73.0-126			0.760	20
sec-Butylbenzene	25.0	28.6	28.2	114	113	75.0-121			1.27	20
tert-Butylbenzene	25.0	27.2	26.9	109	108	74.0-122			0.890	20

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3261540-1 10/30/17 09:43 • (LCSD) R3261540-2 10/30/17 10:03

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Carbon disulfide	25.0	25.7	26.7	103	107	53.0-130			3.80	20
Carbon tetrachloride	25.0	23.6	24.4	94.4	97.7	66.0-123			3.45	20
Chlorobenzene	25.0	26.9	26.2	108	105	79.0-121			2.44	20
Chlorodibromomethane	25.0	26.1	25.8	105	103	74.0-128			1.30	20
Chloroethane	25.0	24.8	25.5	99.3	102	51.0-147			2.72	20
Chloroform	25.0	23.9	24.6	95.7	98.4	73.0-123			2.72	20
Chloromethane	25.0	26.1	26.0	104	104	51.0-138			0.570	20
Cyclohexane	25.0	25.1	25.4	100	102	70.0-130			1.26	20
1,2-Dibromo-3-Chloropropane	25.0	23.3	24.4	93.0	97.5	65.0-126			4.68	20
1,2-Dibromoethane	25.0	23.5	23.6	94.2	94.4	78.0-122			0.280	20
1,2-Dichlorobenzene	25.0	25.9	25.8	103	103	80.0-120			0.150	20
1,3-Dichlorobenzene	25.0	26.4	26.2	106	105	72.0-123			0.860	20
1,4-Dichlorobenzene	25.0	27.4	27.1	110	108	77.0-120			1.25	20
Dichlorodifluoromethane	25.0	22.2	21.5	88.7	86.2	49.0-155			2.90	20
1,1-Dichloroethane	25.0	25.9	25.6	103	103	70.0-128			0.930	20
1,2-Dichloroethane	25.0	22.3	23.4	89.4	93.8	69.0-128			4.83	20
1,1-Dichloroethene	25.0	24.9	25.2	99.7	101	63.0-131			1.04	20
cis-1,2-Dichloroethene	25.0	24.3	24.8	97.2	99.4	74.0-123			2.26	20
trans-1,2-Dichloroethene	25.0	24.5	24.2	97.8	97.0	72.0-122			0.850	20
1,2-Dichloropropane	25.0	27.2	27.9	109	112	75.0-126			2.77	20
cis-1,3-Dichloropropene	25.0	27.1	26.6	109	106	80.0-125			2.02	20
trans-1,3-Dichloropropene	25.0	25.7	25.2	103	101	75.0-129			2.00	20
Ethylbenzene	25.0	27.2	26.0	109	104	77.0-120			4.68	20
2-Hexanone	125	121	127	96.7	101	61.0-143			4.65	20
Isopropylbenzene	25.0	26.5	25.9	106	104	75.0-120			2.23	20
p-Isopropyltoluene	25.0	30.2	29.6	121	118	74.0-125			1.96	20
2-Butanone (MEK)	125	124	135	99.2	108	37.0-159			8.79	20
Methyl Acetate	125	123	130	98.5	104	70.0-130			5.32	21.3
Methyl Cyclohexane	25.0	25.8	26.1	103	104	70.0-130			1.33	21.3
Methylene Chloride	25.0	24.1	24.6	96.3	98.4	67.0-123			2.19	20
4-Methyl-2-pentanone (MIBK)	125	123	130	98.0	104	60.0-144			5.55	20
Methyl tert-butyl ether	25.0	22.7	23.8	90.8	95.2	66.0-125			4.76	20
Naphthalene	25.0	22.8	23.5	91.2	93.8	64.0-125			2.76	20
n-Propylbenzene	25.0	29.4	28.7	117	115	78.0-120			2.17	20
Styrene	25.0	26.6	26.4	106	106	78.0-124			0.860	20
1,1,2,2-Tetrachloroethane	25.0	24.0	25.2	96.0	101	73.0-120			4.73	20
Tetrachloroethene	25.0	26.9	25.3	108	101	70.0-127			5.94	20
Toluene	25.0	25.3	24.1	101	96.3	77.0-120			4.91	20
1,1,2-Trichlorotrifluoroethane	25.0	25.3	25.7	101	103	64.0-135			1.60	20
1,2,3-Trichlorobenzene	25.0	25.7	26.1	103	105	68.0-126			1.60	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L946990-01,02,03,04,07,08,09,10,11,12,14

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3261540-1 10/30/17 09:43 • (LCSD) R3261540-2 10/30/17 10:03

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
1,2,4-Trichlorobenzene	25.0	26.3	26.5	105	106	70.0-127			0.850	20
1,1,1-Trichloroethane	25.0	24.1	24.5	96.3	97.8	69.0-125			1.57	20
1,1,2-Trichloroethane	25.0	24.0	24.0	95.8	96.1	78.0-120			0.260	20
Trichloroethene	25.0	24.5	25.3	98.1	101	79.0-120			3.18	20
Trichlorofluoromethane	25.0	25.0	25.9	100	104	59.0-136			3.62	20
1,2,4-Trimethylbenzene	25.0	26.3	26.3	105	105	75.0-120			0.180	20
1,3,5-Trimethylbenzene	25.0	26.7	26.5	107	106	75.0-120			0.680	20
Vinyl chloride	25.0	24.9	25.8	99.7	103	63.0-134			3.34	20
Xylenes, Total	75.0	81.0	77.9	108	104	77.0-120			3.90	20
o-Xylene	25.0	26.5	25.7	106	103	77.0-120			3.28	20
m&p-Xylenes	50.0	54.5	52.2	109	104	77.0-120			4.41	20
(S) Toluene-d8				102	98.4	80.0-120				
(S) Dibromofluoromethane					98.3	100	74.0-131			
(S) a,a,a-Trifluorotoluene					102	103	80.0-120			
(S) 4-Bromofluorobenzene					95.4	94.6	64.0-132			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L946990-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946990-14 10/30/17 17:28 • (MS) R3261540-4 10/30/17 17:48 • (MSD) R3261540-5 10/30/17 18:08

