NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

LAPP INSULATOR SITE

APRIL 2019 GROUNDWATER MONITORING WELL SAMPLING LETTER REPORT

WORK ASSIGNMENT D007622-11.2

LAPP INSULATOR
LEROY (T)

SITE NO. 819017
GENESEE COUNTY, NY

Prepared for:
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

Basil Seggos, Commissioner

DIVISION OF ENVIRONMENTAL REMEDIATION
Remedial Bureau E

URS Corporation
257 West Genesee Street
Suite 400
Buffalo, New York 14202

July 2019

LETTER REPORT

APRIL 2019

GROUNDWATER MONITORING WELL SAMPLING

FOR THE

LAPP INSULATOR SITE

NYSDEC SITE NUMBER 819017

LEROY, GENESEE COUNTY, NEW YORK

PREPARED FOR:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
WORK ASSIGNMENT NUMBER D007622-11.2

PREPARED BY:

URS CORPORATION
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NEW YORK 14202

July 2019

July 16, 2019

Ms. Lisa A. Gorton, P.E.
12th Floor Remedial Bureau E, Section A
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-5060

Re: NYSDEC Standby Contract, Work Assignment No. D007622-11.2
Lapp Insulator Site, Site ID No. 819017
Letter Report – Groundwater Monitoring Well Sampling

Dear Ms. Gorton:

URS Corporation - New York (URS) has prepared this letter report to summarize the analytical results associated with the groundwater sampling program for the Lapp Insulator site [New York State Department of Environmental Conservation (NYSDEC) Site Number 819017] located at 130 Gilbert Street, LeRoy, Genesee County, New York (Figure 1). The work was completed under Work Assignment No. D007622-11.2.

1.0 INTRODUCTION

During the summer of 2014, remedial excavation of chlorinated solvent-contaminated soil took place at two locations at the Lapp Insulator site (Area A and Area C/D). Figure 2 shows an overall site plan and illustrates key features at the site, including the two excavation areas. Following the remediation and restoration work at these locations, groundwater monitoring wells were installed in shallow bedrock and a groundwater sampling program was implemented.

The purpose of the groundwater sampling program is to evaluate the nature and extent of the dissolved-phase chlorinated volatile organic compound (CVOC) groundwater plume in the shallow bedrock groundwater zone. The fieldwork included measuring water levels in monitoring wells to determine groundwater elevations and gradients, and to evaluate dissolved-phase concentrations of CVOCs and the emerging contaminant 1,4-dioxane in groundwater. In addition, natural attenuation parameters [total and dissolved iron and manganese, biochemical oxygen demand (BOD), chemical oxygen demand (COD), nitrate and sulfate] were added to the April 2019 analytical program for use in a remedial design to address CVOC contamination in shallow bedrock groundwater.

The purpose of this letter report is to present a discussion of all field activities associated with the groundwater sampling that took place at the site from April 17 through 22, 2019. This letter report includes the groundwater data collected from the site since December 2014.

2.0 GROUNDWATER ELEVATION AND CONTOURS

On April 17, 2019, prior to commencing sample collection, groundwater elevation measurements were collected from each well in the sampling program. The groundwater levels were used to develop a groundwater elevation contour map so that groundwater flow directions could be determined. Water levels were measured to the nearest 0.01 foot (ft) using a 100-ft long Solinst water level meter. Figure 3 illustrates the groundwater elevations and contours for April 17, 2019. Groundwater elevation measurements are provided in Table 1. Overall groundwater flow direction varies, but is generally to the east towards Oatka Creek. The horizontal gradient ranges from 0.03 to 0.11 ft/ft.

3.0 GROUNDWATER SAMPLING

The following wells are included in the groundwater sampling program: BRW-01, BRW-02, SR-001 through SR-006, SR-101, SR-104, SR-105, SR-106 and SR-108. Prior to the April 2019 sampling event, the groundwater sampling program consisted of using passive diffusion bags (PDBs) or HydraSleeves to collect groundwater samples. To facilitate the collection of 1,4-dioxane, metals and natural attenuation parameters, URS collected samples using a peristaltic pump with low-flow purging instead of PDBs or HydraSleeves during the April 2019 sampling event.

From April 17 through 22, 2019, URS collected groundwater samples from all 13 monitoring wells in the groundwater sampling program using low-flow sampling procedures. The wells were sampled using a GeoPump peristaltic pump, with dedicated low-density polyethylene (LDPE) tubing and dedicated silicone tubing. Water quality parameters (pH, conductivity, temperature, dissolved oxygen (DO), oxygen reduction potential (ORP), and turbidity) were recorded approximately every 5 minutes during well purging using a Horiba U-52 flow-thru cell. Each well was purged at a rate below one liter per minute until water quality parameters stabilized. Purge logs are provided in Attachment 1. Purge water was containerized in 55 gallon steel drums. Calibration data for the flow cell was recorded in a field notebook (field notes are presented as Attachment 2). Samples were collected from each monitoring well for the following analytical parameters:

- Target Compound List (TCL) Volatile Organic Compounds by SW8260C;
- 1,4-Dioxane by SW8270D Selected Ion Monitoring (SIM);
- Total and Dissolved Iron and Manganese by SW846 6010C;
- BOD_5 by SM5210B;
- COD by United States Environmental protection Agency (USEPA) 410.4; and
- Nitrate and Sulfate by USEPA 300.0.

One field duplicate sample and one matrix spike/matrix spike duplicate pair were collected for quality control. Following collection the samples were stored in coolers with ice. Trip blanks accompanied each sample shipment. The samples were transported under chain-of-custody control to TestAmerica Laboratories located in Amherst, New York.

3.0.1 Groundwater Analytical Results

Full deliverable data packages (i.e., NYSDEC Analytical Service Protocol Category B or equivalent) were provided by the laboratory and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

URS prepared a Data Usability Summary Report (DUSR) following the guidelines provided NYSDEC Division of Environmental Remediation DER-10 *Technical Guidance for Site Investigation and Remediation*, *Appendix 2B - Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. The data packages were reviewed for compliance with analytical method requirements and the applicable USEPA Region II guidelines. The complete validated analytical results from the groundwater samples are presented in the DUSR in Attachment 3. Data summary tables and Form I's are provided in the DUSR and include the reporting limit for each non-detected compound.

The type and quality of analytical results met the project quality objectives (PQOs) for this sampling event. The analytical results were compared to:

- NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*, June 1998 (including subsequent revisions and updates);
- USEPA Drinking Water Health Advisory (USEPA, May 2016); and

- New York State Department of Health (NYSDOH) Drinking Water Quality Council (DWQC) Recommended Screening Levels for 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS) (January 2019).

Table 2 presents the detected compounds along with the criteria for the samples collected on April 17 through 22, 2019. A statistical summary of the analytical results from the April 2019 sampling event is provided in Table 3. Table 4 provides all groundwater analytical results, except PFAS, for the December 2014, September 2018, and April 2019 sampling events. Figure 4 identifies the monitoring wells where VOCs and 1,4-dioxane were detected above criteria, and shows which compounds exceeded criteria in each well during the three sampling events.

As shown in Table 4, the most prevalent compounds found in the groundwater over the past three sampling events have been the CVOCs 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and 1,1-dichloroethene (1,1-DCE), all of which were all detected above 1,000 micrograms per liter (µg/L) at one or more well locations. Trans-1,2-DCE, chloroethane and vinyl chloride were other CVOCs detected above criteria in at least one well at the site, but the concentrations were below 1,000 µg/L.

In addition to the CVOCs; benzene, toluene, xylene, and acetone have been detected above criteria in at least one well, although at relatively lower concentrations compared to the CVOCs.

1,4-Dioxane was detected in every sample location in the sampling program during the April 2019 sampling event, with concentrations ranging from 0.57 µg/L in SR-004 to 3,100 µg/L in SR-105. Eleven of 13 monitoring wells exceeded the DWQC recommended screening limit of 1 µg/L.

Samples were not analyzed for PFAS in the April 2019 sampling event. Table 5 presents the September 2018 results for PFAS along with the USEPA Health Advisory limit and NYSDOH DWQC recommended screening limits. PFOA and PFOS were not detected in the four samples selected for analysis. The PFAS detected in September 2018 were below DWQC recommended screening limits, therefore continued sampling for this parameter was not necessary.

The CVOCs found at the highest concentrations during the April 2019 sampling event are discussed below:

- 1,1,1-TCA was the highest detected CVOC, and was detected above the criterion of 5 µg/L in nine of the 13 monitoring wells sampled. The highest 1,1,1-TCA concentrations were found at wells SR-105 (200,000 µg/L), BRW-02 (4,000 µg/L), SR-006 (2,200 µg/L), SR-005 (1,200 µg/L), and SR-106 (1,100 µg/L). The 1,1,1-TCA concentrations in the remaining wells were less than 1,000 µg/L.
- TCE was detected above the criterion of 5 µg/L in 10 of the 13 monitoring wells sampled. The highest TCE concentrations were found at SR-105 (92,000 µg/L), SR-002 (4,300 µg/L), SR-104 (2,700 µg/L), and SR-005 (1,900 µg/L). The TCE concentrations in the remaining wells were less than 1,000 µg/L.
- 1,1-DCA was detected above the criterion of 5 µg/L in 10 of the 13 monitoring wells sampled. The highest concentrations of 1,1-DCA were found at SR-105 (75,000 µg/L), SR-005 (17,000 µg/L), SR-006 (7,100 µg/L), BRW-02 (3,700 µg/L), and SR-106 (3,300 µg/L). The 1,1-DCA concentrations in the remaining wells were less than 1,000 µg/L.
- 1,1-DCE was detected above the criterion of 5 µg/L in nine of the 13 monitoring wells sampled. The highest concentration of 1,1-DCE was found in well SR-105 (3,100 µg/L). The 1,1-DCE concentrations in the remaining wells were less than 1,000 µg/L.
- Cis-1, 2-DCE was detected above the criterion of 5 µg/L in nine of the 13 monitoring wells sampled. The highest concentrations of cis-1,2-DCE were found in wells SR-105 (7,600 µg/L),

SR-002 and SR-104 (both 1,800 µg/L). The cis-1,2-DCE concentrations in the remaining wells were less than 1,000 µg/L.

3.1 Investigation-Derived Waste Disposal

All investigation-derived waste (IDW) (decon water, and purge water) was collected in DOT approved 55-gallon drums and stored on-site. Based on the analytical data for the samples collected during the April 2019 sampling event, it was assumed that the drum contents are hazardous. URS' subcontractor Sun Environmental Corp., is scheduled to pick up the drums on July 17, 2019 for off-site disposal at an approved facility. Copies of the hazardous waste manifests for IDW will be provided as Attachment 4 when they are available.

4.0 CONCLUSIONS

Based upon the results of the sampling, the following conclusions are made.

- The overall groundwater flow is generally to the east towards Oatka Creek.
- TCE, 1,1,1-TCA, 1,1-DCA, 1,1-DCE and cis-1,2-DCE were detected above 1,000 µg/L at one or more wells in the two primary areas at the site; Area A and Area C/D. The highest levels of contamination exist in Area A.
- Wells SR-105, BRW-01, BRW-02, SR-005 and SR-006 exhibited the highest concentrations of CVOCs. These wells are located in the same vicinity in Area A. These wells are generally downgradient from the suspected source area in Area A.
- In wells BRW-01 and SR-006, both downgradient of Area A, CVOC concentrations have consistently decreased over the three sampling events since December 2014. For example, 1,1,1-TCA in well BRW-01 has decreased from 120,000 µg/L in December 2014 to 100 µg/L in April 2019 and in SR-006 1,1,1-TCA decreased from 77,000 µg/L in December 2014 to 2,200 µg/L in April 2019.
- Well SR-004, slightly upgradient from Area A, did not contain any CVOCs in exceedance of criteria.
- Upgradient well SR-101, located at the far northern end of the site, did not contain any CVOCs in exceedance of criteria.
- Downgradient well SR-106, located at the far eastern end of the site, contained several CVOCs in exceedance of criteria, two of which were over 1,000 µg/L.
- In Area C/D, wells SR-002 and SR-104 exhibited concentrations of CVOCs above 1,000 µg/L. Wells SR-001 and SR-108, also in Area C/D, exhibited concentrations of CVOCs above criteria but less than 1,000 µg/L.
- In well SR-003, downgradient of Area C/D, CVOC concentrations have consistently decreased over the three sampling events since December 2014. There were no CVOCs detected above criteria in April 2019; cis-1,2-DCE and TCE had both been detected over 1,000 µg/L during the December 2014 and September 2018 sampling events.
- The greatest concentrations of 1,4-dioxane were detected in Area A monitoring wells. The concentrations of 1,4-dioxane in monitoring wells located in Area C/D were significantly lower. Upgradient well SR-101 also had detections for 1,4-dioxane, similar to concentrations in Area C/D.

5.0 RECOMMENDATIONS

URS is currently preparing a Design Memorandum to propose an approach for addressing CVOC contamination in shallow bedrock groundwater in Areas A and C/D. Groundwater sampling should continue on an annual basis.

6.0 TABLES, FIGURES, AND ATTACHMENTS

The following tables, figures, and attachments are included as part of this letter report:

TABLES (following text)

Table 1	Groundwater Elevation Measurements
Table 2	Summary of Detected Compounds in April 2019 Groundwater Samples
Table 3	Statistical Summary of Detected Compounds in April 2019 Groundwater Samples
Table 4	Historical Summary of Detected Compounds in Groundwater Samples
Table 5	Summary of PFAS in Groundwater Samples

FIGURES (following Tables)

Figure 1	Site Location
Figure 2	Site Plan
Figure 3	Bedrock Groundwater Elevation Contours (April 17, 2019)
Figure 4	Groundwater Analytical Results (Exceedances Only)

ATTACHMENTS (following Figures)

Attachment 1	Purge Logs
Attachment 2	Field Notes
Attachment 3	Data Usability Summary Reports (on CD with hard copy)
Attachment 4	Investigation Derived Waste Disposal Documentation

Please contact me at 716-856-5636 if you have any questions or comments.

Sincerely,

URS Corporation

Charles Dusel, Jr.
Senior Project Manager

cc: File: 11176787 (R-1)
Don McCall URS
George Kisluk URS
Dan McDaid URS

TABLES

TABLE 1
GROUNDWATER ELEVATION MEASUREMENTS
LAPP INSULATOR SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Date / Time	Depth to Water (ft)	Water Elev. (ft)	Remark
BRW-01 MNW	1081955.7	1302497.01	906.2	905.73	D	12/2/2014 0000	18.25	887.48	
						6/6/2018 1334	15.63	890.10	
						9/27/2018 1130	15.25	890.48	
						4/17/2019 1029	12.75	892.98	
BRW-02 MNW	1081989.96	1302381.13	907.3	906.74	D	12/2/2014 0000	12.01	894.73	
						6/6/2018 0000	NM	-	Could not locate
						9/27/2018 0000	NM	-	Could not locate
						4/17/2019 1142	12.77	893.97	
SR-001 MNW	1081544.97	1301853.72	912.7	914.47	D	12/2/2014 0000	38.85	875.62	
						6/6/2018 1205	9.33	905.14	
						9/27/2018 1017	9.77	904.70	
						4/17/2019 1011	9.46	905.01	
SR-002 MNW	1081427.91	1301972.95	912.7	915.27	D	12/2/2014 0000	13.54	901.73	
						6/6/2018 1240	14.25	901.02	
						9/27/2018 1006	15.13	900.14	
						4/17/2019 1009	12.88	902.39	
SR-003 MNW	1081298.23	1302026.42	908.6	911.38	D	12/2/2014 0000	17.85	893.53	
						6/6/2018 1245	17.90	893.48	
						9/27/2018 1000	17.61	893.77	
						4/17/2019 1007	17.01	894.37	
SR-004 MNW	1082056.57	1302364.92	908.3	907.77	D	12/2/2014 0000	7.95	899.82	
						6/6/2018 0000	NM	-	Could not locate
						9/27/2018 1355	7.16	900.61	
						4/17/2019 1111	5.52	902.25	
SR-005 MNW	1081969.28	1302451.49	906.7	906.14	D	12/2/2014 0000	31.07	875.07	
						6/6/2018 1303	15.35	890.79	
						9/27/2018 1135	15.82	890.32	
						4/17/2019 1050	15.02	891.12	
SR-006 MNW	1081939.17	1302489.7	906.4	906.02	D	12/2/2014 0000	19.16	886.86	
						6/6/2018 1346	17.42	888.60	
						9/27/2018 1128	17.45	888.57	
						4/17/2019 1024	15.90	890.12	
SR-101 MNW	1083000.81	1301985.55	913.8	916.16	D	12/2/2014 0000	10.16	906.00	
						6/6/2018 1150	8.85	907.31	
						9/27/2018 0859	10.54	905.62	
						4/17/2019 1212	6.81	909.35	
SR-104 MNW	1081314.14	1301853.16	909.2	910.74	D	12/2/2014 0000	13.01	897.73	
						6/6/2018 1220	12.17	898.57	
						9/27/2018 1013	13.02	897.72	
						4/17/2019 1001	10.86	899.88	
SR-105 MNW	1082001.41	1302493.65	905.9	905.20	D	12/2/2014 0000	14.04	891.16	
						6/7/2018 0915	13.86	891.34	
						9/27/2018 0950	13.80	891.40	
						4/17/2019 1044	13.68	891.52	
SR-106 MNW	1082265.68	1302798.02	897.0	898.81	D	12/2/2014 0000	23.88	874.93	
						6/6/2018 1428	23.28	875.53	
						9/27/2018 0927	23.62	875.19	
						4/17/2019 1204	22.68	876.13	
SR-108 MNW	1081256.31	1301824.97	908.1	910.57	D	12/2/2014 0000	14.41	896.16	
						6/6/2018 1233	12.56	898.01	
						9/27/2018 1011	13.74	896.83	
						4/17/2019 0959	12.10	898.47	

NM - No Measurement
Geologic Zone: D Bedrock Aquifer
Type: MNW Monitoring Well

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				BRW-01	BRW-01	BRW-02	SR-001	SR-002
Sample ID				BRW-01	FD-20190422	BRW-02	SR-001	SR-002
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/22/19	04/22/19	04/19/19	04/18/19	04/18/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		Field Duplicate (1-1)			
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	100	99	4,000		86
1,1-Dichloroethane	UG/L	5	-	210	200	3,700	61	97
1,1-Dichloroethene	UG/L	5	-	54	51	170	0.62 J	20
1,2-Dichloroethene (cis)	UG/L	5	-	52	50		27	1,800 D
1,2-Dichloroethene (trans)	UG/L	5	-				29	26
Acetone	UG/L	50	-					
Benzene	UG/L	1	-	0.85 J	0.78 J			
Carbon disulfide	UG/L	60	-					0.48 J
Chloroethane	UG/L	5	-	0.51 J	0.57 J	7.9 J		
Cyclohexane	UG/L	-	-	4.8 J	4.5 J	20 J		
Ethylbenzene	UG/L	5	-	0.39 J	0.41 J			
Isopropylbenzene (Cumene)	UG/L	5	-					
Methylcyclohexane	UG/L	-	-	8.2	7.8	22 J	0.68 J	
Tetrachloroethene	UG/L	5	-					
Toluene	UG/L	5	-	1.7	1.7	8.0 J		
Trichloroethene	UG/L	5	-	76	75	14 J	6.4	4,300 D
Vinyl chloride	UG/L	2	-	2.1	2.0		3.9	2.8
Xylene (total)	UG/L	5	-	2.4 J	2.4 J	13 J		
Total Volatile Organic Compounds	UG/L	-	-	512.95	495.16	7,954.9	128.6	6,332.28
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	110	120	22	7.5	0.60

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				BRW-01	BRW-01	BRW-02	SR-001	SR-002
Sample ID				BRW-01	FD-20190422	BRW-02	SR-001	SR-002
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/22/19	04/22/19	04/19/19	04/18/19	04/18/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		Field Duplicate (1-1)			
Metals								
Iron	UG/L	300	-	13,500	14,500	42,000	9,800	17,200
Manganese	UG/L	300	-	660 J+	660 J+	550 J+	39 J+	140 J+
Dissolved Metals								
Iron	UG/L	300 *	-	6,500	6,100	14,500	69 J-	990 J-
Manganese	UG/L	300 *	-	740 J+	720 J+	440 J+	13	71
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-					
Chemical Oxygen Demand (COD)	MG/L	-	-	24.8	31.1	35.4	31.1	7.6 J
Nitrate-Nitrogen	MG/L	10000	-					
Sulfate (as SO4)	MG/L	2.50E+05	-	32.3	31.8	5.2	2.4 J	17.7

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

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TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-003	SR-004	SR-005	SR-006	SR-101
Sample ID				SR-003	SR-004	SR-005	SR-006	SR-101
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/18/19	04/19/19	04/19/19	04/22/19	04/17/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-			1,200	2,200	
1,1-Dichloroethane	UG/L	5	-			17,000	7,100	
1,1-Dichloroethene	UG/L	5	-			500	360	
1,2-Dichloroethene (cis)	UG/L	5	-			230	550	
1,2-Dichloroethene (trans)	UG/L	5	-					
Acetone	UG/L	50	-	24 J				
Benzene	UG/L	1	-	12	6.8	83 J	33 J	
Carbon disulfide	UG/L	60	-					
Chloroethane	UG/L	5	-			78 J		
Cyclohexane	UG/L	-	-	54	6.9	72 J		
Ethylbenzene	UG/L	5	-	3.3	1.5			
Isopropylbenzene (Cumene)	UG/L	5	-	0.62 J				
Methylcyclohexane	UG/L	-	-	40	3.3 J	38 J	30 J	0.93 J
Tetrachloroethene	UG/L	5	-					
Toluene	UG/L	5	-	18	2.4	96 J	43 J	
Trichloroethene	UG/L	5	-			1,900	680	
Vinyl chloride	UG/L	2	-					
Xylene (total)	UG/L	5	-	21	5.4			
Total Volatile Organic Compounds	UG/L	-	-	172.92	26.3	21,197	10,996	0.93
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	1.3	0.57	1,200	290	3.3

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

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SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-003	SR-004	SR-005	SR-006	SR-101
Sample ID				SR-003	SR-004	SR-005	SR-006	SR-101
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/18/19	04/19/19	04/19/19	04/22/19	04/17/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Metals								
Iron	UG/L	300	-	86,400	48,900	140,000	16,000	4,100 J-
Manganese	UG/L	300	-	1,100 J+	620 J+	1,700 J+	280 J+	61
Dissolved Metals								
Iron	UG/L	300 *	-	3,300 J-	190	129,000	3,500	110
Manganese	UG/L	300 *	-	160	48 J+	1,500 J+	170 J+	28 J-
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-			9.3		
Chemical Oxygen Demand (COD)	MG/L	-	-	43.6	50.2	80.6	39.3	29.4
Nitrate-Nitrogen	MG/L	10000	-					
Sulfate (as SO4)	MG/L	2.50E+05	-	106	23.3	31.4	31.2	118

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-104	SR-105	SR-106	SR-108
Sample ID				SR-104	SR-105	SR-106	SR-108
Matrix				Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-
Date Sampled				04/18/19	04/22/19	04/17/19	04/18/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**				
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5	-	45	200,000	1,100	12
1,1-Dichloroethane	UG/L	5	-	230	75,000	3,300	43
1,1-Dichloroethene	UG/L	5	-	46	3,100	59	9.5
1,2-Dichloroethene (cis)	UG/L	5	-	1,800	7,600	250	480 D
1,2-Dichloroethene (trans)	UG/L	5	-	9.0 J		8.8 J	17
Acetone	UG/L	50	-		19,000 J		
Benzene	UG/L	1	-	4.9 J			2.8
Carbon disulfide	UG/L	60	-				
Chloroethane	UG/L	5	-			91	
Cyclohexane	UG/L	-	-				6.0
Ethylbenzene	UG/L	5	-				0.34 J
Isopropylbenzene (Cumene)	UG/L	5	-				
Methylcyclohexane	UG/L	-	-				8.4
Tetrachloroethene	UG/L	5	-	10			0.35 J
Toluene	UG/L	5	-				1.4
Trichloroethene	UG/L	5	-	2,700 D	92,000	58	530 D
Vinyl chloride	UG/L	2	-	33		100	47
Xylene (total)	UG/L	5	-				
Total Volatile Organic Compounds	UG/L	-	-	4,877.9	396,700	4,966.8	1,157.79
Semivolatile Organic Compounds							
1,4-Dioxane	UG/L	-	1	12	3,100	240	1.7

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 2
SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

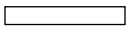
Location ID				SR-104	SR-105	SR-106	SR-108
Sample ID				SR-104	SR-105	SR-106	SR-108
Matrix				Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-
Date Sampled				04/18/19	04/22/19	04/17/19	04/18/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**				
Metals							
Iron	UG/L	300	-	940	14,100	2,900 J-	28,500
Manganese	UG/L	300	-	61 J+	310 J+	49	160 J+
Dissolved Metals							
Iron	UG/L	300 *	-	380 J-	11,100	690	1,300 J-
Manganese	UG/L	300 *	-	51	270 J+	41 J-	58
Miscellaneous Parameters							
Biochemical Oxygen Demand (BOD)	MG/L	-	-		57.8 J		
Chemical Oxygen Demand (COD)	MG/L	-	-	11.3	127	119	21.2
Nitrate-Nitrogen	MG/L	10000	-			0.79	
Sulfate (as SO4)	MG/L	2.50E+05	-	36.4	11.8	142	11.8

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 3
STATISTICAL SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Parameter	Units	Criteria*	No. of Samples	No. of Detections	Range of Detections			No. Exceed	Location of Max Value
					Min	Max	Avg		
Volatile Organic Compounds									
1,1,1-Trichloroethane	UG/L	5	13	9	12.00	2.00E+05	2.32E+04	9	SR-105
1,1-Dichloroethane	UG/L	5	13	10	43.00	7.50E+04	1.07E+04	10	SR-105
1,1-Dichloroethene	UG/L	5	13	10	0.620	3,100	431.9	9	SR-105
1,2-Dichloroethene (cis)	UG/L	5	13	9	27.00	7,600	1,421	9	SR-105
1,2-Dichloroethene (trans)	UG/L	5	13	5	8.80	29.00	17.96	5	SR-001
Acetone	UG/L	50	13	2	24.00	1.90E+04	9,512	1	SR-105
Benzene	UG/L	1	13	7	0.850	83.00	20.48	6	SR-005
Carbon disulfide	UG/L	60	13	1	0.480	0.480	0.480	0	SR-002
Chloroethane	UG/L	5	13	4	0.570	91.00	44.37	3	SR-106
Cyclohexane	UG/L	-	13	6	4.80	72.00	27.28	0	SR-005
Ethylbenzene	UG/L	5	13	4	0.340	3.30	1.39	0	SR-003
Isopropylbenzene (Cumene)	UG/L	5	13	1	0.620	0.620	0.620	0	SR-003
Methylcyclohexane	UG/L	-	13	9	0.680	40.00	16.83	0	SR-003
Tetrachloroethene	UG/L	5	13	2	0.350	10.00	5.18	1	SR-104
Toluene	UG/L	5	13	7	1.40	96.00	24.36	4	SR-005
Trichloroethene	UG/L	5	13	10	6.40	9.20E+04	1.02E+04	10	SR-105
Vinyl chloride	UG/L	2	13	6	2.10	100.0	31.47	6	SR-106
Xylene (total)	UG/L	5	13	4	2.40	21.00	10.45	3	SR-003

* Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA or Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019.

Concentration Exceeds Criteria

Only Detected Results Reported.

TABLE 3
STATISTICAL SUMMARY OF DETECTED COMPOUNDS IN APRIL 2019 GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Parameter	Units	Criteria*	No. of Samples	No. of Detections	Range of Detections			No. Exceed	Location of Max Value
					Min	Max	Avg		
Semivolatile Organic Compounds									
1,4-Dioxane	UG/L	1	13	13	0.570	3,100	384.5	11	SR-105
Metals									
Iron	UG/L	300	13	13	940.0	1.40E+05	3.27E+04	13	SR-005
Manganese	UG/L	300	13	13	39.00	1,700	440.8	6	SR-005
Dissolved Metals									
Iron	UG/L	300 *	13	13	69.00	1.29E+05	1.32E+04	10	SR-005
Manganese	UG/L	300 *	13	13	13.00	1,500	276.2	3	SR-005
Miscellaneous Parameters									
Biochemical Oxygen Demand (BOD)	MG/L	-	13	2	9.30	57.80	33.55	0	SR-105
Chemical Oxygen Demand (COD)	MG/L	-	13	13	7.60	127.0	48.22	0	SR-105
Nitrate-Nitrogen	MG/L	10000	13	1	0.790	0.790	0.790	0	SR-106
Sulfate (as SO4)	MG/L	2.50E+05	13	13	2.40	142.0	43.81	0	SR-106

* Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA or Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019.

Concentration Exceeds Criteria

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				BRW-01	BRW-01	BRW-01	BRW-01	BRW-02
Sample ID				BRW-1	BRW-01	BRW-01	FD-20190422	BRW-02
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	04/22/19	04/22/19	04/19/19
Parameter	Units	Criteria (1)	Criteria (2)				Field Duplicate (1-1)	
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	120,000 D	1,700	100	99	4,000
1,1,2-Trichloroethane	UG/L	1	-					
1,1-Dichloroethane	UG/L	5	-	43,000 D	4,000	210	200	3,700
1,1-Dichloroethene	UG/L	5	-	8,600	840	54	51	170
1,2-Dichloroethane	UG/L	0.6	-	94 J				
1,2-Dichloroethene (cis)	UG/L	5	-	2,700	1,100	52	50	
1,2-Dichloroethene (trans)	UG/L	5	-					
1,4-Dioxane	UG/L	-	1	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	-					
Acetone	UG/L	50	-					
Benzene	UG/L	1	-			0.85 J	0.78 J	
Carbon disulfide	UG/L	60	-					
Chloroethane	UG/L	5	-	40 J		0.51 J	0.57 J	7.9 J
Chloroform	UG/L	7	-					
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-			4.8 J	4.5 J	20 J
Ethylbenzene	UG/L	5	-			0.39 J	0.41 J	
Isopropylbenzene (Cumene)	UG/L	5	-					
Methyl ethyl ketone (2-Butanone)	UG/L	50	-					
Methylcyclohexane	UG/L	-	-			8.2	7.8	22 J
Methylene chloride	UG/L	5	-					
Tetrachloroethene	UG/L	5	-					
Toluene	UG/L	5	-			1.7	1.7	8.0 J

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

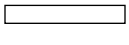
Location ID				BRW-01	BRW-01	BRW-01	BRW-01	BRW-02
Sample ID				BRW-1	BRW-01	BRW-01	FD-20190422	BRW-02
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	04/22/19	04/22/19	04/19/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**				Field Duplicate (1-1)	
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-	14,000 D	350	76	75	14 J
Vinyl chloride	UG/L	2	-			2.1	2.0	
Xylene (total)	UG/L	5	-			2.4 J	2.4 J	13 J
Total Volatile Organic Compounds	UG/L	-	-	188,434	7,990	512.95	495.16	7,954.9
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	NA	NA	110	120	22
Metals								
Iron	UG/L	300	-	NA	NA	13,500	14,500	42,000
Manganese	UG/L	300	-	NA	NA	660 J+	660 J+	550 J+
Dissolved Metals								
Iron	UG/L	300 *	-	NA	NA	6,500	6,100	14,500
Manganese	UG/L	300 *	-	NA	NA	740 J+	720 J+	440 J+
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-	NA	NA			
Chemical Oxygen Demand (COD)	MG/L	-	-	NA	NA	24.8	31.1	35.4
Nitrate-Nitrogen	MG/L	10000	-	NA	NA			
Sulfate (as SO4)	MG/L	2.50E+05	-	NA	NA	32.3	31.8	5.2

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria (1)


Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-001	SR-001	SR-001	SR-002	SR-002
Sample ID				SR-1	SR-001	SR-001	SR-2	SR-002
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	04/18/19	12/02/14	09/27/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-				19	
1,1,2-Trichloroethane	UG/L	1	-					
1,1-Dichloroethane	UG/L	5	-	1.9		61	140 D	46
1,1-Dichloroethene	UG/L	5	-			0.62 J	25	2.9 J
1,2-Dichloroethane	UG/L	0.6	-					
1,2-Dichloroethene (cis)	UG/L	5	-	2.8		27	600 D	210
1,2-Dichloroethene (trans)	UG/L	5	-			29	38	12
1,4-Dioxane	UG/L	-	1	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	-					
Acetone	UG/L	50	-	9.8 J	28			17 J
Benzene	UG/L	1	-	69	37		150 D	170
Carbon disulfide	UG/L	60	-					
Chloroethane	UG/L	5	-					
Chloroform	UG/L	7	-					
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-	74	45		34	40
Ethylbenzene	UG/L	5	-	23	8.8		14	19
Isopropylbenzene (Cumene)	UG/L	5	-	3.1			0.86 J	
Methyl ethyl ketone (2-Butanone)	UG/L	50	-		3.7 J			
Methylcyclohexane	UG/L	-	-	14	12	0.68 J	5.6	7.2
Methylene chloride	UG/L	5	-					
Tetrachloroethene	UG/L	5	-				0.60 J	
Toluene	UG/L	5	-	170 D	62		200 D	81

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
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Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

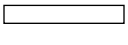
Location ID				SR-001	SR-001	SR-001	SR-002	SR-002
Sample ID				SR-1	SR-001	SR-001	SR-2	SR-002
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	04/18/19	12/02/14	09/27/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-	24		6.4	570 D	8.5
Vinyl chloride	UG/L	2	-			3.9	28	160
Xylene (total)	UG/L	5	-	180 D	55		84	28
Total Volatile Organic Compounds	UG/L	-	-	571.6	251.5	128.6	1,909.06	801.6
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	NA	NA	7.5	NA	NA
Metals								
Iron	UG/L	300	-	NA	NA	9,800	NA	NA
Manganese	UG/L	300	-	NA	NA	39 J+	NA	NA
Dissolved Metals								
Iron	UG/L	300 *	-	NA	NA	69 J-	NA	NA
Manganese	UG/L	300 *	-	NA	NA	13	NA	NA
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-	NA	NA		NA	NA
Chemical Oxygen Demand (COD)	MG/L	-	-	NA	NA	31.1	NA	NA
Nitrate-Nitrogen	MG/L	10000	-	NA	NA		NA	NA
Sulfate (as SO4)	MG/L	2.50E+05	-	NA	NA	2.4 J	NA	NA

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria (1)


Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-002	SR-003	SR-003	SR-003	SR-004
Sample ID				SR-002	SR-3	SR-003	SR-003	SR-4
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/18/19	12/02/14	09/27/18	04/18/19	12/02/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	86	300 D			
1,1,2-Trichloroethane	UG/L	1	-		0.90 J			
1,1-Dichloroethane	UG/L	5	-	97	250 D	260		
1,1-Dichloroethene	UG/L	5	-	20	70	57 J		
1,2-Dichloroethane	UG/L	0.6	-		0.50 J			
1,2-Dichloroethene (cis)	UG/L	5	-	1,800 D	3,600 D	2,400		
1,2-Dichloroethene (trans)	UG/L	5	-	26	17			
1,4-Dioxane	UG/L	-	1	NA	NA	13	NA	NA
2-Hexanone	UG/L	50	-					
Acetone	UG/L	50	-				24 J	
Benzene	UG/L	1	-				12	140 D
Carbon disulfide	UG/L	60	-	0.48 J				
Chloroethane	UG/L	5	-		0.54 J			
Chloroform	UG/L	7	-		0.69 J			
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-				54	39
Ethylbenzene	UG/L	5	-				3.3	8.9
Isopropylbenzene (Cumene)	UG/L	5	-				0.62 J	
Methyl ethyl ketone (2-Butanone)	UG/L	50	-					
Methylcyclohexane	UG/L	-	-		0.62 J		40	5.8
Methylene chloride	UG/L	5	-			48 J		
Tetrachloroethene	UG/L	5	-		34			
Toluene	UG/L	5	-				18	160 D

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-002	SR-003	SR-003	SR-003	SR-004
Sample ID				SR-002	SR-3	SR-003	SR-003	SR-4
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/18/19	12/02/14	09/27/18	04/18/19	12/02/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-	4,300 D	6,000 D	2,900		0.69 J
Vinyl chloride	UG/L	2	-	2.8	28			
Xylene (total)	UG/L	5	-				21	130
Total Volatile Organic Compounds	UG/L	-	-	6,332.28	10,302.25	5,678	172.92	484.39
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	0.60	NA	NA	1.3	NA
Metals								
Iron	UG/L	300	-	17,200	NA	NA	86,400	NA
Manganese	UG/L	300	-	140 J+	NA	NA	1,100 J+	NA
Dissolved Metals								
Iron	UG/L	300 *	-	990 J-	NA	NA	3,300 J-	NA
Manganese	UG/L	300 *	-	71	NA	NA	160	NA
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-		NA	NA		NA
Chemical Oxygen Demand (COD)	MG/L	-	-	7.6 J	NA	NA	43.6	NA
Nitrate-Nitrogen	MG/L	10000	-		NA	NA		NA
Sulfate (as SO4)	MG/L	2.50E+05	-	17.7	NA	NA	106	NA

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-004	SR-005	SR-005	SR-005	SR-006
Sample ID				SR-004	SR-5	SR-005	SR-005	SR-6
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/19/19	12/02/14	09/27/18	04/19/19	12/02/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-		7,000 D	13,000	1,200	77,000 D
1,1,2-Trichloroethane	UG/L	1	-		5.2			10
1,1-Dichloroethane	UG/L	5	-		7,000 D	30,000	17,000	34,000 D
1,1-Dichloroethene	UG/L	5	-		340 J	1,400	500	15,000 J
1,2-Dichloroethane	UG/L	0.6	-		18			35
1,2-Dichloroethene (cis)	UG/L	5	-		26	2,200	230	4,200 D
1,2-Dichloroethene (trans)	UG/L	5	-					
1,4-Dioxane	UG/L	-	1	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	-		2.9 J			
Acetone	UG/L	50	-		130			100
Benzene	UG/L	1	-	6.8	300 D		83 J	86
Carbon disulfide	UG/L	60	-		0.66 J			8.6 J
Chloroethane	UG/L	5	-		10		78 J	42
Chloroform	UG/L	7	-		0.82 J			2.9
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-	6.9	14		72 J	
Ethylbenzene	UG/L	5	-	1.5	12			19
Isopropylbenzene (Cumene)	UG/L	5	-					1.7
Methyl ethyl ketone (2-Butanone)	UG/L	50	-		15			
Methylcyclohexane	UG/L	-	-	3.3 J	3.0		38 J	12
Methylene chloride	UG/L	5	-		7.4			36
Tetrachloroethene	UG/L	5	-					3.2
Toluene	UG/L	5	-	2.4	250 D		96 J	140 J

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-004	SR-005	SR-005	SR-005	SR-006
Sample ID				SR-004	SR-5	SR-005	SR-005	SR-6
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				04/19/19	12/02/14	09/27/18	04/19/19	12/02/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-		1,300 D	3,200	1,900	9,500 D
Vinyl chloride	UG/L	2	-		5.4			150 J
Xylene (total)	UG/L	5	-	5.4	68			120
Total Volatile Organic Compounds	UG/L	-	-	26.3	16,508.38	49,800	21,197	140,466.4
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	0.57	NA	NA	1,200	NA
Metals								
Iron	UG/L	300	-	48,900	NA	NA	140,000	NA
Manganese	UG/L	300	-	620 J+	NA	NA	1,700 J+	NA
Dissolved Metals								
Iron	UG/L	300 *	-	190	NA	NA	129,000	NA
Manganese	UG/L	300 *	-	48 J+	NA	NA	1,500 J+	NA
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-		NA	NA	9.3	NA
Chemical Oxygen Demand (COD)	MG/L	-	-	50.2	NA	NA	80.6	NA
Nitrate-Nitrogen	MG/L	10000	-		NA	NA		NA
Sulfate (as SO4)	MG/L	2.50E+05	-	23.3	NA	NA	31.4	NA

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-006	SR-006	SR-101	SR-101	SR-101
Sample ID				SR-006	SR-006	SR-101	SR-101	SR-101
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				09/27/18	04/22/19	12/02/14	09/27/18	04/17/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	2,900	2,200			
1,1,2-Trichloroethane	UG/L	1	-					
1,1-Dichloroethane	UG/L	5	-	31,000	7,100			
1,1-Dichloroethene	UG/L	5	-	850	360			
1,2-Dichloroethane	UG/L	0.6	-					
1,2-Dichloroethene (cis)	UG/L	5	-		550			
1,2-Dichloroethene (trans)	UG/L	5	-					
1,4-Dioxane	UG/L	-	1	NA	NA	NA	2.8	NA
2-Hexanone	UG/L	50	-					
Acetone	UG/L	50	-				3.8 J	
Benzene	UG/L	1	-		33 J	7.2	0.59 J	
Carbon disulfide	UG/L	60	-					
Chloroethane	UG/L	5	-	160 J				
Chloroform	UG/L	7	-					
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-					
Ethylbenzene	UG/L	5	-					
Isopropylbenzene (Cumene)	UG/L	5	-					
Methyl ethyl ketone (2-Butanone)	UG/L	50	-					
Methylcyclohexane	UG/L	-	-		30 J			0.93 J
Methylene chloride	UG/L	5	-					
Tetrachloroethene	UG/L	5	-					
Toluene	UG/L	5	-		43 J			

