

AECOM

40 British American Blvd, Latham, NY 12110

T 518.951.2200 www.aecom.com

December 17, 2020

Mr. Matthew King
Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway Albany, NY 12233-7014

**Subject: Groundwater Monitoring Event Report – September/October 2020
Ithaca Court Street Former MGP Site - OU-2, Ithaca, New York**

Dear Mr. King,

On behalf of New York State Electric and Gas (NYSEG), AECOM USA, Inc. (AECOM) is pleased to present this groundwater monitoring event (GME) report for the Ithaca Court Street Manufactured Gas Plant (MGP) Operable Unit 2 (OU-2) site in Ithaca, New York (the "Site"). **Figure 1** attached shows the Site Location Plan.

This correspondence documents the findings of the GME completed over the period September 28 – October 1, 2020 (September/October 2020 GME) which was undertaken in accordance with the draft *Site Management Plan, Ithaca Court Street Former MGP Site, Ithaca, Tompkins County, New York, NYSDEC Site #7-55-008* prepared by AECOM and dated October 2019 (SMP; AECOM, 2019).

Results from the September/October 2020 GME will be incorporated into the ongoing groundwater monitoring dataset in accordance with the requirements of the SMP (AECOM, 2019).

Background

The Site is divided into two operable units (OUs). Operable Unit 1 (OU-1 consists of the former Site, surrounding sidewalks, and the location of the former tar duct structures under West Court Street from the Site to North Meadow Street. Operable Unit 2 (OU-2) consists of any areas outside of the OU-1 boundary that may have been impacted by the migration of manufactured gas plant (MGP) materials directly from the Site.

The primary constituents of concern at the Site are benzene, toluene, ethylbenzene, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs) and cyanide. The Site has undergone extensive remedial investigation and numerous interim remedial measures and remedial actions including excavations and historical structure removal have been completed. A history of the remedial investigations and actions completed at the Site is provided in the SMP (AECOM, 2019).

The SMP was submitted to the New York State Department of Environmental Conservation (NYSDEC) in October 2019 and is pending approval. The SMP outlines the monitoring requirements for the Site which include quarterly groundwater monitoring for 15 locations across the Site for two years to establish baseline conditions and to evaluate the potential for seasonal fluctuations in constituent concentrations. From year three through year five, only wells containing MGP-related constituents at concentrations greater than the applicable water quality standards and guidance values will be sampled quarterly. The remaining wells will be sampled annually. The September/October 2020 GME is the first event to be completed as part of the SMP.

Scope of Work

The scope of work for this GME included the following:

- Water level gauging was completed at the 15 groundwater wells specified for monitoring by the SMP, namely; MW-C11, MW-C12, MW-C16, MW-22S, MW-23S, MW-24S, MW-25S, MW-28S, MW-31S, MW-33S, MW-40, MW-45S, MW-46S, MW-47S, and MW-48S.
- Water level gauging was also completed at additional locations where access was possible in order to assess water levels across the broader monitoring well network (refer **Table 1** attached).
- Each well was gauged for the presence of non-aqueous phase liquid (NAPL) using an oil-water interface probe.
- A total of 15 groundwater wells (MW-C11, MW-C12, MW-C16, MW-22S, MW-23S, MW-24S, MW-25S, MW-28S, MW-31S, MW-33S, MW-40, MW-45S, MW-46S, MW-47S, and MW-48S) were sampled as shown on **Figure 2** attached. The following groundwater sampling activities were conducted:
 - Water level measurements were taken at each well prior to purging and sampling. A synoptic set of water level measurements was obtained during this sampling event.
 - Each well was purged and sampled using low-stress (low flow) groundwater sampling methods by use of a peristaltic pump. Wells were purged until the following groundwater parameters were stabilized for three consecutive readings.
 - Temperature (°C)
 - pH
 - Specific Conductivity (µS/cm)
 - Dissolved Oxygen (mg/L)
 - Oxidation Reduction Potential (mV)
 - Turbidity (NTU)
 - Drawdown (feet)
 - Field parameters, including pH, oxidation/reduction potential (ORP), dissolved oxygen (DO), and turbidity, were monitored and documented prior to sample collection. The following stabilization criteria were met for each parameter before sampling:
 - Temperature ±3%
 - pH ±1.0 unit
 - Dissolved Oxygen ±10%
 - Oxidation Reduction Potential ±10mV
 - Specific Conductivity ±3%
 - Drawdown <0.3'

Groundwater purge and sampling forms are provided in **Appendix A**.

- Any well that ran dry prior to stabilization was allowed to recharge and was subsequently sampled by low flow methods.
- All wastewater generated during sampling (purge water, and decontamination fluids) was containerized in 55-gallon steel drums for off-Site disposal.