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Acetone	155	80.8	142	153	39.7	46.9	1	10.0-160			7.53	36
Benzene	31.0	U	15.0	16.8	48.4	54.4	1	13.0-146			11.6	27
Bromodichloromethane	31.0	U	12.8	16.1	41.4	51.9	1	15.0-142			22.6	28
Bromoform	31.0	U	12.5	16.1	40.5	52.0	1	24.0-146			25.0	27
Bromomethane	31.0	U	10.9	15.9	35.2	51.3	1	10.0-147	J3		37.2	31
n-Butylbenzene	31.0	U	12.7	15.0	41.1	48.5	1	10.0-160			16.7	32
sec-Butylbenzene	31.0	U	15.8	20.4	51.2	66.0	1	10.0-154			25.3	37
tert-Butylbenzene	31.0	U	16.2	20.0	52.5	64.7	1	10.0-151			20.8	36
Carbon disulfide	31.0	0.978	10.1	11.3	29.3	33.4	1	10.0-141			11.7	30
Carbon tetrachloride	31.0	U	15.0	17.8	48.5	57.6	1	13.0-140			17.1	30
Chlorobenzene	31.0	U	10.8	14.7	34.8	47.5	1	10.0-149			30.9	31
Chlorodibromomethane	31.0	U	11.0	15.4	35.4	49.6	1	12.0-147	J3		33.4	29
Chloroethane	31.0	U	13.2	16.0	42.5	51.6	1	10.0-159			19.2	33
Chloroform	31.0	U	14.5	17.4	47.0	56.4	1	18.0-148			18.2	28
Chloromethane	31.0	U	12.0	13.7	38.6	44.1	1	10.0-146			13.4	29
Cyclohexane	31.0	U	15.0	15.6	48.6	50.3	1	70.0-130	J6	J6	3.46	24.6
1,2-Dibromo-3-Chloropropane	31.0	U	8.82	13.2	28.5	42.7	1	10.0-149	J3		39.9	34

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L946990-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946990-14 10/30/17 17:28 • (MS) R3261540-4 10/30/17 17:48 • (MSD) R3261540-5 10/30/17 18:08

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
1,2-Dibromoethane	31.0	U	9.52	13.7	30.8	44.2	1	14.0-145	J3		35.8	28
1,2-Dichlorobenzene	31.0	U	8.24	12.6	26.6	40.7	1	10.0-153	J3		41.9	34
1,3-Dichlorobenzene	31.0	U	9.26	13.5	29.9	43.7	1	10.0-150	J3		37.4	35
1,4-Dichlorobenzene	31.0	U	8.86	13.4	28.6	43.3	1	10.0-148	J3		40.8	34
Dichlorodifluoromethane	31.0	U	14.2	17.0	45.9	55.0	1	10.0-160			17.9	30
1,1-Dichloroethane	31.0	U	15.8	18.5	50.9	59.7	1	19.0-148			15.8	28
1,2-Dichloroethane	31.0	U	12.3	15.7	39.8	50.7	1	17.0-147			23.9	27
1,1-Dichloroethene	31.0	U	13.6	16.9	43.9	54.5	1	10.0-150			21.7	31
cis-1,2-Dichloroethene	31.0	U	13.2	16.6	42.6	53.6	1	16.0-145			22.9	28
trans-1,2-Dichloroethene	31.0	U	12.4	15.1	40.1	48.6	1	11.0-142			19.2	29
1,2-Dichloropropane	31.0	U	15.1	19.0	48.8	61.3	1	17.0-148			22.7	28
cis-1,3-Dichloropropene	31.0	U	11.1	14.6	35.9	47.2	1	13.0-150			27.3	28
trans-1,3-Dichloropropene	31.0	U	9.55	13.6	30.9	43.9	1	10.0-152	J3		34.9	29
Ethylbenzene	31.0	U	12.5	16.0	40.4	51.6	1	10.0-147			24.3	31
2-Hexanone	155	U	58.6	79.6	37.9	51.4	1	12.0-158	J3		30.4	30
Isopropylbenzene	31.0	U	14.7	17.4	47.5	56.3	1	10.0-147			16.9	33
p-Isopropyltoluene	31.0	U	16.3	20.1	52.5	65.0	1	10.0-156			21.3	37
2-Butanone (MEK)	155	21.7	91.1	110	44.8	56.8	1	10.0-160			18.6	33
Methyl Acetate	155	U	70.6	83.8	45.6	54.1	1	70.0-130	J6	J6	17.1	28.3
Methyl Cyclohexane	31.0	0.773	17.2	16.3	53.0	50.3	1	70.0-130	J6	J6	4.95	28.3
Methylene Chloride	31.0	U	13.1	16.3	42.4	52.7	1	16.0-139			21.8	29
4-Methyl-2-pentanone (MIBK)	155	U	78.7	106	50.8	68.7	1	12.0-160			29.9	32
Methyl tert-butyl ether	31.0	U	15.0	19.6	48.5	63.3	1	21.0-145			26.4	29
Naphthalene	31.0	U	3.83	7.18	12.4	23.2	1	10.0-153	J3		60.9	36
n-Propylbenzene	31.0	U	15.7	19.0	50.7	61.4	1	10.0-151			19.0	34
Styrene	31.0	U	8.39	11.3	27.1	36.5	1	10.0-155			29.6	34
1,1,2,2-Tetrachloroethane	31.0	U	11.3	15.8	36.5	51.2	1	10.0-155	J3		33.3	31
Tetrachloroethene	31.0	U	12.5	15.6	40.4	50.3	1	10.0-144			21.8	32
Toluene	31.0	U	13.2	14.8	42.6	47.7	1	10.0-144			11.2	28
1,1,2-Trichlorotrifluoroethane	31.0	U	16.2	20.3	52.5	65.4	1	10.0-153			22.0	33
1,2,3-Trichlorobenzene	31.0	U	5.44	9.46	17.6	30.6	1	10.0-153	J3		54.0	40
1,2,4-Trichlorobenzene	31.0	U	5.94	10.1	19.2	32.6	1	10.0-156	J3		51.8	40
1,1,1-Trichloroethane	31.0	U	15.4	18.1	49.7	58.5	1	18.0-145			16.4	29
1,1,2-Trichloroethane	31.0	U	11.5	15.1	37.1	48.8	1	12.0-151			27.2	28
Trichloroethene	31.0	U	13.3	16.5	42.9	53.1	1	11.0-148			21.4	29
Trichlorofluoromethane	31.0	U	15.5	19.1	50.0	61.7	1	10.0-157			20.9	34
1,2,4-Trimethylbenzene	31.0	U	13.1	16.2	42.3	52.4	1	10.0-151			21.3	34
1,3,5-Trimethylbenzene	31.0	U	14.0	17.3	45.3	56.0	1	10.0-150			21.1	33
Vinyl chloride	31.0	U	13.4	14.6	43.2	47.3	1	10.0-150			8.98	29