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-006	SR-006	SR-101	SR-101	SR-101
Sample ID				SR-006	SR-006	SR-101	SR-101	SR-101
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				09/27/18	04/22/19	12/02/14	09/27/18	04/17/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-	3,600	680			
Vinyl chloride	UG/L	2	-					
Xylene (total)	UG/L	5	-					
Total Volatile Organic Compounds	UG/L	-	-	38,510	10,996	7.2	7.19	0.93
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	NA	290	NA	NA	3.3
Metals								
Iron	UG/L	300	-	NA	16,000	NA	NA	4,100 J-
Manganese	UG/L	300	-	NA	280 J+	NA	NA	61
Dissolved Metals								
Iron	UG/L	300 *	-	NA	3,500	NA	NA	110
Manganese	UG/L	300 *	-	NA	170 J+	NA	NA	28 J-
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-	NA		NA	NA	
Chemical Oxygen Demand (COD)	MG/L	-	-	NA	39.3	NA	NA	29.4
Nitrate-Nitrogen	MG/L	10000	-	NA		NA	NA	
Sulfate (as SO4)	MG/L	2.50E+05	-	NA	31.2	NA	NA	118

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-104	SR-104	SR-104	SR-104	SR-105
Sample ID				SR-104	FD-092718	SR-104	SR-104	FD-120214-01
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	09/27/18	04/18/19	12/02/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		Field Duplicate (1-1)			Field Duplicate (1-1)
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	1.3			45	220,000 D
1,1,2-Trichloroethane	UG/L	1	-					
1,1-Dichloroethane	UG/L	5	-	15			230	79,000 D
1,1-Dichloroethene	UG/L	5	-	4.2			46	11,000 J
1,2-Dichloroethane	UG/L	0.6	-					160
1,2-Dichloroethene (cis)	UG/L	5	-	280 D	800	670	1,800	3,600
1,2-Dichloroethene (trans)	UG/L	5	-	16			9.0 J	
1,4-Dioxane	UG/L	-	1	NA	NA	NA	NA	NA
2-Hexanone	UG/L	50	-					
Acetone	UG/L	50	-					1,300 J
Benzene	UG/L	1	-				4.9 J	
Carbon disulfide	UG/L	60	-					
Chloroethane	UG/L	5	-					150
Chloroform	UG/L	7	-					
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-					
Ethylbenzene	UG/L	5	-					
Isopropylbenzene (Cumene)	UG/L	5	-					
Methyl ethyl ketone (2-Butanone)	UG/L	50	-					
Methylcyclohexane	UG/L	-	-					
Methylene chloride	UG/L	5	-			93 J		
Tetrachloroethene	UG/L	5	-				10	
Toluene	UG/L	5	-					

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-104	SR-104	SR-104	SR-104	SR-105
Sample ID				SR-104	FD-092718	SR-104	SR-104	FD-120214-01
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	09/27/18	04/18/19	12/02/14
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**		Field Duplicate (1-1)			Field Duplicate (1-1)
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-	12,000 D	15,000	14,000	2,700 D	76,000 DJ
Vinyl chloride	UG/L	2	-				33	120 J
Xylene (total)	UG/L	5	-					
Total Volatile Organic Compounds	UG/L	-	-	12,316.5	15,800	14,763	4,877.9	391,330
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	NA	NA	NA	12	NA
Metals								
Iron	UG/L	300	-	NA	NA	NA	940	NA
Manganese	UG/L	300	-	NA	NA	NA	61 J+	NA
Dissolved Metals								
Iron	UG/L	300 *	-	NA	NA	NA	380 J-	NA
Manganese	UG/L	300 *	-	NA	NA	NA	51	NA
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-	NA	NA	NA		NA
Chemical Oxygen Demand (COD)	MG/L	-	-	NA	NA	NA	11.3	NA
Nitrate-Nitrogen	MG/L	10000	-	NA	NA	NA		NA
Sulfate (as SO4)	MG/L	2.50E+05	-	NA	NA	NA	36.4	NA

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-105	SR-105	SR-105	SR-106	SR-106
Sample ID				SR-105	SR-105	SR-105	SR-106	FD2-092718
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	04/22/19	12/02/14	09/27/18
Parameter	Units	Criteria (1)	Criteria (2)					Field Duplicate (1-1)
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	140,000 D	180,000 J	200,000	3,600 D	NA
1,1,2-Trichloroethane	UG/L	1	-	25			3.0	NA
1,1-Dichloroethane	UG/L	5	-	64,000 D	94,000 J	75,000	9,900 D	NA
1,1-Dichloroethene	UG/L	5	-	21,000 J	2,100 J	3,100	210 D	NA
1,2-Dichloroethane	UG/L	0.6	-	130 J			2.0	NA
1,2-Dichloroethene (cis)	UG/L	5	-	3,200 J	7,600 J	7,600	450 D	NA
1,2-Dichloroethene (trans)	UG/L	5	-				11	NA
1,4-Dioxane	UG/L	-	1	NA	4,600	NA	NA	550
2-Hexanone	UG/L	50	-	1.6 J				NA
Acetone	UG/L	50	-	480 J	22,000 J	19,000 J	8.6 J	NA
Benzene	UG/L	1	-	1.2			0.68 J	NA
Carbon disulfide	UG/L	60	-	4.6 J				NA
Chloroethane	UG/L	5	-	160 J			100 J	NA
Chloroform	UG/L	7	-	3.9			0.34 J	NA
Chloromethane	UG/L	5	-	0.87 J				NA
Cyclohexane	UG/L	-	-					NA
Ethylbenzene	UG/L	5	-					NA
Isopropylbenzene (Cumene)	UG/L	5	-					NA
Methyl ethyl ketone (2-Butanone)	UG/L	50	-					NA
Methylcyclohexane	UG/L	-	-				0.57 J	NA
Methylene chloride	UG/L	5	-	87	2,200 J		1.5	NA
Tetrachloroethene	UG/L	5	-	8.0			13	NA
Toluene	UG/L	5	-	2.1			1.8	NA

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

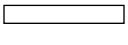
Location ID				SR-105	SR-105	SR-105	SR-106	SR-106
Sample ID				SR-105	SR-105	SR-105	SR-106	FD2-092718
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				12/02/14	09/27/18	04/22/19	12/02/14	09/27/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					Field Duplicate (1-1)
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-	45,000 DJ	82,000 J	92,000	69	NA
Vinyl chloride	UG/L	2	-	310 J			95	NA
Xylene (total)	UG/L	5	-	1.2 J			1.5 J	NA
Total Volatile Organic Compounds	UG/L	-	-	274,415.47	394,500	396,700	14,467.99	550
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	NA	NA	3,100	NA	NA
Metals								
Iron	UG/L	300	-	NA	NA	14,100	NA	NA
Manganese	UG/L	300	-	NA	NA	310 J+	NA	NA
Dissolved Metals								
Iron	UG/L	300 *	-	NA	NA	11,100	NA	NA
Manganese	UG/L	300 *	-	NA	NA	270 J+	NA	NA
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-	NA	NA	57.8 J	NA	NA
Chemical Oxygen Demand (COD)	MG/L	-	-	NA	NA	127	NA	NA
Nitrate-Nitrogen	MG/L	10000	-	NA	NA		NA	NA
Sulfate (as SO4)	MG/L	2.50E+05	-	NA	NA	11.8	NA	NA

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria (1)


Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Location ID				SR-106	SR-106	SR-108	SR-108	SR-108
Sample ID				SR-106	SR-106	SR-108	SR-108	SR-108
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				09/27/18	04/17/19	12/02/14	09/27/18	04/18/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	UG/L	5	-	1,800	1,100			12
1,1,2-Trichloroethane	UG/L	1	-					
1,1-Dichloroethane	UG/L	5	-	7,200	3,300	190	130	43
1,1-Dichloroethene	UG/L	5	-	89 J	59	16 J	2.1 J	9.5
1,2-Dichloroethane	UG/L	0.6	-					
1,2-Dichloroethene (cis)	UG/L	5	-	420	250	520	39	480 D
1,2-Dichloroethene (trans)	UG/L	5	-		8.8 J	52	50	17
1,4-Dioxane	UG/L	-	1	520	NA	NA	NA	NA
2-Hexanone	UG/L	50	-					
Acetone	UG/L	50	-				17 J	
Benzene	UG/L	1	-					2.8
Carbon disulfide	UG/L	60	-					
Chloroethane	UG/L	5	-	160 J	91			
Chloroform	UG/L	7	-					
Chloromethane	UG/L	5	-					
Cyclohexane	UG/L	-	-				2.0 J	6.0
Ethylbenzene	UG/L	5	-					0.34 J
Isopropylbenzene (Cumene)	UG/L	5	-					
Methyl ethyl ketone (2-Butanone)	UG/L	50	-					
Methylcyclohexane	UG/L	-	-				2.2 J	8.4
Methylene chloride	UG/L	5	-					
Tetrachloroethene	UG/L	5	-					0.35 J
Toluene	UG/L	5	-					1.4

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 4
HISTORICAL SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

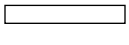
Location ID				SR-106	SR-106	SR-108	SR-108	SR-108
Sample ID				SR-106	SR-106	SR-108	SR-108	SR-108
Matrix				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)				-	-	-	-	-
Date Sampled				09/27/18	04/17/19	12/02/14	09/27/18	04/18/19
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
Trichloroethene	UG/L	5	-		58	200	3.5 J	530 D
Vinyl chloride	UG/L	2	-		100		18	47
Xylene (total)	UG/L	5	-					
Total Volatile Organic Compounds	UG/L	-	-	10,189	4,966.8	978	263.8	1,157.79
Semivolatile Organic Compounds								
1,4-Dioxane	UG/L	-	1	NA	240	NA	NA	1.7
Metals								
Iron	UG/L	300	-	NA	2,900 J-	NA	NA	28,500
Manganese	UG/L	300	-	NA	49	NA	NA	160 J+
Dissolved Metals								
Iron	UG/L	300 *	-	NA	690	NA	NA	1,300 J-
Manganese	UG/L	300 *	-	NA	41 J-	NA	NA	58
Miscellaneous Parameters								
Biochemical Oxygen Demand (BOD)	MG/L	-	-	NA		NA	NA	
Chemical Oxygen Demand (COD)	MG/L	-	-	NA	119	NA	NA	21.2
Nitrate-Nitrogen	MG/L	10000	-	NA	0.79	NA	NA	
Sulfate (as SO4)	MG/L	2.50E+05	-	NA	142	NA	NA	11.8

Criteria (1)- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998 (includes 4/2000 and 6/2004 Addenda) Class GA.

Criteria (2)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria (1)


Concentration Exceeds Criteria (2)

- - No criteria. * - Criteria apllicable for unfiltered metals. UG/L - Micrograms per liter. MG/L - Milligrams per liter.
Empty Cell - Not Detected. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
J - The reported concentration is an estimated value. J- - Estimated value, low bias. J+ - Estimated value, high bias.

Only Detected Results Reported.

TABLE 5
SUMMARY OF PFAS IN GROUNDWATER SAMPLES
LAPP INSULATOR SITE

Sample ID				SR-003	SR-101	SR-105	SR-106
Matrix				Groundwater	Groundwater	Groundwater	Groundwater
Date Sampled				09/27/18	09/27/18	09/27/18	09/27/18
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**				
Per- and Polyfluoroalkyl Substances							
Perfluorobutanesulfonic acid (PFBS)	NG/L	100	-	0.35 J	1.8 U	1.9 U	1.8 U
Perfluorobutanoic acid (PFBA)	NG/L	100	-	6.8 U	3.1 U	1.9 U	1.8 U
Perfluorodecane sulfonate (PFDS)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorodecanoic acid (PFDA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorododecanoic acid (PFDoA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluoroheptanesulfonic acid (PFHpS)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluoroheptanoic acid (PFHpA)	NG/L	100	-	0.41 J	1.8 U	0.41 J	0.36 J
Perfluorohexanesulfonic acid (PFHxS)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorohexanoic acid (PFHxA)	NG/L	100	-	1.2 J	1.8 U	0.68 J	0.87 J
Perfluorononane sulfonate (PFNS)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorononanoic acid (PFNA)	NG/L	100	-	1.7 U	1.8 U	0.41 J	1.8 U
Perfluorooctane sulfonamide (PFOSA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorooctanesulfonic acid (PFOS)	NG/L	10	70	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorooctanoic acid (PFOA)	NG/L	10	70	1.7 U	1.8 U	1.9 U	1.8 U
Perfluoropentane sulfonate (PFPeS)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluoropentanoic acid (PFPeA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorotetradecanoic acid (PFTeA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluorotridecanoic acid (PFTriA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Perfluoroundecanoic acid (PFUnA)	NG/L	100	-	1.7 U	1.8 U	1.9 U	1.8 U
Fluorotelomer sulfonate 4:2	NG/L	100	-	17 U	18 U	19 U	18 U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2)	NG/L	100	-	17 U	18 U	9.5 J	18 U
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2)	NG/L	100	-	17 U	18 U	19 U	18 U
N-Ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NG/L	100	-	17 U	18 U	19 U	18 U
N-Methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NG/L	100	-	17 U	18 U	19 U	18 U
Total PFOA and PFOS	NG/L	-	70	ND	ND	ND	ND
Total Per- and Polyfluoroalkyl Substances	NG/L	500	-	1.96	ND	11	1.23

Criteria (1)- Recommended Screening Level - New York State Drinking Water Quality Council (DWQC), January 2019

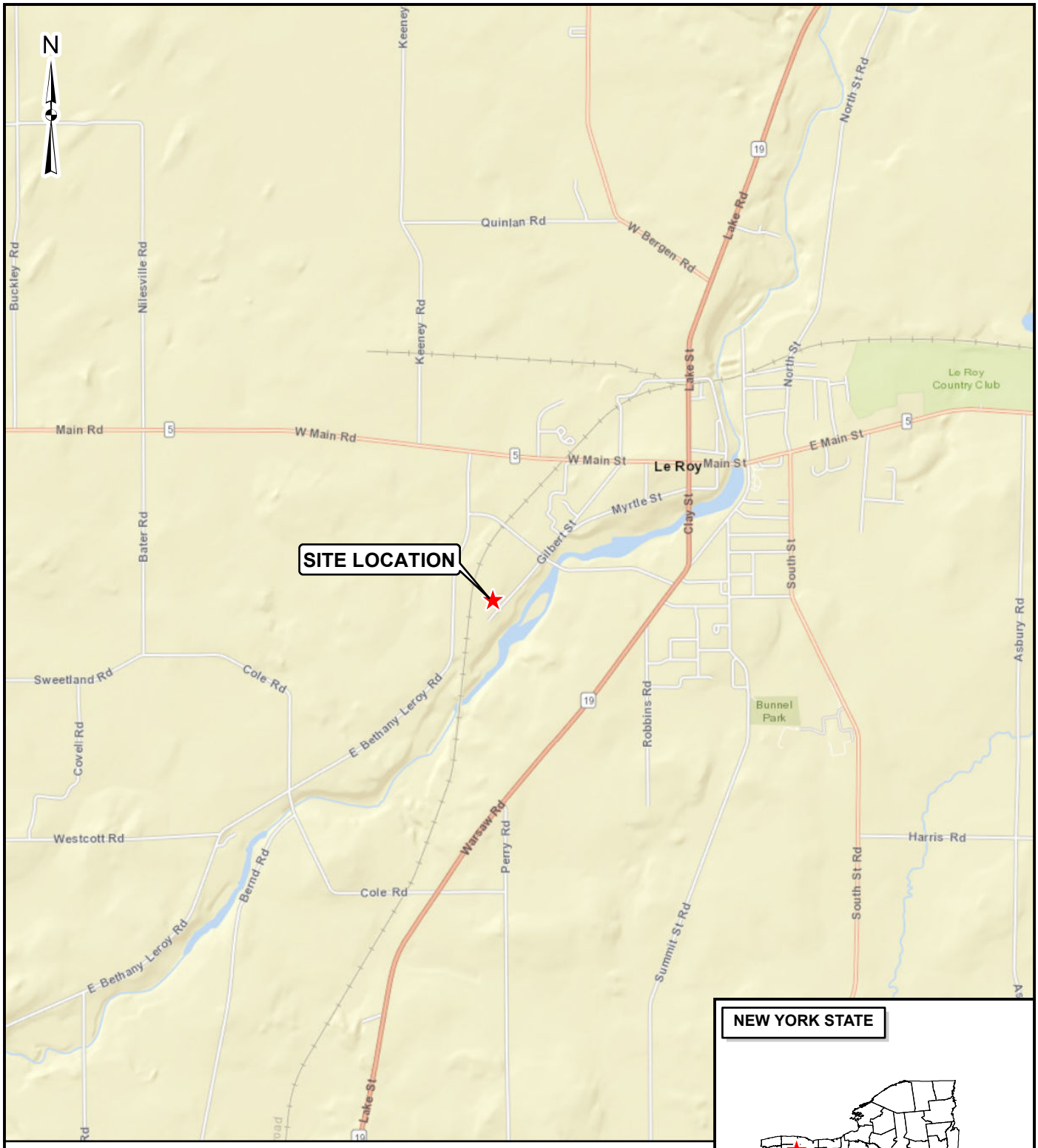
Criteria (2)- USEPA Drinking Water Health Advisory (USEPA, May 2016)

Flags assigned during chemistry validation are shown.

- - No criteria. NG/L - Nanograms per liter. ND - Not detected.

J - The reported concentration is an estimated value. U - Not detected above the reported quantitation limit.

FIGURES



Source: ESRI World Street Map 2012

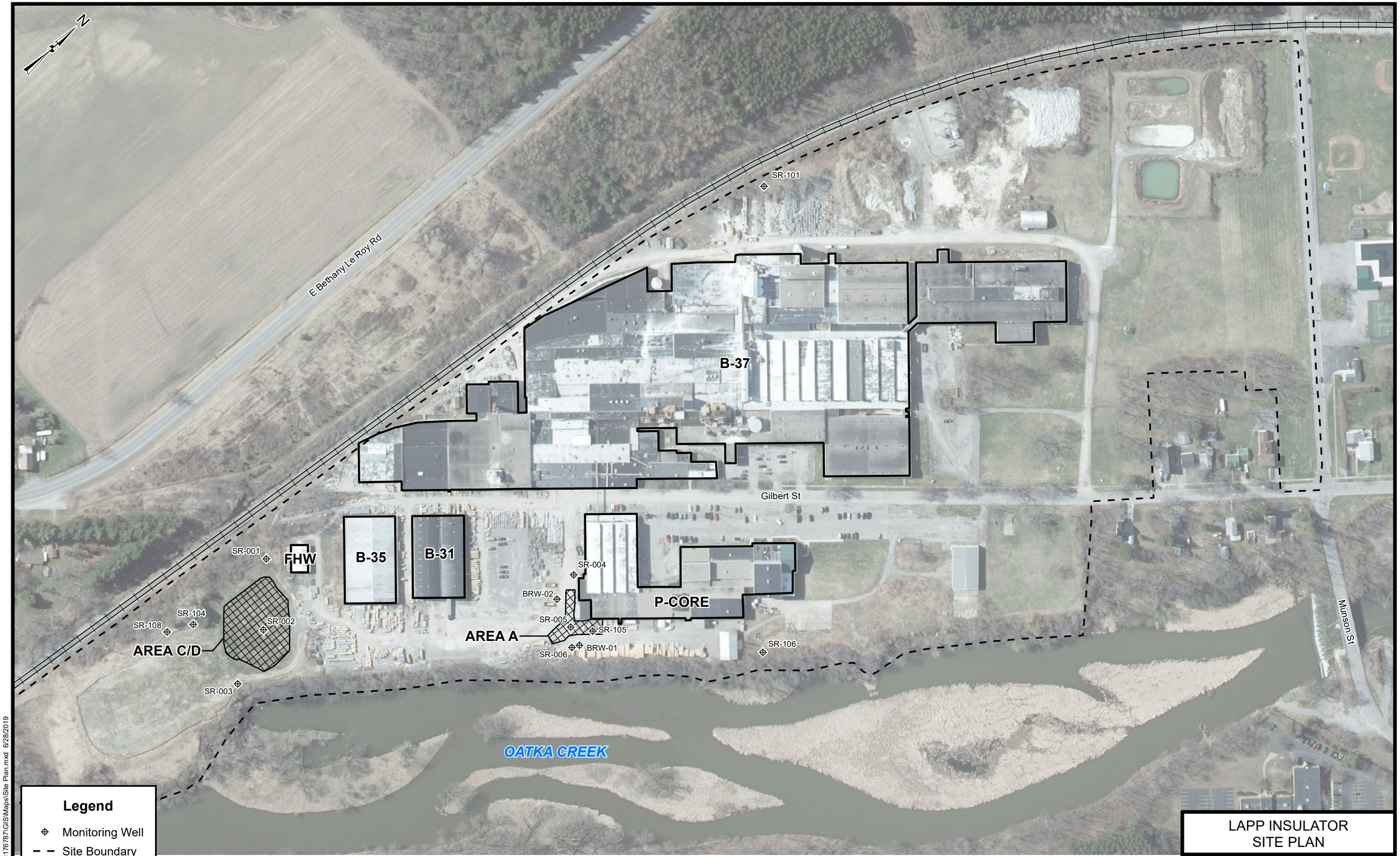
3,000 0 3,000 Feet

URS

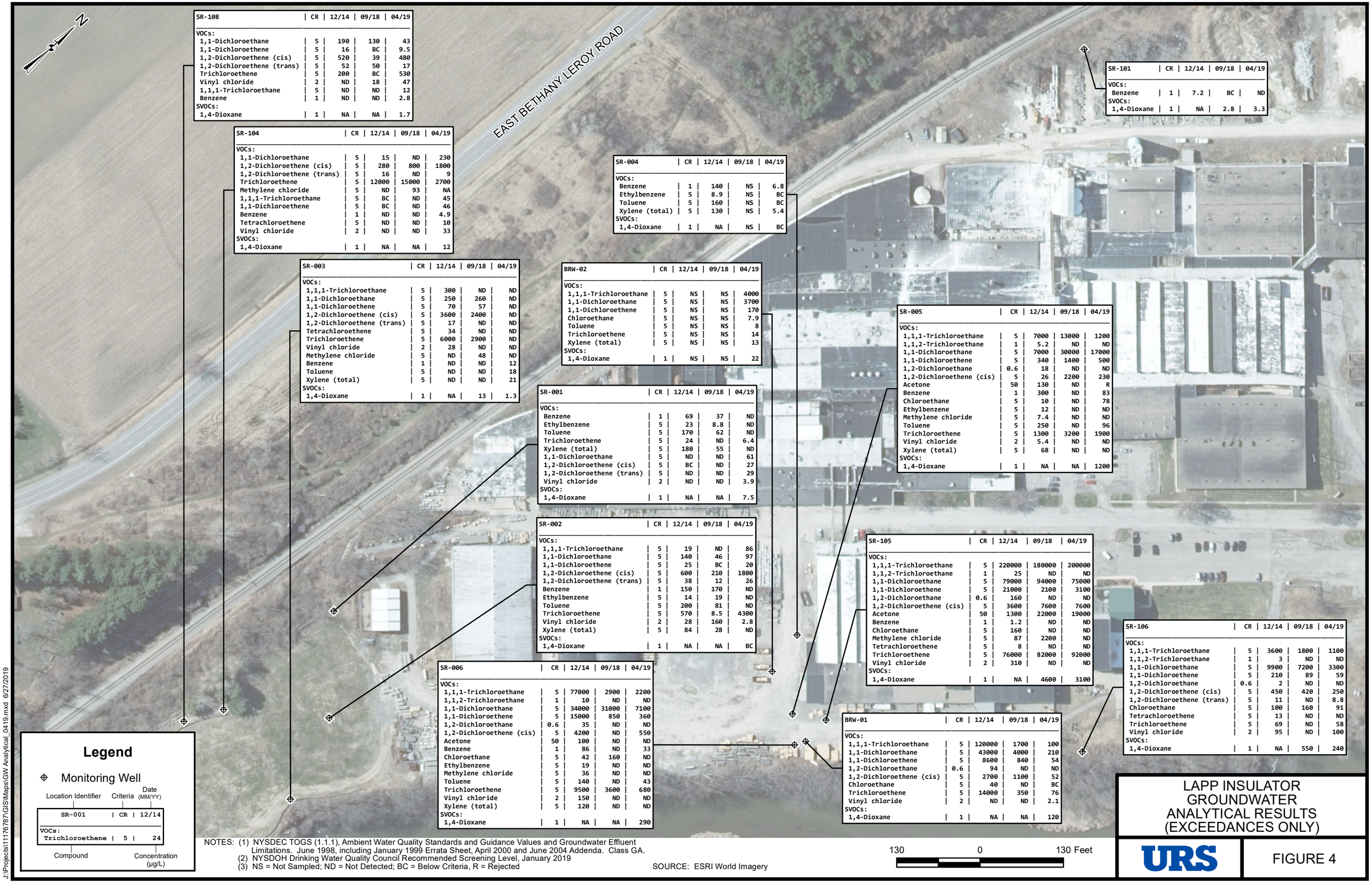
LAPP INSULATOR
130 GILBERT STREET, LEROY, NY
SITE LOCATION

FIGURE 1

J:\Projects\11176787\GIS\Maps\Site Location.mxd 1/9/2018


N
E Bethany Le Roy Rd
SR-101
B-37
Gilbert St
B-35
B-31
FHW
SR-001
SR-004
BRW-02
P-CORE
SR-005
SR-105
AREA A
SR-006
BRW-01
SR-106
Munson St
SR-104
SR-108
SR-002
AREA C/D
SR-003
OATKA CREEK
Legend
Monitoring Well
Site Boundary
Railroad
Source: ESRI World Imagery
200
0
200 Feet
LAPP INSULATOR
SITE PLAN
URS
FIGURE 2
J:\Projects\11176787\GIS\Maps\Site Plan.mxd 6/28/2019


N
EAST BETHANY LEROY ROAD
SR-101, 909.35
905
900
895
890
885
880
SR-001, 905.01
SR-004, 902.25
BRW-02, 893.97
SR-104, 899.88
SR-002, 902.39
SR-108, 898.47
SR-105, 891.52
SR-005, 891.12
BRW-01, 892.98
SR-006, 890.12
SR-106, 876.13
SR-003, 894.37
Legend
Monitoring Well
Groundwater Flow Direction
885 Groundwater Elevation Contour
SR-002, 902.39
Location ID
Groundwater Elevation (ft)
SOURCE: ESRI World Imagery
150 0 150 Feet
LAPP INSULATOR
BEDROCK GROUNDWATER
ELEVATION CONTOURS
(APRIL 17, 2019)
URS
FIGURE 3
J:\Projects\11176787\GIS\Maps\GW Contours (April 2019).mxd 6/26/2019



SR-108	CR	12/14	09/18	04/19
VOCs:				
1,1-Dichloroethane	5	190	130	43
1,1-Dichloroethene	5	16	BC	9.5
1,2-Dichloroethene (cis)	5	520	39	480
1,2-Dichloroethene (trans)	5	52	50	17
Trichloroethene	5	200	BC	530
Vinyl chloride	2	ND	18	47
1,1,1-Trichloroethane	5	ND	ND	12
Benzene	1	ND	ND	2.8
SVOCs:				
1,4-Dioxane	1	NA	NA	1.7

SR-104	CR	12/14	09/18	04/19
VOCs:				
1,1-Dichloroethane	5	15	ND	230
1,2-Dichloroethene (cis)	5	280	800	1800
1,2-Dichloroethene (trans)	5	16	ND	9
Trichloroethene	5	12000	15000	2700
Methylene chloride	5	ND	93	NA
1,1,1-Trichloroethane	5	BC	ND	45
1,1-Dichloroethene	5	BC	ND	46
Benzene	1	ND	ND	4.9
Tetrachloroethene	5	ND	ND	10
Vinyl chloride	2	ND	ND	33
SVOCs:				
1,4-Dioxane	1	NA	NA	12

SR-003	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	300	ND	ND
1,1-Dichloroethane	5	250	260	ND
1,1-Dichloroethene	5	70	57	ND
1,2-Dichloroethene (cis)	5	3600	2400	ND
1,2-Dichloroethene (trans)	5	17	ND	ND
Tetrachloroethene	5	34	ND	ND
Trichloroethene	5	6000	2900	ND
Vinyl chloride	2	28	ND	ND
Methylene chloride	5	ND	48	ND
Benzene	1	ND	ND	12
Toluene	5	ND	ND	18
Xylene (total)	5	ND	ND	21
SVOCs:				
1,4-Dioxane	1	NA	13	1.3

SR-004	CR	12/14	09/18	04/19
VOCs:				
Benzene	1	140	NS	6.8
Ethylbenzene	5	8.9	NS	BC
Toluene	5	160	NS	BC
Xylene (total)	5	130	NS	5.4
SVOCs:				
1,4-Dioxane	1	NA	NS	BC

BRW-02	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	NS	NS	4000
1,1-Dichloroethane	5	NS	NS	3700
1,1-Dichloroethene	5	NS	NS	170
Chloroethane	5	NS	NS	7.9
Toluene	5	NS	NS	8
Trichloroethene	5	NS	NS	14
Xylene (total)	5	NS	NS	13
SVOCs:				
1,4-Dioxane	1	NS	NS	22

SR-001	CR	12/14	09/18	04/19
VOCs:				
Benzene	1	69	37	ND
Ethylbenzene	5	23	8.8	ND
Toluene	5	170	62	ND
Trichloroethene	5	24	ND	6.4
Xylene (total)	5	180	55	ND
1,1-Dichloroethane	5	ND	ND	61
1,2-Dichloroethene (cis)	5	BC	ND	27
1,2-Dichloroethene (trans)	5	ND	ND	29
Vinyl chloride	2	ND	ND	3.9
SVOCs:				
1,4-Dioxane	1	NA	NA	7.5

SR-002	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	19	ND	86
1,1-Dichloroethane	5	140	46	97
1,1-Dichloroethene	5	25	BC	20
1,2-Dichloroethene (cis)	5	600	210	1800
1,2-Dichloroethene (trans)	5	38	12	26
Benzene	1	150	170	ND
Ethylbenzene	5	14	19	ND
Toluene	5	200	81	ND
Trichloroethene	5	570	8.5	4300
Vinyl chloride	2	28	160	2.8
Xylene (total)	5	84	28	ND
SVOCs:				
1,4-Dioxane	1	NA	NA	BC

SR-006	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	77000	2900	2200
1,1,2-Trichloroethane	1	10	ND	ND
1,1-Dichloroethane	5	34000	31000	7100
1,1-Dichloroethene	5	15000	850	360
1,2-Dichloroethane	0.6	35	ND	ND
1,2-Dichloroethene (cis)	5	4200	ND	550
Acetone	50	100	ND	ND
Benzene	1	86	ND	33
Chloroethane	5	42	160	ND
Ethylbenzene	5	19	ND	ND
Methylene chloride	5	36	ND	ND
Toluene	5	140	ND	43
Trichloroethene	5	9500	3600	680
Vinyl chloride	2	150	ND	ND
Xylene (total)	5	120	ND	ND
SVOCs:				
1,4-Dioxane	1	NA	NA	290

SR-101	CR	12/14	09/18	04/19
VOCs:				
Benzene	1	7.2	BC	ND
SVOCs:				
1,4-Dioxane	1	NA	2.8	3.3

SR-005	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	7000	13000	1200
1,1,2-Trichloroethane	1	5.2	ND	ND
1,1-Dichloroethane	5	7000	30000	17000
1,1-Dichloroethene	5	340	1400	500
1,2-Dichloroethane	0.6	18	ND	ND
1,2-Dichloroethene (cis)	5	26	2200	230
Acetone	50	130	ND	R
Benzene	1	300	ND	83
Chloroethane	5	10	ND	78
Ethylbenzene	5	12	ND	ND
Methylene chloride	5	7.4	ND	ND
Toluene	5	250	ND	96
Trichloroethene	5	1300	3200	1900
Vinyl chloride	2	5.4	ND	ND
Xylene (total)	5	68	ND	ND
SVOCs:				
1,4-Dioxane	1	NA	NA	1200

SR-105	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	220000	180000	200000
1,1,2-Trichloroethane	1	25	ND	ND
1,1-Dichloroethane	5	79000	94000	75000
1,1-Dichloroethene	5	21000	2100	3100
1,2-Dichloroethane	0.6	160	ND	ND
1,2-Dichloroethene (cis)	5	3600	7600	7600
Acetone	50	1300	22000	19000
Benzene	1	1.2	ND	ND
Chloroethane	5	160	ND	ND
Methylene chloride	5	87	2200	ND
Tetrachloroethene	5	8	ND	ND
Trichloroethene	5	76000	82000	92000
Vinyl chloride	2	310	ND	ND
SVOCs:				
1,4-Dioxane	1	NA	4600	3100

BRW-01	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	120000	1700	100
1,1-Dichloroethane	5	43000	4000	210
1,1-Dichloroethene	5	8600	840	54
1,2-Dichloroethane	0.6	94	ND	ND
1,2-Dichloroethene (cis)	5	2700	1100	52
Chloroethane	5	40	ND	BC
Trichloroethene	5	14000	350	76
Vinyl chloride	2	ND	ND	2.1
SVOCs:				
1,4-Dioxane	1	NA	NA	120

SR-106	CR	12/14	09/18	04/19
VOCs:				
1,1,1-Trichloroethane	5	3600	1800	1100
1,1,2-Trichloroethane	1	3	ND	ND
1,1-Dichloroethane	5	9900	7200	3300
1,1-Dichloroethene	5	210	89	59
1,2-Dichloroethane	0.6	2	ND	ND
1,2-Dichloroethene (cis)	5	450	420	250
1,2-Dichloroethene (trans)	5	11	ND	8.8
Chloroethane	5	100	160	91
Tetrachloroethene	5	13	ND	ND
Trichloroethene	5	69	ND	58
Vinyl chloride	2	95	ND	100
SVOCs:				
1,4-Dioxane	1	NA	550	240

Legend

Monitoring Well

Location Identifier | Criteria | Date (MM/YY)

SR-001	CR	12/14
VOCs:		
Trichloroethene	5	24

Compound | Concentration (µg/L)

NOTES: (1) NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including January 1999 Errata Sheet, April 2000 and June 2004 Addenda. Class GA.
(2) NYSDOH Drinking Water Quality Council Recommended Screening Level, January 2019
(3) NS = Not Sampled; ND = Not Detected; BC = Below Criteria, R = Rejected

SOURCE: ESRI World Imagery

130 0 130 Feet

LAPP INSULATOR GROUNDWATER ANALYTICAL RESULTS (EXCEEDANCES ONLY)

URS

FIGURE 4

J:\Projects\11176787\GIS\Maps\GW Analytical_0419.mxd 6/27/2019

ATTACHMENT 1

PURGE LOGS

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: BRW-01

Sampling Personnel: T. Urban Date: 4/22/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE & Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 13.16 Depth to Well Bottom (feet): 29.60 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 40.6 Estimated Purge Volume (liters): ~4.5 gal

Sample ID: BRW-01 (-MS/MSD) Sample Time: 1135 QA/QC: MS/MSD + Field Dup.

Sample Parameters: _____

Comments: FD-20190422

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1055	7.14	12.52	3.60	7.54	219	-79	350	13.16
1100	7.77	11.13	3.77	1.16	188	-149	350	13.82
1105	7.83	10.64	3.87	0.81	165	-175	350	14.62
1110	7.87	10.23	3.89	0.74	104	-187	350	15.25
1115	7.89	10.34	3.86	0.69	100	-199	350	15.95
1120	7.91	10.42	3.85	0.66	94.0	-205	350	16.62
1125	7.92	10.64	3.82	0.63	89.6	-212	350	17.35
1130	7.93	10.48	3.83	0.63	89.2	-216	350	18.17
1135	7.94	10.49	3.84	0.62	86.3	-219	350	18.95
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: BRW-02

Sampling Personnel: T. Urban Date: 4/19/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 12.65 Depth to Well Bottom (feet): 29.50 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 41.6 Estimated Purge Volume (liters): ~5.5 gal

Sample ID: BRW-02 Sample Time: 1035 QA/QC: none

Sample Parameters: _____

Comments: _____

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
0945	7.41	12.70	1.96	1.66	295	-146	500	12.65
0950	7.57	12.73	1.97	0.95	235	-177	350	13.70
0955	7.59	12.45	1.98	0.72	192	-197	350	14.74
1000	7.60	12.53	1.98	0.68	173	-204	330	15.20
1005	7.63	12.30	1.99	0.68	150	-212	330	16.05
1010	7.59	12.25	1.99	0.67	151	-213	330	16.61
1015	7.55	12.20	2.00	0.66	142	-212	330	17.15
1020	7.44	12.27	2.00	0.64	136	-211	330	17.89
1025	7.61	12.21	2.00	0.61	124	-222	330	18.48
1030	7.59	12.22	2.00	0.62	125	-224	330	19.19
1035	7.58	12.22	2.00	0.62	124	-225	330	19.71
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-001

Sampling Personnel: Tom Urban Date: 4/18/19 Company: _____

Purging/ Sampling Device: GeoPump Tubing Type: LDPE & silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 9.70 Depth to Well Bottom (feet): 44.80 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 86.7 Estimated Purge Volume (liters): ~8 gal

Sample ID: SR-001 Sample Time: 1235 QA/QC: none

Sample Parameters: _____

Comments: dark brown color

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1130	7.51	15.08	1.68	1.60	71000	-139	500	9.70
1135	7.69	13.03	1.89	0.92	71000	-182	500	10.35
1140	7.81	12.53	1.87	0.82	71000	-212	500	11.18
1145	7.96	11.80	1.90	0.70	71000	-241	500	12.15
1150	8.00	11.84	1.86	0.94	866	-263	500	13.31
1155	7.80	10.91	1.84	1.47	757	-265	500	14.42
1200	7.64	10.82	1.83	2.04	714	-256	500	15.40
1205	7.59	11.94	1.74	2.29	690	-257	300	16.20
1215	7.98	11.96	1.74	1.26	659	-278	300	17.33
1220	8.05	12.18	1.73	1.35	733	-288	300	18.06
1225	8.07	12.26	1.72	1.40	800	-293	300	18.80
1230	8.09	12.25	1.71	1.42	838	-296	300	19.10
1235	8.09	12.40	1.72	1.45	824	-300	300	19.81
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES–0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-002

Sampling Personnel: T. Urban Date: 4/18/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 12.95 Depth to Well Bottom (feet): 38.92 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 64.1 Estimated Purge Volume (liters): ~8 gal

Sample ID: SR-002 Sample Time: 1415 QA/QC: none

Sample Parameters: _____

Comments: cloudy

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1315	7.84	15.37	1.47	2.70	733	-145	400	12.95
1320	7.71	13.49	1.84	1.24	693	-184	400	14.00
1325	7.86	14.83	1.01	1.37	423	-223	400	14.84
1330	7.85	13.82	0.980	1.43	312	-231	400	15.52
1335	7.84	12.74	0.923	1.49	171	-238	400	15.95
1340	7.76	12.06	0.932	1.19	225	-234	400	16.42
1345	7.69	12.38	0.906	1.07	175	-230	400	16.65
1350	7.62	13.27	0.890	1.00	166	-233	400	16.85
1355	7.61	12.55	0.910	1.03	161	-230	400	17.05
1400	7.89	13.01	0.900	0.95	153	-249	400	17.11
1405	7.88	12.92	0.891	0.85	142	-251	400	17.22
1410	7.86	12.91	0.892	0.81	137	-250	400	17.34
1415	7.81	12.86	0.894	0.79	134	-246	400	17.39
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: Leroy, NY Well #: SR-003

Sampling Personnel: T. Urban Date: 4/18/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE & Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 17.10 Depth to Well Bottom (feet): 28.48 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 28.1 Estimated Purge Volume (liters): ~6 gal

Sample ID: SR-003 Sample Time: 1535 QA/QC: none

Sample Parameters: _____

Comments: clear

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1435	7.61	13.65	0.771	3.98	26.7	-120	550	17.16
1440	7.07	12.97	0.761	4.63	14.4	-93	300	17.95
1445	7.07	13.05	0.761	4.22	8.9	-89	300	18.22
1450	7.07	13.77	0.762	3.57	5.4	-84	300	18.40
1455	7.13	13.04	0.778	1.66	10.6	-85	300	18.55
1500	7.08	13.14	0.781	1.58	9.3	-82	300	18.60
1505	6.98	12.90	0.784	1.49	6.9	-77	330	18.75
1510	6.92	13.02	0.780	1.39	4.5	-74	330	18.90
1515	6.86	12.54	0.787	1.34	3.1	-72	330	19.00
1520	6.82	11.72	0.818	1.32	0.0	-71	330	19.02
1525	7.01	11.49	0.822	1.26	0.0	-81	330	19.04
1530	7.03	11.32	0.824	1.24	0.0	-83	330	19.05
1535	7.02	11.31	0.824	1.20	0.0	-83	330	19.06
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-004

Sampling Personnel: T. Urban Date: 4/19/19 Company: _____

Purging/ Sampling Device: Geo pump Tubing Type: LDPE+silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 5.60 Depth to Well Bottom (feet): 34.55 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 71.5 Estimated Purge Volume (liters): ~9 gal

Sample ID: SR-004 Sample Time: 0905 QA/QC: ~~FD & MS/MSD~~ none T.U.