- Groundwater samples were shipped the day of collection via courier to Eurofins Test America in Buffalo, New York for laboratory analysis.
- Quality control samples were taken with the well samples, including one for every 20 samples of a field duplicate, a matrix spike, a matrix spike duplicate, and an equipment rinsate blank. Based on the number of wells to be sampled (15), one set of quality control samples were required. A trip blank was sent daily with each set of samples. Quality control samples will be analyzed for BTEX, PAH and total cyanide.

All activities were conducted in accordance with the AECOM document titled Work Plan, Groundwater Monitoring Event, September 2020, Ithaca Court Street Former MGP Site-OU-2, Ithaca New York (Work Plan; AECOM, 2020) that was submitted to, and approved by, the NYSDEC on September 1, 2020.

Groundwater Gauging and Sampling Observations

All accessible groundwater wells were gauged and well locations are shown in **Figure 3**. Well gauging and inspection notes are provided in **Table 1** attached. A summary of observations is provided below:

- Depth to water ranged from 4.12 feet below top of casing (ft bTOC) [MW-48S] to 8.23 ft bTOC (MW-28S). Based on reported depth to water, the groundwater table was slightly lower compared to the previous gauging event completed in June 2016.
- The general direction of groundwater flow was to the northwest, similar to that documented in previous sampling events. **Figure 3**, attached, presents the shallow aquifer inferred groundwater surface contours.
- No measurable NAPL was identified in any of the gauged wells; however, a slight visible sheen was observed in the purge water from MW-C16. During initial purging, the sampling team observed the presence of a black sludge-like material coming up from the bottom of this well.
- Other visual observations included the presence of light brown/gray/black cloudy water at MW-C11, MW-31S, MW-40, MW-45S, and MW-48S; and significant rust-colored water at MW-33S. After pumping for approximately 10 - 20 minutes, the water at these locations became clear. As these wells were last sampled in 2016, and based on visual observations made during purging, consideration may be given to removing sediments and residual solid materials that may have accumulated since installation. Due to the silty-clay soil local to Ithaca, it is recommended that sediments and residual solids be removed to the extent practicable without surging.
- Odors were noted from the purge water from MW-C16, MW-23S and MW-48S. Specifically, a slight MGP odor was noted at MW-C16, and a solvent-like odor was noted that MW-23S. The PID reading at MW-C16 and MW-23S was 0.0ppm, and 0.2ppm at MW-48S.
- MW-35S was dry. It is noted that the original installation depth of this well was 8 ft bTOC. At the time of gauging, the total well depth was 4 ft bTOC, indicating that the well is most likely silted in. As this well does not form part of the ongoing SMP monitoring program, consideration may be given to decommissioning of this well following agreement between NYSEG and NYSDEC.

Further to the above, it is noted that the well depth at a number of locations has decreased since installation, and consideration may be given to removing (to the extent practicable) sediments and residual solid materials that may have accumulated since installation to improve the hydraulic connection between the well and the surrounding geological material.

Analytical Laboratory Analyses

All groundwater samples were analyzed for:

- BTEX: EPA Method 8260B
- PAHs: EPA Method 8270C
- Total cyanide: EPA Method 9012B
- Monitored Natural Attenuation (MNA) parameters:
 - Nitrate: EPA Method 300
 - Ammonia: EPA Method 350.1
 - Total Iron: EPA Method 6010
 - Ferrous Iron: EPA Method SM 3500-Fe B
 - Sulfate: EPA Method 300
 - Methane: EPA Method RSK-175
 - Alkalinity: EPA method SM 2320B

Appendix B contains the full laboratory reports obtained from Eurofins Test America Laboratory.

The laboratory prepared a complete NYSDEC ASP Category B data delivery package for the BTEX, PAH, total cyanide, and MNA analysis. The data package was validated by an AECOM chemist, and a DUSR prepared as provided in **Appendix C**.

Discussion of Analytical Results

Samples were collected from all 15 wells as required under the SMP. The groundwater sample results were validated by an AECOM chemist, and all data have been determined to be usable and no data points were rejected. A full copy of the DUSR is provided in **Appendix C**.

Results of analysis have been screened against the *Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (AWQS/GV)* for water class GA. **Table 2** and **Table 3** attached provides a summary of the analytical results screened against the AWQS/GV. Also included in **Table 2** are the results of the previous analysis completed in June 2016 for reference.

Figure 4 summarizes groundwater exceedances for BTEX and PAHs. An overview of the groundwater analytical results is provided below.

Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)

A total of five out of 15 sampled wells had concentrations of BTEX above the AWQS/GV for at least one compound, namely; MW-C12, MW-22S, MW-23S, MW-46S and MW-48S. The following is noted:

- MW-C12, located on North Plain Street in the vicinity of the in situ chemical oxidation (ISCO) remedial action work, reported a benzene exceedance. The other four wells reporting BTEX compounds above the AWQS/GV are located along the western side of the Site in the Washington Street area.