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L946990-01,02,03,04,07,08,09,10,11,12,14

L946990-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946990-14 10/30/17 17:28 • (MS) R3261540-4 10/30/17 17:48 • (MSD) R3261540-5 10/30/17 18:08

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution 1	Rec. Limits 10.0-150	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Xylenes, Total	92.9	U	37.8	47.3	40.7	50.9	1	10.0-150			22.4	31
o-Xylene	31.0	U	11.8	15.2	38.0	49.0	1	10.0-143			25.3	35
m&p-Xylenes	61.9	U	26.0	32.2	42.0	52.0	1	10.0-144			21.4	34
(S) Toluene-d8				91.2	91.7			80.0-120				
(S) Dibromofluoromethane				110	110			74.0-131				
(S) a,a,a-Trifluorotoluene				99.1	101			80.0-120				
(S) 4-Bromofluorobenzene				97.6	95.2			64.0-132				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3262766-3 11/02/17 01:04

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Benzene	U		1.30	2.50
n-Butylbenzene	1.73	J	1.70	2.50
sec-Butylbenzene	1.08	J	1.04	2.50
tert-Butylbenzene	U		1.08	2.50
Ethylbenzene	U		1.29	2.50
Isopropylbenzene	U		1.03	2.50
p-Isopropyltoluene	U		1.30	2.50
Methyl tert-butyl ether	U		0.972	5.00
Naphthalene	U		7.10	12.5
n-Propylbenzene	1.22	J	1.20	2.50
Toluene	U		2.65	5.00
1,2,4-Trimethylbenzene	2.30	J	0.970	2.50
1,3,5-Trimethylbenzene	U		1.64	2.50
o-Xylene	U		0.783	2.50
m&p-Xylenes	U		4.00	7.50
(S) Toluene-d8	110		80.0-120	
(S) Dibromofluoromethane	96.4		74.0-131	
(S) a,a,a-Trifluorotoluene	99.6		80.0-120	
(S) 4-Bromofluorobenzene	106		64.0-132	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262766-1 11/02/17 00:00 • (LCSD) R3262766-2 11/02/17 00:16

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	625	615	602	98.4	96.4	72.6-120			2.02	20
n-Butylbenzene	625	598	606	95.7	97.0	74.2-134			1.38	20
sec-Butylbenzene	625	637	647	102	103	77.8-129			1.58	20
tert-Butylbenzene	625	640	646	102	103	77.2-129			1.01	20
Ethylbenzene	625	630	612	101	98.0	78.6-124			2.85	20
Isopropylbenzene	625	643	644	103	103	79.4-126			0.180	20
p-Isopropyltoluene	625	648	654	104	105	75.4-132			1.02	20
Methyl tert-butyl ether	625	615	597	98.4	95.5	70.2-122			2.97	20
Naphthalene	625	646	649	103	104	69.9-132			0.480	20
n-Propylbenzene	625	615	617	98.4	98.8	80.2-124			0.400	20
Toluene	625	602	588	96.3	94.1	76.7-116			2.40	20
1,2,4-Trimethylbenzene	625	630	629	101	101	77.1-124			0.270	20
1,3,5-Trimethylbenzene	625	629	628	101	100	79.0-125			0.250	20
o-Xylene	625	651	627	104	100	78.5-124			3.74	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262766-1 11/02/17 00:00 • (LCSD) R3262766-2 11/02/17 00:16

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
m&p-Xylenes	1250	1230	1210	98.4	96.5	77.3-124			2.03	20
(S) Toluene-d8				101	99.2	80.0-120				
(S) Dibromofluoromethane				102	98.0	74.0-131				
(S) a,a,a-Trifluorotoluene				103	101	80.0-120				
(S) 4-Bromofluorobenzene				102	104	64.0-132				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L947021-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L947021-04 11/02/17 03:10 • (MS) R3262766-4 11/02/17 06:21 • (MSD) R3262766-5 11/02/17 06:36

Analyte	Spike Amount ug/kg	Original Result ug/kg	MS Result ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Benzene	625	ND	410	422	65.5	67.6	1	47.8-131		3.09	22.8
n-Butylbenzene	625	ND	445	487	71.2	77.9	1	23.6-146		8.97	39.2
sec-Butylbenzene	625	ND	453	494	72.5	79.0	1	31.0-142		8.59	34.7
tert-Butylbenzene	625	ND	453	480	72.5	76.8	1	36.9-142		5.72	31.7
Ethylbenzene	625	ND	405	414	64.8	66.2	1	44.8-135		2.21	26.9
Isopropylbenzene	625	ND	449	468	71.8	75.0	1	41.9-139		4.28	29.3
p-Isopropyltoluene	625	ND	472	508	75.5	81.3	1	27.3-146		7.46	35.1
Methyl tert-butyl ether	625	ND	471	496	75.3	79.4	1	50.4-131		5.23	24.8
Naphthalene	625	ND	374	505	59.8	80.8	1	18.4-145		29.9	34
n-Propylbenzene	625	ND	442	472	70.7	75.5	1	35.2-139		6.52	31.9
Toluene	625	ND	394	398	63.0	63.6	1	47.8-127		0.970	24.3
1,2,4-Trimethylbenzene	625	3.23	463	472	73.6	75.0	1	32.9-139		1.79	30.6
1,3,5-Trimethylbenzene	625	ND	450	474	72.0	75.8	1	37.1-138		5.16	30.6
o-Xylene	625	ND	433	429	69.3	68.6	1	43.2-136		0.990	26.2
m&p-Xylenes	1250	ND	819	821	65.5	65.7	1	42.2-134		0.240	27.1
(S) Toluene-d8				102	96.1		80.0-120				
(S) Dibromofluoromethane				99.7	97.4		74.0-131				
(S) a,a,a-Trifluorotoluene				101	99.3		80.0-120				
(S) 4-Bromofluorobenzene				108	105		64.0-132				