Sample Parameters: _____

Comments: dark brown color

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
0805	6.31	12.74	1.88	3.66	71000	123	600	5.60
0810	7.72	12.16	1.83	1.07	857	-33	600	7.30
0815	8.12	12.50	1.77	0.83	748	-91	500	8.05
0820	8.32	11.96	1.78	0.79	730	-133	500	8.05
0825	8.32	11.99	1.77	0.69	681	-162	500	8.05
0830	8.32	12.11	1.75	0.68	686	-171	500	8.05
0840	8.68	11.84	1.74	0.62	689	-215	500	14.10
0845	8.61	11.88	1.73	0.62	828	-221	500	15.00
0850	8.50	12.03	1.72	0.64	869	-221	500	15.80
0855	8.69	12.09	1.72	0.66	837	-234	350	16.50
0900	8.67	12.09	1.72	0.67	822	-236	350	17.25
0905	8.74	12.12	1.72	0.69	824	-241	350	18.00
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-005

Sampling Personnel: T. Urban Date: 4/19/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 15.10 Depth to Well Bottom (feet): 33.50 Well Diameter (inches): _____ Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 45.4 Estimated Purge Volume (liters): ~45 gal

Sample ID: SR-005 Sample Time: 1200 QA/QC: none

Sample Parameters: _____

Comments: _____

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1120	6.90	12.15	5.31	2.60	878	-118	470	15.10
1125	7.14	11.40	5.43	1.12	452	-155	470	16.15
1130	7.16	11.08	5.47	0.75	466	-191	470	17.31
1135	6.98	11.22	5.45	0.64	590	-186	470	18.25
1140	7.26	11.23	5.44	0.58	899	-212	340	19.30
1145	7.26	11.30	5.44	0.61	906	-215	260	19.85
1150	7.24	11.47	5.42	0.59	899	-218	260	20.50
1155	7.21	11.39	5.45	0.59	910	-221	260	21.42
1200	7.18	11.42	5.47	0.62	890	-220	260	21.80
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-006

Sampling Personnel: T. Urban Date: 4/22/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 16.11 Depth to Well Bottom (feet): 34.44 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 45.3 Estimated Purge Volume (liters): ~ 5-5 gal

Sample ID: SR-006 Sample Time: 1030 QA/QC: None

Sample Parameters: _____

Comments: _____

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
0945	7.58	10.52	0.944	2.87	365	-127	440	16.11
0950	7.49	10.54	0.911	1.54	351	-143	440	16.80
0955	7.61	10.47	0.881	1.06	382	-166	370	17.71
1000	7.62	10.50	0.873	0.93	512	-177	350	18.35
1005	7.64	10.61	0.877	0.84	535	-185	350	18.95
1010	7.64	10.65	0.872	0.80	542	-190	350	19.51
1015	7.64	10.68	0.867	0.76	553	-195	350	20.45
1020	7.63	10.68	0.864	0.72	515	-198	350	21.40
1025	7.65	10.79	0.866	0.71	458	-202	350	22.48
1030	7.66	10.67	0.867	0.70	450	-204	350	23.15
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES–0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-101

Sampling Personnel: T. Urban Date: 4/17/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 6.81 Depth to Well Bottom (feet): 44.58 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 93.3 Estimated Purge Volume (liters): ~15 gal

Sample ID: SR-101 Sample Time: 1445 QA/QC: none

Sample Parameters: _____

Comments: geopump maxed out

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1240	7.44	13.10	1.16	1.46	>1000	-110	350	6.81
1245	7.33	11.70	1.24	1.32	930	-118	350	7.07
1250	7.22	11.54	1.23	1.05	302	-121	350	7.18
1255	7.05	12.02	1.18	0.86	139	-122	375	7.25
1300	6.90	11.42	1.06	0.90	131	-125	450	7.25
1305	6.81	11.05	1.11	0.88	102	-125	475	7.36
1310	6.69	10.95	1.04	0.98	128	-122	475	7.30
1315	6.69	10.94	1.06	1.11	157	-120	475	7.30
1320	6.69	10.93	1.06	0.94	198	-117	475	7.30
1325	6.55	10.62	1.06	0.93	24.3	-121	500	7.38
1330	6.50	10.70	1.06	0.80	31.2	-124	500	7.44
1335	6.48	10.70	1.06	0.85	30.8	-126	500	7.47
1340	4.46	10.69	1.06	0.92	24.6	-129	500	7.50
1345	6.45	10.70	1.07	1.09	12.0	-131	500	7.52
1350	6.44	10.72	1.08	1.15	10.1	-132	500	7.52
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-101

Sampling Personnel: T. Urban Date: 4/17/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE + Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 6.81 Depth to Well Bottom (feet): 44.55 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 93.3 Estimated Purge Volume (liters): ~15 gal

Sample ID: SR-101 Sample Time: 1445 QA/QC: none

Sample Parameters: _____

Comments: geopump maxed out

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1355	6.44	10.76	1.08	1.28	1.9	-133	500	7.55
1400	6.38	10.71	1.08	0.64	5.7	-132	500	7.55
1405	6.37	10.73	1.08	0.67	0.5	-133	500	7.55
1410	6.41	10.68	1.08	0.69	0.0	-136	500	7.55
1415	6.76	10.74	1.07	0.68	0.0	-153	500	7.57
1420	6.82	10.77	1.07	0.69	0.0	-159	500	7.57
1425	6.96	10.81	1.07	0.69	0.0	-165	500	7.58
1430	6.83	10.78	1.07	0.69	0.0	-159	500	7.60
1435	6.72	10.82	1.07	0.69	0.0	-155	500	7.60
1440	6.67	10.86	1.07	0.69	0.0	-154	500	7.60
1445	6.68	10.83	1.07	0.69	0.0	-158	500	7.60
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES–0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-104

Sampling Personnel: T. Urban Date: 4/18/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 10.75 Depth to Well Bottom (feet): 28.40 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 43.6 Estimated Purge Volume (liters): ~5 gal

Sample ID: SR-104 Sample Time: 1035 QA/QC: none

Sample Parameters: _____

Comments: dark grey color

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)	
0945	8.03	12.12	0.571	2.44	71000	-45	400	10.75	
0950	7.53	10.51	0.597	1.07	452	-102	400	11.37	
1000	7.26	9.28	0.604	0.78	269	-108	430	12.05	
1005	7.27	9.35	0.606	0.70	212	-112	350	12.11	
1010	7.31	9.42	0.608	0.66	166	-115	350	12.16	
1015	7.25	9.54	0.607	0.64	148	-114	350	12.22	
1020	7.21	10.27	0.597	0.60	127	-114	350	12.27	
1025	7.17	10.35	0.598	0.58	109	-113	300	12.20	- pump moved out
1030	7.15	10.50	0.602	0.57	101	-114	300	12.17	
1035	7.19	10.51	0.600	0.58	97.3	-116	300	12.15	
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---		

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-105

Sampling Personnel: T. Urban Date: 4/22/19 Company: _____

Purging/ Sampling Device: GeoPump Tubing Type: LDPE+Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 13.47 Depth to Well Bottom (feet): 27.30 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 34.2 Estimated Purge Volume (liters): ~4.5 gal

Sample ID: SR-105 Sample Time: 0850 QA/QC: none

Sample Parameters: _____

Comments: _____

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
0800	6.14	12.36	3.67	2.88	65.8	141	250	13.47
0805	6.55	12.31	3.70	2.05	75.9	6	250	13.91
0810	6.67	12.21	3.73	1.59	55.9	-38	250	14.05
0815	6.75	11.88	3.79	1.11	18.7	-63	250	14.70
0820	6.69	11.56	3.80	1.00	9.1	-67	250	15.24
0825	6.63	11.40	3.83	0.93	5.8	-70	250	15.72
0830	6.55	11.26	3.85	0.88	6.6	-71	250	16.33
0835	6.51	11.12	3.86	0.85	7.3	-72	250	16.78
0840	6.72	11.09	3.87	0.79	6.2	-87	350	17.45
0845	6.68	10.95	3.88	0.79	5.9	-87	350	17.80
0850	6.66	11.04	3.88	0.77	5.8	-86	350	18.42
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: LeRoy, NY Well #: SR-106

Sampling Personnel: T. Urban Date: 4/17/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+Silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 22.68 Depth to Well Bottom (feet): 34.90 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 30.2 Estimated Purge Volume (liters): ~6 gal

Sample ID: _____ Sample Time: 1620 QA/QC: none

Sample Parameters: _____

Comments: geopump maxed out

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
1520	7.01	13.16	1.99	1.37	59.3	-97	400	22.68
1525	6.93	12.78	1.99	1.17	51.7	-98	400	22.86
1530	6.88	13.54	1.94	0.92	41.1	-102	400	22.86
1535	6.87	13.16	1.98	0.81	33.7	-105	400	22.88
1540	6.94	12.99	2.00	0.76	28.1	-112	400	22.90
1545	6.92	13.02	2.00	0.71	25.7	-113	400	22.90
1550	6.88	13.31	2.02	0.64	20.1	-112	400	22.98
1555	6.84	14.90	2.00	0.56	19.3	-112	400	22.95
1600	6.80	14.92	2.01	0.56	16.1	-112	400	22.95
1605	6.77	14.89	2.14	0.54	15.0	-110	400	22.95
1610	6.96	14.85	2.17	0.52	14.3	-120	400	22.96
1615	6.97	14.88	2.21	0.51	13.7	-121	400	22.96
1620	6.97	14.48	2.22	0.52	12.4	-121	400	22.96
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

Project: Lapp Insulators Site: Leroy, NY Well #: SR-108

Sampling Personnel: T. Urban Date: 4/18/19 Company: _____

Purging/ Sampling Device: Geopump Tubing Type: LDPE+silicon Tubing Inlet: _____

Measuring Point: Top of Riser Initial Depth to Water (feet): 12.18 Depth to Well Bottom (feet): 36.20 Well Diameter (inches): 4 Screen Length (feet): _____

Casing Type: _____ Volume in 1 Well Casing (liters): 59.3 Estimated Purge Volume (liters): 2 5 gal

Sample ID: SR-108 Sample Time: 0915 QA/QC: None

Sample Parameters: _____

Comments: rust color purge water

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O_2 (mg/l)	TURB. (NTU)	Eh (mV)	FLOW RATE (ml/min.)	DEPTH TO WATER (feet btor)
0820	8.46	12.61	0.893	5.90	193	49	710	12.18
0825	8.61	11.16	0.898	1.69	178	-26	310	13.30
0830	8.59	11.17	0.894	1.17	143	-67	310	13.82
0835	8.58	11.20	0.887	0.99	157	-85	310	14.40
0840	8.55	10.80	0.895	0.92	134	-104	310	14.94
0845	8.42	10.69	0.897	0.85	124	-121	310	15.60
0850	8.38	10.76	0.895	0.81	98.5	-135	310	16.25
0855	8.33	10.85	0.892	0.79	80.4	-137	310	16.67
0900	8.18	10.61	0.896	0.80	104	-132	310	17.17
0905	8.19	10.86	0.890	0.72	59.4	-136	310	17.70
0910	8.16	10.89	0.889	0.70	50.4	-137	310	18.10
0915	8.12	10.95	0.890	0.68	49.6	-139	310	18.65
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft; 4 inch diameter well = 2470 ml/ft ($vol_{cyl} = \pi r^2 h$)

ATTACHMENT 2

FIELD NOTES

Location LeRoy, NY Date 4/17/19

Project / Client Lapp Insulator

Wx: 45-65°F, partly cloudy, calm

LOCID	TIME	DTW
SR-108	0959	12.10
SR-104	1001	10.86
SR-003	1007	17.01
SR-002	1009	12.88
SR-001	1011	9.46
SR-006	1024	15.90
BRW-01	1029	12.75
SR-105	1044	13.68
SR-005	1050	15.02
SR-004	1111	5.52
BRW-02	1142	12.77
SR-106	1204	22.68
SR-101	1212	6.81

18

Location Lapp Injectors Date 4/22/14

Project / Client

0730	calibrate standard	Horiba reading
pH	4.0	3.98
Cond	4.49	4.51
Turb	0.0	0.0

Location LeRoy, NY Date 4/18/19

Project / Client

0730	calibrate Standard	Horiba reading
pH	4.0	4.00
cond	4.49	4.49
Turb.	0.0	0.0

Location LeRoy, NY Date 4/19/19

Project / Client Lapp Insulators

0730	calibrate Standard	Horiba reading
pH	4.0	3.99
Cond.	4.49	4.50
Turb.	0.0	0.0

ATTACHMENT 3

DATA USABILITY SUMMARY REPORT

(on CD for hard copy)

DATA USABILITY SUMMARY REPORT

LAPP INSULATOR COMPANY
GROUNDWATER SAMPLING
LEROY, NEW YORK
WORK ASSIGNMENT NO. D007622-11.2
SITE ID# 819017

Analyses Performed by:

EUROFINS TESTAMERICA
AMHERST, NEW YORK AND NASHVILLE, TENNESSEE

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

Prepared by:

URS CORPORATION
257 WEST GENESEE STREET
BUFFALO, NY 14202

JUNE 2019

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TABLES

(Following Text)

ATTACHMENTS

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10 Technical Guidance for Site Investigation and Remediation*, Appendix 2B - *Guidance for Data Deliverables and the Development of Data Usability Summary Reports,* May 2010. The samples were collected from the Lapp Insulator site (Site No. 819017) in support of NYSDEC Work Assignment # D007622-11.2.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION PROCEDURES

The data being evaluated is from the April 17-22, 2019 sampling of 13 groundwater samples, 1 matrix spike/matrix spike duplicate pair (MS/MSD), 1 field duplicate (FD) sample, and 4 trip blanks (TB). The analytical laboratory that performed the analyses is Eurofins TestAmerica located in Amherst, NY and Nashville, TN. The samples were analyzed for the following parameters. Not all samples were analyzed for all parameters.

Matrix	Parameter	Method
Groundwater	Target Compound List (TCL) Volatile Organic Compounds (VOC)	SW8260C
	1,4-Dioxane	SW8270D SIM
	Total/Dissolved Iron and Manganese	SW6010C
	Chemical Oxygen Demand (COD)	410.4
	Nitrate and Sulfate	300.0
	Biochemical Oxygen Demand (BOD_5)	SM5210B

A limited data validation was performed following the guidelines in the following USEPA Region II document (where applicable):

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8260B & 8260C*, SOP HW-24, Rev. 4, October 2014;

- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8270D,* SOP HW-22, Rev. 5, December 2010;
- ICP-AES Data Validation, SOP HW-3a, Rev. 1, September 2016; and
- Mercury and Cyanide Data Validation, SOP HW-3c, Rev. 1, September 2016.

The limited validation included a review of: completeness of all required deliverables; holding times; quality control (QC) results [blanks, instrument tunings, calibration standards, duplicate analyses, and laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and laboratory data qualifiers.

Qualifications applied to the data during the limited data validation include 'J' (estimated concentration), 'J+' (estimated concentration biased high), 'J-' (estimated concentration biased low), 'UJ' (estimated quantitation limit), and 'R' (rejected). Definitions of USEPA data qualifiers are presented at the end of this text. A summary of data qualifications is presented on Table 1. The validated analytical results are presented on Table 2 (groundwaters) and Table 3 (field QC). Copies of validated laboratory analytical summaries (Form 1s) are presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

The laboratory deliverable data packages were equivalent to NYSDEC Analytical Services Protocol (ASP) Category B (or CLP-like) requirements.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved and under proper chain-of-custody (COC). All samples were analyzed within the required holding times (HT) with the following exceptions:

Samples BRW-01, FD-20190422 (BRW-01), BRW-02, SR-004, SR-005, SR-006, and SR-105 were analyzed for nitrate outside of the 48 hr. HT due to laboratory error. The non-detect results for nitrate in these samples have been qualified 'UJ'.

Samples FD-20190422 (BRW-01), SR-002, SR-003, SR-004, and SR-106 were analyzed for BOD_5 outside of the 48 hr. HT due to a laboratory error. The results for BOD_5 in these samples have been qualified 'UJ'.

V. NON-CONFORMANCES

- **Instrument Calibration**

  The relative response factor (RRF) for VOCs 2-butanone, 2-hexanone, 4-methyl-2-pentanone, acetone, and/or methyl acetate were below the QC limit of 0.100 in the initial and continuing calibrations (ICAL/CCAL). The non-detect results for the associated samples listed on Table 1 have been qualified 'R', while the detected results were qualified 'J'.

  The percent difference (%D) between the ICAL average RRF and the RRFs in the CCAL standard were greater than 20% for VOC 1,2,4-trichlorobenzene, and showed a decreasing response. The results for the associated samples listed on Table 1 have been qualified 'UJ'.

  The percent recoveries (%Rs) of manganese (Mn) in the metals continuing calibration verifications (CCVs) were greater than the upper QC limit (i.e., >110%, but ≤ 125%) in some of the analytical sequences. The detected results for Mn in the associated samples listed on Table 1 have been qualified 'J+'.

  The %Rs of Mn and iron (Fe) in the metals CCVs were less than the lower QC limit (i.e., >75%, but< 89%) in some of the analytical sequences. The detected results for these metals in the associated samples listed on Table 1 have been qualified 'J-'.

- **Laboratory Control Sample (LCS)**

  The %R of the BOD_5 LCS was below QC limits. The associated samples listed on Table 1 have been qualified 'UJ'.

- **Field Duplicates**

  A FD was collected at the sample location BRW-01. The FD relative percent differences (RPD) exhibited good analytical precision (e.g., <50%).

VI. SAMPLE RESULTS AND REPORTING

All quantitation/detection limits were reported in accordance with method requirements and were adjusted for sample volume and dilution factors. Detected results below the quantitation limits were qualified 'J' by the laboratory.

Several samples were analyzed for VOCs utilizing dilutions due to elevated levels of target compounds. The detection limits reported for the non-detect compounds represent the lowest achievable at the dilution factor used during the analysis.

VII. SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'R' (rejected) are not useable. Those results qualified 'UJ' (estimated quantitation limit), 'J' (estimated concentration), 'J+' (estimated concentration biased high), and 'J-' (estimated concentration biased low) during the data review are considered conditionally usable. All other sample results are usable as reported. URS does not recommend the re-collection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist **Date:** 6/27/19

Reviewed By: Peter R. Fairbanks, Senior Chemist **Date:** 6/27/19

DEFINITIONS OF USEPA DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

(J+) - The result is an estimated quantity. The associated numerical value is biased high.

(J-) - The result is an estimated quantity. The associated numerical value is biased low.

UJ – The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R – The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

D – The sample result was reported from a secondary dilution analysis.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified´ and the associated numerical value represents its approximate concentration.

TABLE 1
SUMMARY OF DATA QUALIFICATIONS
LAPP INSULATOR COMPANY

SAMPLE ID	FRACTION	ANALYTICAL DEVIATION	QUALIFICATION
BRW-01, FD-20190422 (BRW-01), BRW-02, SR-004, SR-005, SR-006, SR-101, SR-105, SR-106, TB-20190417, TB-20190419, and TB-20190422	VOC	RRF < QC limit of 0.100 in the ICAL/CCAL for 2-butanone, 2-hexanone, 4-methyl-2-pentanone, acetone, and methyl acetate.	Qualify detected results 'J' and non-detect results 'R'.
SR-001, SR-002, SR-108, and TB-20190418	VOC	RRF < QC limit of 0.100 in the ICAL/CCAL for 2-butanone, 2-hexanone, and acetone.	Qualify non-detect results 'R'.
SR-003 and SR-104	VOC	RRF < QC limit of 0.100 in the ICAL/CCAL for 2-butanone and acetone.	Qualify detected results 'J' and non-detect results 'R'.
SR-105 and TB-20190422	VOC	%D between the ICAL average RRF and the CCAL RRF >20% for 1,2,4-trichlorobenzene.	Qualify non-detect results 'UJ'.
BRW-01, FD-20190422 (BRW-01), BRW-02, SR-004, and SR-005, SR-006, and SR-105	Metals	CCV %R between 110%-125% for Mn (Dissolved).	Qualify detected results 'J+'.
BRW-01, FD-20190422 (BRW-01), BRW-02, SR-001, SR-002, SR-003, SR-004, and SR-005, SR-006, SR-104, SR-105, and SR-108	Metals	CCV %R between 110%-125% for Mn (Total).	Qualify detected results 'J+'.
SR-101 and SR-106	Metals	CCV %R between 75%-89% for Mn (Dissolved).	Qualify detected results 'J-' .
SR-101 and SR-106	Metals	CCV %R between 75%-89% for Fe (Total).	Qualify detected results 'J-'.
SR-001, SR-002, SR-003, SR-104, and SR-108	Metals	CCV %R between 75%-89% for Fe (Dissolved).	Qualify detected results 'J-'.
FD-20190422 (BRW-01), SR-002, SR-003, SR-004, and SR-106	Wet Chemistry	BOD_5 analyzed outside of the 48 hr. holding time.	Qualify non-detect results 'UJ'.
BRW-01, FD-20190422 (BRW-01), BRW-02, SR-004, SR-005, SR-006, and SR-105	Wet Chemistry	Nitrate analyzed outside of the 48 hr. holding time.	Qualify non-detect results 'UJ'.
BRW-01, SR-105, and SR-006	Wet Chemistry	LCS %R < QC limit for BOD_5.	Qualify detected results 'J' and non-detect results 'UJ'.

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		BRW-01	BRW-01	BRW-02	SR-001	SR-002
Sample ID		BRW-01	FD-20190422	BRW-02	SR-001	SR-002
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/22/19	04/22/19	04/19/19	04/18/19	04/18/19
Parameter	Units		Field Duplicate (1-1)			
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	100	99	4,000	1.0 U	86
1,1,2,2-Tetrachloroethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,1,2-Trichloroethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,1-Dichloroethane	UG/L	210	200	3,700	61	97
1,1-Dichloroethene	UG/L	54	51	170	0.62 J	20
1,2,4-Trichlorobenzene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	UG/L	10 U	10 U	200 U	10 U	10 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,2-Dichlorobenzene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,2-Dichloroethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,2-Dichloroethene (cis)	UG/L	52	50	20 U	27	1,800 D
1,2-Dichloroethene (trans)	UG/L	1.0 U	1.0 U	20 U	29	26
1,2-Dichloropropane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,3-Dichlorobenzene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,3-Dichloropropene (cis)	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,3-Dichloropropene (trans)	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
1,4-Dichlorobenzene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
2-Hexanone	UG/L	R	R	R	R	R
4-Methyl-2-pentanone	UG/L	R	R	R	10 U	10 U
Acetone	UG/L	R	R	R	R	R
Benzene	UG/L	0.85 J	0.78 J	20 U	1.0 U	1.0 U
Bromodichloromethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		BRW-01	BRW-01	BRW-02	SR-001	SR-002
Sample ID		BRW-01	FD-20190422	BRW-02	SR-001	SR-002
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/22/19	04/22/19	04/19/19	04/18/19	04/18/19
Parameter	Units		Field Duplicate (1-1)			
Volatile Organic Compounds						
Bromoform	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Bromomethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Carbon disulfide	UG/L	1.0 U	1.0 U	20 U	1.0 U	0.48 J
Carbon tetrachloride	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Chlorobenzene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Chloroethane	UG/L	0.51 J	0.57 J	7.9 J	1.0 U	1.0 U
Chloroform	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Chloromethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Cyclohexane	UG/L	4.8 J	4.5 J	20 J	5.0 U	5.0 U
Dibromochloromethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Dichlorodifluoromethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Ethylbenzene	UG/L	0.39 J	0.41 J	20 U	1.0 U	1.0 U
Isopropylbenzene (Cumene)	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Methyl acetate	UG/L	R	R	R	10 U	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	R	R	R	R	R
Methyl tert-butyl ether	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Methylcyclohexane	UG/L	8.2	7.8	22 J	0.68 J	5.0 U
Methylene chloride	UG/L	5.0 U	5.0 U	100 U	5.0 U	5.0 U
Styrene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Tetrachloroethene	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U
Toluene	UG/L	1.7	1.7	8.0 J	1.0 U	1.0 U
Trichloroethene	UG/L	76	75	14 J	6.4	4,300 D
Trichlorofluoromethane	UG/L	1.0 U	1.0 U	20 U	1.0 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		BRW-01	BRW-01	BRW-02	SR-001	SR-002
Sample ID		BRW-01	FD-20190422	BRW-02	SR-001	SR-002
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/22/19	04/22/19	04/19/19	04/18/19	04/18/19
Parameter	Units		Field Duplicate (1-1)			
Volatile Organic Compounds						
Vinyl chloride	UG/L	2.1	2.0	20 U	3.9	2.8
Xylene (total)	UG/L	2.4 J	2.4 J	13 J	3.0 U	3.0 U
Semivolatile Organic Compounds						
1,4-Dioxane	UG/L	110	120	22	7.5	0.60
Metals						
Iron	UG/L	13,500	14,500	42,000	9,800	17,200
Manganese	UG/L	660 J+	660 J+	550 J+	39 J+	140 J+
Dissolved Metals						
Iron	UG/L	6,500	6,100	14,500	69 J-	990 J-
Manganese	UG/L	740 J+	720 J+	440 J+	13	71
Miscellaneous Parameters						
Biochemical Oxygen Demand (BOD)	MG/L	2.0 UJ	30.0 UJ	2.0 U	2.0 U	6.0 UJ
Chemical Oxygen Demand (COD)	MG/L	24.8	31.1	35.4	31.1	7.6 J
Nitrate-Nitrogen	MG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.10 U	0.050 U
Sulfate (as SO4)	MG/L	32.3	31.8	5.2	2.4 J	17.7

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

Advanced Selection: amk-temp
J:\Projects\Small_Chemistry_Jobs\DBProgram\EDMS.mde
Printed: 6/27/2019 1:43:11 PM
[SITE KEY] = 27 AND [LOGDATE] > 04/1/2019# AND [SACODE] <> 'TB'

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		SR-003	SR-004	SR-005	SR-006	SR-101
Sample ID		SR-003	SR-004	SR-005	SR-006	SR-101
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/18/19	04/19/19	04/19/19	04/22/19	04/17/19
Parameter	Units					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/L	1.0 U	1.0 U	1,200	2,200	1.0 U
1,1,2,2-Tetrachloroethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,1,2-Trichloroethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,1-Dichloroethane	UG/L	1.0 U	1.0 U	17,000	7,100	1.0 U
1,1-Dichloroethene	UG/L	1.0 U	1.0 U	500	360	1.0 U
1,2,4-Trichlorobenzene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,2-Dibromo-3-chloropropane	UG/L	10 U	10 U	1,000 U	500 U	10 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,2-Dichlorobenzene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,2-Dichloroethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,2-Dichloroethene (cis)	UG/L	1.0 U	1.0 U	230	550	1.0 U
1,2-Dichloroethene (trans)	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,2-Dichloropropane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,3-Dichlorobenzene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,3-Dichloropropene (cis)	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,3-Dichloropropene (trans)	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
1,4-Dichlorobenzene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
2-Hexanone	UG/L	10 U	R	R	R	R
4-Methyl-2-pentanone	UG/L	10 U	R	R	R	R
Acetone	UG/L	24 J	R	R	R	R
Benzene	UG/L	12	6.8	83 J	33 J	1.0 U
Bromodichloromethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		SR-003	SR-004	SR-005	SR-006	SR-101
Sample ID		SR-003	SR-004	SR-005	SR-006	SR-101
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/18/19	04/19/19	04/19/19	04/22/19	04/17/19
Parameter	Units					
Volatile Organic Compounds						
Bromoform	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Bromomethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Carbon disulfide	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Carbon tetrachloride	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Chlorobenzene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Chloroethane	UG/L	1.0 U	1.0 U	78 J	50 U	1.0 U
Chloroform	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Chloromethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Cyclohexane	UG/L	54	6.9	72 J	250 U	5.0 U
Dibromochloromethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Dichlorodifluoromethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Ethylbenzene	UG/L	3.3	1.5	100 U	50 U	1.0 U
Isopropylbenzene (Cumene)	UG/L	0.62 J	1.0 U	100 U	50 U	1.0 U
Methyl acetate	UG/L	10 U	R	R	R	R
Methyl ethyl ketone (2-Butanone)	UG/L	R	R	R	R	R
Methyl tert-butyl ether	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Methylcyclohexane	UG/L	40	3.3 J	38 J	30 J	0.93 J
Methylene chloride	UG/L	5.0 U	5.0 U	500 U	250 U	5.0 U
Styrene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Tetrachloroethene	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Toluene	UG/L	18	2.4	96 J	43 J	1.0 U
Trichloroethene	UG/L	1.0 U	1.0 U	1,900	680	1.0 U
Trichlorofluoromethane	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		SR-003	SR-004	SR-005	SR-006	SR-101
Sample ID		SR-003	SR-004	SR-005	SR-006	SR-101
Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/18/19	04/19/19	04/19/19	04/22/19	04/17/19
Parameter	Units					
Volatile Organic Compounds						
Vinyl chloride	UG/L	1.0 U	1.0 U	100 U	50 U	1.0 U
Xylene (total)	UG/L	21	5.4	300 U	150 U	3.0 U
Semivolatile Organic Compounds						
1,4-Dioxane	UG/L	1.3	0.57	1,200	290	3.3
Metals						
Iron	UG/L	86,400	48,900	140,000	16,000	4,100 J-
Manganese	UG/L	1,100 J+	620 J+	1,700 J+	280 J+	61
Dissolved Metals						
Iron	UG/L	3,300 J-	190	129,000	3,500	110
Manganese	UG/L	160	48 J+	1,500 J+	170 J+	28 J-
Miscellaneous Parameters						
Biochemical Oxygen Demand (BOD)	MG/L	3.0 UJ	2.0 UJ	9.3	2.0 UJ	2.0 U
Chemical Oxygen Demand (COD)	MG/L	43.6	50.2	80.6	39.3	29.4
Nitrate-Nitrogen	MG/L	0.25 U	0.050 UJ	0.050 UJ	0.050 UJ	0.10 U
Sulfate (as SO4)	MG/L	106	23.3	31.4	31.2	118

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		SR-104	SR-105	SR-106	SR-108
Sample ID		SR-104	SR-105	SR-106	SR-108
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/18/19	04/22/19	04/17/19	04/18/19
Parameter	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	UG/L	45	200,000	1,100	12
1,1,2,2-Tetrachloroethane	UG/L	10 U	500 U	20 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	10 U	500 U	20 U	1.0 U
1,1,2-Trichloroethane	UG/L	10 U	500 U	20 U	1.0 U
1,1-Dichloroethane	UG/L	230	75,000	3,300	43
1,1-Dichloroethene	UG/L	46	3,100	59	9.5
1,2,4-Trichlorobenzene	UG/L	10 U	500 UJ	20 U	1.0 U
1,2-Dibromo-3-chloropropane	UG/L	100 U	5,000 U	200 U	10 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	10 U	500 U	20 U	1.0 U
1,2-Dichlorobenzene	UG/L	10 U	500 U	20 U	1.0 U
1,2-Dichloroethane	UG/L	10 U	500 U	20 U	1.0 U
1,2-Dichloroethene (cis)	UG/L	1,800	7,600	250	480 D
1,2-Dichloroethene (trans)	UG/L	9.0 J	500 U	8.8 J	17
1,2-Dichloropropane	UG/L	10 U	500 U	20 U	1.0 U
1,3-Dichlorobenzene	UG/L	10 U	500 U	20 U	1.0 U
1,3-Dichloropropene (cis)	UG/L	10 U	500 U	20 U	1.0 U
1,3-Dichloropropene (trans)	UG/L	10 U	500 U	20 U	1.0 U
1,4-Dichlorobenzene	UG/L	10 U	500 U	20 U	1.0 U
2-Hexanone	UG/L	100 U	R	R	R
4-Methyl-2-pentanone	UG/L	100 U	R	R	10 U
Acetone	UG/L	R	19,000 J	R	R
Benzene	UG/L	4.9 J	500 U	20 U	2.8
Bromodichloromethane	UG/L	10 U	500 U	20 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		SR-104	SR-105	SR-106	SR-108
Sample ID		SR-104	SR-105	SR-106	SR-108
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/18/19	04/22/19	04/17/19	04/18/19
Parameter	Units				
Volatile Organic Compounds					
Bromoform	UG/L	10 U	500 U	20 U	1.0 U
Bromomethane	UG/L	10 U	500 U	20 U	1.0 U
Carbon disulfide	UG/L	10 U	500 U	20 U	1.0 U
Carbon tetrachloride	UG/L	10 U	500 U	20 U	1.0 U
Chlorobenzene	UG/L	10 U	500 U	20 U	1.0 U
Chloroethane	UG/L	10 U	500 U	91	1.0 U
Chloroform	UG/L	10 U	500 U	20 U	1.0 U
Chloromethane	UG/L	10 U	500 U	20 U	1.0 U
Cyclohexane	UG/L	50 U	2,500 U	100 U	6.0
Dibromochloromethane	UG/L	10 U	500 U	20 U	1.0 U
Dichlorodifluoromethane	UG/L	10 U	500 U	20 U	1.0 U
Ethylbenzene	UG/L	10 U	500 U	20 U	0.34 J
Isopropylbenzene (Cumene)	UG/L	10 U	500 U	20 U	1.0 U
Methyl acetate	UG/L	100 U	R	R	10 U
Methyl ethyl ketone (2-Butanone)	UG/L	R	R	R	R
Methyl tert-butyl ether	UG/L	10 U	500 U	20 U	1.0 U
Methylcyclohexane	UG/L	50 U	2,500 U	100 U	8.4
Methylene chloride	UG/L	50 U	2,500 U	100 U	5.0 U
Styrene	UG/L	10 U	500 U	20 U	1.0 U
Tetrachloroethene	UG/L	10	500 U	20 U	0.35 J
Toluene	UG/L	10 U	500 U	20 U	1.4
Trichloroethene	UG/L	2,700 D	92,000	58	530 D
Trichlorofluoromethane	UG/L	10 U	500 U	20 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		SR-104	SR-105	SR-106	SR-108
Sample ID		SR-104	SR-105	SR-106	SR-108
Matrix		Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)		-	-	-	-
Date Sampled		04/18/19	04/22/19	04/17/19	04/18/19
Parameter	Units				
Volatile Organic Compounds					
Vinyl chloride	UG/L	33	500 U	100	47
Xylene (total)	UG/L	30 U	1,500 U	60 U	3.0 U
Semivolatile Organic Compounds					
1,4-Dioxane	UG/L	12	3,100	240	1.7
Metals					
Iron	UG/L	940	14,100	2,900 J-	28,500
Manganese	UG/L	61 J+	310 J+	49	160 J+
Dissolved Metals					
Iron	UG/L	380 J-	11,100	690	1,300 J-
Manganese	UG/L	51	270 J+	41 J-	58
Miscellaneous Parameters					
Biochemical Oxygen Demand (BOD)	MG/L	2.0 U	57.8 J	2.0 UJ	3.0 U
Chemical Oxygen Demand (COD)	MG/L	11.3	127	119	21.2
Nitrate-Nitrogen	MG/L	0.10 U	0.050 UJ	0.79	0.10 U
Sulfate (as SO4)	MG/L	36.4	11.8	142	11.8

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 3
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID		TB-20190417	TB-20190418	TB-20190419	TB-20190422
Matrix		Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)		-	-	-	-
Date Sampled		04/17/19	04/18/19	04/19/19	04/22/19
Parameter	Units	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds					
1,1,1-Trichloroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2-Dibromo-3-chloropropane	UG/L	10 U	10 U	10 U	10 U
1,2-Dibromoethane (Ethylene dibromide)	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (cis)	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (trans)	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropene (cis)	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropene (trans)	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	UG/L	R	R	R	R
4-Methyl-2-pentanone	UG/L	R	10 U	R	R
Acetone	UG/L	R	R	9.3 J	R
Benzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 3
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID		TB-20190417	TB-20190418	TB-20190419	TB-20190422
Matrix		Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)		-	-	-	-
Date Sampled		04/17/19	04/18/19	04/19/19	04/22/19
Parameter	Units	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds					
Bromoform	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	UG/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene (Cumene)	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	UG/L	R	10 U	R	R
Methyl ethyl ketone (2-Butanone)	UG/L	R	R	R	R
Methyl tert-butyl ether	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	UG/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	UG/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	UG/L	1.0 U	1.0 U	1.0 U	1.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

TABLE 3
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
LAPP INSULATOR COMPANY

Location ID		FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID		TB-20190417	TB-20190418	TB-20190419	TB-20190422
Matrix		Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)		-	-	-	-
Date Sampled		04/17/19	04/18/19	04/19/19	04/22/19
Parameter	Units	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds					
Vinyl chloride	UG/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	3.0 U	3.0 U	3.0 U	3.0 U

Flags assigned during chemistry validation are shown.