L946990-03,04,07,08,11,12,14

Method Blank (MB)

(MB) R3263492-1 11/06/17 10:41

Analyte	MB Result ug/kg	<u>MB Qualifier</u>	MB MDL ug/kg	MB RDL ug/kg
PCB 1016	U		3.50	17.0
PCB 1221	U		5.37	17.0
PCB 1232	U		4.17	17.0
PCB 1242	U		3.18	17.0
PCB 1248	U		3.15	17.0
PCB 1254	U		4.72	17.0
PCB 1260	U		4.94	17.0
(S) Decachlorobiphenyl	74.8		10.0-148	
(S) Tetrachloro-m-xylene	75.8		21.0-146	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263492-2 11/06/17 10:54 • (LCSD) R3263492-3 11/06/17 11:06

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
PCB 1260	167	83.3	146	49.9	87.5	37.0-145	J3	J3	54.6	37
PCB 1016	167	82.2	147	49.3	88.3	36.0-141	J3	J3	56.7	35
(S) Decachlorobiphenyl			52.0	77.2	10.0-148					
(S) Tetrachloro-m-xylene			50.4	75.7	21.0-146					

⁷Gl⁸Al⁹Sc

L946990-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946990-12 11/06/17 16:06 • (MS) R3263492-4 11/06/17 16:18 • (MSD) R3263492-5 11/06/17 16:30

Analyte	Spike Amount (dry) ug/kg	Original Result (dry) ug/kg	MS Result (dry) ug/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
PCB 1260	186	U	160	159	86.4	85.9	1	10.0-160			0.590	31
PCB 1016	186	U	186	170	100	91.7	1	17.0-160			8.76	30
(S) Decachlorobiphenyl				85.6	86.8	10.0-148						
(S) Tetrachloro-m-xylene				98.3	91.7	21.0-146						

⁷Gl⁸Al⁹Sc



L946990-03,04,07,08,11,12,14

Method Blank (MB)

(MB) R3263208-3 11/03/17 08:47

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg	
Acenaphthene	U		6.42	33.0	¹ Cp
Acenaphthylene	U		6.71	33.0	² Tc
Acetophenone	U		75.2	333	³ Ss
Anthracene	U		6.32	33.0	⁴ Cn
Atrazine	U		93.8	333	⁵ Sr
Benzaldehyde	U		53.2	333	⁶ Qc
Benzo(a)anthracene	U		4.28	33.0	⁷ Gl
Benzo(b)fluoranthene	U		6.95	33.0	⁸ Al
Benzo(k)fluoranthene	U		5.82	33.0	⁹ Sc
Benzo(g,h,i)perylene	U		7.21	33.0	
Benzo(a)pyrene	U		5.48	33.0	
Biphenyl	U		5.88	333	
Bis(2-chlorethoxy)methane	U		7.70	333	
Bis(2-chloroethyl)ether	U		8.96	333	
Bis(2-chloroisopropyl)ether	U		7.60	333	
4-Bromophenyl-phenylether	U		11.4	333	
Caprolactam	U		104	333	
Carbazole	U		5.24	333	
4-Chloroaniline	U		35.2	333	
2-Chloronaphthalene	U		6.39	33.0	
4-Chlorophenyl-phenylether	U		6.27	333	
Chrysene	U		5.55	33.0	
Dibenz(a,h)anthracene	U		8.21	33.0	
Dibenzofuran	U		5.18	333	
3,3-Dichlorobenzidine	U		79.4	333	
2,4-Dinitrotoluene	U		6.07	333	
2,6-Dinitrotoluene	U		7.37	333	
Fluoranthene	U		4.96	33.0	
Fluorene	U		6.82	33.0	
Hexachlorobenzene	U		8.56	333	
Hexachloro-1,3-butadiene	U		10.0	333	
Hexachlorocyclopentadiene	U		58.7	333	
Hexachloroethane	U		13.4	333	
Indeno(1,2,3-cd)pyrene	U		7.72	33.0	
Isophorone	U		5.22	333	
2-Methylnaphthalene	U		8.61	33.0	
Naphthalene	U		8.89	33.0	
2-Nitroaniline	U		7.55	333	
3-Nitroaniline	U		8.50	333	
4-Nitroaniline	U		6.39	333	

ACCOUNT:

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SDG:

L946990

DATE/TIME:

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Method Blank (MB)

(MB) R3263208-3 11/03/17 08:47

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg	
Nitrobenzene	U		6.95	333	¹ Cp
n-Nitrosodiphenylamine	U		5.94	333	² Tc
n-Nitrosodi-n-propylamine	U		9.06	333	³ Ss
Phenanthrene	U		5.28	33.0	⁴ Cn
Benzylbutyl phthalate	U		10.3	333	⁵ Sr
Bis(2-ethylhexyl)phthalate	13.8	J	12.0	333	⁶ Qc
Di-n-butyl phthalate	U		10.9	333	⁷ Gl
Diethyl phthalate	U		6.91	333	⁸ Al
Dimethyl phthalate	U		5.40	333	⁹ Sc
Di-n-octyl phthalate	U		9.07	333	
Pyrene	U		12.3	33.0	
4-Chloro-3-methylphenol	U		4.77	333	
2-Chlorophenol	U		8.31	333	
2-Methylphenol	U		9.86	333	
3&4-Methyl Phenol	U		7.83	333	
2,4-Dichlorophenol	U		7.46	333	
2,4-Dimethylphenol	U		47.1	333	
4,6-Dinitro-2-methylphenol	U		124	333	
2,4-Dinitrophenol	U		98.0	333	
2-Nitrophenol	U		13.0	333	
4-Nitrophenol	U		52.5	333	
Pentachlorophenol	U		48.0	333	
Phenol	U		6.95	333	
1,2,4,5-Tetrachlorobenzene	U		76.2	333	
2,4,5-Trichlorophenol	U		10.4	333	
2,4,6-Trichlorophenol	U		7.79	333	
(S) Nitrobenzene-d5	68.0		18.0-125		
(S) 2-Fluorobiphenyl	68.3		28.0-120		
(S) p-Terphenyl-d14	58.8		13.0-131		
(S) Phenol-d5	66.7		20.0-120		
(S) 2-Fluorophenol	77.4		20.0-120		
(S) 2,4,6-Tribromophenol	55.9		17.0-137		