Made By: AMK 6/26/19
Checked By: PRF 6/27/19

Detection Limits shown are PQL

ATTACHMENT A

FORM 1s

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1
SDG No.:
Client Sample ID: BRW-01 Lab Sample ID: 480-152320-3
Matrix: Water Lab File ID: 043019-18.D
Analysis Method: 8260C Date Collected: 04/22/2019 11:35
Sample wt/vol: 10(mL) Date Analyzed: 04/30/2019 17:21
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 591468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	100		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	210		1.0	0.24
75-35-4	1,1-Dichloroethene	54		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND	*	1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	~~ND~~	R	50	2.6
591-78-6	2-Hexanone	~~ND~~	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	10	0.81
67-64-1	Acetone	~~ND~~	R	25	2.7
71-43-2	Benzene	0.85	J	1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	0.51	J	1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	52		1.0	0.21
110-82-7	Cyclohexane	4.8	J	5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND	F1	1.0	0.17
100-41-4	Ethylbenzene	0.39	J	1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	~~ND~~	R	10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Client Sample ID: BRW-01 Lab Sample ID: 480-152320-3

Matrix: Water Lab File ID: 043019-18.D

Analysis Method: 8260C Date Collected: 04/22/2019 11:35

Sample wt/vol: 10(mL) Date Analyzed: 04/30/2019 17:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	8.2		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	1.7		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	76		1.0	0.20
75-69-4	Trichlorofluoromethane	ND	F1	1.0	0.21
75-01-4	Vinyl chloride	2.1		1.0	0.18
1330-20-7	Xylenes, Total	2.4	J	3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		70-130
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
2037-26-5	Toluene-d8 (Surr)	93		70-130
1868-53-7	Dibromofluoromethane (Surr)	113		70-130

6/24/19

BRW-01

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1
SDG No.:
Client Sample ID: FD-20190422 Lab Sample ID: 480-152320-4
Matrix: Water Lab File ID: 043019-19.D
Analysis Method: 8260C Date Collected: 04/22/2019 00:00
Sample wt/vol: 10(mL) Date Analyzed: 04/30/2019 17:47
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 591468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	99		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	200		1.0	0.24
75-35-4	1,1-Dichloroethene	51		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND	*	1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	R	10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	0.78	J	1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	0.57	J	1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	50		1.0	0.21
110-82-7	Cyclohexane	4.5	J	5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	0.41	J	1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND	R	10	0.58

BRW-01

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1
SDG No.:
Client Sample ID: FD-20190422 Lab Sample ID: 480-152320-4
Matrix: Water Lab File ID: 043019-19.D
Analysis Method: 8260C Date Collected: 04/22/2019 00:00
Sample wt/vol: 10(mL) Date Analyzed: 04/30/2019 17:47
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 591468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	7.8		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	1.7		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	75		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	2.0		1.0	0.18
1330-20-7	Xylenes, Total	2.4	J	3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-130
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
2037-26-5	Toluene-d8 (Surr)	94		70-130
1868-53-7	Dibromofluoromethane (Surr)	115		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: BRW-02 Lab Sample ID: 480-152241-2

Matrix: Water Lab File ID: 0426-13.D

Analysis Method: 8260C Date Collected: 04/19/2019 10:35

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 20:32

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590877 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	4000		20	3.8
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	3.8
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	3.0
79-00-5	1,1,2-Trichloroethane	ND		20	3.8
75-34-3	1,1-Dichloroethane	3700		20	4.8
75-35-4	1,1-Dichloroethene	170		20	5.0
120-82-1	1,2,4-Trichlorobenzene	ND		20	4.0
96-12-8	1,2-Dibromo-3-Chloropropane	ND		200	19
95-50-1	1,2-Dichlorobenzene	ND		20	3.8
107-06-2	1,2-Dichloroethane	ND		20	4.0
78-87-5	1,2-Dichloropropane	ND		20	5.0
541-73-1	1,3-Dichlorobenzene	ND		20	3.6
106-46-7	1,4-Dichlorobenzene	ND		20	3.4
78-93-3	2-Butanone (MEK)	~~ND~~	R	1000	53
591-78-6	2-Hexanone	~~ND~~	R	200	26
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	200	16
67-64-1	Acetone	~~ND~~	R	500	53
71-43-2	Benzene	ND		20	4.0
75-25-2	Bromoform	ND		20	5.8
74-83-9	Bromomethane	ND		20	7.0
75-15-0	Carbon disulfide	ND		20	4.4
56-23-5	Carbon tetrachloride	ND		20	3.6
108-90-7	Chlorobenzene	ND		20	3.6
124-48-1	Dibromochloromethane	ND		20	5.0
75-00-3	Chloroethane	7.9	J	20	7.2
67-66-3	Chloroform	ND		20	4.6
74-87-3	Chloromethane	ND		20	7.2
156-59-2	cis-1,2-Dichloroethene	ND		20	4.2
110-82-7	Cyclohexane	20	J	100	2.6
75-27-4	Bromodichloromethane	ND		20	3.4
75-71-8	Dichlorodifluoromethane	ND		20	3.4
100-41-4	Ethylbenzene	ND		20	3.8
106-93-4	1,2-Dibromoethane	ND		20	4.2
98-82-8	Isopropylbenzene	ND		20	6.6
79-20-9	Methyl acetate	~~ND~~	R	200	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: BRW-02 Lab Sample ID: 480-152241-2

Matrix: Water Lab File ID: 0426-13.D

Analysis Method: 8260C Date Collected: 04/19/2019 10:35

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 20:32

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590877 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		20	3.4
108-87-2	Methylcyclohexane	22	J	100	1.8
75-09-2	Methylene Chloride	ND		100	20
127-18-4	Tetrachloroethene	ND		20	2.8
108-88-3	Toluene	8.0	J	20	3.4
156-60-5	trans-1,2-Dichloroethene	ND		20	4.6
10061-02-6	trans-1,3-Dichloropropene	ND		20	3.4
79-01-6	Trichloroethene	14	J	20	4.0
75-69-4	Trichlorofluoromethane	ND		20	4.2
75-01-4	Vinyl chloride	ND		20	3.6
1330-20-7	Xylenes, Total	13	J	60	12
10061-01-5	cis-1,3-Dichloropropene	ND		20	3.4
100-42-5	Styrene	ND		20	5.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		70-130
460-00-4	4-Bromofluorobenzene (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	95		70-130
1868-53-7	Dibromofluoromethane (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-001 Lab Sample ID: 480-152143-3

Matrix: Water Lab File ID: 04251914.D

Analysis Method: 8260C Date Collected: 04/18/2019 12:35

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	61		1.0	0.24
75-35-4	1,1-Dichloroethene	0.62	J	1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND	*	1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	27		1.0	0.21
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND		10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-001 Lab Sample ID: 480-152143-3

Matrix: Water Lab File ID: 04251914.D

Analysis Method: 8260C Date Collected: 04/18/2019 12:35

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 19:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	0.68	J	5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	29		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	6.4		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	3.9		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		70-130
460-00-4	4-Bromofluorobenzene (Surr)	96		70-130
2037-26-5	Toluene-d8 (Surr)	104		70-130
1868-53-7	Dibromofluoromethane (Surr)	107		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1
SDG No.:
Client Sample ID: SR-002 Lab Sample ID: 480-152143-4
Matrix: Water Lab File ID: 04251916.D
Analysis Method: 8260C Date Collected: 04/18/2019 14:15
Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 20:29
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	86		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	97		1.0	0.24
75-35-4	1,1-Dichloroethene	20		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	0.48	J	1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND		10	0.58
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-002 Lab Sample ID: 480-152143-4

Matrix: Water Lab File ID: 04251916.D

Analysis Method: 8260C Date Collected: 04/18/2019 14:15

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 20:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-87-2	Methylcyclohexane	ND		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	26		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	2.8		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		70-130
460-00-4	4-Bromofluorobenzene (Surr)	99		70-130
2037-26-5	Toluene-d8 (Surr)	106		70-130
1868-53-7	Dibromofluoromethane (Surr)	111		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-002 Lab Sample ID: 480-152143-4

Matrix: Water Lab File ID: 04261912.D

Analysis Method: 8260C Date Collected: 04/18/2019 14:15

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 18:01

Soil Aliquot Vol: Dilution Factor: 25

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590775 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-59-2	cis-1,2-Dichloroethene	1800		25	5.3
79-01-6	Trichloroethene	4300		25	5.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-130
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	105		70-130
1868-53-7	Dibromofluoromethane (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-003 Lab Sample ID: 480-152143-5

Matrix: Water Lab File ID: 04251947.D

Analysis Method: 8260C Date Collected: 04/18/2019 15:35

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 11:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590664 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	~~ND~~	R	50	2.6
591-78-6	2-Hexanone	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	0.81
67-64-1	Acetone	24	J	25	2.7
71-43-2	Benzene	12		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	54		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND	*	1.0	0.17
100-41-4	Ethylbenzene	3.3		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	0.62	J	1.0	0.33
79-20-9	Methyl acetate	ND		10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-003 Lab Sample ID: 480-152143-5

Matrix: Water Lab File ID: 04251947.D

Analysis Method: 8260C Date Collected: 04/18/2019 15:35

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 11:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590664 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	40		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	18		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND	*	1.0	0.18
1330-20-7	Xylenes, Total	21		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-130
460-00-4	4-Bromofluorobenzene (Surr)	111		70-130
2037-26-5	Toluene-d8 (Surr)	90		70-130
1868-53-7	Dibromofluoromethane (Surr)	102		70-130

6/20/19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: SR-004 Lab Sample ID: 480-152241-1

Matrix: Water Lab File ID: 0426-12.D

Analysis Method: 8260C Date Collected: 04/19/2019 09:05

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590877 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	~~ND~~	R	50	2.6
591-78-6	2-Hexanone	~~ND~~	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	10	0.81
67-64-1	Acetone	~~5.3~~ RND	J	25	~~2.7~~ 25
71-43-2	Benzene	6.8		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	6.9		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	1.5		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	~~ND~~	R	10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: SR-004 Lab Sample ID: 480-152241-1

Matrix: Water Lab File ID: 0426-12.D

Analysis Method: 8260C Date Collected: 04/19/2019 09:05

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 20:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590877 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	3.3	J	5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	2.4		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND		1.0	0.18
1330-20-7	Xylenes, Total	5.4		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		70-130
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	96		70-130
1868-53-7	Dibromofluoromethane (Surr)	105		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: SR-005 Lab Sample ID: 480-152241-3

Matrix: Water Lab File ID: 0425-25.D

Analysis Method: 8260C Date Collected: 04/19/2019 12:00

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 00:18

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590503 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1200		100	19
79-34-5	1,1,2,2-Tetrachloroethane	ND		100	19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	15
79-00-5	1,1,2-Trichloroethane	ND		100	19
75-34-3	1,1-Dichloroethane	17000		100	24
75-35-4	1,1-Dichloroethene	500		100	25
120-82-1	1,2,4-Trichlorobenzene	ND		100	20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1000	94
95-50-1	1,2-Dichlorobenzene	ND		100	19
107-06-2	1,2-Dichloroethane	ND		100	20
78-87-5	1,2-Dichloropropane	ND		100	25
541-73-1	1,3-Dichlorobenzene	ND		100	18
106-46-7	1,4-Dichlorobenzene	ND		100	17
78-93-3	2-Butanone (MEK)	~~ND~~	R	5000	260
591-78-6	2-Hexanone	~~ND~~	R	1000	130
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	1000	81
67-64-1	Acetone	~~ND 1800~~	~~J~~ R	2500	~~270~~ 2500
71-43-2	Benzene	83	J	100	20
75-25-2	Bromoform	ND		100	29
74-83-9	Bromomethane	ND		100	35
75-15-0	Carbon disulfide	ND		100	22
56-23-5	Carbon tetrachloride	ND		100	18
108-90-7	Chlorobenzene	ND		100	18
124-48-1	Dibromochloromethane	ND		100	25
75-00-3	Chloroethane	78	J	100	36
67-66-3	Chloroform	ND		100	23
74-87-3	Chloromethane	ND		100	36
156-59-2	cis-1,2-Dichloroethene	230		100	21
110-82-7	Cyclohexane	72	J	500	13
75-27-4	Bromodichloromethane	ND		100	17
75-71-8	Dichlorodifluoromethane	ND		100	17
100-41-4	Ethylbenzene	ND		100	19
106-93-4	1,2-Dibromoethane	ND		100	21
98-82-8	Isopropylbenzene	ND		100	33
79-20-9	Methyl acetate	~~ND~~	R	1000	58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: SR-005 Lab Sample ID: 480-152241-3

Matrix: Water Lab File ID: 0425-25.D

Analysis Method: 8260C Date Collected: 04/19/2019 12:00

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 00:18

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590503 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		100	17
108-87-2	Methylcyclohexane	38	J	500	9.0
75-09-2	Methylene Chloride	ND		500	100
127-18-4	Tetrachloroethene	ND		100	14
108-88-3	Toluene	96	J	100	17
156-60-5	trans-1,2-Dichloroethene	ND		100	23
10061-02-6	trans-1,3-Dichloropropene	ND		100	17
79-01-6	Trichloroethene	1900		100	20
75-69-4	Trichlorofluoromethane	ND		100	21
75-01-4	Vinyl chloride	ND		100	18
1330-20-7	Xylenes, Total	ND		300	58
10061-01-5	cis-1,3-Dichloropropene	ND		100	17
100-42-5	Styrene	ND		100	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		70-130
460-00-4	4-Bromofluorobenzene (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	96		70-130
1868-53-7	Dibromofluoromethane (Surr)	102		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Client Sample ID: SR-006 Lab Sample ID: 480-152320-2

Matrix: Water Lab File ID: 043019-20.D

Analysis Method: 8260C Date Collected: 04/22/2019 10:30

Sample wt/vol: 10(mL) Date Analyzed: 04/30/2019 18:13

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2200		50	9.5
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	9.5
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	*	50	7.5
79-00-5	1,1,2-Trichloroethane	ND		50	9.5
75-34-3	1,1-Dichloroethane	7100		50	12
75-35-4	1,1-Dichloroethene	360		50	13
120-82-1	1,2,4-Trichlorobenzene	ND		50	10
96-12-8	1,2-Dibromo-3-Chloropropane	ND		500	47
95-50-1	1,2-Dichlorobenzene	ND		50	9.5
107-06-2	1,2-Dichloroethane	ND	*	50	10
78-87-5	1,2-Dichloropropane	ND		50	13
541-73-1	1,3-Dichlorobenzene	ND		50	9.0
106-46-7	1,4-Dichlorobenzene	ND		50	8.5
78-93-3	2-Butanone (MEK)	ND	R	2500	130
591-78-6	2-Hexanone	ND	R	500	64
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	R	500	41
67-64-1	Acetone	ND	R	1300	130
71-43-2	Benzene	33	J	50	10
75-25-2	Bromoform	ND		50	15
74-83-9	Bromomethane	ND		50	18
75-15-0	Carbon disulfide	ND		50	11
56-23-5	Carbon tetrachloride	ND		50	9.0
108-90-7	Chlorobenzene	ND		50	9.0
124-48-1	Dibromochloromethane	ND		50	13
75-00-3	Chloroethane	ND		50	18
67-66-3	Chloroform	ND		50	12
74-87-3	Chloromethane	ND		50	18
156-59-2	cis-1,2-Dichloroethene	550		50	11
110-82-7	Cyclohexane	ND		250	6.5
75-27-4	Bromodichloromethane	ND		50	8.5
75-71-8	Dichlorodifluoromethane	ND		50	8.5
100-41-4	Ethylbenzene	ND		50	9.5
106-93-4	1,2-Dibromoethane	ND		50	11
98-82-8	Isopropylbenzene	ND		50	17
79-20-9	Methyl acetate	ND	R	500	29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Client Sample ID: SR-006 Lab Sample ID: 480-152320-2

Matrix: Water Lab File ID: 043019-20.D

Analysis Method: 8260C Date Collected: 04/22/2019 10:30

Sample wt/vol: 10(mL) Date Analyzed: 04/30/2019 18:13

Soil Aliquot Vol: Dilution Factor: 50

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		50	8.5
108-87-2	Methylcyclohexane	30	J	250	4.5
75-09-2	Methylene Chloride	ND		250	50
127-18-4	Tetrachloroethene	ND		50	7.0
108-88-3	Toluene	43	J	50	8.5
156-60-5	trans-1,2-Dichloroethene	ND		50	12
10061-02-6	trans-1,3-Dichloropropene	ND		50	8.5
79-01-6	Trichloroethene	680		50	10
75-69-4	Trichlorofluoromethane	ND		50	11
75-01-4	Vinyl chloride	ND		50	9.0
1330-20-7	Xylenes, Total	ND		150	29
10061-01-5	cis-1,3-Dichloropropene	ND		50	8.5
100-42-5	Styrene	ND		50	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		70-130
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130
1868-53-7	Dibromofluoromethane (Surr)	112		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1
SDG No.:
Client Sample ID: SR-101 Lab Sample ID: 480-152070-1
Matrix: Water Lab File ID: 042519-16.D
Analysis Method: 8260C Date Collected: 04/17/2019 14:45
Sample wt/vol: 10(mL) Date Analyzed: 04/25/2019 19:14
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 590475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND	*	1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	R	10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND	*	1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND	R	10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-101 Lab Sample ID: 480-152070-1

Matrix: Water Lab File ID: 042519-16.D

Analysis Method: 8260C Date Collected: 04/17/2019 14:45

Sample wt/vol: 10(mL) Date Analyzed: 04/25/2019 19:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	0.93	J	5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-130
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
2037-26-5	Toluene-d8 (Surr)	95		70-130
1868-53-7	Dibromofluoromethane (Surr)	107		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-104 Lab Sample ID: 480-152143-2

Matrix: Water Lab File ID: 04251950.D

Analysis Method: 8260C Date Collected: 04/18/2019 10:35

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 12:37

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: RTX-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590664 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	45		10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	ND		10	1.9
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	1.5
79-00-5	1,1,2-Trichloroethane	ND		10	1.9
75-34-3	1,1-Dichloroethane	230		10	2.4
75-35-4	1,1-Dichloroethene	46		10	2.5
120-82-1	1,2,4-Trichlorobenzene	ND		10	2.0
96-12-8	1,2-Dibromo-3-Chloropropane	ND		100	9.4
95-50-1	1,2-Dichlorobenzene	ND		10	1.9
107-06-2	1,2-Dichloroethane	ND		10	2.0
78-87-5	1,2-Dichloropropane	ND		10	2.5
541-73-1	1,3-Dichlorobenzene	ND		10	1.8
106-46-7	1,4-Dichlorobenzene	ND		10	1.7
78-93-3	2-Butanone (MEK)	ND	R	500	26
591-78-6	2-Hexanone	ND		100	13
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		100	8.1
67-64-1	Acetone	ND	R	250	27
71-43-2	Benzene	4.9	J	10	2.0
75-25-2	Bromoform	ND		10	2.9
74-83-9	Bromomethane	ND		10	3.5
75-15-0	Carbon disulfide	ND		10	2.2
56-23-5	Carbon tetrachloride	ND		10	1.8
108-90-7	Chlorobenzene	ND		10	1.8
124-48-1	Dibromochloromethane	ND		10	2.5
75-00-3	Chloroethane	ND		10	3.6
67-66-3	Chloroform	ND		10	2.3
74-87-3	Chloromethane	ND		10	3.6
156-59-2	cis-1,2-Dichloroethene	1800		10	2.1
110-82-7	Cyclohexane	ND		50	1.3
75-27-4	Bromodichloromethane	ND		10	1.7
75-71-8	Dichlorodifluoromethane	ND	*	10	1.7
100-41-4	Ethylbenzene	ND		10	1.9
106-93-4	1,2-Dibromoethane	ND		10	2.1
98-82-8	Isopropylbenzene	ND		10	3.3
79-20-9	Methyl acetate	ND		100	5.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-104 Lab Sample ID: 480-152143-2

Matrix: Water Lab File ID: 04251950.D

Analysis Method: 8260C Date Collected: 04/18/2019 10:35

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 12:37

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: RTX-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590664 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		10	1.7
108-87-2	Methylcyclohexane	ND		50	0.90
75-09-2	Methylene Chloride	ND		50	10
127-18-4	Tetrachloroethene	10		10	1.4
108-88-3	Toluene	ND		10	1.7
156-60-5	trans-1,2-Dichloroethene	9.0	J	10	2.3
10061-02-6	trans-1,3-Dichloropropene	ND		10	1.7
75-69-4	Trichlorofluoromethane	ND		10	2.1
1330-20-7	Xylenes, Total	ND		30	5.8
10061-01-5	cis-1,3-Dichloropropene	ND		10	1.7
100-42-5	Styrene	ND		10	2.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		70-130
460-00-4	4-Bromofluorobenzene (Surr)	106		70-130
2037-26-5	Toluene-d8 (Surr)	96		70-130
1868-53-7	Dibromofluoromethane (Surr)	98		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-104 Lab Sample ID: 480-152143-2

Matrix: Water Lab File ID: 04301912.D

Analysis Method: 8260C Date Collected: 04/18/2019 10:35

Sample wt/vol: 5(mL) Date Analyzed: 04/30/2019 15:28

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591541 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	33		10	1.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		70-130
460-00-4	4-Bromofluorobenzene (Surr)	102		70-130
2037-26-5	Toluene-d8 (Surr)	105		70-130
1868-53-7	Dibromofluoromethane (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-104 Lab Sample ID: 480-152143-2

Matrix: Water Lab File ID: 04251948.D

Analysis Method: 8260C Date Collected: 04/18/2019 10:35

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 11:44

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590664 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	2700		100	20

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		70-130
460-00-4	4-Bromofluorobenzene (Surr)	105		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130
1868-53-7	Dibromofluoromethane (Surr)	96		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1
SDG No.:
Client Sample ID: SR-105 Lab Sample ID: 480-152320-1
Matrix: Water Lab File ID: 042919-23.D
Analysis Method: 8260C Date Collected: 04/22/2019 08:50
Sample wt/vol: 10(mL) Date Analyzed: 04/29/2019 19:29
Soil Aliquot Vol: Dilution Factor: 500
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 591225 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	200000		500	95
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	95
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	75
79-00-5	1,1,2-Trichloroethane	ND		500	95
75-34-3	1,1-Dichloroethane	75000		500	120
75-35-4	1,1-Dichloroethene	3100		500	130
120-82-1	1,2,4-Trichlorobenzene	ND	UJ	500	100
96-12-8	1,2-Dibromo-3-Chloropropane	ND		5000	470
95-50-1	1,2-Dichlorobenzene	ND		500	95
107-06-2	1,2-Dichloroethane	ND		500	100
78-87-5	1,2-Dichloropropane	ND		500	130
541-73-1	1,3-Dichlorobenzene	ND		500	90
106-46-7	1,4-Dichlorobenzene	ND		500	85
78-93-3	2-Butanone (MEK)	~~ND~~	R	25000	1300
591-78-6	2-Hexanone	~~ND~~	R	5000	640
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	5000	410
67-64-1	Acetone	19000	J	13000	1300
71-43-2	Benzene	ND		500	100
75-25-2	Bromoform	ND		500	150
74-83-9	Bromomethane	ND		500	180
75-15-0	Carbon disulfide	ND		500	110
56-23-5	Carbon tetrachloride	ND		500	90
108-90-7	Chlorobenzene	ND		500	90
124-48-1	Dibromochloromethane	ND		500	130
75-00-3	Chloroethane	ND		500	180
67-66-3	Chloroform	ND		500	120
74-87-3	Chloromethane	ND		500	180
156-59-2	cis-1,2-Dichloroethene	7600		500	110
110-82-7	Cyclohexane	ND		2500	65
75-27-4	Bromodichloromethane	ND		500	85
75-71-8	Dichlorodifluoromethane	ND		500	85
100-41-4	Ethylbenzene	ND		500	95
106-93-4	1,2-Dibromoethane	ND		500	110
98-82-8	Isopropylbenzene	ND		500	170
79-20-9	Methyl acetate	~~ND~~	R	5000	290

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Client Sample ID: SR-105 Lab Sample ID: 480-152320-1

Matrix: Water Lab File ID: 042919-23.D

Analysis Method: 8260C Date Collected: 04/22/2019 08:50

Sample wt/vol: 10(mL) Date Analyzed: 04/29/2019 19:29

Soil Aliquot Vol: Dilution Factor: 500

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591225 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		500	85
108-87-2	Methylcyclohexane	ND		2500	45
75-09-2	Methylene Chloride	ND		2500	500
127-18-4	Tetrachloroethene	ND		500	70
108-88-3	Toluene	ND		500	85
156-60-5	trans-1,2-Dichloroethene	ND		500	120
10061-02-6	trans-1,3-Dichloropropene	ND		500	85
79-01-6	Trichloroethene	92000		500	100
75-69-4	Trichlorofluoromethane	ND		500	110
75-01-4	Vinyl chloride	ND		500	90
1330-20-7	Xylenes, Total	ND		1500	290
10061-01-5	cis-1,3-Dichloropropene	ND		500	85
100-42-5	Styrene	ND		500	140

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		70-130
460-00-4	4-Bromofluorobenzene (Surr)	101		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130
1868-53-7	Dibromofluoromethane (Surr)	113		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1
SDG No.:
Client Sample ID: SR-106 Lab Sample ID: 480-152070-2
Matrix: Water Lab File ID: 042619-13.D
Analysis Method: 8260C Date Collected: 04/17/2019 16:20
Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 17:28
Soil Aliquot Vol: Dilution Factor: 20
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 590828 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1100		20	3.8
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	3.8
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	3.0
79-00-5	1,1,2-Trichloroethane	ND		20	3.8
75-34-3	1,1-Dichloroethane	3300		20	4.8
75-35-4	1,1-Dichloroethene	59		20	5.0
120-82-1	1,2,4-Trichlorobenzene	ND		20	4.0
96-12-8	1,2-Dibromo-3-Chloropropane	ND		200	19
95-50-1	1,2-Dichlorobenzene	ND		20	3.8
107-06-2	1,2-Dichloroethane	ND		20	4.0
78-87-5	1,2-Dichloropropane	ND		20	5.0
541-73-1	1,3-Dichlorobenzene	ND		20	3.6
106-46-7	1,4-Dichlorobenzene	ND		20	3.4
78-93-3	2-Butanone (MEK)	~~ND~~	R	1000	53
591-78-6	2-Hexanone	~~ND~~	R	200	26
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	200	16
67-64-1	Acetone	~~ND~~	R	500	53
71-43-2	Benzene	ND		20	4.0
75-25-2	Bromoform	ND		20	5.8
74-83-9	Bromomethane	ND		20	7.0
75-15-0	Carbon disulfide	ND		20	4.4
56-23-5	Carbon tetrachloride	ND		20	3.6
108-90-7	Chlorobenzene	ND		20	3.6
124-48-1	Dibromochloromethane	ND		20	5.0
75-00-3	Chloroethane	91		20	7.2
67-66-3	Chloroform	ND		20	4.6
74-87-3	Chloromethane	ND		20	7.2
156-59-2	cis-1,2-Dichloroethene	250		20	4.2
110-82-7	Cyclohexane	ND		100	2.6
75-27-4	Bromodichloromethane	ND		20	3.4
75-71-8	Dichlorodifluoromethane	ND		20	3.4
100-41-4	Ethylbenzene	ND		20	3.8
106-93-4	1,2-Dibromoethane	ND		20	4.2
98-82-8	Isopropylbenzene	ND		20	6.6
79-20-9	Methyl acetate	~~ND~~	R	200	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-106 Lab Sample ID: 480-152070-2

Matrix: Water Lab File ID: 042619-13.D

Analysis Method: 8260C Date Collected: 04/17/2019 16:20

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 17:28

Soil Aliquot Vol: Dilution Factor: 20

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590828 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		20	3.4
108-87-2	Methylcyclohexane	ND	U	100	1.8
75-09-2	Methylene Chloride	ND		100	20
127-18-4	Tetrachloroethene	ND		20	2.8
108-88-3	Toluene	ND		20	3.4
156-60-5	trans-1,2-Dichloroethene	8.8	J	20	4.6
10061-02-6	trans-1,3-Dichloropropene	ND		20	3.4
79-01-6	Trichloroethene	58		20	4.0
75-69-4	Trichlorofluoromethane	ND		20	4.2
75-01-4	Vinyl chloride	100		20	3.6
1330-20-7	Xylenes, Total	ND		60	12
10061-01-5	cis-1,3-Dichloropropene	ND		20	3.4
100-42-5	Styrene	ND		20	5.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		70-130
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
2037-26-5	Toluene-d8 (Surr)	97		70-130
1868-53-7	Dibromofluoromethane (Surr)	105		70-130

6/20/19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-108 Lab Sample ID: 480-152143-1

Matrix: Water Lab File ID: 04251915.D

Analysis Method: 8260C Date Collected: 04/18/2019 09:15

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	12		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	43		1.0	0.24
75-35-4	1,1-Dichloroethene	9.5		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	2.8		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND	*	1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
110-82-7	Cyclohexane	6.0		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	0.34	J	1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND		10	0.58
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-108 Lab Sample ID: 480-152143-1

Matrix: Water Lab File ID: 04251915.D

Analysis Method: 8260C Date Collected: 04/18/2019 09:15

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-87-2	Methylcyclohexane	8.4		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	0.35	J	1.0	0.14
108-88-3	Toluene	1.4		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	17		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	47		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		70-130
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	108		70-130
1868-53-7	Dibromofluoromethane (Surr)	104		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-108 Lab Sample ID: 480-152143-1

Matrix: Water Lab File ID: 04261911.D

Analysis Method: 8260C Date Collected: 04/18/2019 09:15

Sample wt/vol: 5(mL) Date Analyzed: 04/26/2019 17:34

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590775 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-59-2	cis-1,2-Dichloroethene	480		5.0	1.1
79-01-6	Trichloroethene	530		5.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		70-130
460-00-4	4-Bromofluorobenzene (Surr)	101		70-130
2037-26-5	Toluene-d8 (Surr)	107		70-130
1868-53-7	Dibromofluoromethane (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1
SDG No.:
Client Sample ID: TB-20190417 Lab Sample ID: 480-152070-3
Matrix: Water Lab File ID: 042519-11.D
Analysis Method: 8260C Date Collected: 04/17/2019 00:00
Sample wt/vol: 10(mL) Date Analyzed: 04/25/2019 17:04
Soil Aliquot Vol: Dilution Factor: 1
Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)
% Moisture: Level: (low/med) Low
Analysis Batch No.: 590475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND	*	1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	~~ND~~	R	50	2.6
591-78-6	2-Hexanone	~~ND~~	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	10	0.81
67-64-1	Acetone	~~ND~~	R	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND	*	1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	~~ND~~	R	10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: TB-20190417 Lab Sample ID: 480-152070-3

Matrix: Water Lab File ID: 042519-11.D

Analysis Method: 8260C Date Collected: 04/17/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 04/25/2019 17:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	ND		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		70-130
460-00-4	4-Bromofluorobenzene (Surr)	95		70-130
2037-26-5	Toluene-d8 (Surr)	98		70-130
1868-53-7	Dibromofluoromethane (Surr)	109		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: TB-20190418 Lab Sample ID: 480-152143-6

Matrix: Water Lab File ID: 04251912.D

Analysis Method: 8260C Date Collected: 04/18/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 18:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND		10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Client Sample ID: TB-20190418 Lab Sample ID: 480-152143-6

Matrix: Water Lab File ID: 04251912.D

Analysis Method: 8260C Date Collected: 04/18/2019 00:00

Sample wt/vol: 5(mL) Date Analyzed: 04/25/2019 18:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590455 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	ND		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-130
460-00-4	4-Bromofluorobenzene (Surr)	98		70-130
2037-26-5	Toluene-d8 (Surr)	108		70-130
1868-53-7	Dibromofluoromethane (Surr)	108		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: TB-20190419 Lab Sample ID: 480-152241-4

Matrix: Water Lab File ID: 0426-17.D

Analysis Method: 8260C Date Collected: 04/19/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 22:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590877 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	~~ND~~	R	50	2.6
591-78-6	2-Hexanone	~~ND~~	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	~~ND~~	R	10	0.81
67-64-1	Acetone	9.3	J	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	~~ND~~	R	10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Client Sample ID: TB-20190419 Lab Sample ID: 480-152241-4

Matrix: Water Lab File ID: 0426-17.D

Analysis Method: 8260C Date Collected: 04/19/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 04/26/2019 22:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 590877 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	ND		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		70-130
460-00-4	4-Bromofluorobenzene (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	94		70-130
1868-53-7	Dibromofluoromethane (Surr)	106		70-130

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Client Sample ID: TB-20190422 Lab Sample ID: 480-152320-5

Matrix: Water Lab File ID: 042919-21.D

Analysis Method: 8260C Date Collected: 04/22/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 04/29/2019 18:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591225 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.19
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.19
75-34-3	1,1-Dichloroethane	ND		1.0	0.24
75-35-4	1,1-Dichloroethene	ND		1.0	0.25
120-82-1	1,2,4-Trichlorobenzene	ND	UJ	1.0	0.20
96-12-8	1,2-Dibromo-3-Chloropropane	ND		10	0.94
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.19
107-06-2	1,2-Dichloroethane	ND		1.0	0.20
78-87-5	1,2-Dichloropropane	ND		1.0	0.25
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.18
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.17
78-93-3	2-Butanone (MEK)	ND	R	50	2.6
591-78-6	2-Hexanone	ND	R	10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	R	10	0.81
67-64-1	Acetone	ND	R	25	2.7
71-43-2	Benzene	ND		1.0	0.20
75-25-2	Bromoform	ND		1.0	0.29
74-83-9	Bromomethane	ND		1.0	0.35
75-15-0	Carbon disulfide	ND		1.0	0.22
56-23-5	Carbon tetrachloride	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.18
124-48-1	Dibromochloromethane	ND		1.0	0.25
75-00-3	Chloroethane	ND		1.0	0.36
67-66-3	Chloroform	ND		1.0	0.23
74-87-3	Chloromethane	ND		1.0	0.36
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.21
110-82-7	Cyclohexane	ND		5.0	0.13
75-27-4	Bromodichloromethane	ND		1.0	0.17
75-71-8	Dichlorodifluoromethane	ND		1.0	0.17
100-41-4	Ethylbenzene	ND		1.0	0.19
106-93-4	1,2-Dibromoethane	ND		1.0	0.21
98-82-8	Isopropylbenzene	ND		1.0	0.33
79-20-9	Methyl acetate	ND	R	10	0.58

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Client Sample ID: TB-20190422 Lab Sample ID: 480-152320-5

Matrix: Water Lab File ID: 042919-21.D

Analysis Method: 8260C Date Collected: 04/22/2019 00:00

Sample wt/vol: 10(mL) Date Analyzed: 04/29/2019 18:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 591225 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.17
108-87-2	Methylcyclohexane	ND		5.0	0.090
75-09-2	Methylene Chloride	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.14
108-88-3	Toluene	ND		1.0	0.17
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.23
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.17
79-01-6	Trichloroethene	ND		1.0	0.20
75-69-4	Trichlorofluoromethane	ND		1.0	0.21
75-01-4	Vinyl chloride	ND		1.0	0.18
1330-20-7	Xylenes, Total	ND		3.0	0.58
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.17
100-42-5	Styrene	ND		1.0	0.28

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		70-130
460-00-4	4-Bromofluorobenzene (Surr)	101		70-130
2037-26-5	Toluene-d8 (Surr)	100		70-130
1868-53-7	Dibromofluoromethane (Surr)	111		70-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Client Sample ID: BRW-01 Lab Sample ID: 480-152320-3

Matrix: Water Lab File ID: U33150199.D

Analysis Method: 8270D SIM ID Date Collected: 04/22/2019 11:35

Extract. Method: 3510C Date Extracted: 04/24/2019 15:38

Sample wt/vol: 1000(mL) Date Analyzed: 05/03/2019 00:00

Con. Extract Vol.: 1(mL) Dilution Factor: 20

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 470920 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	110	~~E~~ ~~F2~~	4.0	2.0

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	19		15-110

4/25/19

BRW-01

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1
SDG No.:
Client Sample ID: FD-20190422 Lab Sample ID: 480-152320-4
Matrix: Water Lab File ID: U33150190.D
Analysis Method: 8270D SIM ID Date Collected: 04/22/2019 00:00
Extract. Method: 3510C Date Extracted: 04/24/2019 15:38
Sample wt/vol: 1000 (mL) Date Analyzed: 05/02/2019 20:25
Con. Extract Vol.: 1 (mL) Dilution Factor: 20
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 470920 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	120	E	4.0	2.0

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	17		15-110

5/5/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Client Sample ID: BRW-02 Lab Sample ID: 480-152241-2

Matrix: Water Lab File ID: U33150194.D

Analysis Method: 8270D SIM ID Date Collected: 04/19/2019 10:35

Extract. Method: 3510C Date Extracted: 04/24/2019 15:38

Sample wt/vol: 1000 (mL) Date Analyzed: 05/02/2019 22:00

Con. Extract Vol.: 1 (mL) Dilution Factor: 5

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: GPC Cleanup: (Y/N) N

Analysis Batch No.: 470920 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	22	E	1.0	0.50

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		15-110

5/21/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-001 Lab Sample ID: 480-152143-3

Matrix: Water Lab File ID: U33149934.D

Analysis Method: 8270D SIM ID Date Collected: 04/18/2019 12:35

Extract. Method: 3510C Date Extracted: 04/19/2019 15:37

Sample wt/vol: 1000(mL) Date Analyzed: 04/23/2019 15:58

Con. Extract Vol.: 1(mL) Dilution Factor: 5

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 469309 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	7.5	E	1.0	0.50

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	21		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-002 Lab Sample ID: 480-152143-4

Matrix: Water Lab File ID: U33149921.D

Analysis Method: 8270D SIM ID Date Collected: 04/18/2019 14:15

Extract. Method: 3510C Date Extracted: 04/19/2019 15:37

Sample wt/vol: 1000(mL) Date Analyzed: 04/23/2019 03:45

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 469131 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.60		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	22		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-003 Lab Sample ID: 480-152143-5

Matrix: Water Lab File ID: U33149922.D

Analysis Method: 8270D SIM ID Date Collected: 04/18/2019 15:35

Extract. Method: 3510C Date Extracted: 04/19/2019 15:37

Sample wt/vol: 1000(mL) Date Analyzed: 04/23/2019 04:09

Con. Extract Vol.: 1(mL) Dilution Factor: 1

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 469131 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.3	E	0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	25		15-110

6/21/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Client Sample ID: SR-004 Lab Sample ID: 480-152241-1

Matrix: Water Lab File ID: U33150048.D

Analysis Method: 8270D SIM ID Date Collected: 04/19/2019 09:05

Extract. Method: 3510C Date Extracted: 04/24/2019 15:38

Sample wt/vol: 1000 (mL) Date Analyzed: 04/26/2019 12:21

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: GPC Cleanup: (Y/N) N

Analysis Batch No.: 469803 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	0.57		0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	18		15-110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Client Sample ID: SR-005 Lab Sample ID: 480-152241-3

Matrix: Water Lab File ID: U33150195.D

Analysis Method: 8270D SIM ID Date Collected: 04/19/2019 12:00

Extract. Method: 3510C Date Extracted: 04/24/2019 15:38

Sample wt/vol: 1000(mL) Date Analyzed: 05/02/2019 22:24

Con. Extract Vol.: 1(mL) Dilution Factor: 500

Injection Volume: 1(uL) Level: (low/med) Low

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 470920 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1200	E	100	50

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	17		15-110

5/2/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Client Sample ID: SR-006 Lab Sample ID: 480-152320-2

Matrix: Water Lab File ID: U33150189.D

Analysis Method: 8270D SIM ID Date Collected: 04/22/2019 10:30

Extract. Method: 3510C Date Extracted: 04/24/2019 15:38

Sample wt/vol: 1000 (mL) Date Analyzed: 05/02/2019 20:01

Con. Extract Vol.: 1 (mL) Dilution Factor: 100

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: GPC Cleanup: (Y/N) N

Analysis Batch No.: 470920 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	290	E	20	10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	18		15-110

6/26/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-101 Lab Sample ID: 480-152070-1

Matrix: Water Lab File ID: U33149912.D

Analysis Method: 8270D SIM ID Date Collected: 04/17/2019 14:45

Extract. Method: 3510C Date Extracted: 04/19/2019 15:37

Sample wt/vol: 1000 (mL) Date Analyzed: 04/23/2019 00:10

Con. Extract Vol.: 1 (mL) Dilution Factor: 1

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: GPC Cleanup: (Y/N) N

Analysis Batch No.: 469131 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3.3	E	0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	23		15-110

4/24/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1
SDG No.:
Client Sample ID: SR-104 Lab Sample ID: 480-152143-2
Matrix: Water Lab File ID: U33149933.D
Analysis Method: 8270D SIM ID Date Collected: 04/18/2019 10:35
Extract. Method: 3510C Date Extracted: 04/19/2019 15:37
Sample wt/vol: 1000(mL) Date Analyzed: 04/23/2019 15:33
Con. Extract Vol.: 1(mL) Dilution Factor: 5
Injection Volume: 1(uL) Level: (low/med) Low
% Moisture: GPC Cleanup:(Y/N) N
Analysis Batch No.: 469309 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	12	E	1.0	0.50

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	24		15-110

dwsk 6/20/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Client Sample ID: SR-105 Lab Sample ID: 480-152320-1

Matrix: Water Lab File ID: U33150253.D

Analysis Method: 8270D SIM ID Date Collected: 04/22/2019 08:50

Extract. Method: 3510C Date Extracted: 04/24/2019 15:38

Sample wt/vol: 1000 (mL) Date Analyzed: 05/05/2019 16:46

Con. Extract Vol.: 1 (mL) Dilution Factor: 100

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: GPC Cleanup: (Y/N) N

Analysis Batch No.: 471268 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	3100	E	20	10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	28		15-110

6/20/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Client Sample ID: SR-106 Lab Sample ID: 480-152070-2

Matrix: Water Lab File ID: U33149932.D

Analysis Method: 8270D SIM ID Date Collected: 04/17/2019 16:20

Extract. Method: 3510C Date Extracted: 04/19/2019 15:37

Sample wt/vol: 1000 (mL) Date Analyzed: 04/23/2019 15:09

Con. Extract Vol.: 1 (mL) Dilution Factor: 100

Injection Volume: 1 (uL) Level: (low/med) Low

% Moisture: GPC Cleanup: (Y/N) N

Analysis Batch No.: 469309 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	240	E	20	10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	22		15-110

6/21/19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1
SDG No.:
Client Sample ID: SR-108 Lab Sample ID: 480-152143-1
Matrix: Water Lab File ID: U33149918.D
Analysis Method: 8270D SIM ID Date Collected: 04/18/2019 09:15
Extract. Method: 3510C Date Extracted: 04/19/2019 15:37
Sample wt/vol: 1000 (mL) Date Analyzed: 04/23/2019 02:33
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) Level: (low/med) Low
% Moisture: GPC Cleanup: (Y/N) N
Analysis Batch No.: 469131 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.7	~~E~~	0.20	0.10

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	24		15-110

6/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: BRW-01 | Lab Sample ID: 480-152320-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 11:35

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	13.5	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.66	0.0030	0.00040	mg/L		~~B~~ J+	1	6010C

6/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: BRW-01 | Lab Sample ID: 480-152320-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 11:35

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	6.5	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.74	0.0030	0.00040	mg/L		J+	1	6010C

dlr 6/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

BRW-01

Client Sample ID: FD-20190422 Lab Sample ID: 480-152320-4

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2019 00:00

Reporting Basis: WET Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	14.5	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.66	0.0030	0.00040	mg/L		~~B~~ J+	1	6010C

dmk 6/24/19

BRW-01

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: FD-20190422 | Lab Sample ID: 480-152320-4

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 00:00

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	6.1	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.72	0.0030	0.00040	mg/L		J+	1	6010C

6/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: BRW-02 | Lab Sample ID: 480-152241-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152241-1

SDG ID.:

Matrix: Water | Date Sampled: 04/19/2019 10:35

Reporting Basis: WET | Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	42.0	0.050	0.019	mg/L		B	1	6010C
7439-96-5	Manganese	0.55	0.0030	0.00040	mg/L		J+	1	6010C

DRK 6/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: BRW-02 | Lab Sample ID: 480-152241-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152241-1

SDG ID.:

Matrix: Water | Date Sampled: 04/19/2019 10:35

Reporting Basis: WET | Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	14.5	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.44	0.0030	0.00040	mg/L		J+	1	6010C

DMSK 6/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-001 Lab Sample ID: 480-152143-3

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2019 12:35

Reporting Basis: WET Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	9.8	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.039	0.0030	0.00040	mg/L		~~B~~ J+	1	6010C

4/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-001 | Lab Sample ID: 480-152143-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 12:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	0.069	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese, Dissolved	0.013	0.0030	0.00040	mg/L			1	6010C

4/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-002 Lab Sample ID: 480-152143-4

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG ID.:

Matrix: Water Date Sampled: 04/18/2019 14:15

Reporting Basis: WET Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	17.2	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.14	0.0030	0.00040	mg/L		B J+	1	6010C

6/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-002 | Lab Sample ID: 480-152143-4

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 14:15

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	0.99	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese, Dissolved	0.071	0.0030	0.00040	mg/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-003 | Lab Sample ID: 480-152143-5

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 15:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	86.4	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	1.1	0.0030	0.00040	mg/L		~~B~~ J+	1	6010C

6/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-003 | Lab Sample ID: 480-152143-5

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 15:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	3.3	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese, Dissolved	0.16	0.0030	0.00040	mg/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-004 Lab Sample ID: 480-152241-1

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2019 09:05

Reporting Basis: WET Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	48.9	0.050	0.019	mg/L		~~B~~	1	6010C
7439-96-5	Manganese	0.62	0.0030	0.00040	mg/L		J+	1	6010C

dep 4/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-004
Lab Sample ID: 480-152241-1
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-152241-1
SDG ID.:
Matrix: Water
Date Sampled: 04/19/2019 09:05
Reporting Basis: WET
Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	0.19	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.048	0.0030	0.00040	mg/L		J+	1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-005 Lab Sample ID: 480-152241-3

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG ID.:

Matrix: Water Date Sampled: 04/19/2019 12:00

Reporting Basis: WET Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	140	0.050	0.019	mg/L		B	1	6010C
7439-96-5	Manganese	1.7	0.0030	0.00040	mg/L		J+	1	6010C

DLK 6/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-005 | Lab Sample ID: 480-152241-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152241-1

SDG ID.:

Matrix: Water | Date Sampled: 04/19/2019 12:00

Reporting Basis: WET | Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	129	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	1.5	0.0030	0.00040	mg/L		J+	1	6010C

6/4/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-006
Lab Sample ID: 480-152320-2
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-152320-1
SDG ID.:
Matrix: Water
Date Sampled: 04/22/2019 10:30
Reporting Basis: WET
Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	16.0	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.28	0.0030	0.00040	mg/L		~~B~~ J+	1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-006
Lab Sample ID: 480-152320-2
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-152320-1
SDG ID.:
Matrix: Water
Date Sampled: 04/22/2019 10:30
Reporting Basis: WET
Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	3.5	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.17	0.0030	0.00040	mg/L		J+	1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-101 Lab Sample ID: 480-152070-1

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG ID.:

Matrix: Water Date Sampled: 04/17/2019 14:45

Reporting Basis: WET Date Received: 04/17/2019 18:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	4.1	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese	0.061	0.0030	0.00040	mg/L			1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-101
Lab Sample ID: 480-152070-1
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-152070-1
SDG ID.:
Matrix: Water
Date Sampled: 04/17/2019 14:45
Reporting Basis: WET
Date Received: 04/17/2019 18:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	0.11	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.028	0.0030	0.00040	mg/L		J	1	6010C

6/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-104 | Lab Sample ID: 480-152143-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 10:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	0.94	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.061	0.0030	0.00040	mg/L		B J+	1	6010C

DMK 6/4/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-104 | Lab Sample ID: 480-152143-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 10:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	0.38	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese, Dissolved	0.051	0.0030	0.00040	mg/L			1	6010C

6/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-105 Lab Sample ID: 480-152320-1

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG ID.:

Matrix: Water Date Sampled: 04/22/2019 08:50

Reporting Basis: WET Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	14.1	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.31	0.0030	0.00040	mg/L		B J+	1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-105 | Lab Sample ID: 480-152320-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 08:50

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	11.1	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.27	0.0030	0.00040	mg/L		J+	1	6010C

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-106 | Lab Sample ID: 480-152070-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/17/2019 16:20

Reporting Basis: WET | Date Received: 04/17/2019 18:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	2.9	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese	0.049	0.0030	0.00040	mg/L			1	6010C

4/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-106 | Lab Sample ID: 480-152070-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/17/2019 16:20

Reporting Basis: WET | Date Received: 04/17/2019 18:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	0.69	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese, Dissolved	0.041	0.0030	0.00040	mg/L		-5	1	6010C

dwyk 4/24/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: SR-108 | Lab Sample ID: 480-152143-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 09:15

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	28.5	0.050	0.019	mg/L			1	6010C
7439-96-5	Manganese	0.16	0.0030	0.00040	mg/L		~~B~~ J+	1	6010C

dwk 6/21/19

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - DISSOLVED

Client Sample ID: SR-108 | Lab Sample ID: 480-152143-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 09:15

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron, Dissolved	1.3	0.050	0.019	mg/L		J-	1	6010C
7439-96-5	Manganese, Dissolved	0.058	0.0030	0.00040	mg/L			1	6010C

dwk 4/21/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BRW-01 | Lab Sample ID: 480-152320-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 11:35

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	24.8	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H	1	300.0
14808-79-8	Sulfate	32.3	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L		*	1	SM 5210B

DLK 4/25/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

BRW-01

Client Sample ID: FD-20190422 | Lab Sample ID: 480-152320-4

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 00:00

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	31.1	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H UJ	1	300.0
14808-79-8	Sulfate	31.8	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	ND	30.0	30.0	mg/L		H UJ	5	SM 5210B

dwk 5/22/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: BRW-02 | Lab Sample ID: 480-152241-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152241-1

SDG ID.:

Matrix: Water | Date Sampled: 04/19/2019 10:35

Reporting Basis: WET | Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	35.4	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H	1	300.0
14808-79-8	Sulfate	5.2	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L			1	SM 5210B

DRSP 6/24/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-001 | Lab Sample ID: 480-152143-3

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 12:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	31.1	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.10	0.050	mg/L			2	300.0
14808-79-8	Sulfate	2.4	4.0	0.70	mg/L	J		2	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L			1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-002 | Lab Sample ID: 480-152143-4

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 14:15

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	7.6	10.0	5.0	mg/L	J		1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L			1	300.0
14808-79-8	Sulfate	17.7	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	ND	6.0	6.0	mg/L		~~H~~ UJ	1	SM 5210B

6/21/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-003 | Lab Sample ID: 480-152143-5

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 15:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	43.6	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.25	0.13	mg/L			5	300.0
14808-79-8	Sulfate	106	10.0	1.7	mg/L			5	300.0
	Biochemical Oxygen Demand	ND	3.0	3.0	mg/L		H	1	SM 5210B

4/21/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-004 | Lab Sample ID: 480-152241-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152241-1

SDG ID.:

Matrix: Water | Date Sampled: 04/19/2019 09:05

Reporting Basis: WET | Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	50.2	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H	1	300.0
14808-79-8	Sulfate	23.3	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L		H	1	SM 5210B

6/24/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-005
Lab Sample ID: 480-152241-3
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-152241-1
SDG ID.:
Matrix: Water
Date Sampled: 04/19/2019 12:00
Reporting Basis: WET
Date Received: 04/19/2019 13:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	80.6	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H	1	300.0
14808-79-8	Sulfate	31.4	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	9.3	2.0	2.0	mg/L		b	1	SM 5210B

4/24/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-006 | Lab Sample ID: 480-152320-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 10:30

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	39.3	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H U5	1	300.0
14808-79-8	Sulfate	31.2	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L		* U5	1	SM 5210B

4/26/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-101 | Lab Sample ID: 480-152070-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/17/2019 14:45

Reporting Basis: WET | Date Received: 04/17/2019 18:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	29.4	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.10	0.050	mg/L			2	300.0
14808-79-8	Sulfate	118	4.0	0.70	mg/L			2	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L		*	1	SM 5210B

4/22/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-104 | Lab Sample ID: 480-152143-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/18/2019 10:35

Reporting Basis: WET | Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	11.3	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.10	0.050	mg/L			2	300.0
14808-79-8	Sulfate	36.4	4.0	0.70	mg/L			2	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L			1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-105 | Lab Sample ID: 480-152320-1

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152320-1

SDG ID.:

Matrix: Water | Date Sampled: 04/22/2019 08:50

Reporting Basis: WET | Date Received: 04/22/2019 17:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	127	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.050	0.025	mg/L		H	1	300.0
14808-79-8	Sulfate	11.8	2.0	0.35	mg/L			1	300.0
	Biochemical Oxygen Demand	57.8	24.0	24.0	mg/L			1	SM 5210B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-106 | Lab Sample ID: 480-152070-2

Lab Name: Eurofins TestAmerica, Buffalo | Job No.: 480-152070-1

SDG ID.:

Matrix: Water | Date Sampled: 04/17/2019 16:20

Reporting Basis: WET | Date Received: 04/17/2019 18:15

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	119	50.0	25.0	mg/L			5	410.4
14797-55-8	Nitrate as N	0.79	0.25	0.13	mg/L			5	300.0
14808-79-8	Sulfate	142	10.0	1.7	mg/L			5	300.0
	Biochemical Oxygen Demand	ND	2.0	2.0	mg/L		H	1	SM 5210B

4/22/19

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: SR-108
Lab Sample ID: 480-152143-1
Lab Name: Eurofins TestAmerica, Buffalo
Job No.: 480-152070-1
SDG ID.:
Matrix: Water
Date Sampled: 04/18/2019 09:15
Reporting Basis: WET
Date Received: 04/18/2019 17:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Chemical Oxygen Demand	21.2	10.0	5.0	mg/L			1	410.4
14797-55-8	Nitrate as N	ND	0.10	0.050	mg/L			2	300.0
14808-79-8	Sulfate	11.8	4.0	0.70	mg/L			2	300.0
	Biochemical Oxygen Demand	ND	3.0	3.0	mg/L			1	SM 5210B

ATTACHMENT B

SUPPORT DOCUMENTATION

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298
Phone (716) 691-2600 Fax (716) 691 7991

Chain of Custody Record

eurofins

Client Information	Sampler: Tom Uhler	Lab PM: Johnson, Oriette S	Carrier Tracking No(s):	COC No: 480-129178-29154
Client Contact: George Kisiuk	Phone: 716-856-5636	E-Mail: oriette.johnson@testamericainc.com		Page: Page 1 of 1
Company: AECOM				Job #:

Address: 257 West Genesee Street Suite 400	Due Date Requested:	
City: Buffalo	TAT Requested (days): Standard	
State, Zip: NY, 14202-2657	PO #: CallOut ID 136077	
Phone:	WO #:	
Email: george.kisiuk@aecom.com	Project #: 48018841	
Project Name: Lapp Insulator Site# 819017	SSOW#:	
Site: Lapp Insulators - LeRoy, NY		

Analysis Requested

480-152070 Chain of Custody

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Oil, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list Oil_Mod.2	300.0_28D - Sulfate	410.4 - COD	6010C - Fe, Mn	8270D_SIM_MS_ID - 1,4-Dioxane	5210B - BOD	300_48HR - Nitrate	6010C - (MOD) Dissolved Fe, Mn	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	S	D	N	N	N	D		
SR-101	4/17/19	1445	G	Water			3	1	1	1	2	1	1	1	11	
SR-106	4/17/19	1620	G	Water			3	1	1	1	2	1	1	1	11	
TB-20190417	4/17/19	—	G	Water			2								2	
				Water												
				Water												
				Water												
				Water												

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment: Drop off

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Tom Uhler	4/17/19 @ 1815	AECOM		4-17-19 1815	TAD
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No:

Cooler Temperature(s) °C and Other Remarks: 2.3+1

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-152070

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	COC No: 80-49163.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: orlette.johnson@testamericainc.com	State of Origin: New York
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Page: Page 1 of 1
Address: 2960 Foster Creighton Drive,	Due Date Requested: 5/9/2019		Job #: 480-152070-1
City: Nashville	TAT Requested (days):		Preservation Codes:
State, Zip: TN, 37204			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		Other:
Project Name: Lapp Insulator Site# 819017	Project #: 48018841		
Site:	SSOW#:		

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
SR-101 (480-152070-1)	4/17/19	14:45 Eastern		Water			X	3	
SR-106 (480-152070-2)	4/17/19	16:20 Eastern		Water			X	3	
TB-20190417 (480-152070-3)	4/17/19	Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 4-23-19 1630	Company HAD	Received by:	Date/Time: 04/24/19 09:30	Company TA-BUF		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.2				

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: George Kisiuk	Tom Urban	Johnson, Oriette S		480-129178-29154.1
Company: AECOM	Phone: 716-856-5636	E-Mail: oriette.johnson@testamericainc.com		Page: Page 1 of 1
Address: 257 West Genesee Street Suite 400	Due Date Requested:			Job #
City: Buffalo	TAT Requested (days): 5 standard			
State, Zip: NY 14202-2657				Preservation Codes:
Phone	PO #: CallOut ID: 136077			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Email: george.kisiuk@aecom.com	WO #:			Other:
Project Name: Lapp Insulator Site# 819017	Project #: 48018841			
Site: Lapp Insulator - LeRoy, NY	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list OLM04.2	300.0_28D - Sulfate	410.4 - COD	6010C - Fe, Mn	8270D_SIM_MS_ID - 1,4-Dioxane	5210B - BOD	300_48HR - Nitrate	6010C - (MOD) Dissolved Fe, Mn (4 field filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code				A	N	S	D	N	N	N	D		
SR-105	4/18/19	0915	G	Water			3	1	1	1	2	1	1	1	11	
SR-104	4/18/19	1035	G	Water			3	1	1	1	2	1	1	1	11	
SR-001	4/18/19	1235	G	Water			3	1	1	1	2	1	1	1	11	
SR-002	4/18/19	1415	G	Water			3	1	1	1	2	1	1	1	11	
SR-003	4/18/19	1535	G	Water			3	1	1	1	2	1	1	1	11	
TB-20190418	4/18/19	-	G	Water			2								2	
				Water												
				Water												
				Water												
				Water												
				Water												

480-152143 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, (IV), Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment: Drop off

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Tom Urban	4/18/19	AECOM			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time: 4-18-19 1720	Company: TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks: 3.9 5.0 #1 ICE

Ver. 01/16/2019

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05/17/2019

Job Narrative
480-152070-1

Receipt
The samples were received on 4/17/2019 6:15 PM and 4/18/2019 5:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.3° C, 3.9° C and 5.0° C.

GC/MS VOA
Method(s) 8260C: The following samples were diluted due to the nature of the sample matrix: SR-104 (480-152143-2) and SR-106 (480-152070-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 490-590475 recovered outside control limits for the following analytes: Dichlorodifluoromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-590455 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The matrix spike/matrix spike duplicate associated with analytical batch 490-590455 was unable to be analyzed due to instrument communication error. LCS/LCSD has been provided : (LCS 490-590455/3).

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 490-591541 recovered outside control limits for the following analytes: Bromomethane and Trichlorofluoromethane. These analytes were biased high in the LCS.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 490-590664 recovered outside control limits for the following analytes: Vinyl chloride and Dichlorodifluoromethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 490-590475 recovered outside control limits for the following analytes: 1,2-Dichloroethane.

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

GC/MS Semi VOA
Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for samples SR-101 (480-152070-1), SR-106 (480-152070-2), SR-108 (480-152143-1), SR-104 (480-152143-2), SR-001 (480-152143-3), and SR-003 (480-152143-5) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

Method(s) 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: SR-106 (480-152070-2), SR-104 (480-152143-2) and SR-001 (480-152143-3). Elevated reporting limits (RLs) are provided.

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

HPLC/IC
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: SR-101 (480-152070-1) and SR-106 (480-152070-2). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The following samples were diluted due to the abundance of non-target analytes: SR-101 (480-152070-1) and SR-106 (480-152070-2), SR-108 (480-152143-1), SR-001 (480-152143-3) and SR-003 (480-152143-5). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: The following sample was diluted due to the nature of the sample matrix: SR-104 (480-152143-2). Elevated reporting limits (RLs) are provided.

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

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

General Chemistry
Method(s) SM 5210B: The following samples were analyzed outside of analytical holding time due to laboratory error: SR-106 (480-152070-2), SR-002 (480-152143-4) and SR-003 (480-152143-5).. The client was notified and data were requested to be reported.

Method(s) SM 5210B: Due to the matrix, the initial volume(s) used for the following samples deviated from the standard procedure: SR-108 (480-152143-1), SR-002 (480-152143-4) and SR-003 (480-152143-5). The reporting limits (RLs) have been adjusted

proportionately.

Method(s) SM 5210B: The glucose-glutamic acid standard recovered low outside the recovery limits specified in the method in batch 480-468872 .

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

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

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

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1 Analy Batch No.: 582618

SDG No.:

Instrument ID: HP33 GC Column: RTX-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2019 19:50 Calibration End Date: 03/21/2019 23:20 Calibration ID: 74626

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Acetone	+++++ 0.0213	0.0222 0.0190	0.0238 0.0210	0.0192 0.0225	0.0199	Ave		0.0211			0.0100	8.0		20.0			
Iodomethane	+++++ 0.3260	+++++ 0.3523	0.2348 0.3320	0.2172 0.3572	0.2849	Lin1	-0.402	0.3514			0.1000				0.9980		0.9900
Isopropyl alcohol	+++++ 0.0115	+++++ 0.0109	0.0128 0.0118	0.0085 0.0113	0.0110	Ave		0.0111			0.0010	11.7		20.0			
Carbon disulfide	0.9298 0.8494	0.8997 0.8174	0.8651 0.7963	0.7819 0.8282	0.8036	Ave		0.8413			0.1000	5.9		20.0			
3-Chloro-1-propene	0.2701 0.3047	0.2941 0.2503	0.2367 0.2591	0.2533 0.2901	0.2684	Ave		0.2696			0.1000	8.4		20.0			
Methyl acetate	+++++ 0.1789	0.1837 0.1715	0.1381 0.1811	0.1685 0.1899	0.1701	Ave		0.1727			0.1000	9.2		20.0			
Acetonitrile	+++++ 0.0396	0.0422 0.0406	0.0372 0.0415	0.0394 0.0455	0.0368	Ave		0.0404			0.0010	6.9		20.0			
Methylene Chloride	0.5909 0.3117	0.4311 0.3045	0.3709 0.2975	0.3085 0.3007	0.3044	Lin2	0.1452	0.2951			0.0100				0.9990		0.9900
2-Methyl-2-propanol	1.2277 1.1856	1.2724 1.2395	1.1379 1.2502	1.2345 1.4579	1.3450	Ave		1.2612			0.0010	7.4		20.0			
Methyl tert-butyl ether	0.7056 0.8641	0.8648 0.8330	0.8270 0.8580	0.8322 0.8823	0.8450	Ave		0.8347			0.1000	6.2		20.0			
trans-1,2-Dichloroethene	0.4456 0.4474	0.4226 0.4335	0.4281 0.4412	0.4172 0.4560	0.4179	Ave		0.4344			0.1000	3.2		20.0			
Acrylonitrile	0.1037 0.0947	0.0849 0.0944	0.0902 0.0978	0.0918 0.0990	0.0920	Ave		0.0943			0.0100	5.8		20.0			
n-Hexane	0.4721 0.4130	0.4474 0.4093	0.4201 0.3954	0.4024 0.3970	0.3676	Ave		0.4138			0.1000	7.4		20.0			
1,1-Dichloroethane	0.5282 0.5700	0.4839 0.5621	0.5326 0.5921	0.5718 0.5811	0.5336	Ave		0.5506			0.2000	6.1		20.0			
Isopropyl ether	1.0422 0.9647	1.0220 0.9492	1.0003 0.9941	0.9626 0.9703	0.9532	Ave		0.9843			0.1000	3.3		20.0			
Vinyl acetate	+++++ 0.0685	0.0640 0.0667	0.0535 0.0694	0.0658 0.0594	0.0636	Ave		0.0639		*	0.1000	8.2		20.0			
2-Chloro-1,3-butadiene	0.5289 0.5027	0.5071 0.4997	0.5086 0.5311	0.4781 0.5273	0.4703	Ave		0.5060			0.1000	4.3		20.0			
Tert-butyl ethyl ether	0.9328 0.9063	0.9099 0.9111	0.9441 0.9221	0.9116 0.9089	0.9281	Ave		0.9194			0.1000	1.4		20.0			
2,2-Dichloropropane	0.5275 0.5016	0.5255 0.5006	0.5364 0.5073	0.5008 0.5047	0.4946	Ave		0.5110			0.1000	2.9		20.0			
cis-1,2-Dichloroethene	0.3508 0.3222	0.3178 0.3237	0.3285 0.3322	0.3144 0.3356	0.3304	Ave		0.3284			0.1000	3.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1 Analy Batch No.: 582618

SDG No.:

Instrument ID: HP33 GC Column: RTX-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/21/2019 19:50 Calibration End Date: 03/21/2019 23:20 Calibration ID: 74626

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Butanone (MEK)	0.0105 0.0266	0.0249 0.0282	0.0242 0.0298	0.0245 0.0313	0.0284	Lin2	-0.042	0.0290			0.0100				0.9920		0.9900
Ethyl acetate	+++++ 0.0287	0.0390 0.0293	0.0304 0.0299	0.0297 0.0320	0.0288	Ave		0.0310			0.0100	11.0		20.0			
Propionitrile	0.0294 0.0331	0.0309 0.0330	0.0293 0.0336	0.0326 0.0347	0.0338	Ave		0.0323			0.0100	6.0		20.0			
Chlorobromomethane	0.1882 0.1847	0.1918 0.1900	0.1904 0.1932	0.1886 0.1953	0.1892	Ave		0.1901			0.1000	1.6		20.0			
Tetrahydrofuran	+++++ 0.0965	0.1078 0.0941	0.1147 0.1014	0.0929 0.1065	0.0892	Ave		0.1004			0.0500	8.7		20.0			
Methacrylonitrile	0.1452 0.1671	0.1474 0.1646	0.1536 0.1725	0.1587 0.1696	0.1590	Ave		0.1598			0.1000	6.0		20.0			
Chloroform	0.5801 0.5275	0.5508 0.5275	0.5424 0.5425	0.5183 0.5535	0.5174	Ave		0.5400			0.2000	3.7		20.0			
Cyclohexane	0.5421 0.5898	0.6132 0.5732	0.5894 0.5603	0.5424 0.5596	0.5279	Ave		0.5664			0.1000	4.9		20.0			
1,1,1-Trichloroethane	0.5027 0.5127	0.5060 0.5011	0.4938 0.5000	0.4782 0.5003	0.4781	Ave		0.4970			0.1000	2.4		20.0			
Carbon tetrachloride	0.4035 0.4409	0.4289 0.4580	0.4304 0.4268	0.4157 0.4331	0.4164	Ave		0.4282			0.1000	3.7		20.0			
1,1-Dichloropropene	0.4278 0.4600	0.4481 0.4537	0.4496 0.4423	0.4154 0.4437	0.4307	Ave		0.4413			0.1000	3.2		20.0			
Isobutyl alcohol	+++++ 0.0079	+++++ 0.0068	0.0060 0.0078	0.0074 0.0082	0.0084	Ave		0.0075			0.0010	11.2		20.0			
Benzene	1.1726 1.2165	1.2389 1.2393	1.1821 1.2192	1.2111 1.1910	1.2262	Ave		1.2108			0.5000	2.0		20.0			
t-Amyl alcohol	0.0209 0.0167	0.0192 0.0163	0.0155 0.0171	0.0170 0.0179	0.0170	Ave		0.0175			0.0010	9.3		20.0			
1,2-Dichloroethane	0.4290 0.3954	0.4470 0.3954	0.4045 0.4158	0.3854 0.4175	0.3820	Ave		0.4080			0.1000	5.2		20.0			
Tert-amyl methyl ether	0.9561 0.9357	1.0616 0.9637	0.9484 0.9888	0.9748 0.9909	1.0062	Ave		0.9807			0.1000	3.8		20.0			
n-Heptane	+++++ 0.3855	0.4189 0.3779	0.3841 0.3920	0.4189 0.3732	0.3878	Ave		0.3923			0.1000	4.4		20.0			
Trichloroethene	0.2760 0.2898	0.3220 0.3184	0.3004 0.3086	0.2940 0.3036	0.3128	Ave		0.3028			0.2000	4.8		20.0			
n-Butanol	+++++ 0.0026	+++++ 0.0033	0.0027 0.0036	0.0028 0.0037	0.0032	Ave		0.0031			0.0010	13.4		20.0			
Ethyl acrylate	+++++ 0.6823	0.6648 0.7055	0.6466 0.6981	0.6148 0.7220	0.6497	Ave		0.6730			0.1000	5.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1 Analy Batch No.: 545531

SDG No.:

Instrument ID: HP34 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2018 11:45 Calibration End Date: 09/26/2018 15:18 Calibration ID: 72791

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,1-Dichloroethene	0.2019 0.2055	0.2055 0.2056	0.2388 0.2234	0.2440 0.2506	0.2102	Ave		0.2206			0.1000	8.7		20.0			
Acetone	0.0200 0.0170	0.0168 0.0168	0.0207 0.0163	0.0201 0.0176	0.0163	Ave		0.0179			0.0100	9.9		20.0			
Isopropyl alcohol	0.0097 0.0091	0.0128 0.0094	0.0112 0.0086	0.0116 0.0104	0.0095	Ave		0.0103			0.0010	13.2		20.0			
Iodomethane	+++++ 0.2706	+++++ 0.3230	0.1436 0.3202	0.2237 0.3366	0.2262	Lin1	-0.540	0.3316			0.1000				0.9980		0.9900
Carbon disulfide	0.7806 0.6606	0.7474 0.6620	0.7335 0.6666	0.7538 0.7116	0.6553	Ave		0.7079			0.1000	6.8		20.0			
Acetonitrile	0.0715 0.0616	0.0689 0.0617	0.0732 0.0554	0.0758 0.0590	0.0628	Ave		0.0656			0.0010	10.7		20.0			
3-Chloro-1-propene	0.1488 0.1873	0.2165 0.1864	0.1686 0.1574	0.2120 0.1761	0.1626	Ave		0.1795			0.1000	13.0		20.0			
Methyl acetate	0.1725 0.1524	0.1921 0.1501	0.1850 0.1397	0.2013 0.1524	0.1545	Ave		0.1667			0.1000	13.0		20.0			
Methylene Chloride	+++++ 0.2465	0.3676 0.2419	0.3295 0.2372	0.3185 0.2643	0.2699	Lin2	0.1255	0.2549			0.0100				0.9920		0.9900
2-Methyl-2-propanol	0.8072 0.9040	0.7543 0.8988	0.9285 0.9129	0.9348 0.8897	0.8987	Ave		0.8810			0.0010	6.8		20.0			
Acrylonitrile	0.0850 0.0756	0.0876 0.0788	0.0913 0.0823	0.0878 0.0868	0.0837	Ave		0.0843			0.0100	5.8		20.0			
Methyl tert-butyl ether	0.7045 0.6253	0.6947 0.6414	0.6882 0.6822	0.7420 0.7067	0.6908	Ave		0.6862			0.1000	5.1		20.0			
trans-1,2-Dichloroethene	0.3053 0.2819	0.3197 0.2945	0.3715 0.3136	0.3348 0.3179	0.3130	Ave		0.3169			0.1000	8.0		20.0			
n-Hexane	0.3757 0.3528	0.4100 0.3034	0.4242 0.3341	0.3978 0.3882	0.3881	Ave		0.3749			0.1000	10.2		20.0			
1,1-Dichloroethane	0.3794 0.4154	0.4667 0.3638	0.5059 0.3593	0.4434 0.4340	0.4730	Ave		0.4268			0.2000	12.1		20.0			
Vinyl acetate	+++++ 0.0503	+++++ 0.0436	0.0510 0.0448	0.0575 0.0544	0.0534	Ave		0.0507		*	0.1000	10.0		20.0			
Isopropyl ether	0.8035 0.7331	0.8667 0.6301	0.8395 0.6290	0.7826 0.7451	0.8699	Ave		0.7666			0.1000	11.9		20.0			
2-Chloro-1,3-butadiene	0.4465 0.3666	0.4477 0.3121	0.4372 0.3182	0.4062 0.3729	0.4168	Ave		0.3916			0.1000	13.3		20.0			
Tert-butyl ethyl ether	0.6913 0.7920	0.7765 0.6519	0.8088 0.6484	0.7853 0.7701	0.8004	Ave		0.7472			0.1000	8.7		20.0			
cis-1,2-Dichloroethene	0.2789 0.3119	0.2979 0.2487	0.2954 0.2457	0.2906 0.2915	0.3056	Ave		0.2851			0.1000	8.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1 Analy Batch No.: 545531

SDG No.:

Instrument ID: HP34 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/26/2018 11:45 Calibration End Date: 09/26/2018 15:18 Calibration ID: 72791

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,2-Dichloropropane	0.4502 0.4108	0.4324 0.3307	0.4897 0.3354	0.4052 0.3840	0.3999	Ave		0.4043			0.1000	12.6		20.0			
2-Butanone (MEK)	0.0212 0.0287	0.0274 0.0217	0.0254 0.0212	0.0268 0.0266	0.0276	Ave		0.0252			0.0100	11.9		20.0			
Ethyl acetate	+++++ 0.0268	0.0211 0.0217	0.0238 0.0208	0.0243 0.0261	0.0256	Ave		0.0238			0.0100	9.9		20.0			
Propionitrile	0.0347 0.0340	0.0334 0.0263	0.0322 0.0253	0.0324 0.0314	0.0341	Ave		0.0315			0.0100	10.8		20.0			
Methacrylonitrile	0.1420 0.1583	0.1563 0.1251	0.1522 0.1174	0.1421 0.1416	0.1528	Ave		0.1431			0.1000	9.8		20.0			
Chlorobromomethane	0.1633 0.1915	0.1828 0.1670	0.1837 0.1610	0.1852 0.1852	0.1959	Ave		0.1795			0.1000	7.0		20.0			
Chloroform	0.4149 0.4756	0.4246 0.4128	0.4594 0.3888	0.4471 0.4270	0.4687	Ave		0.4354			0.2000	6.7		20.0			
Tetrahydrofuran	+++++ 0.0683	+++++ 0.0561	0.0828 0.0530	0.0721 0.0576	0.0744	Lin1	0.1623	0.0561			0.0500				0.9960		0.9900
1,1,1-Trichloroethane	0.3963 0.3980	0.3846 0.4037	0.4181 0.3828	0.4057 0.4069	0.3987	Ave		0.3994			0.1000	2.8		20.0			
Cyclohexane	0.4085 0.5014	0.4432 0.4586	0.5099 0.4442	0.4546 0.4538	0.4811	Ave		0.4617			0.1000	6.8		20.0			
1,1-Dichloropropene	0.3391 0.3804	0.3584 0.3737	0.3888 0.3666	0.3615 0.3575	0.3702	Ave		0.3663			0.1000	4.0		20.0			
Carbon tetrachloride	0.2683 0.3687	0.3211 0.3570	0.3814 0.3457	0.3368 0.3618	0.3520	Ave		0.3436			0.1000	9.7		20.0			
Isobutyl alcohol	+++++ 0.0093	0.0097 0.0085	0.0108 0.0080	0.0093 0.0085	0.0091	Ave		0.0091			0.0010	9.6		20.0			
t-Amyl alcohol	0.0140 0.0159	0.0147 0.0145	0.0149 0.0156	0.0163 0.0159	0.0148	Ave		0.0152			0.0010	5.0		20.0			
Benzene	1.2833 1.1585	1.1225 1.1249	1.1980 1.1220	1.1146 1.0790	1.1017	Ave		1.1449			0.5000	5.4		20.0			
1,2-Dichloroethane	0.3816 0.3820	0.4094 0.3700	0.4060 0.3785	0.3653 0.3563	0.3764	Ave		0.3806			0.1000	4.6		20.0			
Tert-amyl methyl ether	0.7734 0.8070	0.8122 0.7787	0.8024 0.7962	0.8125 0.7740	0.7727	Ave		0.7921			0.1000	2.2		20.0			
n-Heptane	+++++ 0.4073	0.5106 0.3878	0.4689 0.4161	0.4031 0.3768	0.4163	Ave		0.4234			0.1000	10.5		20.0			
n-Butanol	0.0072 0.0057	0.0070 0.0052	0.0053 0.0055	0.0058 0.0056	0.0056	Ave		0.0059			0.0010	12.8		20.0			
Trichloroethene	0.2720 0.3189	0.3304 0.3125	0.2939 0.3242	0.3335 0.3360	0.3169	Ave		0.3154			0.2000	6.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1 Analy Batch No.: 582279

SDG No.:

Instrument ID: HP39 GC Column: ZB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/20/2019 16:25 Calibration End Date: 03/20/2019 20:17 Calibration ID: 74622

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1-Dichloroethene	0.3314 0.3150	0.2562 0.3152	0.2808 0.3056	0.3348 0.3255	0.3007 0.3274	Ave		0.3093			0.1000	8.0		20.0			
Acetone	+++++ 0.0135	0.0174 0.0120	0.0138 0.0129	0.0142 0.0131	0.0135 0.0132	Ave		0.0137			0.0100	11.0		20.0			
Iodomethane	0.4798 0.5514	0.3834 0.5268	0.4181 0.5343	0.5539 0.5275	0.5135 0.5247	Ave		0.5013			0.1000	11.5		20.0			
Isopropyl alcohol	0.0062 0.0068	0.0080 0.0062	0.0083 0.0061	0.0078 0.0065	0.0077 0.0072	Ave		0.0071			0.0010	11.5		20.0			
Carbon disulfide	1.1293 0.8372	0.7583 0.7858	0.8423 0.7782	0.9666 0.8295	0.8400 0.7458	Lin1	0.1920	0.7766			0.1000				0.9970		0.9900
3-Chloro-1-propene	+++++ 0.2623	+++++ 0.2963	0.2223 0.3604	0.2700 0.3529	0.3029 +++++	Lin1	-0.411	0.3472			0.1000				0.9940		0.9900
Methyl acetate	+++++ 0.1070	0.1245 0.1002	0.1326 0.0942	0.1321 0.1059	0.1159 0.1062	Ave		0.1132			0.1000	12.3		20.0			
Acetonitrile	+++++ 0.0103	+++++ 0.0105	0.0110 0.0111	0.0109 0.0113	0.0100 0.0121	Ave		0.0109			0.0010	5.8		20.0			
Methylene Chloride	+++++ 0.3706	+++++ 0.3340	0.4540 0.3303	0.4429 0.3414	0.3947 0.3418	Ave		0.3762			0.0100	13.2		20.0			
2-Methyl-2-propanol	+++++ 1.4140	1.1492 1.3673	1.3006 1.5082	1.8117 1.5951	1.2670 +++++	Ave		1.4266			0.0010	14.6		20.0			
Methyl tert-butyl ether	0.8586 0.7321	0.7401 0.6715	0.7278 0.6528	0.8391 0.6659	0.7373 0.6664	Ave		0.7291			0.1000	9.8		20.0			
trans-1,2-Dichloroethene	0.5915 0.4773	0.4675 0.4516	0.3936 0.4452	0.5321 0.4636	0.4552 0.4702	Ave		0.4748			0.1000	11.2		20.0			
Acrylonitrile	0.0667 0.0604	0.0571 0.0570	0.0565 0.0549	0.0642 0.0569	0.0615 0.0565	Ave		0.0592			0.0100	6.6		20.0			
n-Hexane	0.4821 0.4230	0.3344 0.4187	0.4064 0.4187	0.4741 0.4483	0.4213 0.4425	Ave		0.4269			0.1000	9.6		20.0			
Isopropyl ether	1.2988 0.9634	1.0389 0.8897	0.9544 0.8671	1.0860 0.8712	0.9688 0.8276	Lin2	0.1878	0.9036			0.1000				0.9930		0.9900
Vinyl acetate	0.0708 0.0557	0.0496 0.0523	0.0528 0.0497	0.0608 0.0542	0.0544 0.0570	Ave		0.0557		*	0.1000	11.2		20.0			
1,1-Dichloroethane	0.6896 0.6564	0.5741 0.6237	0.6001 0.6071	0.6328 0.6326	0.6676 0.6364	Ave		0.6320			0.2000	5.3		20.0			
2-Chloro-1,3-butadiene	0.6475 0.5204	0.5623 0.5038	0.5167 0.5024	0.6059 0.5128	0.5084 0.5110	Ave		0.5391			0.1000	9.3		20.0			
Tert-butyl ethyl ether	1.0219 0.9012	0.9278 0.8587	0.8713 0.8211	1.0377 0.8439	0.9050 0.8300	Ave		0.9019			0.1000	8.4		20.0			
2,2-Dichloropropane	0.7549 0.5576	0.5071 0.5482	0.5260 0.5387	0.6198 0.5633	0.5441 0.5691	Lin1	0.0287	0.5617			0.1000				0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1 Analy Batch No.: 582279

SDG No.:

Instrument ID: HP39 GC Column: ZB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/20/2019 16:25 Calibration End Date: 03/20/2019 20:17 Calibration ID: 74622

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
cis-1,2-Dichloroethene	0.5311 0.4311	0.3750 0.4047	0.4166 0.3958	0.5024 0.4124	0.4365 0.4164	Ave		0.4322			0.1000	11.2		20.0			
Ethyl acetate	+++++ 0.0208	0.0232 0.0195	0.0161 0.0185	0.0253 0.0199	0.0205 0.0210	Ave		0.0205			0.0100	12.8		20.0			
2-Butanone (MEK)	0.0195 0.0193	0.0206 0.0172	0.0213 0.0188	0.0238 0.0194	0.0211 0.0193	Ave		0.0200			0.0100	8.9		20.0			
Propionitrile	0.0216 0.0234	0.0212 0.0219	0.0193 0.0210	0.0250 0.0216	0.0231 0.0225	Ave		0.0221			0.0100	7.0		20.0			
Methacrylonitrile	0.1335 0.1097	0.1124 0.0988	0.1034 0.0970	0.1240 0.0995	0.1092 0.0942	Ave		0.1082			0.1000	11.6		20.0			
Chlorobromomethane	0.2459 0.2388	0.2318 0.2244	0.2314 0.2210	0.2806 0.2295	0.2505 0.2312	Ave		0.2385			0.1000	7.3		20.0			
Tetrahydrofuran	+++++ 0.0652	+++++ 0.0560	0.0642 0.0533	0.0698 0.0563	0.0615 0.0565	Ave		0.0603			0.0500	9.5		20.0			
Chloroform	0.7400 0.6493	0.5641 0.6136	0.6466 0.5865	0.7226 0.6173	0.6481 0.6028	Ave		0.6391			0.2000	8.8		20.0			
1,1,1-Trichloroethane	0.7117 0.5995	0.5065 0.5730	0.5986 0.5664	0.6084 0.5925	0.5712 0.6021	Ave		0.5930			0.1000	8.6		20.0			
Cyclohexane	+++++ 0.5507	0.5027 0.5509	0.5403 0.5447	0.5907 0.5741	0.5194 0.5704	Ave		0.5493			0.1000	5.0		20.0			
Carbon tetrachloride	0.6350 0.5338	0.4706 0.5389	0.4710 0.5202	0.5637 0.5545	0.5112 0.5491	Ave		0.5348			0.1000	8.9		20.0			
1,1-Dichloropropene	0.6086 0.4871	0.4875 0.4822	0.4797 0.4727	0.5304 0.4959	0.4877 0.4833	Ave		0.5015			0.1000	8.1		20.0			
Isobutyl alcohol	0.0134 0.0107	0.0095 0.0101	0.0115 0.0107	0.0124 0.0113	0.0107 0.0112	Ave		0.0112			0.0010	9.9		20.0			
t-Amyl alcohol	0.0148 0.0122	0.0112 0.0108	0.0120 0.0110	0.0141 0.0117	0.0123 0.0123	Ave		0.0123			0.0010	10.7		20.0			
Benzene	1.9672 1.5340	1.5166 1.4355	1.5266 1.3878	1.6966 1.3954	1.5443 1.2743	Ave		1.5278			0.5000	12.6		20.0			
Tert-amyl methyl ether	1.1808 0.9017	0.9000 0.8440	0.8692 0.8178	0.9969 0.8430	0.9185 0.8440	Ave		0.9116			0.1000	11.8		20.0			
1,2-Dichloroethane	0.5608 0.4043	0.4154 0.3868	0.3798 0.3706	0.4388 0.3890	0.3848 0.3813	Lin2	0.0763	0.3815			0.1000				0.9940		0.9900
n-Heptane	+++++ 0.3607	0.3226 0.3583	0.2751 0.3473	0.3722 0.3644	0.3438 0.3703	Ave		0.3461			0.1000	8.9		20.0			
n-Butanol	+++++ 0.0033	+++++ 0.0030	0.0032 0.0031	0.0037 0.0031	0.0032 0.0032	Ave		0.0032			0.0010	6.7		20.0			
Trichloroethene	0.5580 0.4524	0.4323 0.4298	0.4325 0.4261	0.4984 0.4435	0.4500 0.4400	Ave		0.4563			0.2000	9.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab File ID: 04251901.D BFB Injection Date: 04/25/2019

Instrument ID: HP34 BFB Injection Time: 13:55

Analysis Batch No.: 590455

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.5	(0.5) 1
174	50.0 - 120.00 % of mass 95	100.0	
175	5.0 - 9.0 % of mass 174	8.6	(8.6) 1
176	95.0 - 101.0 % of mass 174	98.3	(98.3) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-590455/2	04251902.D	04/25/2019	14:22
	LCS 490-590455/3	04251903.D	04/25/2019	14:48
	LCSD 490-590455/4	04251904.D	04/25/2019	15:14
	MB 490-590455/6	04251906.D	04/25/2019	16:07
TB-20190418	480-152143-6	04251912.D	04/25/2019	18:44
SR-001	480-152143-3	04251914.D	04/25/2019	19:36
SR-108	480-152143-1	04251915.D	04/25/2019	20:03
SR-002	480-152143-4	04251916.D	04/25/2019	20:29

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590455/2 Calibration Date: 04/25/2019 14:22

Instrument ID: HP34 Calib Start Date: 09/26/2018 11:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/26/2018 15:18

Lab File ID: 04251902.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Lin1		0.0576	0.0500	38.2	40.0	-4.5	20.0
1,1,1-Trichloroethane	Ave	0.3994	0.4112	0.1000	20.6	20.0	2.9	20.0
Cyclohexane	Ave	0.4617	0.4094	0.1000	17.7	20.0	-11.3	20.0
1,1-Dichloropropene	Ave	0.3663	0.3727	0.1000	20.4	20.0	1.8	20.0
Carbon tetrachloride	Ave	0.3436	0.3691	0.1000	21.5	20.0	7.4	20.0
Isobutyl alcohol	Ave	0.0091	0.0056	0.0010	308	500	-38.5*	20.0
t-Amyl alcohol	Ave	0.0152	0.0099	0.0010	131	200	-34.6*	20.0
1,2-Dichloroethane	Ave	0.3806	0.3283	0.1000	17.2	20.0	-13.8	20.0
Benzene	Ave	1.145	1.020	0.5000	17.8	20.0	-10.9	20.0
Tert-amyl methyl ether	Ave	0.7921	0.6071	0.1000	15.3	20.0	-23.4*	20.0
n-Heptane	Ave	0.4234	0.2117	0.1000	10.0	20.0	-50.0*	20.0
n-Butanol	Ave	0.0059	0.0034	0.0010	288	500	-42.4*	20.0
Trichloroethene	Ave	0.3154	0.3229	0.2000	20.5	20.0	2.4	20.0
Ethyl acrylate	Ave	0.3368	0.2724	0.1000	16.2	20.0	-19.1	20.0
Methylcyclohexane	Ave	0.5279	0.4028	0.1000	15.3	20.0	-23.7*	20.0
1,2-Dichloropropane	Ave	0.2904	0.2492	0.1000	17.2	20.0	-14.2	20.0
Methyl methacrylate	Ave	0.2508	0.1982	0.1000	31.6	40.0	-21.0*	20.0
Dibromomethane	Ave	0.1655	0.1481	0.0500	17.9	20.0	-10.5	20.0
1,4-Dioxane	Ave	0.7410	0.7736	0.0010	418	400	4.4	20.0
Bromodichloromethane	Ave	0.3485	0.3094	0.2000	17.8	20.0	-11.2	20.0
2-Nitropropane	Ave	0.0772	0.0600	0.0100	31.1	40.0	-22.3*	20.0
2-Chloroethyl vinyl ether	Ave	0.1937	0.1720	0.1000	17.8	20.0	-11.2	20.0
cis-1,3-Dichloropropene	Ave	0.4827	0.4673	0.2000	19.4	20.0	-3.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1047	0.0965	0.0500	92.2	100	-7.8	20.0
Toluene	Ave	1.397	1.367	0.4000	19.6	20.0	-2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4361	0.4081	0.0100	18.7	20.0	-6.4	20.0
Ethyl methacrylate	Ave	0.3866	0.3374	0.1000	17.5	20.0	-12.7	20.0
1,1,2-Trichloroethane	Ave	0.2870	0.2798	0.1000	19.5	20.0	-2.5	20.0
Tetrachloroethene	Ave	0.4072	0.4326	0.2000	21.2	20.0	6.2	20.0
1,3-Dichloropropane	Ave	0.5007	0.4738	0.1000	18.9	20.0	-5.4	20.0
2-Hexanone	Ave	0.1036	0.0894	0.0500	86.3	100	-13.7	20.0
n-Butyl acetate	Ave	0.4812	0.3180	0.1000	13.2	20.0	-33.9*	20.0
Dibromochloromethane	Lin2		0.2311	0.1000	19.5	20.0	-2.4	20.0
1,2-Dibromoethane	Ave	0.2886	0.2822	0.1000	19.6	20.0	-2.2	20.0
1-Chlorohexane	Ave	0.5012	0.3407	0.1000	13.6	20.0	-32.0*	20.0
Chlorobenzene	Ave	1.023	0.9228	0.5000	18.0	20.0	-9.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3284	0.3204	0.1000	19.5	20.0	-2.4	20.0
Ethylbenzene	Ave	1.692	1.466	0.1000	17.3	20.0	-13.3	20.0
m-Xylene & p-Xylene	Ave	1.302	1.129	0.1000	17.4	20.0	-13.2	20.0
o-Xylene	Ave	1.357	1.131	0.3000	16.7	20.0	-16.6	20.0
Styrene	Ave	1.173	0.9643	0.3000	16.4	20.0	-17.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590455/2 Calibration Date: 04/25/2019 14:22