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263208-1 11/03/17 05:44 • (LCSD) R3263208-2 11/03/17 06:07

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthene	667	429	387	64.3	58.1	47.0-120			10.2	21
Acenaphthylene	667	460	415	68.9	62.2	48.0-120			10.3	21
Acetophenone	667	413	396	62.0	59.4	30.0-120			4.25	26
Anthracene	667	468	439	70.2	65.9	46.0-120			6.38	20
Atrazine	667	513	486	77.0	72.8	43.0-127			5.49	22
Benzaldehyde	667	281	235	42.2	35.2	10.0-120			18.0	40
Benzo(a)anthracene	667	485	442	72.7	66.2	46.0-120			9.35	20
Benzo(b)fluoranthene	667	480	421	71.9	63.1	45.0-120			13.0	22
Benzo(k)fluoranthene	667	496	455	74.3	68.2	45.0-120			8.56	23
Benzo(g,h,i)perylene	667	483	449	72.4	67.3	48.0-120			7.31	21
Benzo(a)pyrene	667	497	442	74.5	66.3	46.0-120			11.6	21
Biphenyl	667	440	401	65.9	60.1	42.0-120			9.22	23
Bis(2-chlorethoxy)methane	667	371	342	55.7	51.2	41.0-120			8.32	22
Bis(2-chloroethyl)ether	667	366	356	54.8	53.3	28.0-120			2.73	28
Bis(2-chloroisopropyl)ether	667	387	373	58.1	55.9	40.0-120			3.76	27
4-Bromophenyl-phenylether	667	417	385	62.5	57.7	45.0-120			7.91	20
Caprolactam	667	538	501	80.7	75.2	41.0-136			7.13	22
Carbazole	667	453	425	68.0	63.7	41.0-120			6.50	20
4-Chloroaniline	667	253	230	37.9	34.4	27.0-120			9.51	25
2-Chloronaphthalene	667	442	401	66.2	60.2	43.0-120			9.57	22
4-Chlorophenyl-phenylether	667	455	417	68.2	62.6	46.0-120			8.65	21
Chrysene	667	474	439	71.1	65.8	46.0-120			7.81	20
Dibenz(a,h)anthracene	667	504	463	75.6	69.5	47.0-120			8.52	22
Dibenzofuran	667	455	412	68.2	61.8	43.0-120			9.94	21
3,3-Dichlorobenzidine	667	294	289	44.1	43.4	20.0-130			1.67	24
2,4-Dinitrotoluene	667	477	444	71.5	66.5	48.0-122			7.18	21
2,6-Dinitrotoluene	667	441	415	66.1	62.3	46.0-120			5.96	21
Fluoranthene	667	497	457	74.5	68.5	46.0-120			8.42	20
Fluorene	667	486	435	72.8	65.3	47.0-120			10.9	20
Hexachlorobenzene	667	424	392	63.6	58.8	42.0-120			7.84	20
Hexachloro-1,3-butadiene	667	369	369	55.3	55.3	36.0-120			0.0300	26
Hexachlorocyclopentadiene	667	340	302	51.0	45.3	20.0-124			11.8	26
Hexachloroethane	667	354	339	53.1	50.8	32.0-120			4.36	31
Indeno(1,2,3-cd)pyrene	667	507	468	75.9	70.2	48.0-120			7.82	21
Isophorone	667	361	338	54.2	50.7	42.0-120			6.62	21
2-Methylnaphthalene	667	336	314	50.3	47.1	43.0-120			6.60	22
Naphthalene	667	317	309	47.5	46.4	41.0-120			2.38	24
2-Nitroaniline	667	447	413	67.0	61.9	46.0-125			7.96	21
3-Nitroaniline	667	360	333	54.0	50.0	37.0-120			7.80	22
4-Nitroaniline	667	384	345	57.5	51.7	31.0-127			10.7	26

ACCOUNT:

Lender Consulting Services - NY

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L946990-03,04,07,08,11,12,14

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263208-1 11/03/17 05:44 • (LCSD) R3263208-2 11/03/17 06:07

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Nitrobenzene	667	355	335	53.3	50.2	36.0-120			6.05	24
n-Nitrosodiphenylamine	667	426	394	63.9	59.0	42.0-120			7.96	20
n-Nitrosodi-n-propylamine	667	401	379	60.1	56.9	39.0-120			5.40	23
Phenanthrene	667	460	429	69.0	64.4	45.0-120			6.93	20
Benzylbutyl phthalate	667	411	376	61.6	56.4	41.0-123			8.86	20
Bis(2-ethylhexyl)phthalate	667	434	390	65.0	58.5	41.0-124			10.5	20
Di-n-butyl phthalate	667	434	402	65.0	60.3	44.0-120			7.59	20
Diethyl phthalate	667	447	417	67.0	62.6	46.0-120			6.85	20
Dimethyl phthalate	667	462	423	69.2	63.4	47.0-120			8.78	21
Di-n-octyl phthalate	667	405	377	60.7	56.5	40.0-123			7.20	21
Pyrene	667	474	432	71.1	64.8	45.0-120			9.24	21
4-Chloro-3-methylphenol	667	336	312	50.4	46.8	46.0-120			7.41	20
2-Chlorophenol	667	399	381	59.8	57.1	37.0-120			4.70	27
2-Methylphenol	667	386	359	57.9	53.9	41.0-120			7.17	24
3&4-Methyl Phenol	667	438	401	65.6	60.1	47.0-120			8.77	24
2,4-Dichlorophenol	667	395	357	59.3	53.6	45.0-120			10.1	21
2,4-Dimethylphenol	667	346	321	51.9	48.1	40.0-120			7.72	22
4,6-Dinitro-2-methylphenol	667	306	272	45.9	40.8	34.0-120			11.8	23
2,4-Dinitrophenol	667	201	199	30.1	29.8	10.0-120			1.07	30
2-Nitrophenol	667	356	338	53.4	50.6	42.0-120			5.42	24
4-Nitrophenol	667	439	406	65.8	60.9	40.0-120			7.78	21
Pentachlorophenol	667	351	340	52.7	51.0	33.0-122			3.27	22
Phenol	667	435	402	65.2	60.2	38.0-120			7.99	25
1,2,4,5-Tetrachlorobenzene	667	471	444	70.6	66.5	40.0-120			5.91	23
2,4,5-Trichlorophenol	667	427	398	64.0	59.7	44.0-120			6.93	22
2,4,6-Trichlorophenol	667	484	445	72.5	66.7	47.0-120			8.37	22
(S) Nitrobenzene-d5				57.6	54.0	18.0-125				
(S) 2-Fluorobiphenyl				74.8	65.0	28.0-120				
(S) p-Terphenyl-d14				56.6	50.8	13.0-131				
(S) Phenol-d5				71.7	63.5	20.0-120				
(S) 2-Fluorophenol				81.5	76.1	20.0-120				
(S) 2,4,6-Tribromophenol				67.3	59.6	17.0-137				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L946990-03,04,07,08,11,12,14