Instrument ID: HP34 Calib Start Date: 09/26/2018 11:45

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 09/26/2018 15:18

Lab File ID: 04251902.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.2344	0.2407	0.1000	20.5	20.0	2.7	20.0
Dichlorodifluoromethane	Ave	0.3067	0.3164	0.1000	20.6	20.0	3.2	20.0
Chloromethane	Ave	0.3180	0.3539	0.1000	22.3	20.0	11.3	20.0
Vinyl chloride	Ave	0.2852	0.3140	0.1000	22.0	20.0	10.1	20.0
Butadiene	Ave	0.2460	0.2934	0.1000	23.9	20.0	19.3	20.0
Bromomethane	Ave	0.1039	0.1772	0.1000	34.1	20.0	70.6*	20.0
Chloroethane	Lin1		0.1814	0.1000	21.3	20.0	6.5	20.0
Dichlorofluoromethane	Ave	0.3908	0.4409	0.1000	22.6	20.0	12.8	20.0
Trichlorofluoromethane	Ave	0.3578	0.4289	0.1000	24.0	20.0	19.9	20.0
Ethanol	Ave	0.0006	0.0003*	0.0010	434	800	-45.8*	20.0
Ethyl ether	Ave	0.1866	0.1710	0.1000	18.3	20.0	-8.3	20.0
Acrolein	Ave	0.0336	0.0276	0.0100	40.6	49.4	-17.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2351	0.2506	0.1000	21.3	20.0	6.6	20.0
1,1-Dichloroethene	Ave	0.2206	0.2606	0.1000	23.6	20.0	18.1	20.0
Acetone	Ave	0.0179	0.0183	0.0100	102	100	2.1	20.0
Isopropyl alcohol	Ave	0.0103	0.0074	0.0010	144	200	-28.2*	20.0
Iodomethane	Lin1		0.4153	0.1000	26.7	20.0	33.4*	20.0
Carbon disulfide	Ave	0.7079	0.6852	0.1000	19.4	20.0	-3.2	20.0
3-Chloro-1-propene	Ave	0.1795	0.2440	0.1000	27.2	20.0	35.9*	20.0
Acetonitrile	Ave	0.0656	0.0605	0.0010	185	200	-7.7	20.0
Methyl acetate	Ave	0.1667	0.1504	0.1000	36.1	40.0	-9.8	20.0
Methylene Chloride	Lin2		0.2653	0.0100	20.3	20.0	1.6	20.0
2-Methyl-2-propanol	Ave	0.8810	0.9413	0.0010	214	200	6.8	20.0
Acrylonitrile	Ave	0.0843	0.0808	0.0100	192	200	-4.2	20.0
Methyl tert-butyl ether	Ave	0.6862	0.6123	0.1000	17.8	20.0	-10.8	20.0
trans-1,2-Dichloroethene	Ave	0.3169	0.3591	0.1000	22.7	20.0	13.3	20.0
n-Hexane	Ave	0.3749	0.2957	0.1000	15.8	20.0	-21.1*	20.0
1,1-Dichloroethane	Ave	0.4268	0.4623	0.2000	21.7	20.0	8.3	20.0
Vinyl acetate	Ave	0.0507	0.0402*	0.1000	31.7	40.0	-20.7*	20.0
Isopropyl ether	Ave	0.7666	0.6749	0.1000	17.6	20.0	-12.0	20.0
2-Chloro-1,3-butadiene	Ave	0.3916	0.3602	0.1000	18.4	20.0	-8.0	20.0
Tert-butyl ethyl ether	Ave	0.7472	0.6267	0.1000	16.8	20.0	-16.1	20.0
cis-1,2-Dichloroethene	Ave	0.2851	0.3007	0.1000	21.1	20.0	5.5	20.0
2,2-Dichloropropane	Ave	0.4043	0.3663	0.1000	18.1	20.0	-9.4	20.0
2-Butanone (MEK)	Ave	0.0252	0.0244	0.0100	97.1	100	-2.9	20.0
Ethyl acetate	Ave	0.0238	0.0225	0.0100	37.9	40.0	-5.3	20.0
Propionitrile	Ave	0.0315	0.0300	0.0100	190	200	-5.0	20.0
Methacrylonitrile	Ave	0.1431	0.1278	0.1000	179	200	-10.7	20.0
Chlorobromomethane	Ave	0.1795	0.1902	0.1000	21.2	20.0	6.0	20.0
Chloroform	Ave	0.4354	0.4356	0.2000	20.0	20.0	0.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab File ID: 042519-01.D BFB Injection Date: 04/25/2019

Instrument ID: HP39 BFB Injection Time: 12:44

Analysis Batch No.: 590475

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.2	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	0.7	(0.7) 1
174	50.0 - 120.00 % of mass 95	103.1	
175	5.0 - 9.0 % of mass 174	7.9	(7.7) 1
176	95.0 - 101.0 % of mass 174	100.0	(97.0) 1
177	5.0 - 9.0 % of mass 176	6.6	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-590475/2	042519-02.D	04/25/2019	13:10
	LCS 490-590475/3	042519-03.D	04/25/2019	13:36
	LCSD 490-590475/4	042519-04.D	04/25/2019	14:02
	MB 490-590475/8	042519-08.D	04/25/2019	15:46
TB-20190417	480-152070-3	042519-11.D	04/25/2019	17:04
SR-101	480-152070-1	042519-16.D	04/25/2019	19:14
SR-106	480-152070-2	042519-19.D	04/25/2019	20:32
SR-106 MS	480-152070-2 MS	042519-27.D	04/25/2019	23:59
SR-106 MSD	480-152070-2 MSD	042519-28.D	04/26/2019	00:25

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590475/2 Calibration Date: 04/25/2019 13:10

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042519-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.3476	0.1756	0.1000	10.1	20.0	-49.5*	20.0
Dichlorodifluoromethane	Ave	0.4093	0.5305	0.1000	25.9	20.0	29.6*	20.0
Chloromethane	Ave	0.4315	0.3636	0.1000	16.9	20.0	-15.7	20.0
Vinyl chloride	Ave	0.4196	0.3703	0.1000	17.6	20.0	-11.8	20.0
Butadiene	Ave	0.3829	0.3341	0.1000	17.4	20.0	-12.8	20.0
Bromomethane	Ave	0.2325	0.2321	0.1000	20.0	20.0	-0.2	20.0
Chloroethane	Lin2		0.2237	0.1000	17.8	20.0	-10.9	20.0
Dichlorofluoromethane	Ave	0.6262	0.5652	0.1000	18.1	20.0	-9.7	20.0
Trichlorofluoromethane	Ave	0.5901	0.6868	0.1000	23.3	20.0	16.4	20.0
Ethanol	Ave	0.0005	0.0003*	0.0010	413	800	-48.4*	20.0
Ethyl ether	Ave	0.2020	0.1947	0.1000	19.3	20.0	-3.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2837	0.2949	0.1000	20.8	20.0	4.0	20.0
Acrolein	Ave	0.0216	0.0178	0.0100	40.6	49.4	-17.8	20.0
1,1-Dichloroethene	Ave	0.3093	0.2996	0.1000	19.4	20.0	-3.1	20.0
Acetone	Ave	0.0137	0.0118	0.0100	85.8	100	-14.2	20.0
Iodomethane	Ave	0.5013	0.5486	0.1000	21.9	20.0	9.4	20.0
Isopropyl alcohol	Ave	0.0071	0.0039	0.0010	109	200	-45.6*	20.0
Carbon disulfide	Lin1		0.8345	0.1000	21.2	20.0	6.2	20.0
3-Chloro-1-propene	Lin1		0.2580	0.1000	16.0	20.0	-19.8	20.0
Methyl acetate	Ave	0.1132	0.0897*	0.1000	31.7	40.0	-20.7*	20.0
Acetonitrile	Ave	0.0109	0.0067	0.0010	124	200	-38.2*	20.0
Methylene Chloride	Ave	0.3762	0.3365	0.0100	17.9	20.0	-10.6	20.0
2-Methyl-2-propanol	Ave	1.427	1.243	0.0010	174	200	-12.8	20.0
Methyl tert-butyl ether	Ave	0.7291	0.7525	0.1000	20.6	20.0	3.2	20.0
trans-1,2-Dichloroethene	Ave	0.4748	0.4270	0.1000	18.0	20.0	-10.1	20.0
Acrylonitrile	Ave	0.0592	0.0509	0.0100	172	200	-14.0	20.0
n-Hexane	Ave	0.4269	0.3547	0.1000	16.6	20.0	-16.9	20.0
Isopropyl ether	Lin2		0.7884	0.1000	17.2	20.0	-13.8	20.0
1,1-Dichloroethane	Ave	0.6320	0.5650	0.2000	17.9	20.0	-10.6	20.0
Vinyl acetate	Ave	0.0557	0.0536*	0.1000	38.5	40.0	-3.8	20.0
2-Chloro-1,3-butadiene	Ave	0.5391	0.5152	0.1000	19.1	20.0	-4.4	20.0
Tert-butyl ethyl ether	Ave	0.9019	0.8788	0.1000	19.5	20.0	-2.6	20.0
2,2-Dichloropropane	Lin1		0.5865	0.1000	20.8	20.0	4.1	20.0
cis-1,2-Dichloroethene	Ave	0.4322	0.4151	0.1000	19.2	20.0	-4.0	20.0
Ethyl acetate	Ave	0.0205	0.0199	0.0100	38.7	40.0	-3.2	20.0
2-Butanone (MEK)	Ave	0.0200	0.0181	0.0100	90.5	100	-9.5	20.0
Propionitrile	Ave	0.0221	0.0185	0.0100	168	200	-16.1	20.0
Methacrylonitrile	Ave	0.1082	0.0929*	0.1000	172	200	-14.2	20.0
Chlorobromomethane	Ave	0.2385	0.2441	0.1000	20.5	20.0	2.3	20.0
Tetrahydrofuran	Ave	0.0603	0.0488*	0.0500	32.3	40.0	-19.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590475/2 Calibration Date: 04/25/2019 13:10

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042519-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chloroform	Ave	0.6391	0.6534	0.2000	20.4	20.0	2.2	20.0
1,1,1-Trichloroethane	Ave	0.5930	0.6492	0.1000	21.9	20.0	9.5	20.0
Cyclohexane	Ave	0.5493	0.4489	0.1000	16.3	20.0	-18.3	20.0
Carbon tetrachloride	Ave	0.5348	0.5838	0.1000	21.8	20.0	9.2	20.0
1,1-Dichloropropene	Ave	0.5015	0.4792	0.1000	19.1	20.0	-4.4	20.0
Isobutyl alcohol	Ave	0.0112	0.0068	0.0010	302	500	-39.6*	20.0
Benzene	Ave	1.528	1.493	0.5000	19.5	20.0	-2.3	20.0
t-Amyl alcohol	Ave	0.0123	0.0098	0.0010	159	200	-20.5*	20.0
Tert-amyl methyl ether	Ave	0.9116	0.9293	0.1000	20.4	20.0	1.9	20.0
1,2-Dichloroethane	Lin2		0.4194	0.1000	21.8	20.0	8.9	20.0
n-Heptane	Ave	0.3461	0.2256	0.1000	13.0	20.0	-34.8*	20.0
n-Butanol	Ave	0.0032	0.0019	0.0010	296	500	-40.9*	20.0
Trichloroethene	Ave	0.4563	0.4692	0.2000	20.6	20.0	2.8	20.0
Ethyl acrylate	Ave	0.2418	0.2278	0.1000	18.8	20.0	-5.8	20.0
Methylcyclohexane	Ave	0.6114	0.5459	0.1000	17.9	20.0	-10.7	20.0
1,2-Dichloropropane	Ave	0.3409	0.2908	0.1000	17.1	20.0	-14.7	20.0
Methyl methacrylate	Ave	0.1961	0.1640	0.1000	33.4	40.0	-16.4	20.0
1,4-Dioxane	Ave	1.249	0.7423	0.0010	238	400	-40.6*	20.0
Dibromomethane	Ave	0.1585	0.1648	0.0500	20.8	20.0	4.0	20.0
Bromodichloromethane	Ave	0.4491	0.4854	0.2000	21.6	20.0	8.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1920	0.1752	0.1000	18.3	20.0	-8.7	20.0
2-Nitropropane	Ave	0.1064	0.1019	0.0100	38.3	40.0	-4.2	20.0
cis-1,3-Dichloropropene	Ave	0.7007	0.6928	0.2000	19.8	20.0	-1.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0871	0.0713	0.0500	81.8	100	-18.2	20.0
Toluene	Ave	2.180	2.002	0.4000	18.4	20.0	-8.2	20.0
trans-1,3-Dichloropropene	Ave	0.5776	0.5761	0.0100	19.9	20.0	-0.3	20.0
Ethyl methacrylate	Ave	0.4068	0.3527	0.1000	17.3	20.0	-13.3	20.0
1,1,2-Trichloroethane	Ave	0.3127	0.2940	0.1000	18.8	20.0	-6.0	20.0
Tetrachloroethene	Ave	0.6029	0.5747	0.2000	19.1	20.0	-4.7	20.0
1,3-Dichloropropane	Ave	0.5521	0.4894	0.1000	17.7	20.0	-11.4	20.0
2-Hexanone	Ave	0.0786	0.0622	0.0500	79.2	100	-20.8*	20.0
n-Butyl acetate	Lin2		0.2298	0.1000	15.7	20.0	-21.3*	20.0
Dibromochloromethane	Ave	0.3082	0.3233	0.1000	21.0	20.0	4.9	20.0
1,2-Dibromoethane	Ave	0.3106	0.2950	0.1000	19.0	20.0	-5.0	20.0
1-Chlorohexane	Ave	0.5398	0.4467	0.1000	16.5	20.0	-17.3	20.0
Chlorobenzene	Ave	1.405	1.367	0.5000	19.5	20.0	-2.7	20.0
Ethylbenzene	Ave	2.311	2.198	0.1000	19.0	20.0	-4.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5201	0.5154	0.1000	19.8	20.0	-0.9	20.0
m-Xylene & p-Xylene	Ave	1.827	1.778	0.1000	19.5	20.0	-2.7	20.0
o-Xylene	Ave	1.847	1.764	0.3000	19.1	20.0	-4.5	20.0
Styrene	Ave	1.548	1.482	0.3000	19.2	20.0	-4.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab File ID: 04251929.D BFB Injection Date: 04/26/2019

Instrument ID: HP33 BFB Injection Time: 03:25

Analysis Batch No.: 590664

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.7	(0.8) 1
174	50.0 - 120.00 % of mass 95	85.5	
175	5.0 - 9.0 % of mass 174	6.6	(7.7) 1
176	95.0 - 101.0 % of mass 174	84.6	(99.0) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-590664/2	04251930.D	04/26/2019	03:51
	LCS 490-590664/3	04251931.D	04/26/2019	04:18
	LCSD 490-590664/4	04251932.D	04/26/2019	04:44
	MB 490-590664/7	04251935.D	04/26/2019	06:03
SR-003	480-152143-5	04251947.D	04/26/2019	11:18
SR-104	480-152143-2	04251948.D	04/26/2019	11:44
SR-104	480-152143-2	04251950.D	04/26/2019	12:37

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590664/2 Calibration Date: 04/26/2019 03:51

Instrument ID: HP33 Calib Start Date: 03/21/2019 19:50

GC Column: RTX-624 ID: 0.18(mm) Calib End Date: 03/21/2019 23:20

Lab File ID: 04251930.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2187	0.2512	0.1000	23.0	20.0	14.9	20.0
Chloromethane	Ave	0.3341	0.4099	0.1000	24.5	20.0	22.7*	20.0
Vinyl chloride	Ave	0.3518	0.3934	0.1000	22.4	20.0	11.8	20.0
Butadiene	Ave	0.3411	0.4029	0.1000	23.6	20.0	18.1	20.0
Bromomethane	Lin2		0.1895	0.1000	19.5	20.0	-2.7	20.0
Chloroethane	Lin2		0.2522	0.1000	20.5	20.0	2.6	20.0
Dichlorofluoromethane	Ave	0.5442	0.5409	0.1000	19.9	20.0	-0.6	20.0
Trichlorofluoromethane	Ave	0.5007	0.4752	0.1000	19.0	20.0	-5.1	20.0
Ethanol	Lin1		0.0013	0.0010	1200	800	49.5*	20.0
Ethyl ether	Ave	0.2314	0.2755	0.1000	23.8	20.0	19.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2845	0.2903	0.1000	20.4	20.0	2.1	20.0
Acrolein	Ave	0.0307	0.0338	0.0100	54.4	49.4	10.2	20.0
1,1-Dichloroethene	Ave	0.2811	0.2744	0.1000	19.5	20.0	-2.4	20.0
Acetone	Ave	0.0211	0.0259	0.0100	123	100	22.8*	20.0
Iodomethane	Lin1		0.3466	0.1000	20.9	20.0	4.4	20.0
Isopropyl alcohol	Ave	0.0111	0.0156	0.0010	281	200	40.5*	20.0
Carbon disulfide	Ave	0.8413	0.8347	0.1000	19.8	20.0	-0.8	20.0
3-Chloro-1-propene	Ave	0.2696	0.2947	0.1000	21.9	20.0	9.3	20.0
Methyl acetate	Ave	0.1727	0.2261	0.1000	52.4	40.0	30.9*	20.0
Acetonitrile	Ave	0.0404	0.0380	0.0010	188	200	-5.8	20.0
Methylene Chloride	Lin2		0.3138	0.0100	20.8	20.0	3.9	20.0
2-Methyl-2-propanol	Ave	1.261	1.329	0.0010	211	200	5.4	20.0
Methyl tert-butyl ether	Ave	0.8347	0.8885	0.1000	21.3	20.0	6.4	20.0
trans-1,2-Dichloroethene	Ave	0.4344	0.4749	0.1000	21.9	20.0	9.3	20.0
Acrylonitrile	Ave	0.0943	0.1137	0.0100	241	200	20.6*	20.0
n-Hexane	Ave	0.4138	0.4143	0.1000	20.0	20.0	0.1	20.0
1,1-Dichloroethane	Ave	0.5506	0.6114	0.2000	22.2	20.0	11.0	20.0
Isopropyl ether	Ave	0.9843	1.188	0.1000	24.1	20.0	20.7*	20.0
Vinyl acetate	Ave	0.0639	0.0461*	0.1000	28.9	40.0	-27.9*	20.0
2-Chloro-1,3-butadiene	Ave	0.5060	0.5642	0.1000	22.3	20.0	11.5	20.0
Tert-butyl ethyl ether	Ave	0.9194	1.016	0.1000	22.1	20.0	10.5	20.0
2,2-Dichloropropane	Ave	0.5110	0.4315	0.1000	16.9	20.0	-15.6	20.0
cis-1,2-Dichloroethene	Ave	0.3284	0.3236	0.1000	19.7	20.0	-1.5	20.0
2-Butanone (MEK)	Lin2		0.0323	0.0100	113	100	12.9	20.0
Ethyl acetate	Ave	0.0310	0.0304	0.0100	39.3	40.0	-1.9	20.0
Propionitrile	Ave	0.0323	0.0420	0.0100	260	200	30.0*	20.0
Chlorobromomethane	Ave	0.1901	0.1898	0.1000	20.0	20.0	-0.2	20.0
Methacrylonitrile	Ave	0.1598	0.2182	0.1000	273	200	36.6*	20.0
Tetrahydrofuran	Ave	0.1004	0.1236	0.0500	49.3	40.0	23.2*	20.0
Chloroform	Ave	0.5400	0.5185	0.2000	19.2	20.0	-4.0	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab File ID: 042619-01.D BFB Injection Date: 04/26/2019

Instrument ID: HP39 BFB Injection Time: 12:17

Analysis Batch No.: 590828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.2	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.1	
173	Less than 2.0 % of mass 174	1.0	(1.0) 1
174	50.0 - 120.00 % of mass 95	103.3	
175	5.0 - 9.0 % of mass 174	8.0	(7.8) 1
176	95.0 - 101.0 % of mass 174	100.3	(97.1) 1
177	5.0 - 9.0 % of mass 176	6.7	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-590828/2	042619-02.D	04/26/2019	12:43
	LCS 490-590828/3	042619-03.D	04/26/2019	13:08
	LCSD 490-590828/4	042619-04.D	04/26/2019	13:34
	MB 490-590828/8	042619-08.D	04/26/2019	15:18
SR-106	480-152070-2	042619-13.D	04/26/2019	17:28

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590828/2 Calibration Date: 04/26/2019 12:43

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042619-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.3476	0.2179	0.1000	12.5	20.0	-37.3*	20.0
Dichlorodifluoromethane	Ave	0.4093	0.4692	0.1000	22.9	20.0	14.6	20.0
Chloromethane	Ave	0.4315	0.3607	0.1000	16.7	20.0	-16.4	20.0
Vinyl chloride	Ave	0.4196	0.3577	0.1000	17.0	20.0	-14.8	20.0
Butadiene	Ave	0.3829	0.3436	0.1000	17.9	20.0	-10.3	20.0
Bromomethane	Ave	0.2325	0.2463	0.1000	21.2	20.0	5.9	20.0
Chloroethane	Lin2		0.2313	0.1000	18.4	20.0	-7.8	20.0
Dichlorofluoromethane	Ave	0.6262	0.6015	0.1000	19.2	20.0	-3.9	20.0
Trichlorofluoromethane	Ave	0.5901	0.6497	0.1000	22.0	20.0	10.1	20.0
Ethyl ether	Ave	0.2020	0.1807	0.1000	17.9	20.0	-10.6	20.0
Ethanol	Ave	0.0005	0.0002*	0.0010	259	800	-67.6*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2837	0.2930	0.1000	20.7	20.0	3.3	20.0
Acrolein	Ave	0.0216	0.0174	0.0100	39.7	49.4	-19.6	20.0
1,1-Dichloroethene	Ave	0.3093	0.2796	0.1000	18.1	20.0	-9.6	20.0
Acetone	Ave	0.0137	0.0113	0.0100	82.1	100	-17.9	20.0
Iodomethane	Ave	0.5013	0.5521	0.1000	22.0	20.0	10.1	20.0
Isopropyl alcohol	Ave	0.0071	0.0033	0.0010	92.0	200	-54.0*	20.0
Carbon disulfide	Lin1		0.8378	0.1000	21.3	20.0	6.6	20.0
3-Chloro-1-propene	Lin1		0.2283	0.1000	14.3	20.0	-28.3*	20.0
Methyl acetate	Ave	0.1132	0.0826*	0.1000	29.2	40.0	-27.0*	20.0
Acetonitrile	Ave	0.0109	0.0081	0.0010	148	200	-26.0*	20.0
Methylene Chloride	Ave	0.3762	0.3421	0.0100	18.2	20.0	-9.1	20.0
2-Methyl-2-propanol	Ave	1.427	1.248	0.0010	175	200	-12.5	20.0
Methyl tert-butyl ether	Ave	0.7291	0.7054	0.1000	19.3	20.0	-3.3	20.0
trans-1,2-Dichloroethene	Ave	0.4748	0.4466	0.1000	18.8	20.0	-5.9	20.0
Acrylonitrile	Ave	0.0592	0.0481	0.0100	163	200	-18.7	20.0
n-Hexane	Ave	0.4269	0.3704	0.1000	17.4	20.0	-13.2	20.0
Isopropyl ether	Lin2		0.8026	0.1000	17.6	20.0	-12.2	20.0
1,1-Dichloroethane	Ave	0.6320	0.6013	0.2000	19.0	20.0	-4.9	20.0
Vinyl acetate	Ave	0.0557	0.0525*	0.1000	37.7	40.0	-5.8	20.0
2-Chloro-1,3-butadiene	Ave	0.5391	0.5517	0.1000	20.5	20.0	2.3	20.0
Tert-butyl ethyl ether	Ave	0.9019	0.8668	0.1000	19.2	20.0	-3.9	20.0
2,2-Dichloropropane	Lin1		0.6235	0.1000	22.1	20.0	10.7	20.0
cis-1,2-Dichloroethene	Ave	0.4322	0.4180	0.1000	19.3	20.0	-3.3	20.0
2-Butanone (MEK)	Ave	0.0200	0.0177	0.0100	88.4	100	-11.6	20.0
Ethyl acetate	Ave	0.0205	0.0206	0.0100	40.1	40.0	0.4	20.0
Propionitrile	Ave	0.0221	0.0163	0.0100	148	200	-26.2*	20.0
Methacrylonitrile	Ave	0.1082	0.0896*	0.1000	166	200	-17.2	20.0
Chlorobromomethane	Ave	0.2385	0.2478	0.1000	20.8	20.0	3.9	20.0
Tetrahydrofuran	Ave	0.0603	0.0494*	0.0500	32.7	40.0	-18.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152070-1

SDG No.:

Lab Sample ID: CCVIS 490-590828/2 Calibration Date: 04/26/2019 12:43

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042619-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chloroform	Ave	0.6391	0.6510	0.2000	20.4	20.0	1.9	20.0
1,1,1-Trichloroethane	Ave	0.5930	0.6260	0.1000	21.1	20.0	5.6	20.0
Cyclohexane	Ave	0.5493	0.4846	0.1000	17.6	20.0	-11.8	20.0
1,1-Dichloropropene	Ave	0.5015	0.4937	0.1000	19.7	20.0	-1.6	20.0
Carbon tetrachloride	Ave	0.5348	0.5853	0.1000	21.9	20.0	9.4	20.0
Isobutyl alcohol	Ave	0.0112	0.0061	0.0010	271	500	-45.7*	20.0
t-Amyl alcohol	Ave	0.0123	0.0085	0.0010	138	200	-31.0*	20.0
Benzene	Ave	1.528	1.493	0.5000	19.5	20.0	-2.3	20.0
Tert-amyl methyl ether	Ave	0.9116	0.8442	0.1000	18.5	20.0	-7.4	20.0
1,2-Dichloroethane	Lin2		0.4415	0.1000	22.9	20.0	14.7	20.0
n-Heptane	Ave	0.3461	0.2327	0.1000	13.4	20.0	-32.8*	20.0
n-Butanol	Ave	0.0032	0.0014	0.0010	225	500	-55.0*	20.0
Trichloroethene	Ave	0.4563	0.4750	0.2000	20.8	20.0	4.1	20.0
Ethyl acrylate	Ave	0.2418	0.2117	0.1000	17.5	20.0	-12.4	20.0
Methylcyclohexane	Ave	0.6114	0.5029	0.1000	16.5	20.0	-17.7	20.0
1,2-Dichloropropane	Ave	0.3409	0.2997	0.1000	17.6	20.0	-12.1	20.0
Methyl methacrylate	Ave	0.1961	0.1743	0.1000	35.6	40.0	-11.1	20.0
1,4-Dioxane	Ave	1.249	0.7673	0.0010	246	400	-38.6*	20.0
Dibromomethane	Ave	0.1585	0.1583	0.0500	20.0	20.0	-0.2	20.0
Bromodichloromethane	Ave	0.4491	0.4563	0.2000	20.3	20.0	1.6	20.0
2-Chloroethyl vinyl ether	Ave	0.1920	0.1695	0.1000	17.7	20.0	-11.7	20.0
2-Nitropropane	Ave	0.1064	0.0979	0.0100	36.8	40.0	-8.0	20.0
cis-1,3-Dichloropropene	Ave	0.7007	0.6697	0.2000	19.1	20.0	-4.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0871	0.0649	0.0500	74.5	100	-25.5*	20.0
Toluene	Ave	2.180	1.954	0.4000	17.9	20.0	-10.4	20.0
trans-1,3-Dichloropropene	Ave	0.5776	0.5558	0.0100	19.2	20.0	-3.8	20.0
Ethyl methacrylate	Ave	0.4068	0.3284	0.1000	16.1	20.0	-19.3	20.0
1,1,2-Trichloroethane	Ave	0.3127	0.2839	0.1000	18.2	20.0	-9.2	20.0
Tetrachloroethene	Ave	0.6029	0.5583	0.2000	18.5	20.0	-7.4	20.0
1,3-Dichloropropane	Ave	0.5521	0.4609	0.1000	16.7	20.0	-16.5	20.0
2-Hexanone	Ave	0.0786	0.0583	0.0500	74.1	100	-25.9*	20.0
n-Butyl acetate	Lin2		0.2082	0.1000	14.2	20.0	-28.8*	20.0
Dibromochloromethane	Ave	0.3082	0.2997	0.1000	19.5	20.0	-2.7	20.0
1,2-Dibromoethane	Ave	0.3106	0.2714	0.1000	17.5	20.0	-12.6	20.0
1-Chlorohexane	Ave	0.5398	0.4373	0.1000	16.2	20.0	-19.0	20.0
Chlorobenzene	Ave	1.405	1.296	0.5000	18.4	20.0	-7.8	20.0
Ethylbenzene	Ave	2.311	2.136	0.1000	18.5	20.0	-7.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5201	0.4711	0.1000	18.1	20.0	-9.4	20.0
m-Xylene & p-Xylene	Ave	1.827	1.708	0.1000	18.7	20.0	-6.5	20.0
o-Xylene	Ave	1.847	1.651	0.3000	17.9	20.0	-10.6	20.0
Styrene	Ave	1.548	1.421	0.3000	18.4	20.0	-8.2	20.0

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP1 Method: 6010C

Start Date: 04/22/2019 10:10 End Date: 04/22/2019 22:00

Lab Sample ID	D/F	Type	Time	Analytes																					
				Fe	Mn																				
ICIS 480-469213/1	1		10:10	X	X																				
IC 480-469213/2			10:14	X	X																				
IC 480-469213/3			10:18	X	X																				
IC 480-469213/4			10:22	X	X																				
ICV 480-469213/5	1		10:26	X	X																				
ICB 480-469213/6	1		10:29	X	X																				
ICVL 480-469213/7	1		10:33	X	X																				
ICSA 480-469213/8	1		10:37	X	X																				
ICSAB 480-469213/9	1		10:41	X	X																				
ZZZZZZ			10:45																						
ZZZZZZ			10:49																						
ZZZZZZ			10:53																						
ZZZZZZ			10:57																						
ZZZZZZ			11:00																						
CCV 480-469213/15			11:04																						
CCB 480-469213/16			11:08																						
CCV 480-469213/17	1		18:49	X	X																				
CCB 480-469213/18	1		18:53	X	X																				
CCVL 480-469213/19	1		18:57	X	X																				
MB 480-468809/1-A	1	R	19:28	X	X																				
LCS 480-468809/2-A	1	R	19:32	X	X																				
CCV 480-469213/22	1		19:35	X	X																				
CCB 480-469213/23	1		19:39	X	X																				
CCVL 480-469213/24	1		19:43	X	X																				
ZZZZZZ			19:47																						
ZZZZZZ			19:51																						
ZZZZZZ			19:55																						
ZZZZZZ			19:58																						
ZZZZZZ			20:02																						
ZZZZZZ			20:06																						
ZZZZZZ			20:09																						
ZZZZZZ			20:13																						
ZZZZZZ			20:17																						
CCV 480-469213/34	1		20:21	X	X																				
CCB 480-469213/35	1		20:25	X	X																				
CCVL 480-469213/36	1		20:28	X	X																				
480-152143-1	1	D	20:32	X	X																				
480-152143-2	1	D	20:36	X	X																				
480-152143-3	1	D	20:40	X	X																				
480-152143-4	1	D	20:44	X	X																				
480-152143-5	1	D	20:48	X	X																				
ZZZZZZ			20:52																						

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP1 Method: 6010C

Start Date: 04/22/2019 10:10 End Date: 04/22/2019 22:00

Lab Sample ID	D / F	Type	Time	Analytes																				
				Fe	Mn																			
ZZZZZZ			20:56																					
ZZZZZZ			20:59																					
ZZZZZZ			21:03																					
CCV 480-469213/46	1		21:07	X	X																			
CCB 480-469213/47	1		21:11	X	X																			
CCVL 480-469213/48	1		21:15	X	X																			
ZZZZZZ			21:18																					
ZZZZZZ			21:22																					
ZZZZZZ			21:26																					
ZZZZZZ			21:30																					
ZZZZZZ			21:34																					
ZZZZZZ			21:38																					
CCV 480-469213/55			21:53																					
CCB 480-469213/56			21:56																					
CCVL 480-469213/57			22:00																					

Prep Types
D = Dissolved
R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

ICV Source: MEI_10_CCVL_00245 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00245

Analyte	CCVL 480-469213/36 04/22/2019 20:28				CCVL 480-469213/48 04/22/2019 21:15							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron, Dissolved	0.0402	J	0.0500	80	0.0400	J	0.0500	80				
Manganese, Dissolved	0.00323		0.00300	108	0.00318		0.00300	106				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP1 Method: 6010C

Start Date: 04/25/2019 11:00 End Date: 04/25/2019 20:46

Lab Sample ID	D / F	Type	Time	Analytes																					
				Fe	Mn																				
ICIS 480-469920/1	1		11:00	X	X																				
IC 480-469920/2			11:04	X	X																				
IC 480-469920/3			11:08	X	X																				
IC 480-469920/4			11:12	X	X																				
ZZZZZZ			11:16																						
ZZZZZZ			11:19																						
ICV 480-469920/7	1		11:26	X	X																				
ICB 480-469920/8	1		11:30	X	X																				
ICVL 480-469920/9	1		11:34	X	X																				
ICSA 480-469920/10	1		11:37	X	X																				
ICSAB 480-469920/11	1		11:41	X	X																				
ZZZZZZ			11:45																						
ZZZZZZ			11:49																						
ZZZZZZ			11:53																						
ZZZZZZ			11:57																						
ZZZZZZ			12:01																						
CCV 480-469920/17			12:05																						
CCB 480-469920/18			12:08																						
CCV 480-469920/19	1		19:07	X	X																				
CCB 480-469920/20	1		19:10	X	X																				
CCVL 480-469920/21	1		19:14	X	X																				
MB 480-468661/1-A	1	R	19:30	X	X																				
ZZZZZZ			19:34																						
480-152070-1	1	D	19:37	X	X																				
480-152070-2	1	D	19:41	X	X																				
ZZZZZZ			19:45																						
ZZZZZZ			19:49																						
CCV 480-469920/28	1		19:53	X	X																				
CCB 480-469920/29	1		19:56	X	X																				
CCVL 480-469920/30	1		20:00	X	X																				
ZZZZZZ			20:04																						
ZZZZZZ			20:08																						
ZZZZZZ			20:12																						
ZZZZZZ			20:15																						
ZZZZZZ			20:19																						
ZZZZZZ			20:23																						
ZZZZZZ			20:27																						
ZZZZZZ			20:31																						
ZZZZZZ			20:34																						
CCV 480-469920/40	1		20:39	X	X																				
CCB 480-469920/41	1		20:42	X	X																				
CCVL 480-469920/42	1		20:46	X	X																				

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

ICV Source: MEI_10_CCVL_00245 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00245

Analyte	ICVL 480-469920/9 04/25/2019 11:34				CCVL 480-469920/21 04/25/2019 19:14				CCVL 480-469920/30 04/25/2019 20:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron, Dissolved	0.0523		0.0500	105	0.0468	J	0.0500	94	0.0382	J	0.0500	76
Manganese, Dissolved	0.00236	J	0.00300	79	0.00217	J	0.00300	72	0.00224	J	0.00300	75

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 04/26/2019 10:04 End Date: 04/26/2019 21:22

Lab Sample ID	D / F	Type	Time	Analytes																				
				Fe																				
ICIS 480-470206/1	1		10:04	X																				
IC 480-470206/2			10:07	X																				
IC 480-470206/3			10:11	X																				
IC 480-470206/4			10:15	X																				
ICV 480-470206/5	1		10:18	X																				
ICB 480-470206/6	1		10:22	X																				
ICVL 480-470206/7	1		10:25	X																				
ICSA 480-470206/8	1		10:29	X																				
ICSAB 480-470206/9	1		10:33	X																				
ZZZZZZ			10:36																					
ZZZZZZ			10:40																					
ZZZZZZ			10:44																					
ZZZZZZ			10:48																					
ZZZZZZ			10:51																					
CCV 480-470206/15			10:55																					
CCB 480-470206/16			10:59																					
CCV 480-470206/17	1		18:21	X																				
CCB 480-470206/18	1		18:24	X																				
CCVL 480-470206/19	1		18:28	X																				
MB 480-469142/1-A	1	T	18:57	X																				
LCS 480-469142/2-A	1	T	19:00	X																				
CCV 480-470206/22	1		19:04	X																				
CCB 480-470206/23	1		19:07	X																				
CCVL 480-470206/24	1		19:11	X																				
ZZZZZZ			19:15																					
ZZZZZZ			19:19																					
ZZZZZZ			19:22																					
ZZZZZZ			19:26																					
ZZZZZZ			19:29																					
ZZZZZZ			19:33																					
ZZZZZZ			19:36																					
ZZZZZZ			19:40																					
ZZZZZZ			19:44																					
CCV 480-470206/34	1		19:47	X																				
CCB 480-470206/35	1		19:51	X																				
CCVL 480-470206/36	1		19:55	X																				
ZZZZZZ			19:58																					
ZZZZZZ			20:02																					
ZZZZZZ			20:06																					
ZZZZZZ			20:09																					
ZZZZZZ			20:13																					
ZZZZZZ			20:16																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 04/26/2019 10:04 End Date: 04/26/2019 21:22

Lab Sample ID	D/F	Type	Time	Analytes																			
				Fe																			
ZZZZZZ			20:20																				
ZZZZZZ			20:24																				
480-152070-1	1	T	20:27	X																			
CCV 480-470206/46	1		20:31	X																			
CCB 480-470206/47	1		20:35	X																			
CCVL 480-470206/48	1		20:38	X																			
480-152070-2	1	T	20:42	X																			
ZZZZZZ			20:46																				
ZZZZZZ			20:49																				
ZZZZZZ			20:53																				
ZZZZZZ			20:57																				
ZZZZZZ			21:00																				
CCV 480-470206/55	1		21:15	X																			
CCB 480-470206/56	1		21:18	X																			
CCVL 480-470206/57	1		21:22	X																			

Prep Types
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

ICV Source: MEI_10_CCVL_00245 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00245

Analyte	CCVL 480-470206/36 04/26/2019 19:55				CCVL 480-470206/48 04/26/2019 20:38				CCVL 480-470206/57 04/26/2019 21:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	0.0443	J	0.0500	89	0.0468	J	0.0500	94	0.0440	J	0.0500	88
Manganese					0.00209	J	0.00300	70				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/13/2019 11:52 End Date: 05/13/2019 19:17

Lab Sample ID	D / F	Type	Time	Analytes																				
				Fe	Mn																			
ICIS 480-472702/1	1		11:52	X	X																			
IC 480-472702/2			11:56	X	X																			
IC 480-472702/3			12:00	X	X																			
IC 480-472702/4			12:03	X	X																			
ICV 480-472702/5	1		12:07	X	X																			
ICB 480-472702/6	1		12:10	X	X																			
ICVL 480-472702/7	1		12:14	X	X																			
ICSA 480-472702/8	1		12:18	X	X																			
ICSAB 480-472702/9	1		12:22	X	X																			
ZZZZZZ			12:25																					
ZZZZZZ			12:29																					
ZZZZZZ			12:33																					
ZZZZZZ			12:37																					
ZZZZZZ			12:40																					
CCV 480-472702/15			12:44																					
CCB 480-472702/16			12:48																					
CCV 480-472702/17	1		16:12	X	X																			
CCB 480-472702/18	1		16:15	X	X																			
CCVL 480-472702/19	1		16:19	X	X																			
MB 480-470921/1-A	1	T	16:45	X	X																			
LCS 480-470921/2-A	1	T	16:49	X	X																			
ZZZZZZ			16:52																					
CCV 480-472702/23	1		16:56	X	X																			
CCB 480-472702/24	1		17:00	X	X																			
CCVL 480-472702/25	1		17:03	X	X																			
ZZZZZZ			17:07																					
ZZZZZZ			17:11																					
ZZZZZZ			17:15																					
ZZZZZZ			17:18																					
ZZZZZZ			17:22																					
ZZZZZZ			17:26																					
ZZZZZZ			17:29																					
480-152143-1	1	T	17:33	X	X																			
480-152143-2	1	T	17:37	X	X																			
CCV 480-472702/35	1		17:41	X	X																			
CCB 480-472702/36	1		17:44	X	X																			
CCVL 480-472702/37	1		17:48	X	X																			
480-152143-3	1	T	17:52	X	X																			
480-152143-4	1	T	17:55	X	X																			
480-152143-5	1	T	17:59	X	X																			
ZZZZZZ			18:03																					
ZZZZZZ			18:07																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/13/2019 11:52 End Date: 05/13/2019 19:17

Lab Sample ID	D/F	Type	Time	Analytes																				
				Fe	Mn																			
ZZZZZZ			18:10																					
ZZZZZZ			18:14																					
ZZZZZZ			18:18																					
ZZZZZZ			18:21																					
CCV 480-472702/47	1		18:25	X	X																			
CCB 480-472702/48	1		18:29	X	X																			
CCVL 480-472702/49	1		18:32	X	X																			
ZZZZZZ			18:36																					
ZZZZZZ			18:40																					
ZZZZZZ			18:44																					
ZZZZZZ			18:47																					
ZZZZZZ			18:51																					
CCV 480-472702/55			19:09																					
CCB 480-472702/56			19:13																					
CCVL 480-472702/57			19:17																					

Prep Types
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

ICV Source: MEI_10_CCVL_00248 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00248

Analyte	ICVL 480-472702/7 05/13/2019 12:14				CCVL 480-472702/19 05/13/2019 16:19				CCVL 480-472702/25 05/13/2019 17:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	0.0538		0.0500	108	0.0512		0.0500	102	0.0516		0.0500	103
Manganese	0.00344		0.00300	115	0.00337		0.00300	112	0.00343		0.00300	114

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152070-1

SDG No.:

ICV Source: MEI_10_CCVL_00248 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00248

Analyte	CCVL 480-472702/37 05/13/2019 17:48				CCVL 480-472702/49 05/13/2019 18:32							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	0.0531		0.0500	106	0.0521		0.0500	104				
Manganese	0.00344		0.00300	115	0.00344		0.00300	115				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

eurofins

Client Information	Sampler: Tom Urban	Lab PM: Johnson Orlette S	Carrier Tracking No(s):	COC No: 480-129178-29154.1
Client Contact: George Kisluk	Phone: 716-335-5636	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: AECOM				Job #:

Address: 257 West Genesee Street Suite 400	Due Date Requested:	Analysis Requested
City: Buffalo	TAT Requested (days): Standard	
State, Zip: NY, 14202 2657		
Phone:	PO #: CallOut ID: 136077	
Email: george.kisluk@aecom.com	WO #:	
Project Name: Lapp Insulator Site# 819017	Project #: 48018841	
Site: Lapp Insulator - LeRoy, NY	SSOW#:	

Preservation Codes: A - HCL, M - Hexane, L - EDA, Z - other (specify), Other:

480-152241 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list OL-MM4.2	300.0_28D - Sulfate	410.4 - COD	6010C - Fe, Mn	8270D_SIM_MS_ID - 1,4-Dioxane	5210B - BOD	300_48HR - Nitrate	6010C - (MOD) Dissolved Fe, Mn	4, 2nd filtered	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	N	S	D	N	N	N	D			
SR-004	4/19/19	0905	G	Water			3	1	1	1	2	1	1	1		11	
BRW-02	4/19/19	1035	G	Water			3	1	1	1	2	1	1	1		11	
SR-005	4/19/19	1200	G	Water			3	1	1	1	2	1	1	1		11	
TB-20190419	4/19/19	-	G	Water			1									1	
				Water													
				Water													
				Water													
				Water													
				Water													
				Water													
				Water													
				Water													

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, (IV) Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment: Drop off

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Tom Urban	4/19/19 1350	AECOM		4/19/19 1350	TAB
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: △ Yes △ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks: 3.8 #1 ICE

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-152241

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	COC No: 480-49158.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: orlette.johnson@testamericainc.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-152241-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 5/13/2019		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Lapp Insulator Site# 819017	Project #: 48018841		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/6030C TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
SR-004 (480-152241-1)	4/19/19	09:05 Eastern		Water			X	3	
BRW-02 (480-152241-2)	4/19/19	10:35 Eastern		Water			X	3	
SR-005 (480-152241-3)	4/19/19	12:00 Eastern		Water			X	3	
TB-20190419 (480-152241-4)	4/19/19	Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:		Date/Time: 4-23-19 1630	Company	Received by:		Date/Time: 04/24/19 09:30	Company TA-NAS
Relinquished by:		Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:		Date/Time:	Company	Received by:		Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.2

Ver: 01/16/2019

Job Narrative
480-152241-1

Comments
No additional comments.

Receipt
The samples were received on 4/19/2019 1:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

GC/MS VOA
Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: SR-005 (480-152241-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: BRW-02 (480-152241-2). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method(s) 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: BRW-02 (480-152241-2) and SR-005 (480-152241-3). Elevated reporting limits (RLs) are provided.

Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for samples BRW-02 (480-152241-2) and SR-005 (480-152241-3) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

HPLC/IC
Method(s) 300.0: The following samples were analyzed outside of analytical holding time due to the samples being unavailable for testing after receipt: SR-004 (480-152241-1), BRW-02 (480-152241-2) and SR-005 (480-152241-3).

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

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

General Chemistry
Method(s) SM 5210B: The RPD between the lowest and highest values used in averaging the final result exceeds 30%.
SR-005 (480-152241-3)

Method(s) SM 5210B: The following sample was analyzed outside of analytical holding time due to laboratory error: SR-004 (480-152241-1).

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

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

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

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Lab File ID: 0426-01.D BFB Injection Date: 04/26/2019

Instrument ID: HP48 BFB Injection Time: 15:07

Analysis Batch No.: 590877

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	44.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.3	
175	5.0 - 9.0 % of mass 174	7.5	(7.7) 1
176	95.0 - 101.0 % of mass 174	95.2	(97.8) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-590877/2	0426-02.D	04/26/2019	15:34
	LCS 490-590877/3	0426-03.D	04/26/2019	16:02
	LCSD 490-590877/4	0426-04.D	04/26/2019	16:29
	MB 490-590877/7	0426-07.D	04/26/2019	17:50
SR-004	480-152241-1	0426-12.D	04/26/2019	20:05
BRW-02	480-152241-2	0426-13.D	04/26/2019	20:32
TB-20190419	480-152241-4	0426-17.D	04/26/2019	22:20

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Lab Sample ID: CCVIS 490-590877/2 Calibration Date: 04/26/2019 15:34

Instrument ID: HP48 Calib Start Date: 03/11/2019 20:05

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/12/2019 00:11

Lab File ID: 0426-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.3596	0.2680	0.1000	14.9	20.0	-25.5*	20.0
Dichlorodifluoromethane	Ave	0.3524	0.3226	0.1000	18.3	20.0	-8.5	20.0
Chloromethane	Ave	0.3850	0.3380	0.1000	17.6	20.0	-12.2	20.0
Vinyl chloride	Ave	0.3657	0.3251	0.1000	17.8	20.0	-11.1	20.0
Butadiene	Ave	0.3589	0.3059	0.1000	17.0	20.0	-14.8	20.0
Bromomethane	Ave	0.1734	0.1696	0.1000	19.6	20.0	-2.2	20.0
Chloroethane	Ave	0.2181	0.1881	0.1000	17.2	20.0	-13.8	20.0
Dichlorofluoromethane	Ave	0.4708	0.4144	0.1000	17.6	20.0	-12.0	20.0
Trichlorofluoromethane	Ave	0.3881	0.3956	0.1000	20.4	20.0	1.9	20.0
Ethanol	Lin1		0.0002*	0.0010	849	800	6.1	20.0
Ethyl ether	Ave	0.1491	0.1312	0.1000	17.6	20.0	-12.0	20.0
Acrolein	Lin2		0.0162	0.0100	59.5	49.4	20.4*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2300	0.2485	0.1000	21.6	20.0	8.0	20.0
1,1-Dichloroethene	Ave	0.2335	0.2330	0.1000	20.0	20.0	-0.2	20.0
Acetone	Lin2		0.0080*	0.0100	102	100	1.9	20.0
Iodomethane	Ave	0.3672	0.3600	0.1000	19.6	20.0	-2.0	20.0
Isopropyl alcohol	Lin2		0.0034	0.0010	175	200	-12.4	20.0
Carbon disulfide	Ave	0.7485	0.6470	0.1000	17.3	20.0	-13.6	20.0
3-Chloro-1-propene	Ave	0.2212	0.2064	0.1000	18.7	20.0	-6.7	20.0
Acetonitrile	Ave	0.0563	0.0476	0.0010	169	200	-15.6	20.0
Methyl acetate	Ave	0.0790	0.0709*	0.1000	35.9	40.0	-10.2	20.0
Methylene Chloride	Lin2		0.2293	0.0100	19.1	20.0	-4.5	20.0
2-Methyl-2-propanol	Ave	0.9780	0.8873	0.0010	181	200	-9.3	20.0
Methyl tert-butyl ether	Ave	0.4588	0.4199	0.1000	18.3	20.0	-8.5	20.0
trans-1,2-Dichloroethene	Ave	0.3538	0.3264	0.1000	18.4	20.0	-7.8	20.0
Acrylonitrile	Lin1		0.0359	0.0100	191	200	-4.7	20.0
n-Hexane	Lin2		0.3480	0.1000	20.3	20.0	1.6	20.0
Isopropyl ether	Lin2		0.6468	0.1000	16.8	20.0	-16.2	20.0
1,1-Dichloroethane	Ave	0.4962	0.4157	0.2000	16.8	20.0	-16.2	20.0
Vinyl acetate	Ave	0.0244	0.0291*	0.1000	47.6	40.0	19.0	20.0
2-Chloro-1,3-butadiene	Ave	0.3737	0.3693	0.1000	19.8	20.0	-1.2	20.0
Tert-butyl ethyl ether	Ave	0.6285	0.5548	0.1000	17.7	20.0	-11.7	20.0
2,2-Dichloropropane	Ave	0.3926	0.3683	0.1000	18.8	20.0	-6.2	20.0
cis-1,2-Dichloroethene	Ave	0.3063	0.2695	0.1000	17.6	20.0	-12.0	20.0
2-Butanone (MEK)	Ave	0.0109	0.0108	0.0100	98.4	100	-1.6	20.0
Ethyl acetate	Lin2		0.0121	0.0100	38.8	40.0	-3.1	20.0
Propionitrile	Ave	0.0135	0.0126	0.0100	186	200	-7.1	20.0
Methacrylonitrile	Lin2		0.0731*	0.1000	208	200	3.8	20.0
Chlorobromomethane	Ave	0.1633	0.1534	0.1000	18.8	20.0	-6.0	20.0
Chloroform	Ave	0.4602	0.4040	0.2000	17.6	20.0	-12.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Lab Sample ID: CCVIS 490-590877/2 Calibration Date: 04/26/2019 15:34

Instrument ID: HP48 Calib Start Date: 03/11/2019 20:05

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/12/2019 00:11

Lab File ID: 0426-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	0.0292	0.0316*	0.0500	43.3	40.0	8.2	20.0
1,1,1-Trichloroethane	Lin2		0.3755	0.1000	19.2	20.0	-4.2	20.0
Cyclohexane	Ave	0.4851	0.4319	0.1000	17.8	20.0	-11.0	20.0
1,1-Dichloropropene	Lin2		0.3528	0.1000	19.8	20.0	-1.2	20.0
Carbon tetrachloride	Ave	0.3487	0.3329	0.1000	19.1	20.0	-4.5	20.0
Isobutyl alcohol	Lin1		0.0024	0.0010	511	500	2.2	20.0
t-Amyl alcohol	Lin1		0.0042	0.0010	192	200	-3.8	20.0
Benzene	Ave	1.117	1.001	0.5000	17.9	20.0	-10.4	20.0
1,2-Dichloroethane	Lin1		0.2420	0.1000	19.4	20.0	-2.8	20.0
Tert-amyl methyl ether	Ave	0.5522	0.4873	0.1000	17.7	20.0	-11.7	20.0
n-Heptane	Lin1		0.3028	0.1000	20.6	20.0	3.2	20.0
n-Butanol	Ave	0.0016	0.0014	0.0010	450	500	-10.1	20.0
Trichloroethene	Ave	0.3301	0.3116	0.2000	18.9	20.0	-5.6	20.0
Ethyl acrylate	Ave	0.1578	0.1509	0.1000	19.1	20.0	-4.4	20.0
Methylcyclohexane	Ave	0.5243	0.4520	0.1000	17.2	20.0	-13.8	20.0
1,2-Dichloropropane	Ave	0.2678	0.2354	0.1000	17.6	20.0	-12.1	20.0
Methyl methacrylate	Lin2		0.1220	0.1000	41.5	40.0	3.8	20.0
1,4-Dioxane	Ave	0.7752	0.6872	0.0010	355	400	-11.4	20.0
Dibromomethane	Ave	0.1100	0.1042	0.0500	18.9	20.0	-5.3	20.0
Bromodichloromethane	Ave	0.3251	0.2874	0.2000	17.7	20.0	-11.6	20.0
2-Nitropropane	Lin1		0.0541	0.0100	39.1	40.0	-2.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1020	0.0950*	0.1000	18.6	20.0	-6.9	20.0
cis-1,3-Dichloropropene	Ave	0.5458	0.4761	0.2000	17.4	20.0	-12.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0548	0.0518	0.0500	94.4	100	-5.6	20.0
Toluene	Ave	1.644	1.415	0.4000	17.2	20.0	-13.9	20.0
trans-1,3-Dichloropropene	Ave	0.4237	0.3573	0.0100	16.9	20.0	-15.7	20.0
Ethyl methacrylate	Ave	0.2665	0.2461	0.1000	18.5	20.0	-7.7	20.0
1,1,2-Trichloroethane	Ave	0.2254	0.2000	0.1000	17.7	20.0	-11.3	20.0
Tetrachloroethene	Ave	0.4997	0.4359	0.2000	17.4	20.0	-12.8	20.0
1,3-Dichloropropane	Ave	0.3989	0.3580	0.1000	17.9	20.0	-10.3	20.0
2-Hexanone	Ave	0.0480	0.0458*	0.0500	95.4	100	-4.6	20.0
n-Butyl acetate	Lin1		0.1975	0.1000	19.5	20.0	-2.4	20.0
Dibromochloromethane	Ave	0.2126	0.1981	0.1000	18.6	20.0	-6.8	20.0
1,2-Dibromoethane	Ave	0.2210	0.2060	0.1000	18.6	20.0	-6.8	20.0
1-Chlorohexane	Ave	0.4688	0.3931	0.1000	16.8	20.0	-16.2	20.0
Chlorobenzene	Ave	1.080	0.9338	0.5000	17.3	20.0	-13.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3586	0.3059	0.1000	17.1	20.0	-14.7	20.0
Ethylbenzene	Lin2		1.533	0.1000	17.6	20.0	-12.1	20.0
m-Xylene & p-Xylene	Lin2		1.220	0.1000	17.6	20.0	-12.2	20.0
o-Xylene	Ave	1.478	1.263	0.3000	17.1	20.0	-14.5	20.0
Styrene	Ave	1.188	1.031	0.3000	17.4	20.0	-13.2	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Lab File ID: 0425-01.D BFB Injection Date: 04/25/2019

Instrument ID: HP48 BFB Injection Time: 13:27

Analysis Batch No.: 590503

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.2	
75	30.0 - 60.0 % of mass 95	43.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	97.3	
175	5.0 - 9.0 % of mass 174	7.2	(7.4) 1
176	95.0 - 101.0 % of mass 174	94.8	(97.4) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-590503/2	0425-02.D	04/25/2019	13:54
	LCS 490-590503/3	0425-03.D	04/25/2019	14:21
	LCSD 490-590503/4	0425-04.D	04/25/2019	14:48
	MB 490-590503/7	0425-07.D	04/25/2019	16:10
SR-005	480-152241-3	0425-25.D	04/26/2019	00:18

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Lab Sample ID: CCVIS 490-590503/2 Calibration Date: 04/25/2019 13:54

Instrument ID: HP48 Calib Start Date: 03/11/2019 20:05

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/12/2019 00:11

Lab File ID: 0425-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.3596	0.2394	0.1000	13.3	20.0	-33.4*	20.0
Dichlorodifluoromethane	Ave	0.3524	0.2925	0.1000	16.6	20.0	-17.0	20.0
Chloromethane	Ave	0.3850	0.3395	0.1000	17.6	20.0	-11.8	20.0
Vinyl chloride	Ave	0.3657	0.3183	0.1000	17.4	20.0	-13.0	20.0
Butadiene	Ave	0.3589	0.2930	0.1000	16.3	20.0	-18.4	20.0
Bromomethane	Ave	0.1734	0.1635	0.1000	18.9	20.0	-5.7	20.0
Chloroethane	Ave	0.2181	0.1877	0.1000	17.2	20.0	-13.9	20.0
Dichlorofluoromethane	Ave	0.4708	0.4215	0.1000	17.9	20.0	-10.5	20.0
Trichlorofluoromethane	Ave	0.3881	0.3823	0.1000	19.7	20.0	-1.5	20.0
Ethanol	Lin1		0.0003*	0.0010	1010	800	26.3*	20.0
Ethyl ether	Ave	0.1491	0.1317	0.1000	17.7	20.0	-11.7	20.0
Acrolein	Lin2		0.0145	0.0100	52.8	49.4	6.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2300	0.2158	0.1000	18.8	20.0	-6.2	20.0
1,1-Dichloroethene	Ave	0.2335	0.2162	0.1000	18.5	20.0	-7.4	20.0
Acetone	Lin2		0.0079*	0.0100	100	100	0.4	20.0
Iodomethane	Ave	0.3672	0.3577	0.1000	19.5	20.0	-2.6	20.0
Isopropyl alcohol	Lin2		0.0044	0.0010	235	200	17.5	20.0
Carbon disulfide	Ave	0.7485	0.6361	0.1000	17.0	20.0	-15.0	20.0
3-Chloro-1-propene	Ave	0.2212	0.1973	0.1000	17.8	20.0	-10.8	20.0
Acetonitrile	Ave	0.0563	0.0498	0.0010	177	200	-11.6	20.0
Methyl acetate	Ave	0.0790	0.0698*	0.1000	35.4	40.0	-11.6	20.0
Methylene Chloride	Lin2		0.2161	0.0100	17.9	20.0	-10.3	20.0
2-Methyl-2-propanol	Ave	0.9780	1.029	0.0010	210	200	5.2	20.0
Methyl tert-butyl ether	Ave	0.4588	0.4023	0.1000	17.5	20.0	-12.3	20.0
trans-1,2-Dichloroethene	Ave	0.3538	0.3248	0.1000	18.4	20.0	-8.2	20.0
Acrylonitrile	Lin1		0.0348	0.0100	185	200	-7.6	20.0
n-Hexane	Lin2		0.3031	0.1000	17.7	20.0	-11.7	20.0
Isopropyl ether	Lin2		0.6414	0.1000	16.6	20.0	-16.9	20.0
1,1-Dichloroethane	Ave	0.4962	0.3969	0.2000	16.0	20.0	-20.0	20.0
Vinyl acetate	Ave	0.0244	0.0264*	0.1000	43.1	40.0	7.8	20.0
2-Chloro-1,3-butadiene	Ave	0.3737	0.3513	0.1000	18.8	20.0	-6.0	20.0
Tert-butyl ethyl ether	Ave	0.6285	0.5492	0.1000	17.5	20.0	-12.6	20.0
2,2-Dichloropropane	Ave	0.3926	0.3586	0.1000	18.3	20.0	-8.7	20.0
cis-1,2-Dichloroethene	Ave	0.3063	0.2763	0.1000	18.0	20.0	-9.8	20.0
2-Butanone (MEK)	Ave	0.0109	0.0109	0.0100	99.7	100	-0.3	20.0
Ethyl acetate	Lin2		0.0116	0.0100	37.0	40.0	-7.6	20.0
Propionitrile	Ave	0.0135	0.0130	0.0100	192	200	-3.8	20.0
Methacrylonitrile	Lin2		0.0713*	0.1000	202	200	1.1	20.0
Chlorobromomethane	Ave	0.1633	0.1469	0.1000	18.0	20.0	-10.0	20.0
Tetrahydrofuran	Ave	0.0292	0.0274*	0.0500	37.5	40.0	-6.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152241-1

SDG No.:

Lab Sample ID: CCVIS 490-590503/2 Calibration Date: 04/25/2019 13:54

Instrument ID: HP48 Calib Start Date: 03/11/2019 20:05

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/12/2019 00:11

Lab File ID: 0425-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chloroform	Ave	0.4602	0.3944	0.2000	17.1	20.0	-14.3	20.0
1,1,1-Trichloroethane	Lin2		0.3607	0.1000	18.4	20.0	-8.0	20.0
Cyclohexane	Ave	0.4851	0.4128	0.1000	17.0	20.0	-14.9	20.0
1,1-Dichloropropene	Lin2		0.3398	0.1000	19.0	20.0	-4.9	20.0
Carbon tetrachloride	Ave	0.3487	0.3100	0.1000	17.8	20.0	-11.1	20.0
Isobutyl alcohol	Lin1		0.0025	0.0010	534	500	6.8	20.0
t-Amyl alcohol	Lin1		0.0049	0.0010	222	200	11.2	20.0
Benzene	Ave	1.117	0.9592	0.5000	17.2	20.0	-14.1	20.0
1,2-Dichloroethane	Lin1		0.2306	0.1000	18.5	20.0	-7.5	20.0
Tert-amyl methyl ether	Ave	0.5522	0.4697	0.1000	17.0	20.0	-14.9	20.0
n-Heptane	Lin1		0.2448	0.1000	16.6	20.0	-16.9	20.0
n-Butanol	Ave	0.0016	0.0016	0.0010	496	500	-0.8	20.0
Trichloroethene	Ave	0.3301	0.2933	0.2000	17.8	20.0	-11.2	20.0
Ethyl acrylate	Ave	0.1578	0.1473	0.1000	18.7	20.0	-6.7	20.0
Methylcyclohexane	Ave	0.5243	0.4271	0.1000	16.3	20.0	-18.5	20.0
1,2-Dichloropropane	Ave	0.2678	0.2288	0.1000	17.1	20.0	-14.6	20.0
Methyl methacrylate	Lin2		0.1091	0.1000	36.9	40.0	-7.7	20.0
Dibromomethane	Ave	0.1100	0.0983	0.0500	17.9	20.0	-10.6	20.0
1,4-Dioxane	Ave	0.7752	1.046	0.0010	540	400	34.9*	20.0
Bromodichloromethane	Ave	0.3251	0.2632	0.2000	16.2	20.0	-19.1	20.0
2-Nitropropane	Lin1		0.0460	0.0100	33.2	40.0	-17.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1020	0.0875*	0.1000	17.2	20.0	-14.1	20.0
cis-1,3-Dichloropropene	Ave	0.5458	0.4658	0.2000	17.1	20.0	-14.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0548	0.0507	0.0500	92.5	100	-7.5	20.0
Toluene	Ave	1.644	1.405	0.4000	17.1	20.0	-14.6	20.0
trans-1,3-Dichloropropene	Ave	0.4237	0.3479	0.0100	16.4	20.0	-17.9	20.0
Ethyl methacrylate	Ave	0.2665	0.2364	0.1000	17.7	20.0	-11.3	20.0
1,1,2-Trichloroethane	Ave	0.2254	0.1966	0.1000	17.4	20.0	-12.8	20.0
Tetrachloroethene	Ave	0.4997	0.4164	0.2000	16.7	20.0	-16.7	20.0
1,3-Dichloropropane	Ave	0.3989	0.3452	0.1000	17.3	20.0	-13.5	20.0
2-Hexanone	Ave	0.0480	0.0450*	0.0500	93.8	100	-6.2	20.0
n-Butyl acetate	Lin1		0.1968	0.1000	19.5	20.0	-2.7	20.0
Dibromochloromethane	Ave	0.2126	0.1780	0.1000	16.7	20.0	-16.3	20.0
1,2-Dibromoethane	Ave	0.2210	0.1944	0.1000	17.6	20.0	-12.0	20.0
1-Chlorohexane	Ave	0.4688	0.3724	0.1000	15.9	20.0	-20.6*	20.0
Chlorobenzene	Ave	1.080	0.9158	0.5000	17.0	20.0	-15.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3586	0.2941	0.1000	16.4	20.0	-18.0	20.0
Ethylbenzene	Lin2		1.508	0.1000	17.3	20.0	-13.5	20.0
m-Xylene & p-Xylene	Lin2		1.235	0.1000	17.8	20.0	-11.1	20.0
o-Xylene	Ave	1.478	1.249	0.3000	16.9	20.0	-15.5	20.0
Styrene	Ave	1.188	1.022	0.3000	17.2	20.0	-14.0	20.0

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/08/2019 10:14 End Date: 05/08/2019 15:14

Lab Sample ID	D/F	Type	Time	Analytes																					
				Fe	Mn																				
ICIS 480-472000/1	1		10:14	X	X																				
IC 480-472000/2			10:18	X	X																				
IC 480-472000/3			10:22	X	X																				
IC 480-472000/4			10:25	X	X																				
ICV 480-472000/5	1		10:29	X	X																				
ICB 480-472000/6	1		10:32	X	X																				
ICVL 480-472000/7	1		10:36	X	X																				
ICSA 480-472000/8	1		10:40	X	X																				
ICSAB 480-472000/9	1		10:43	X	X																				
ZZZZZZ			10:47																						
ZZZZZZ			10:51																						
ZZZZZZ			10:55																						
ZZZZZZ			10:58																						
ZZZZZZ			11:02																						
CCV 480-472000/15			11:06																						
CCB 480-472000/16			11:09																						
CCV 480-472000/17	1		12:53	X	X																				
CCB 480-472000/18	1		12:57	X	X																				
CCVL 480-472000/19	1		13:01	X	X																				
MB 480-470105/1-A	1	R	13:08	X	X																				
LCS 480-470105/2-A	1	R	13:12	X	X																				
ZZZZZZ			13:15																						
ZZZZZZ			13:19																						
ZZZZZZ			13:23																						
ZZZZZZ			13:26																						
ZZZZZZ			13:30																						
ZZZZZZ			13:34																						
CCV 480-472000/28	1		13:38	X	X																				
CCB 480-472000/29	1		13:41	X	X																				
CCVL 480-472000/30	1		13:45	X	X																				
ZZZZZZ			13:49																						
ZZZZZZ			13:52																						
ZZZZZZ			13:56																						
ZZZZZZ			14:00																						
ZZZZZZ			14:04																						
ZZZZZZ			14:07																						
480-152241-1	1	D	14:11	X	X																				
480-152241-2	1	D	14:15	X	X																				
480-152241-3	1	D	14:19	X	X																				
CCV 480-472000/40	1		14:23	X	X																				
CCB 480-472000/41	1		14:26	X	X																				
CCVL 480-472000/42	1		14:30	X	X																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/08/2019 10:14 End Date: 05/08/2019 15:14

Lab Sample ID	D / F	Type	Time	Analytes																					
				Fe	Mn																				
ZZZZZZ			14:34																						
ZZZZZZ			14:37																						
ZZZZZZ			14:41																						
ZZZZZZ			14:45																						
ZZZZZZ			14:49																						
ZZZZZZ			14:52																						
ZZZZZZ			14:56																						
ZZZZZZ			15:00																						
CCV 480-472000/51			15:07																						
CCB 480-472000/52			15:11																						
CCVL 480-472000/53			15:14																						

Prep Types
D = Dissolved
R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

ICV Source: MEI_10_CCVL_00247 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00247

Analyte	ICVL 480-472000/7 05/08/2019 10:36				CCVL 480-472000/19 05/08/2019 13:01				CCVL 480-472000/30 05/08/2019 13:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron, Dissolved	0.0577		0.0500	115	0.0545		0.0500	109	0.0528		0.0500	106
Manganese, Dissolved	0.00352		0.00300	117	0.00344		0.00300	115	0.00346		0.00300	115

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

ICV Source: MEI_10_CCVL_00247 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00247

Analyte	CCVL 480-472000/42 05/08/2019 14:30											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron, Dissolved	0.0530		0.0500	106								
Manganese, Dissolved	0.00347		0.00300	116								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/08/2019 10:14 End Date: 05/08/2019 17:27

Lab Sample ID	D / F	Type	Time	Analytes																				
				Fe	Mn																			
ICIS 480-472001/1	1		10:14	X	X																			
IC 480-472001/2			10:18	X	X																			
IC 480-472001/3			10:22	X	X																			
IC 480-472001/4			10:25	X	X																			
ICV 480-472001/5	1		10:29	X	X																			
ICB 480-472001/6	1		10:32	X	X																			
ICVL 480-472001/7	1		10:36	X	X																			
ICSA 480-472001/8	1		10:40	X	X																			
ICSAB 480-472001/9	1		10:43	X	X																			
ZZZZZZ			10:47																					
ZZZZZZ			10:51																					
ZZZZZZ			10:55																					
ZZZZZZ			10:58																					
ZZZZZZ			11:02																					
CCV 480-472001/15			11:06																					
CCB 480-472001/16			11:09																					
CCV 480-472001/17	1		14:23	X	X																			
CCB 480-472001/18	1		14:26	X	X																			
CCVL 480-472001/19	1		14:30	X	X																			
MB 480-470109/1-A	1	T	15:03	X	X																			
CCV 480-472001/21	1		15:07	X	X																			
CCB 480-472001/22	1		15:11	X	X																			
CCVL 480-472001/23	1		15:14	X	X																			
LCS 480-470109/2-A	1	T	15:18	X	X																			
ZZZZZZ			15:22																					
ZZZZZZ			15:25																					
ZZZZZZ			15:29																					
ZZZZZZ			15:33																					
ZZZZZZ			15:36																					
ZZZZZZ			15:40																					
ZZZZZZ			15:43																					
ZZZZZZ			15:47																					
CCV 480-472001/33	1		15:51	X	X																			
CCB 480-472001/34	1		15:54	X	X																			
CCVL 480-472001/35	1		15:58	X	X																			
ZZZZZZ			16:02																					
ZZZZZZ			16:05																					
ZZZZZZ			16:09																					
ZZZZZZ			16:13																					
ZZZZZZ			16:16																					
ZZZZZZ			16:20																					
ZZZZZZ			16:24																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/08/2019 10:14 End Date: 05/08/2019 17:27

Lab Sample ID	D/F	Type	Time	Analytes																				
				Fe	Mn																			
ZZZZZZ			16:27																					
ZZZZZZ			16:31																					
CCV 480-472001/45	1		16:35	X	X																			
CCB 480-472001/46	1		16:38	X	X																			
CCVL 480-472001/47	1		16:42	X	X																			
ZZZZZZ			16:46																					
ZZZZZZ			16:50																					
ZZZZZZ			16:53																					
480-152241-1	1	T	16:57	X	X																			
480-152241-2	1	T	17:01	X	X																			
480-152241-3	1	T	17:05	X	X																			
CCV 480-472001/54	1		17:20	X	X																			
CCB 480-472001/55	1		17:23	X	X																			
CCVL 480-472001/56	1		17:27	X	X																			

Prep Types
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152241-1

SDG No.:

ICV Source: MEI_10_CCVL_00247 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00247

Analyte	CCVL 480-472001/35 05/08/2019 15:58				CCVL 480-472001/47 05/08/2019 16:42				CCVL 480-472001/56 05/08/2019 17:27			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	0.0506		0.0500	101	0.0507		0.0500	101	0.0525		0.0500	105
Manganese	0.00343		0.00300	114	0.00348		0.00300	116	0.00347		0.00300	116

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

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Client Information	Sampler: Tom Urban	Lab PM: Johnson, Orlette S	Carrier Tracking No(s):	COC No: 480-129178-29154.1
Client Contact: George Kisluk	Phone: 716-856-5636	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: AECOM				Job #:
Address: 257 West Genesee Street, Suite 400	Due Date Requested:			Preservation Codes:
City: Buffalo	TAT Requested (days): Standard			480-152320 Chain of Custody
State, Zip: NY, 14202-2657				J - DI Water; K - EDTA; L - EDA; W - pH 4-5; Z - other (specify); Other:
Phone:	PO #: CallOut ID 136077			
Email: george.kisluk@aecom.com	WO #:			
Project Name: Lapp Insulator Site# 819017	Project #: 48018841			
Site: Lapp Insulator - LeRoy, NY	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list OLM04.2	300.0_28D - Sulfate	410.4 - COD	6010C - Fe, Mn	8270D_SIM_MS_ID - 1,4-Dioxane	5210B - BOD	300_48HR - Nitrate	6010C - (MOD) Dissolved Fe, Mn	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A	N	S	D	N	N	N	D	X	
SR-105	4/22/19	0850	G	Water			3	1	1	1	2	1	1	1	11	
SR-006	4/22/19	1030	G	Water			3	1	1	1	2	1	1	1	11	
BRW-01	4/22/19	1135	G	Water			3	1	1	1	2	1	1	1	11	
BRW-01-MS/MSD	4/22/19	1135	G	Water			3	1	1	1	2	1	1	1	11	
FD-20190422	4/22/19	—	G	Water			3	1	1	1	2	1	1	1	11	BRW-01
TB-20190422	4/22/19	—	C	Water			1								1	
				Water												
				Water												
				Water												
				Water												
				Water												

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ] Radiological

Deliverable Requested: I, II, III, (IV) Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [X] Disposal By Lab [ ] Archive For ____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Drop Off		
Relinquished by: Tom Urban	Date/Time: 4/22/19 @	Company: AECOM	Received by: [illegible signature]	Date/Time: 4/22/19 1700	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.5 4.2 #1 ICE		

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-152320

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Johnson, Orlette S	COC No: 480-49241.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: orlette.johnson@testamericainc.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - New York	Job #: 480-152320-1
Address: 2960 Foster Creighton Drive,	Due Date Requested: 5/14/2019		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: Lapp Insulator Site# 819017	Project #: 48018841		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C/5030C TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SR-105 (480-152320-1)	4/22/19	08:50 Eastern		Water			X	3	
SR-006 (480-152320-2)	4/22/19	10:30 Eastern		Water			X	3	
BRW-01 (480-152320-3)	4/22/19	11:35 Eastern		Water			X	3	
BRW-01 (480-152320-3MS)	4/22/19	11:35 Eastern	MS	Water			X	3	
BRW-01 (480-152320-3MSD)	4/22/19	11:35 Eastern	MSD	Water			X	3	
FD-20190422 (480-152320-4)	4/22/19	Eastern		Water			X	3	
TB-20190422 (480-152320-5)	4/22/19	Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 1	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 4-26-19 1500	Company TAB	Received by:		Date/Time: 04/27/19 09:30	Company TA-NAS	
Relinquished by:	Date/Time:	Company	Received by		Date/Time	Company	
Relinquished by:	Date/Time:	Company	Received by		Date/Time.	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3

Ver: 01/16/2019

Job Narrative
480-152320-1

Receipt
The samples were received on 4/22/2019 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 4.2° C.

GC/MS VOA
Method(s) 8260C: The following sample was diluted due to the nature of the sample matrix: SR-006 (480-152320-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The method blank for analytical batch 490-591225 contained 1,4-Dichlorobenzene, 1,3-Dichlorobenzene, Isopropylbenzene and Methylcyclohexane above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

Method(s) 8260C: The method blank for preparation batch 490-591225 contained 1,2,4-Trichlorobenzene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method(s) 8260C: The laboratory control sample duplicate (LCSD) for analytical batch 490-591468 recovered outside control limits for the following analytes: 1,2-Dichloroethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 490-591468 recovered outside control limits for the following analytes: 1,1,2-Trichloro-1,2,2-trifluoroethane and 1,2-Dichloroethane.

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

GC/MS Semi VOA
Method(s) 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: SR-105 (480-152320-1), SR-006 (480-152320-2), BRW-01 (480-152320-3), BRW-01 (480-152320-3[MS]), BRW-01 (480-152320-3[MSD]) and FD-20190422 (480-152320-4). Elevated reporting limits (RLs) are provided.

Method(s) 8270D SIM ID: The following samples were diluted due to the abundance of target analytes : BRW-01 (480-152320-3[MS]) and BRW-01 (480-152320-3[MSD]). Because of this dilution, the matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270D SIM ID: The 1,4-Dioxane result reported for samples SR-006 (480-152320-2), BRW-01 (480-152320-3), BRW-01 (480-152320-3[MS]), BRW-01 (480-152320-3[MSD]) and FD-20190422 (480-152320-4) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

Method(s) 8270D SIM ID: The recovery of 1,4-Dioxane in the following sample was over the upper range of the initial calibration: SR-105 (480-152320-1). Re-analysis was performed at a higher dilution. Due to the level of dilution required, the IDA 1,4-Dioxane-d8 was diluted to a level that could not be detected; therefore, the recovery of 1,4-Dioxane could not be calculated. The results from the lower dilution have been qualified with an "E" flag and reported.

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

HPLC/IC
Method(s) 300.0: The following samples were analyzed outside of analytical holding time due to laboratory error: SR-105 (480-152320-1), SR-006 (480-152320-2), BRW-01 (480-152320-3), BRW-01 (480-152320-3[MS]), BRW-01 (480-152320-3[MSD]) and FD-20190422 (480-152320-4). The client has been notified and instructed to report the data.

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

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

General Chemistry
Method(s) SM 5210B: The glucose-glutamic acid standard recovered low outside the recovery limits specified in the method in batch 480-469403 .

Method(s) SM 5210B: The following sample was analyzed outside of analytical holding time due to laboratory error: FD-20190422 (480-152320-4). The client has been notified and instructed to report the data.

Method(s) SM 5210B: Elevated reporting limits are provided for the following sample due to insufficient sample for preparation/analysis: FD-20190422 (480-152320-4). Raw result is 18.2 mg/L.