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3263208-4 11/03/17 12:39 • (MSD) R3263208-5 11/03/17 13:02

Analyte	Spike Amount ug/kg	Original Result ug/kg	MS Result ug/kg	MSD Result ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Acenaphthene	743	481	486	72.1	72.9	10	37.0-120				1.01	23
Acenaphthylene	743	523	530	78.4	79.4	10	41.0-120				1.23	22
Acetophenone	743	ND	ND	0.000	0.000	10	24.0-120	J6	J6		0.000	21
Anthracene	743	519	523	77.9	78.4	10	30.0-123				0.740	25
Atrazine	743	ND	ND	0.000	0.000	10	42.0-126	J6	J6		0.000	21
Benzaldehyde	743	702	669	105	100	10	10.0-126				4.89	32
Benzo(a)anthracene	743	607	592	84.4	82.1	10	21.0-123				2.49	26
Benzo(b)fluoranthene	743	550	568	82.5	85.1	10	20.0-127				3.06	29
Benzo(k)fluoranthene	743	546	544	81.8	81.6	10	22.0-123				0.300	28
Benzo(g,h,i)perylene	743	529	477	79.3	71.6	10	10.0-120				10.2	32
Benzo(a)pyrene	743	611	565	91.6	84.7	10	23.0-120				7.77	27
Biphenyl	743	480	493	72.0	73.9	10	37.0-120				2.62	21
Bis(2-chloroethoxy)methane	743	475	463	71.2	69.3	10	37.0-120				2.65	22
Bis(2-chloroethyl)ether	743	359	366	53.8	54.9	10	26.0-120				2.15	27
Bis(2-chloroisopropyl)ether	743	378	407	56.6	61.1	10	35.0-120				7.51	25
4-Bromophenyl-phenylether	743	454	458	68.1	68.7	10	34.0-120				0.910	23
Caprolactam	743	ND	ND	0.000	0.000	10	27.0-151	J6	J6		0.000	22
Carbazole	743	522	521	78.2	78.2	10	38.0-120				0.0600	21
4-Chloroaniline	743	ND	ND	0.000	0.000	10	21.0-120	J6	J6		0.000	27
2-Chloronaphthalene	743	495	494	74.2	74.1	10	40.0-120				0.170	22
4-Chlorophenyl-phenylether	743	531	528	79.7	79.2	10	37.0-120				0.630	23
Chrysene	743	620	604	82.3	79.8	10	19.0-127				2.65	27
Dibenz(a,h)anthracene	743	531	494	79.5	74.1	10	10.0-120				7.05	28
Dibenzofuran	743	533	538	79.9	80.6	10	30.0-120				0.890	22
3,3-Dichlorobenzidine	743	ND	ND	0.000	0.000	10	10.0-142	J6	J6		0.000	30
2,4-Dinitrotoluene	743	483	505	72.5	75.7	10	37.0-129				4.36	24
2,6-Dinitrotoluene	743	446	485	66.9	72.8	10	40.0-120				8.43	23
Fluoranthene	743	559	571	83.8	85.7	10	20.0-133				2.19	28
Fluorene	743	545	549	81.7	82.3	10	35.0-120				0.700	23
Hexachlorobenzene	743	447	464	67.0	69.6	10	33.0-120				3.88	24
Hexachloro-1,3-butadiene	743	433	455	64.9	68.3	10	33.0-120				5.04	25
Hexachlorocyclopentadiene	743	ND	ND	0.000	0.000	10	10.0-120	J6	J6		0.000	33
Hexachloroethane	743	247	257	37.1	38.5	10	21.0-120				3.67	30
Indeno(1,2,3-cd)pyrene	743	512	497	76.8	74.5	10	10.0-120				3.06	30
Isophorone	743	450	454	67.5	68.0	10	38.0-120				0.820	22
2-Methylnaphthalene	743	474	467	71.0	70.0	10	35.0-120				1.52	23
Naphthalene	743	426	418	63.8	62.7	10	37.0-120				1.83	25
2-Nitroaniline	743	468	471	70.2	70.6	10	42.0-125				0.530	22
3-Nitroaniline	743	380	397	57.0	59.5	10	29.0-120				4.24	25
4-Nitroaniline	743	467	459	70.0	68.7	10	27.0-130				1.81	27

ACCOUNT:

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3263208-4 11/03/17 12:39 • (MSD) R3263208-5 11/03/17 13:02