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

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

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

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1 Analy Batch No.: 582279

SDG No.:

Instrument ID: HP39 GC Column: ZB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/20/2019 16:25 Calibration End Date: 03/20/2019 20:17 Calibration ID: 74622

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
1,1-Dichloroethene	0.3314 0.3150	0.2562 0.3152	0.2808 0.3056	0.3348 0.3255	0.3007 0.3274	Ave		0.3093			0.1000	8.0		20.0			
Acetone	+++++ 0.0135	0.0174 0.0120	0.0138 0.0129	0.0142 0.0131	0.0135 0.0132	Ave		0.0137			0.0100	11.0		20.0			
Iodomethane	0.4798 0.5514	0.3834 0.5268	0.4181 0.5343	0.5539 0.5275	0.5135 0.5247	Ave		0.5013			0.1000	11.5		20.0			
Isopropyl alcohol	0.0062 0.0068	0.0080 0.0062	0.0083 0.0061	0.0078 0.0065	0.0077 0.0072	Ave		0.0071			0.0010	11.5		20.0			
Carbon disulfide	1.1293 0.8372	0.7583 0.7858	0.8423 0.7782	0.9666 0.8295	0.8400 0.7458	Lin1	0.1920	0.7766			0.1000				0.9970		0.9900
3-Chloro-1-propene	+++++ 0.2623	+++++ 0.2963	0.2223 0.3604	0.2700 0.3529	0.3029 +++++	Lin1	-0.411	0.3472			0.1000				0.9940		0.9900
Methyl acetate	+++++ 0.1070	0.1245 0.1002	0.1326 0.0942	0.1321 0.1059	0.1159 0.1062	Ave		0.1132			0.1000	12.3		20.0			
Acetonitrile	+++++ 0.0103	+++++ 0.0105	0.0110 0.0111	0.0109 0.0113	0.0100 0.0121	Ave		0.0109			0.0010	5.8		20.0			
Methylene Chloride	+++++ 0.3706	+++++ 0.3340	0.4540 0.3303	0.4429 0.3414	0.3947 0.3418	Ave		0.3762			0.0100	13.2		20.0			
2-Methyl-2-propanol	+++++ 1.4140	1.1492 1.3673	1.3006 1.5082	1.8117 1.5951	1.2670 +++++	Ave		1.4266			0.0010	14.6		20.0			
Methyl tert-butyl ether	0.8586 0.7321	0.7401 0.6715	0.7278 0.6528	0.8391 0.6659	0.7373 0.6664	Ave		0.7291			0.1000	9.8		20.0			
trans-1,2-Dichloroethene	0.5915 0.4773	0.4675 0.4516	0.3936 0.4452	0.5321 0.4636	0.4552 0.4702	Ave		0.4748			0.1000	11.2		20.0			
Acrylonitrile	0.0667 0.0604	0.0571 0.0570	0.0565 0.0549	0.0642 0.0569	0.0615 0.0565	Ave		0.0592			0.0100	6.6		20.0			
n-Hexane	0.4821 0.4230	0.3344 0.4187	0.4064 0.4187	0.4741 0.4483	0.4213 0.4425	Ave		0.4269			0.1000	9.6		20.0			
Isopropyl ether	1.2988 0.9634	1.0389 0.8897	0.9544 0.8671	1.0860 0.8712	0.9688 0.8276	Lin2	0.1878	0.9036			0.1000				0.9930		0.9900
Vinyl acetate	0.0708 0.0557	0.0496 0.0523	0.0528 0.0497	0.0608 0.0542	0.0544 0.0570	Ave		0.0557		*	0.1000	11.2		20.0			
1,1-Dichloroethane	0.6896 0.6564	0.5741 0.6237	0.6001 0.6071	0.6328 0.6326	0.6676 0.6364	Ave		0.6320			0.2000	5.3		20.0			
2-Chloro-1,3-butadiene	0.6475 0.5204	0.5623 0.5038	0.5167 0.5024	0.6059 0.5128	0.5084 0.5110	Ave		0.5391			0.1000	9.3		20.0			
Tert-butyl ethyl ether	1.0219 0.9012	0.9278 0.8587	0.8713 0.8211	1.0377 0.8439	0.9050 0.8300	Ave		0.9019			0.1000	8.4		20.0			
2,2-Dichloropropane	0.7549 0.5576	0.5071 0.5482	0.5260 0.5387	0.6198 0.5633	0.5441 0.5691	Lin1	0.0287	0.5617			0.1000				0.9990		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1 Analy Batch No.: 582279

SDG No.:

Instrument ID: HP39 GC Column: ZB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/20/2019 16:25 Calibration End Date: 03/20/2019 20:17 Calibration ID: 74622

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
cis-1,2-Dichloroethene	0.5311 0.4311	0.3750 0.4047	0.4166 0.3958	0.5024 0.4124	0.4365 0.4164	Ave		0.4322			0.1000	11.2		20.0			
Ethyl acetate	+++++ 0.0208	0.0232 0.0195	0.0161 0.0185	0.0253 0.0199	0.0205 0.0210	Ave		0.0205			0.0100	12.8		20.0			
2-Butanone (MEK)	0.0195 0.0193	0.0206 0.0172	0.0213 0.0188	0.0238 0.0194	0.0211 0.0193	Ave		0.0200			0.0100	8.9		20.0			
Propionitrile	0.0216 0.0234	0.0212 0.0219	0.0193 0.0210	0.0250 0.0216	0.0231 0.0225	Ave		0.0221			0.0100	7.0		20.0			
Methacrylonitrile	0.1335 0.1097	0.1124 0.0988	0.1034 0.0970	0.1240 0.0995	0.1092 0.0942	Ave		0.1082			0.1000	11.6		20.0			
Chlorobromomethane	0.2459 0.2388	0.2318 0.2244	0.2314 0.2210	0.2806 0.2295	0.2505 0.2312	Ave		0.2385			0.1000	7.3		20.0			
Tetrahydrofuran	+++++ 0.0652	+++++ 0.0560	0.0642 0.0533	0.0698 0.0563	0.0615 0.0565	Ave		0.0603			0.0500	9.5		20.0			
Chloroform	0.7400 0.6493	0.5641 0.6136	0.6466 0.5865	0.7226 0.6173	0.6481 0.6028	Ave		0.6391			0.2000	8.8		20.0			
1,1,1-Trichloroethane	0.7117 0.5995	0.5065 0.5730	0.5986 0.5664	0.6084 0.5925	0.5712 0.6021	Ave		0.5930			0.1000	8.6		20.0			
Cyclohexane	+++++ 0.5507	0.5027 0.5509	0.5403 0.5447	0.5907 0.5741	0.5194 0.5704	Ave		0.5493			0.1000	5.0		20.0			
Carbon tetrachloride	0.6350 0.5338	0.4706 0.5389	0.4710 0.5202	0.5637 0.5545	0.5112 0.5491	Ave		0.5348			0.1000	8.9		20.0			
1,1-Dichloropropene	0.6086 0.4871	0.4875 0.4822	0.4797 0.4727	0.5304 0.4959	0.4877 0.4833	Ave		0.5015			0.1000	8.1		20.0			
Isobutyl alcohol	0.0134 0.0107	0.0095 0.0101	0.0115 0.0107	0.0124 0.0113	0.0107 0.0112	Ave		0.0112			0.0010	9.9		20.0			
t-Amyl alcohol	0.0148 0.0122	0.0112 0.0108	0.0120 0.0110	0.0141 0.0117	0.0123 0.0123	Ave		0.0123			0.0010	10.7		20.0			
Benzene	1.9672 1.5340	1.5166 1.4355	1.5266 1.3878	1.6966 1.3954	1.5443 1.2743	Ave		1.5278			0.5000	12.6		20.0			
Tert-amyl methyl ether	1.1808 0.9017	0.9000 0.8440	0.8692 0.8178	0.9969 0.8430	0.9185 0.8440	Ave		0.9116			0.1000	11.8		20.0			
1,2-Dichloroethane	0.5608 0.4043	0.4154 0.3868	0.3798 0.3706	0.4388 0.3890	0.3848 0.3813	Lin2	0.0763	0.3815			0.1000				0.9940		0.9900
n-Heptane	+++++ 0.3607	0.3226 0.3583	0.2751 0.3473	0.3722 0.3644	0.3438 0.3703	Ave		0.3461			0.1000	8.9		20.0			
n-Butanol	+++++ 0.0033	+++++ 0.0030	0.0032 0.0031	0.0037 0.0031	0.0032 0.0032	Ave		0.0032			0.0010	6.7		20.0			
Trichloroethene	0.5580 0.4524	0.4323 0.4298	0.4325 0.4261	0.4984 0.4435	0.4500 0.4400	Ave		0.4563			0.2000	9.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1 Analy Batch No.: 582279

SDG No.:

Instrument ID: HP39 GC Column: ZB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/20/2019 16:25 Calibration End Date: 03/20/2019 20:17 Calibration ID: 74622

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10		B	M1	M2								
Ethyl acrylate	+++++ 0.2444	0.2266 0.2271	0.2397 0.2215	0.2692 0.2556	0.2352 0.2568	Ave		0.2418			0.1000	6.7		20.0			
Methylcyclohexane	0.7386 0.5964	0.5255 0.6037	0.5637 0.5921	0.6371 0.6387	0.5822 0.6357	Ave		0.6114			0.1000	9.3		20.0			
1,2-Dichloropropane	0.4304 0.3392	0.3090 0.3194	0.3399 0.3075	0.3794 0.3226	0.3322 0.3296	Ave		0.3409			0.1000	11.0		20.0			
Methyl methacrylate	+++++ 0.1934	0.2090 0.1767	0.1860 0.1788	0.2336 0.1930	0.2122 0.1824	Ave		0.1961			0.1000	9.6		20.0			
1,4-Dioxane	+++++ 1.5630	1.0273 1.2450	1.1846 1.0331	1.3031 1.2090	1.4244 +++++	Ave		1.2487			0.0010	14.6		20.0			
Dibromomethane	0.1633 0.1628	0.1518 0.1502	0.1636 0.1448	0.1909 0.1492	0.1562 0.1524	Ave		0.1585			0.0500	8.3		20.0			
Bromodichloromethane	0.4758 0.4511	0.4301 0.4385	0.4163 0.4319	0.4929 0.4524	0.4454 0.4564	Ave		0.4491			0.2000	5.0		20.0			
2-Chloroethyl vinyl ether	0.2193 0.1915	0.1961 0.1839	0.1672 0.1806	0.2114 0.1860	0.1900 0.1937	Ave		0.1920			0.1000	7.7		20.0			
2-Nitropropane	0.1243 0.0997	0.1135 0.0965	0.0998 0.0989	0.1170 0.1041	0.1006 0.1094	Ave		0.1064			0.0100	8.7		20.0			
cis-1,3-Dichloropropene	0.8117 0.7209	0.6494 0.6863	0.6364 0.6819	0.7650 0.6874	0.6690 0.6986	Ave		0.7007			0.2000	7.6		20.0			
4-Methyl-2-pentanone (MIBK)	0.1056 0.0901	0.0897 0.0798	0.0867 0.0775	0.0927 0.0789	0.0877 0.0824	Ave		0.0871			0.0500	9.6		20.0			
Toluene	2.7373 2.2474	2.3057 2.0395	2.2720 1.9816	2.4299 1.9124	2.1585 1.7180	Ave		2.1802			0.4000	13.2		20.0			
trans-1,3-Dichloropropene	0.6691 0.5840	0.5494 0.5553	0.5071 0.5504	0.6475 0.5648	0.5630 0.5858	Ave		0.5776			0.0100	8.3		20.0			
Ethyl methacrylate	0.5209 0.4194	0.3915 0.3843	0.3729 0.3737	0.4427 0.3819	0.3908 0.3900	Ave		0.4068			0.1000	11.2		20.0			
1,1,2-Trichloroethane	0.3330 0.3151	0.2922 0.2985	0.3190 0.2988	0.3689 0.2919	0.3069 0.3024	Ave		0.3127			0.1000	7.5		20.0			
Tetrachloroethene	0.6582 0.6045	0.5874 0.5913	0.5716 0.5931	0.6165 0.6083	0.5823 0.6160	Ave		0.6029			0.2000	4.0		20.0			
1,3-Dichloropropane	0.6291 0.5592	0.5216 0.5181	0.5404 0.5201	0.6434 0.5191	0.5432 0.5272	Ave		0.5521			0.1000	8.4		20.0			
2-Hexanone	0.0924 0.0776	0.0809 0.0709	0.0764 0.0711	0.0886 0.0741	0.0784 0.0754	Ave		0.0786			0.0500	8.9		20.0			
n-Butyl acetate	0.4170 0.3029	0.2888 0.2866	0.2927 0.2669	0.3331 0.2912	0.3111 0.2943	Lin2	0.0510	0.2886			0.1000				0.9900		0.9900
Dibromochloromethane	0.3237 0.3170	0.2795 0.3009	0.2900 0.3091	0.3280 0.3131	0.2957 0.3248	Ave		0.3082			0.1000	5.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab File ID: 043019-01.D BFB Injection Date: 04/30/2019

Instrument ID: HP39 BFB Injection Time: 09:59

Analysis Batch No.: 591468

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.1	
75	30.0 - 60.0 % of mass 95	50.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.3	(0.3) 1
174	50.0 - 120.00 % of mass 95	98.6	
175	5.0 - 9.0 % of mass 174	7.8	(7.9) 1
176	95.0 - 101.0 % of mass 174	98.7	(100.2) 1
177	5.0 - 9.0 % of mass 176	6.0	(6.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-591468/2	043019-02.D	04/30/2019	10:25
	LCS 490-591468/3	043019-03.D	04/30/2019	10:51
	LCSD 490-591468/4	043019-04.D	04/30/2019	11:17
	MB 490-591468/5	043019-05.D	04/30/2019	11:43
BRW-01	480-152320-3	043019-18.D	04/30/2019	17:21
FD-20190422	480-152320-4	043019-19.D	04/30/2019	17:47
SR-006	480-152320-2	043019-20.D	04/30/2019	18:13
BRW-01 MS	480-152320-3 MS	043019-24.D	04/30/2019	19:57
BRW-01 MSD	480-152320-3 MSD	043019-25.D	04/30/2019	20:23

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab Sample ID: CCVIS 490-591468/2 Calibration Date: 04/30/2019 10:25

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 043019-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.3476	0.1996	0.1000	11.5	20.0	-42.6*	20.0
Dichlorodifluoromethane	Ave	0.4093	0.4076	0.1000	19.9	20.0	-0.4	20.0
Chloromethane	Ave	0.4315	0.3433	0.1000	15.9	20.0	-20.4*	20.0
Vinyl chloride	Ave	0.4196	0.3368	0.1000	16.1	20.0	-19.7	20.0
Butadiene	Ave	0.3829	0.2992	0.1000	15.6	20.0	-21.9*	20.0
Bromomethane	Ave	0.2325	0.2486	0.1000	21.4	20.0	6.9	20.0
Chloroethane	Lin2		0.2199	0.1000	17.5	20.0	-12.4	20.0
Dichlorofluoromethane	Ave	0.6262	0.5752	0.1000	18.4	20.0	-8.1	20.0
Trichlorofluoromethane	Ave	0.5901	0.5931	0.1000	20.1	20.0	0.5	20.0
Ethanol	Ave	0.0005	0.0006*	0.0010	868	800	8.5	20.0
Ethyl ether	Ave	0.2020	0.1943	0.1000	19.2	20.0	-3.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2837	0.2895	0.1000	20.4	20.0	2.0	20.0
Acrolein	Ave	0.0216	0.0184	0.0100	42.0	49.4	-15.0	20.0
1,1-Dichloroethene	Ave	0.3093	0.3191	0.1000	20.6	20.0	3.2	20.0
Acetone	Ave	0.0137	0.0130	0.0100	94.7	100	-5.3	20.0
Iodomethane	Ave	0.5013	0.5848	0.1000	23.3	20.0	16.7	20.0
Isopropyl alcohol	Ave	0.0071	0.0076	0.0010	213	200	6.7	20.0
Carbon disulfide	Lin1		0.8438	0.1000	21.5	20.0	7.4	20.0
3-Chloro-1-propene	Lin1		0.2519	0.1000	15.7	20.0	-21.5*	20.0
Methyl acetate	Ave	0.1132	0.0945*	0.1000	33.4	40.0	-16.5	20.0
Acetonitrile	Ave	0.0109	0.0088	0.0010	161	200	-19.5	20.0
Methylene Chloride	Ave	0.3762	0.3159	0.0100	16.8	20.0	-16.0	20.0
2-Methyl-2-propanol	Ave	1.427	1.197	0.0010	168	200	-16.1	20.0
Methyl tert-butyl ether	Ave	0.7291	0.7334	0.1000	20.1	20.0	0.6	20.0
trans-1,2-Dichloroethene	Ave	0.4748	0.4383	0.1000	18.5	20.0	-7.7	20.0
Acrylonitrile	Ave	0.0592	0.0556	0.0100	188	200	-6.1	20.0
n-Hexane	Ave	0.4269	0.3954	0.1000	18.5	20.0	-7.4	20.0
Isopropyl ether	Lin2		0.8046	0.1000	17.6	20.0	-12.0	20.0
1,1-Dichloroethane	Ave	0.6320	0.5915	0.2000	18.7	20.0	-6.4	20.0
Vinyl acetate	Ave	0.0557	0.0577*	0.1000	41.4	40.0	3.5	20.0
2-Chloro-1,3-butadiene	Ave	0.5391	0.5122	0.1000	19.0	20.0	-5.0	20.0
Tert-butyl ethyl ether	Ave	0.9019	0.8534	0.1000	18.9	20.0	-5.4	20.0
2,2-Dichloropropane	Lin1		0.6003	0.1000	21.3	20.0	6.6	20.0
cis-1,2-Dichloroethene	Ave	0.4322	0.4243	0.1000	19.6	20.0	-1.8	20.0
2-Butanone (MEK)	Ave	0.0200	0.0206	0.0100	103	100	2.7	20.0
Ethyl acetate	Ave	0.0205	0.0220	0.0100	42.8	40.0	7.0	20.0
Propionitrile	Ave	0.0221	0.0221	0.0100	200	200	0.2	20.0
Methacrylonitrile	Ave	0.1082	0.0990*	0.1000	183	200	-8.5	20.0
Chlorobromomethane	Ave	0.2385	0.2523	0.1000	21.2	20.0	5.8	20.0
Tetrahydrofuran	Ave	0.0603	0.0551	0.0500	36.5	40.0	-8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab Sample ID: CCVIS 490-591468/2 Calibration Date: 04/30/2019 10:25

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 043019-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chloroform	Ave	0.6391	0.6482	0.2000	20.3	20.0	1.4	20.0
1,1,1-Trichloroethane	Ave	0.5930	0.6225	0.1000	21.0	20.0	5.0	20.0
Cyclohexane	Ave	0.5493	0.4909	0.1000	17.9	20.0	-10.6	20.0
1,1-Dichloropropene	Ave	0.5015	0.4674	0.1000	18.6	20.0	-6.8	20.0
Carbon tetrachloride	Ave	0.5348	0.5690	0.1000	21.3	20.0	6.4	20.0
Isobutyl alcohol	Ave	0.0112	0.0097	0.0010	436	500	-12.8	20.0
t-Amyl alcohol	Ave	0.0123	0.0138	0.0010	225	200	12.6	20.0
Benzene	Ave	1.528	1.477	0.5000	19.3	20.0	-3.3	20.0
Tert-amyl methyl ether	Ave	0.9116	0.9052	0.1000	19.9	20.0	-0.7	20.0
1,2-Dichloroethane	Lin2		0.4391	0.1000	22.8	20.0	14.1	20.0
n-Heptane	Ave	0.3461	0.2903	0.1000	16.8	20.0	-16.1	20.0
n-Butanol	Ave	0.0032	0.0040	0.0010	622	500	24.3*	20.0
Trichloroethene	Ave	0.4563	0.4486	0.2000	19.7	20.0	-1.7	20.0
Ethyl acrylate	Ave	0.2418	0.2274	0.1000	18.8	20.0	-6.0	20.0
Methylcyclohexane	Ave	0.6114	0.5801	0.1000	19.0	20.0	-5.1	20.0
1,2-Dichloropropane	Ave	0.3409	0.3017	0.1000	17.7	20.0	-11.5	20.0
Methyl methacrylate	Ave	0.1961	0.1755	0.1000	35.8	40.0	-10.5	20.0
1,4-Dioxane	Ave	1.249	1.145	0.0010	367	400	-8.3	20.0
Dibromomethane	Ave	0.1585	0.1579	0.0500	19.9	20.0	-0.4	20.0
Bromodichloromethane	Ave	0.4491	0.4661	0.2000	20.8	20.0	3.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1920	0.1777	0.1000	18.5	20.0	-7.4	20.0
2-Nitropropane	Ave	0.1064	0.1037	0.0100	39.0	40.0	-2.5	20.0
cis-1,3-Dichloropropene	Ave	0.7007	0.6597	0.2000	18.8	20.0	-5.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0871	0.0702	0.0500	80.6	100	-19.4	20.0
Toluene	Ave	2.180	1.911	0.4000	17.5	20.0	-12.3	20.0
trans-1,3-Dichloropropene	Ave	0.5776	0.5335	0.0100	18.5	20.0	-7.6	20.0
Ethyl methacrylate	Ave	0.4068	0.3511	0.1000	17.3	20.0	-13.7	20.0
1,1,2-Trichloroethane	Ave	0.3127	0.2863	0.1000	18.3	20.0	-8.5	20.0
Tetrachloroethene	Ave	0.6029	0.5660	0.2000	18.8	20.0	-6.1	20.0
1,3-Dichloropropane	Ave	0.5521	0.4639	0.1000	16.8	20.0	-16.0	20.0
2-Hexanone	Ave	0.0786	0.0638	0.0500	81.2	100	-18.8	20.0
n-Butyl acetate	Lin2		0.2080	0.1000	14.2	20.0	-28.8*	20.0
Dibromochloromethane	Ave	0.3082	0.2876	0.1000	18.7	20.0	-6.7	20.0
1,2-Dibromoethane	Ave	0.3106	0.2835	0.1000	18.3	20.0	-8.7	20.0
1-Chlorohexane	Ave	0.5398	0.4428	0.1000	16.4	20.0	-18.0	20.0
Chlorobenzene	Ave	1.405	1.299	0.5000	18.5	20.0	-7.5	20.0
Ethylbenzene	Ave	2.311	2.118	0.1000	18.3	20.0	-8.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5201	0.4794	0.1000	18.4	20.0	-7.8	20.0
m-Xylene & p-Xylene	Ave	1.827	1.656	0.1000	18.1	20.0	-9.4	20.0
o-Xylene	Ave	1.847	1.663	0.3000	18.0	20.0	-10.0	20.0
Styrene	Ave	1.548	1.391	0.3000	18.0	20.0	-10.1	20.0

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab File ID: 042919-01.D BFB Injection Date: 04/29/2019

Instrument ID: HP39 BFB Injection Time: 09:57

Analysis Batch No.: 591225

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.8	
75	30.0 - 60.0 % of mass 95	52.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.1	(0.1) 1
174	50.0 - 120.00 % of mass 95	96.3	
175	5.0 - 9.0 % of mass 174	7.0	(7.3) 1
176	95.0 - 101.0 % of mass 174	92.4	(96.0) 1
177	5.0 - 9.0 % of mass 176	6.8	(7.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 490-591225/2	042919-02.D	04/29/2019	10:23
	LCS 490-591225/3	042919-03.D	04/29/2019	10:49
	LCSD 490-591225/4	042919-04.D	04/29/2019	11:15
	MB 490-591225/8	042919-08.D	04/29/2019	12:59
TB-20190422	480-152320-5	042919-21.D	04/29/2019	18:37
SR-105	480-152320-1	042919-23.D	04/29/2019	19:29

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab Sample ID: CCVIS 490-591225/2 Calibration Date: 04/29/2019 10:23

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042919-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propene	Ave	0.3476	0.2445	0.1000	14.1	20.0	-29.6*	20.0
Dichlorodifluoromethane	Ave	0.4093	0.5200	0.1000	25.4	20.0	27.0*	20.0
Chloromethane	Ave	0.4315	0.3679	0.1000	17.1	20.0	-14.7	20.0
Vinyl chloride	Ave	0.4196	0.3810	0.1000	18.2	20.0	-9.2	20.0
Butadiene	Ave	0.3829	0.3572	0.1000	18.7	20.0	-6.7	20.0
Bromomethane	Ave	0.2325	0.2810	0.1000	24.2	20.0	20.8*	20.0
Chloroethane	Lin2		0.2425	0.1000	19.3	20.0	-3.3	20.0
Dichlorofluoromethane	Ave	0.6262	0.6180	0.1000	19.7	20.0	-1.3	20.0
Trichlorofluoromethane	Ave	0.5901	0.6964	0.1000	23.6	20.0	18.0	20.0
Ethanol	Ave	0.0005	0.0003*	0.0010	483	800	-39.7*	20.0
Ethyl ether	Ave	0.2020	0.1816	0.1000	18.0	20.0	-10.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2837	0.2666	0.1000	18.8	20.0	-6.0	20.0
Acrolein	Ave	0.0216	0.0170	0.0100	38.9	49.4	-21.3*	20.0
1,1-Dichloroethene	Ave	0.3093	0.3321	0.1000	21.5	20.0	7.4	20.0
Acetone	Ave	0.0137	0.0126	0.0100	91.9	100	-8.1	20.0
Iodomethane	Ave	0.5013	0.6099	0.1000	24.3	20.0	21.7*	20.0
Isopropyl alcohol	Ave	0.0071	0.0048	0.0010	134	200	-33.1*	20.0
Carbon disulfide	Lin1		0.8686	0.1000	22.1	20.0	10.6	20.0
3-Chloro-1-propene	Lin1		0.2981	0.1000	18.4	20.0	-8.2	20.0
Methyl acetate	Ave	0.1132	0.0990*	0.1000	35.0	40.0	-12.5	20.0
Acetonitrile	Ave	0.0109	0.0076	0.0010	139	200	-30.3*	20.0
Methylene Chloride	Ave	0.3762	0.3429	0.0100	18.2	20.0	-8.9	20.0
2-Methyl-2-propanol	Ave	1.427	1.380	0.0010	194	200	-3.2	20.0
Methyl tert-butyl ether	Ave	0.7291	0.7424	0.1000	20.4	20.0	1.8	20.0
trans-1,2-Dichloroethene	Ave	0.4748	0.4638	0.1000	19.5	20.0	-2.3	20.0
Acrylonitrile	Ave	0.0592	0.0544	0.0100	184	200	-8.0	20.0
n-Hexane	Ave	0.4269	0.3533	0.1000	16.5	20.0	-17.3	20.0
Isopropyl ether	Lin2		0.9002	0.1000	19.7	20.0	-1.4	20.0
1,1-Dichloroethane	Ave	0.6320	0.6159	0.2000	19.5	20.0	-2.6	20.0
Vinyl acetate	Ave	0.0557	0.0576*	0.1000	41.3	40.0	3.3	20.0
2-Chloro-1,3-butadiene	Ave	0.5391	0.5516	0.1000	20.5	20.0	2.3	20.0
Tert-butyl ethyl ether	Ave	0.9019	0.9193	0.1000	20.4	20.0	1.9	20.0
2,2-Dichloropropane	Lin1		0.6264	0.1000	22.3	20.0	11.3	20.0
cis-1,2-Dichloroethene	Ave	0.4322	0.4290	0.1000	19.9	20.0	-0.7	20.0
Ethyl acetate	Ave	0.0205	0.0223	0.0100	43.4	40.0	8.5	20.0
2-Butanone (MEK)	Ave	0.0200	0.0209	0.0100	104	100	4.3	20.0
Propionitrile	Ave	0.0221	0.0207	0.0100	188	200	-6.1	20.0
Chlorobromomethane	Ave	0.2385	0.2572	0.1000	21.6	20.0	7.8	20.0
Methacrylonitrile	Ave	0.1082	0.0966*	0.1000	179	200	-10.7	20.0
Tetrahydrofuran	Ave	0.0603	0.0528	0.0500	35.0	40.0	-12.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab Sample ID: CCVIS 490-591225/2 Calibration Date: 04/29/2019 10:23

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042919-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chloroform	Ave	0.6391	0.6820	0.2000	21.3	20.0	6.7	20.0
1,1,1-Trichloroethane	Ave	0.5930	0.6238	0.1000	21.0	20.0	5.2	20.0
Cyclohexane	Ave	0.5493	0.4459	0.1000	16.2	20.0	-18.8	20.0
1,1-Dichloropropene	Ave	0.5015	0.5035	0.1000	20.1	20.0	0.4	20.0
Carbon tetrachloride	Ave	0.5348	0.5706	0.1000	21.3	20.0	6.7	20.0
Isobutyl alcohol	Ave	0.0112	0.0078	0.0010	351	500	-29.9*	20.0
Benzene	Ave	1.528	1.522	0.5000	19.9	20.0	-0.4	20.0
t-Amyl alcohol	Ave	0.0123	0.0112	0.0010	184	200	-8.2	20.0
Tert-amyl methyl ether	Ave	0.9116	0.8927	0.1000	19.6	20.0	-2.1	20.0
1,2-Dichloroethane	Lin2		0.4469	0.1000	23.2	20.0	16.1	20.0
n-Heptane	Ave	0.3461	0.2469	0.1000	14.3	20.0	-28.7*	20.0
n-Butanol	Ave	0.0032	0.0024	0.0010	371	500	-25.7*	20.0
Trichloroethene	Ave	0.4563	0.4769	0.2000	20.9	20.0	4.5	20.0
Ethyl acrylate	Ave	0.2418	0.2369	0.1000	19.6	20.0	-2.0	20.0
Methylcyclohexane	Ave	0.6114	0.4966	0.1000	16.2	20.0	-18.8	20.0
1,2-Dichloropropane	Ave	0.3409	0.3113	0.1000	18.3	20.0	-8.7	20.0
Methyl methacrylate	Ave	0.1961	0.1858	0.1000	37.9	40.0	-5.2	20.0
1,4-Dioxane	Ave	1.249	1.132	0.0010	363	400	-9.3	20.0
Dibromomethane	Ave	0.1585	0.1648	0.0500	20.8	20.0	4.0	20.0
Bromodichloromethane	Ave	0.4491	0.4857	0.2000	21.6	20.0	8.2	20.0
2-Chloroethyl vinyl ether	Ave	0.1920	0.1819	0.1000	19.0	20.0	-5.2	20.0
2-Nitropropane	Ave	0.1064	0.1047	0.0100	39.4	40.0	-1.6	20.0
cis-1,3-Dichloropropene	Ave	0.7007	0.7188	0.2000	20.5	20.0	2.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.0871	0.0757	0.0500	86.9	100	-13.1	20.0
Toluene	Ave	2.180	2.089	0.4000	19.2	20.0	-4.2	20.0
trans-1,3-Dichloropropene	Ave	0.5776	0.5862	0.0100	20.3	20.0	1.5	20.0
Ethyl methacrylate	Ave	0.4068	0.3569	0.1000	17.5	20.0	-12.3	20.0
1,1,2-Trichloroethane	Ave	0.3127	0.3041	0.1000	19.5	20.0	-2.7	20.0
Tetrachloroethene	Ave	0.6029	0.5551	0.2000	18.4	20.0	-7.9	20.0
1,3-Dichloropropane	Ave	0.5521	0.5180	0.1000	18.8	20.0	-6.2	20.0
2-Hexanone	Ave	0.0786	0.0653	0.0500	83.0	100	-17.0	20.0
n-Butyl acetate	Lin2		0.2225	0.1000	15.2	20.0	-23.8*	20.0
Dibromochloromethane	Ave	0.3082	0.3397	0.1000	22.0	20.0	10.2	20.0
1,2-Dibromoethane	Ave	0.3106	0.3050	0.1000	19.6	20.0	-1.8	20.0
1-Chlorohexane	Ave	0.5398	0.4105	0.1000	15.2	20.0	-24.0*	20.0
Chlorobenzene	Ave	1.405	1.376	0.5000	19.6	20.0	-2.0	20.0
Ethylbenzene	Ave	2.311	2.117	0.1000	18.3	20.0	-8.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5201	0.5070	0.1000	19.5	20.0	-2.5	20.0
m-Xylene & p-Xylene	Ave	1.827	1.649	0.1000	18.1	20.0	-9.7	20.0
o-Xylene	Ave	1.847	1.706	0.3000	18.5	20.0	-7.6	20.0
Styrene	Ave	1.548	1.443	0.3000	18.6	20.0	-6.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Nashville Job No.: 480-152320-1

SDG No.:

Lab Sample ID: CCVIS 490-591225/2 Calibration Date: 04/29/2019 10:23

Instrument ID: HP39 Calib Start Date: 03/20/2019 16:25

GC Column: ZB-624 ID: 0.18(mm) Calib End Date: 03/20/2019 20:17

Lab File ID: 042919-02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Bromoform	Ave	0.2447	0.2352	0.0100	19.2	20.0	-3.9	20.0
Isopropylbenzene	Ave	2.256	1.954	0.1000	17.3	20.0	-13.4	20.0
Cyclohexanone	Ave	0.0048	0.0039	0.0010	162	200	-18.9	20.0
Bromobenzene	Ave	1.071	1.076	0.1000	20.1	20.0	0.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5739	0.5467	0.3000	19.1	20.0	-4.7	20.0
N-Propylbenzene	Ave	4.517	4.028	0.1000	17.8	20.0	-10.8	20.0
1,2,3-Trichloropropane	Ave	0.1949	0.2056	0.1000	21.1	20.0	5.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1738	0.1914	0.1000	22.0	20.0	10.1	20.0
4-Ethyltoluene	Ave	2.750	1.897	0.1000	13.8	20.0	-31.0*	20.0
2-Chlorotoluene	Ave	3.217	2.917	0.1000	18.1	20.0	-9.3	20.0
1,3,5-Trimethylbenzene	Ave	3.397	3.012	0.1000	17.7	20.0	-11.3	20.0
4-Chlorotoluene	Ave	2.724	2.636	0.1000	19.4	20.0	-3.2	20.0
tert-Butylbenzene	Ave	2.971	2.479	0.1000	16.7	20.0	-16.6	20.0
1,2,4-Trimethylbenzene	Ave	3.286	2.887	0.1000	17.6	20.0	-12.1	20.0
sec-Butylbenzene	Ave	3.825	3.158	0.1000	16.5	20.0	-17.4	20.0
4-Isopropyltoluene	Ave	3.443	2.920	0.1000	17.0	20.0	-15.2	20.0
1,3-Dichlorobenzene	Ave	1.832	1.679	0.6000	18.3	20.0	-8.3	20.0
Dicyclopentadiene	Ave	4.784	2.832	0.1000	11.8	20.0	-40.8*	20.0
1,4-Dichlorobenzene	Ave	1.837	1.675	0.5000	18.2	20.0	-8.8	20.0
1,2,3-Trimethylbenzene	Ave	3.281	2.970	0.1000	18.1	20.0	-9.5	20.0
Benzyl chloride	Ave	0.6556	0.7068	0.0100	21.6	20.0	7.8	20.0
n-Butylbenzene	Ave	2.527	2.045	0.1000	16.2	20.0	-19.1	20.0
1,2-Dichlorobenzene	Ave	1.643	1.528	0.4000	18.6	20.0	-7.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1200	0.1258	0.0100	21.0	20.0	4.9	20.0
1,3,5-Trichlorobenzene	Ave	1.084	0.8101	0.1000	14.9	20.0	-25.3*	20.0
1,2,4-Trichlorobenzene	Ave	0.8079	0.6180	0.2000	15.3	20.0	-23.5*	20.0
Hexachlorobutadiene	Ave	0.4126	0.2714	0.1000	13.2	20.0	-34.2*	20.0
Naphthalene	Ave	1.587	1.493	0.0100	18.8	20.0	-5.9	20.0
1,2,3-Trichlorobenzene	Ave	0.6315	0.4884	0.1000	15.5	20.0	-22.7*	20.0
2-Methylnaphthalene	Ave	0.6238	0.5928	0.0100	19.0	20.0	-5.0	20.0
1-Methylnaphthalene	Ave	0.4971	0.4419	0.1000	17.8	20.0	-11.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2262	0.2374		26.2	25.0	4.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2292	0.2425		26.4	25.0	5.8	20.0
Toluene-d8 (Surr)	Ave	1.257	1.217		24.2	25.0	-3.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.8068	0.8274		25.6	25.0	2.6	20.0

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/08/2019 10:14 End Date: 05/08/2019 15:14

Lab Sample ID	D / F	Type	Time	Analytes																					
				Fe	Mn																				
ICIS 480-472000/1	1		10:14	X	X																				
IC 480-472000/2			10:18	X	X																				
IC 480-472000/3			10:22	X	X																				
IC 480-472000/4			10:25	X	X																				
ICV 480-472000/5	1		10:29	X	X																				
ICB 480-472000/6	1		10:32	X	X																				
ICVL 480-472000/7	1		10:36	X	X																				
ICSA 480-472000/8	1		10:40	X	X																				
ICSAB 480-472000/9	1		10:43	X	X																				
ZZZZZZ			10:47																						
ZZZZZZ			10:51																						
ZZZZZZ			10:55																						
ZZZZZZ			10:58																						
ZZZZZZ			11:02																						
CCV 480-472000/15			11:06																						
CCB 480-472000/16			11:09																						
CCV 480-472000/17	1		12:53	X	X																				
CCB 480-472000/18	1		12:57	X	X																				
CCVL 480-472000/19	1		13:01	X	X																				
MB 480-470105/1-A	1	R	13:08	X	X																				
LCS 480-470105/2-A	1	R	13:12	X	X																				
480-152320-1	1	D	13:15	X	X																				
480-152320-2	1	D	13:19	X	X																				
480-152320-3	1	D	13:23	X	X																				
480-152320-3 SD	5	D	13:26	X	X																				
480-152320-3 PDS	1	D	13:30	X	X																				
480-152320-3 MS	1	D	13:34	X	X																				
CCV 480-472000/28	1		13:38	X	X																				
CCB 480-472000/29	1		13:41	X	X																				
CCVL 480-472000/30	1		13:45	X	X																				
480-152320-3 MSD	1	D	13:49	X	X																				
480-152320-4	1	D	13:52	X	X																				
ZZZZZZ			13:56																						
ZZZZZZ			14:00																						
ZZZZZZ			14:04																						
ZZZZZZ			14:07																						
ZZZZZZ			14:11																						
ZZZZZZ			14:15																						
ZZZZZZ			14:19																						
CCV 480-472000/40	1		14:23	X	X																				
CCB 480-472000/41	1		14:26	X	X																				
CCVL 480-472000/42	1		14:30	X	X																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/08/2019 10:14 End Date: 05/08/2019 15:14

Lab Sample ID	D / F	Type	Time	Analytes																				
				Fe	Mn																			
ZZZZZZ			14:34																					
ZZZZZZ			14:37																					
ZZZZZZ			14:41																					
ZZZZZZ			14:45																					
ZZZZZZ			14:49																					
ZZZZZZ			14:52																					
ZZZZZZ			14:56																					
ZZZZZZ			15:00																					
CCV 480-472000/51			15:07																					
CCB 480-472000/52			15:11																					
CCVL 480-472000/53			15:14																					

Prep Types
D = Dissolved
R = Total Recoverable

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

ICV Source: MEI_10_CCVL_00247 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00247

Analyte	ICVL 480-472000/7 05/08/2019 10:36				CCVL 480-472000/19 05/08/2019 13:01				CCVL 480-472000/30 05/08/2019 13:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron, Dissolved	0.0577		0.0500	115	0.0545		0.0500	109	0.0528		0.0500	106
Manganese, Dissolved	0.00352		0.00300	117	0.00344		0.00300	115	0.00346		0.00300	115

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

ICV Source: MEI_10_CCVL_00247 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00247

Analyte	CCVL 480-472000/42 05/08/2019 14:30											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron, Dissolved	0.0530		0.0500	106								
Manganese, Dissolved	0.00347		0.00300	116								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/13/2019 11:52 End Date: 05/13/2019 19:17

Lab Sample ID	D / F	Type	Time	Analytes																				
				Fe	Mn																			
ICIS 480-472702/1	1		11:52	X	X																			
IC 480-472702/2			11:56	X	X																			
IC 480-472702/3			12:00	X	X																			
IC 480-472702/4			12:03	X	X																			
ICV 480-472702/5	1		12:07	X	X																			
ICB 480-472702/6	1		12:10	X	X																			
ICVL 480-472702/7	1		12:14	X	X																			
ICSA 480-472702/8	1		12:18	X	X																			
ICSAB 480-472702/9	1		12:22	X	X																			
ZZZZZZ			12:25																					
ZZZZZZ			12:29																					
ZZZZZZ			12:33																					
ZZZZZZ			12:37																					
ZZZZZZ			12:40																					
CCV 480-472702/15			12:44																					
CCB 480-472702/16			12:48																					
CCV 480-472702/17	1		16:12	X	X																			
CCB 480-472702/18	1		16:15	X	X																			
CCVL 480-472702/19	1		16:19	X	X																			
MB 480-470921/1-A	1	T	16:45	X	X																			
LCS 480-470921/2-A	1	T	16:49	X	X																			
480-152320-1	1	T	16:52	X	X																			
CCV 480-472702/23	1		16:56	X	X																			
CCB 480-472702/24	1		17:00	X	X																			
CCVL 480-472702/25	1		17:03	X	X																			
480-152320-2	1	T	17:07	X	X																			
480-152320-3	1	T	17:11	X	X																			
480-152320-3 SD	5	T	17:15	X	X																			
480-152320-3 PDS	1	T	17:18	X	X																			
480-152320-3 MS	1	T	17:22	X	X																			
480-152320-3 MSD	1	T	17:26	X	X																			
480-152320-4	1	T	17:29	X	X																			
ZZZZZZ			17:33																					
ZZZZZZ			17:37																					
CCV 480-472702/35	1		17:41	X	X																			
CCB 480-472702/36	1		17:44	X	X																			
CCVL 480-472702/37	1		17:48	X	X																			
ZZZZZZ			17:52																					
ZZZZZZ			17:55																					
ZZZZZZ			17:59																					
ZZZZZZ			18:03																					
ZZZZZZ			18:07																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Instrument ID: ICAP2 Method: 6010C

Start Date: 05/13/2019 11:52 End Date: 05/13/2019 19:17

Lab Sample ID	D / F	Type	Time	Analytes																			
				Fe	Mn																		
ZZZZZZ			18:10																				
ZZZZZZ			18:14																				
ZZZZZZ			18:18																				
ZZZZZZ			18:21																				
CCV 480-472702/47			18:25																				
CCB 480-472702/48			18:29																				
CCVL 480-472702/49			18:32																				
ZZZZZZ			18:36																				
ZZZZZZ			18:40																				
ZZZZZZ			18:44																				
ZZZZZZ			18:47																				
ZZZZZZ			18:51																				
CCV 480-472702/55			19:09																				
CCB 480-472702/56			19:13																				
CCVL 480-472702/57			19:17																				

Prep Types
T = Total/NA

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

ICV Source: MEI_10_CCVL_00248 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00248

Analyte	ICVL 480-472702/7 05/13/2019 12:14				CCVL 480-472702/19 05/13/2019 16:19				CCVL 480-472702/25 05/13/2019 17:03			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	0.0538		0.0500	108	0.0512		0.0500	102	0.0516		0.0500	103
Manganese	0.00344		0.00300	115	0.00337		0.00300	112	0.00343		0.00300	114

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

ICV Source: MEI_10_CCVL_00248 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00248

Analyte	CCVL 480-472702/37 05/13/2019 17:48											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	0.0531		0.0500	106								
Manganese	0.00344		0.00300	115								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-152320-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 469819	Date: 04/25/2019 16:10										
						LCS Source: IC_ANION_LCS__00255					
300.0	LCS 480-469819/3	Sulfate	47.94		mg/L	50.0	96	90-110			
Batch ID: 469822	Date: 04/25/2019 16:10										
						LCS Source: IC_ANION_LCS__00255					
300.0	LCS 480-469822/3	Nitrate as N	4.91		mg/L	5.00	98	90-110			
Batch ID: 473299	Date: 05/16/2019 10:51										
						LCS Source: COD 25 ppm_00034					
410.4	LCS 480-473299/4	Chemical Oxygen Demand	26.11		mg/L	25.0	104	90-110			
Batch ID: 473299	Date: 05/16/2019 10:51										
						LCS Source: COD 25 ppm_00034					
410.4	LCS 480-473299/76	Chemical Oxygen Demand	25.12		mg/L	25.0	100	90-110			
Batch ID: 473310	Date: 05/16/2019 12:22										
						LCS Source: COD 25 ppm_00034					
410.4	LCS 480-473310/4	Chemical Oxygen Demand	27.10		mg/L	25.0	108	90-110			
Batch ID: 473310	Date: 05/16/2019 12:22										
						LCS Source: COD 25 ppm_00034					
410.4	LCS 480-473310/52	Chemical Oxygen Demand	27.43		mg/L	25.0	110	90-110			
Batch ID: 469403	Date: 04/24/2019 02:47										
						LCS Source: GGA_00010					
SM 5210B	LCS 480-469403/2	Biochemical Oxygen Demand	151.4		mg/L	198	76	85-115			*
Batch ID: 471504	Date: 05/07/2019 02:15										
						LCS Source: GGA_00010					
SM 5210B	LCS 480-471504/2	Biochemical Oxygen Demand	212.3		mg/L	198	107	85-115			

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

FORM VIIA-IN

ATTACHMENT 4

INVESTIGATION DERIVED WASTE DISPOSAL DOCUMENTATION

(pending)