Analyte	Spike Amount ug/kg	Original Result ug/kg	MS Result ug/kg	MSD Result ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Nitrobenzene	743	435	426	65.2	63.9	10	32.0-120				1.91	24
n-Nitrosodiphenylamine	743	462	478	69.3	71.6	10	20.0-125				3.32	25
n-Nitrosodi-n-propylamine	743	414	402	62.1	60.3	10	34.0-120				2.93	23
Phenanthrene	743	627	610	80.1	77.6	10	24.0-124				2.68	25
Benzylbutyl phthalate	743	439	481	65.9	72.1	10	18.0-130				9.07	27
Bis(2-ethylhexyl)phthalate	743	483	489	72.4	73.3	10	19.0-127				1.21	28
Di-n-butyl phthalate	743	465	476	69.7	71.4	10	29.0-120				2.35	26
Diethyl phthalate	743	503	511	75.4	76.6	10	42.0-121				1.65	23
Dimethyl phthalate	743	509	524	76.3	78.5	10	42.0-120				2.87	23
Di-n-octyl phthalate	743	477	477	71.5	71.4	10	21.0-122				0.120	27
Pyrene	743	659	628	98.9	94.1	10	19.0-127				4.89	29
4-Chloro-3-methylphenol	743	447	447	67.0	67.1	10	37.0-121				0.110	23
2-Chlorophenol	743	417	430	62.6	64.5	10	34.0-120				3.06	25
2-Methylphenol	743	429	449	64.3	67.3	10	34.0-120				4.63	26
3&4-Methyl Phenol	743	489	504	73.3	75.5	10	35.0-120				3.01	25
2,4-Dichlorophenol	743	558	555	83.7	83.2	10	41.0-120				0.550	22
2,4-Dimethylphenol	743	ND	ND	0.000	0.000	10	27.0-120	J6	J6		0.000	25
4,6-Dinitro-2-methylphenol	743	ND	ND	0.000	0.000	10	10.0-131	J6	J6		0.000	29
2,4-Dinitrophenol	743	993	984	149	148	10	10.0-142	J5	J5		0.860	30
2-Nitrophenol	743	413	422	61.9	63.3	10	34.0-124				2.26	27
4-Nitrophenol	743	ND	ND	0.000	0.000	10	26.0-133	J6	J6		0.000	25
Pentachlorophenol	743	909	890	136	133	10	15.0-152				2.13	26
Phenol	743	480	488	72.0	73.2	10	33.0-120				1.72	24
1,2,4,5-Tetrachlorobenzene	743	ND	ND	0.000	0.000	10	40.0-120	J6	J6		0.000	22
2,4,5-Trichlorophenol	743	551	570	82.6	85.5	10	40.0-126				3.39	24
2,4,6-Trichlorophenol	743	567	571	84.9	85.6	10	40.0-125				0.820	24
(S) Nitrobenzene-d5				69.5	69.9		18.0-125					
(S) 2-Fluorobiphenyl				85.0	83.4		28.0-120					
(S) p-Terphenyl-d14				64.6	66.6		13.0-131					
(S) Phenol-d5				77.5	74.7		20.0-120					
(S) 2-Fluorophenol				84.6	81.1		20.0-120					
(S) 2,4,6-Tribromophenol				65.3	64.6		17.0-137					

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

[L946990-01,02,05,06,13,15](#)

Method Blank (MB)

(MB) R3263302-1 11/06/17 03:21

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Anthracene	U		7.28	33.0
Acenaphthene	U		7.37	33.0
Acenaphthylene	U		7.51	33.0
Benzo(a)anthracene	U		4.28	33.0
Benzo(a)pyrene	U		5.02	33.0
Benzo(b)fluoranthene	U		6.95	33.0
Benzo(g,h,i)perylene	U		7.21	33.0
Benzo(k)fluoranthene	U		5.06	33.0
Chrysene	U		7.85	33.0
Dibenz(a,h)anthracene	U		5.91	33.0
Fluoranthene	U		7.08	33.0
Fluorene	U		7.19	33.0
Indeno(1,2,3-cd)pyrene	U		5.61	33.0
Naphthalene	U		5.13	33.0
Phenanthrene	U		7.10	33.0
Pyrene	U		7.76	33.0
(S) Nitrobenzene-d5	60.5		31.0-146	
(S) 2-Fluorobiphenyl	68.6		31.0-130	
(S) p-Terphenyl-d14	68.7		20.0-127	

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263302-7 11/06/17 15:36 • (LCSD) R3263302-8 11/06/17 16:01

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	400	253	355	63.2	88.7	51.0-126	J3	J3	33.5	20
Acenaphthylene	400	244	343	60.9	85.8	50.0-130	J3	J3	33.9	20
Anthracene	400	250	350	62.5	87.6	48.0-128	J3	J3	33.4	20
Benzo(a)anthracene	400	264	370	66.1	92.6	48.0-127	J3	J3	33.5	20
Benzo(b)fluoranthene	400	262	364	65.4	91.0	44.0-131	J3	J3	32.6	20
Benzo(k)fluoranthene	400	288	413	72.1	103	48.0-128	J3	J3	35.5	20
Benzo(g,h,i)perylene	400	288	407	72.1	102	46.0-140	J3	J3	34.0	20
Benzo(a)pyrene	400	271	379	67.8	94.9	48.0-136	J3	J3	33.4	20
Chrysene	400	290	392	72.4	98.0	49.0-130	J3	J3	30.0	20
Dibenz(a,h)anthracene	400	284	402	71.0	101	47.0-135	J3	J3	34.4	20
Fluoranthene	400	326	441	81.6	110	53.0-131	J3	J3	29.9	20
Fluorene	400	259	373	64.8	93.3	49.0-128	J3	J3	36.1	20
Naphthalene	400	245	342	61.2	85.5	53.0-120	J3	J3	33.2	20
Phenanthrene	400	258	356	64.4	88.9	47.0-129	J3	J3	31.9	20

ACCOUNT:

Lender Consulting Services - NY

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3263302-7 11/06/17 15:36 • (LCSD) R3263302-8 11/06/17 16:01

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Pyrene	400	263	353	65.7	88.3	50.0-146	J3	J3	29.3	20
Indeno(1,2,3-cd)pyrene	400	289	405	72.2	101	49.0-136	J3	J3	33.4	20
(S) Nitrobenzene-d5				79.5	76.9	31.0-146				
(S) 2-Fluorobiphenyl				93.1	90.4	31.0-130				
(S) p-Terphenyl-d14				89.3	85.6	20.0-127				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].	¹ Cp
MDL	Method Detection Limit.	² Tc
MDL (dry)	Method Detection Limit.	³ Ss
ND	Not detected at the Reporting Limit (or MDL where applicable).	⁴ Cn
RDL	Reported Detection Limit.	⁵ Sr
RDL (dry)	Reported Detection Limit.	⁶ Qc
Rec.	Recovery.	⁷ GI
RPD	Relative Percent Difference.	⁸ Al
SDG	Sample Delivery Group.	⁹ Sc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	
U	Not detected at the Reporting Limit (or MDL where applicable).	
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier Description

B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey—NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio—VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

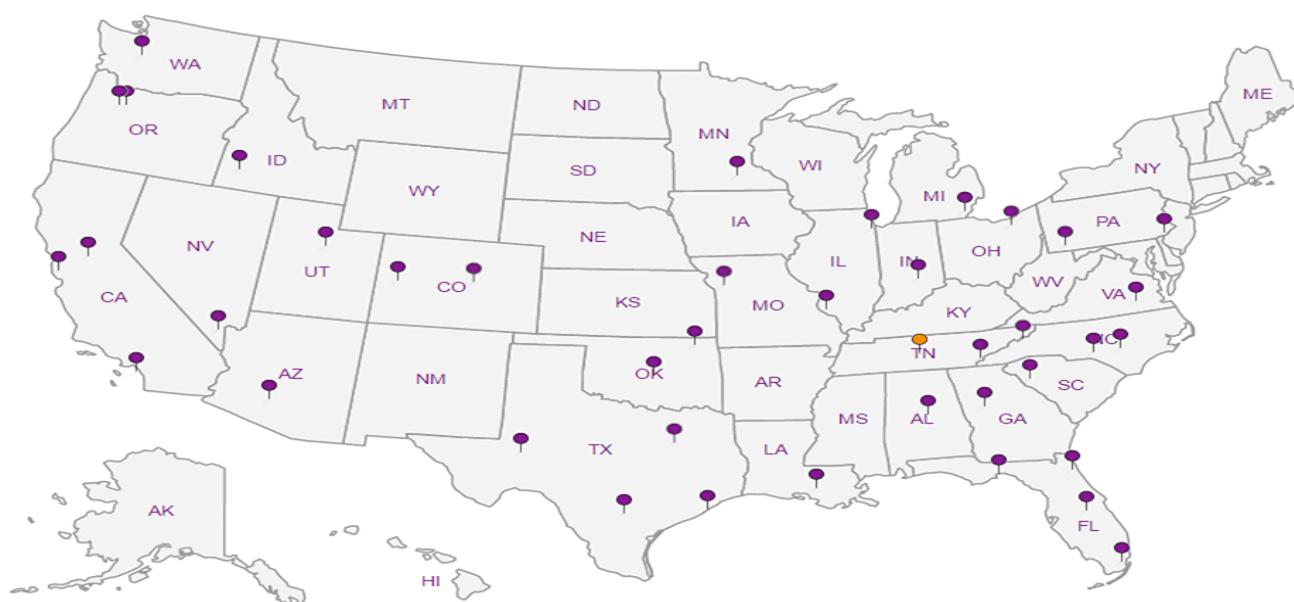
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Company Name/Address:

Lender Consulting Services, Inc40 LaRiviere Drive, Suite 120
Buffalo, NY 14202

Billing Information:

Accounts Payable
40 LaRiviere Drive, Suite 120
Buffalo, NY 14202

Report to:

Doug Reid

Email To:

Dreid @lenderconsulting.com

Project

Description: Elmwood & Hotel Ave

City/State

Collected: Buffalo NY

Phone: 800-474-6802

Client Project #

17B280.22

Lab Project #

Fax: 716-845-6164

Site/Facility ID #

P.O. #
17B280.22

Collected by (print):

Brandon Staw

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day 200%
 Next Day 100%
 Two Day 50%
 Three Day 25%

Date Results Needed

Email? No Yes
 FAX? No Yes

No. of

Immediately
Packed on Ice N Y ✓

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	CPSI+TCI VOC	TCl VOC	CPSI SVOC	TCl SVOC	TAC Metals	PCBs	Lead	CPSI VOC
BH 2 2-4	G	SS	2-4	10-24			5 X	X						
BH 3 4-6			4-6	10-24			5 X	X						-02
BH 6 14-15			14-15	10-24			5 X			X X X				-03
BH 7 1-3			1-3	10-24			4 X		X X X					-04
BH 9 6-8			6-8	10-24			5 X	X					X	-05
BH 10 6-8			6-8	10-24			5 X	X					X	-06
BH 13 2-4			2-4	10-25			5 X		X X X					-07
BH 15 10-12			10-12	10-25			4 X		X X X					-08
BH 18 4-6			4-6	10-24			5 X						X	-09
BH 21 14-16			14-16	10-24			5 X						X	-10

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

BH 15
Remarks: BH 7 no solid if possible, low volume

5781 0507 4821

Flow _____ Other _____

Hold # _____

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Samples returned via: UPS FedEx Courier _____

Condition: (lab use only)

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:

1.2 73

COC Seal Intact: Y N NA

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: Time:

10/27/17 08:45

pH Checked: NCF:



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 946990

D102

Acctnum: LCSBNY

Template:

Prelogin:

TSR: 364 Alan Harvill

PB:

Shipped Via:

Rem./Contaminant Sample # (lab only)

ESC LAB SCIENCES
Cooler Receipt Form

Client: LCSBNY	SDG#	946990	
Cooler Received/Opened On: 10/27/17	Temperature:	1.2	
Received by: Kevin Turner			
Signature: 			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?			
Bottles arrive intact?			
Correct bottles used?			
Sufficient volume sent?			
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

LIMITATIONS

This environmental study is limited by the scope of services contained within this report and time frames specified within the contract for services.

This environmental study makes no warranties nor implies any liability regarding:

1. Any impacted media located beneath the on-site structure(s) other than locations sampled as part of this study.
2. Any chemical analytes not included within the analytical test methods employed during this study.
3. Any impacted media present from off-site sources not assessed.
4. Any impact at locations and depths not assessed in this study.
5. Vapor Intrusion.

Conclusions and/or recommendations made within the study are based on the interpretation of data collected at individual sample locations and may change if additional data is collected during future study. Conditions between sampling locations are estimated based on available data. Intrusive studies serve to reduce, but not eliminate, the potential environmental risk associated with a property. No study is considered all-inclusive or representative of the entire subject property. Such would be cost prohibitive.