- Benzene concentrations ranged from non-detect in several locations to 720 ug/L at MW-46S.
- Locations with a notable increase in benzene concentration from 2016 to 2020 are MW-22S and MW-46S at the western side of the Site.
- BTEX concentrations along the North Plain Street ISCO area appear to be decreasing when compared to the 2016 data.

Polycyclic Aromatic Hydrocarbons (PAHs)

A total of five out of 15 sampled wells had concentrations of PAHs above the AWQS/GV for at least one compound, namely; MW-C12, MW-C16, MW-23S, MW-46S and MW-48S. The following is noted:

- Two of the wells with exceedances are located along North Plain Street, in the vicinity of the in ISCO remedial action work, and the other three wells were located along the western side of the site in the Washington Street area.
- Naphthalene was reported from non-detect at several locations to 1,110 ug/L at MW-46S.
- Notable increases in naphthalene and other PAH concentrations from 2016 to 2020 was observed at MW-23S, MW-46S and MW-48S.

Total Cyanide

There were no exceedances of total cyanide at the time of the September/October 2020 GME, and the concentrations that were detected were relatively low.

In general, the September/October 2020 GME results indicate a decrease in total cyanide across the Site.

Monitored Natural Attenuation (MNA) Parameters

Several groundwater parameters including sulfate, ammonia, nitrate, nitrite, alkalinity, iron and methane were analyzed to inform the assessment of MNA. It is noted that these parameters will continue to be assessed as part of the ongoing monitoring program to evaluate the presence of trends that would be indicative that MNA is occurring at the Site.

The MNA parameter results were variable across the Site with some locations showing high concentrations, and others were non-detect. It is noted that iron was detected in all sampled locations at concentrations higher than the AWQS/GV, however iron is not a constituent of concern at the Site and these concentrations are likely naturally occurring. Methane was detected across the Site which may indicate the presence of biological activity at the Site.

DO and ORP are parameters that will be tracked as part of the trend analysis to assess if MNA is occurring at the Site. At the time of the September/October 2020 GME, ORP ranged from -135.6 MeV (MW-24S) to -11.4 MeV (MW-31S) and DO ranged from 0.12 mg/L (MW-47S) to 1.08 mg/L (MW-23S) [refer **Table 3** attached].

Conclusions and Recommendations

Groundwater analytical results were variable across the Site. The following is noted:

- MGP-related constituents were reported below the applicable AWQS/GV at MW-C11, MW-24S, MW25-S, MW-28S, MW-31S, MW-33S, MW-40, MW-45S and MW-47S.
- Select MGP-related constituents were reported above the applicable AWQS/GV at MW-C12, MW-C16, MW-22S, MW23-S, MW-46S and MW-48S.
- When compared with the June 2016 data, notable increases in select MGP-related constituents were reported at MW-22S (benzene, ethylbenzene, xylene), MW-23S (naphthalene), MW-46S (benzene, ethylbenzene) and MW48-S (naphthalene).

In accordance with the SMP, additional data will be collected to understand seasonal fluctuations and inform an appraisal of constituent concentration and MNA trends at the Site. Groundwater sampling at the 15 specified well locations will continue to be monitored on the schedule outlined in the SMP.

Select wells that comprise the ongoing SMP monitoring program including (but not limited to) MW-C11, MW-31S, MW-33S, MW-40, MW-45S and MW-48S will have sediments and residual solids removed to the extent practicable prior to the next sampling event to improve the hydraulic connection between the well and the surrounding geological material.

Over the course of the next two GMEs, wells that do not comprise the ongoing SMP monitoring program and are also not considered necessary for inclusion for future monitoring, will be identified for decommissioning and a recommendation provided to NYSDEC under separate cover.

Should you have any questions regarding this correspondence, please contact Melissa Saunders at melissa.saunders@aecom.com.

Sincerely,

Gerlinde Wolf, PE
Environmental Engineer

Melissa Saunders
Project Manager

cc:
Project File 60615225
Tracy Blazicek, NYSEG
Matthew Thorpe, PE, AECOM

Attachments:

Figures

Figure 1: Site Location Plan

Figure 2: Monitoring Well Location Plan

Figure 3: Shallow Aquifer Groundwater Contour Plan – September 2020

Figure 4: Groundwater Exceedance Plan – BTEX and PAHs - September/October 2020

Tables

Table 1: Groundwater Gauging Table

Table 2: BTEX, PAHs and Total Cyanide

Table 3: Monitored Natural Attenuation and Field Parameters

Appendices

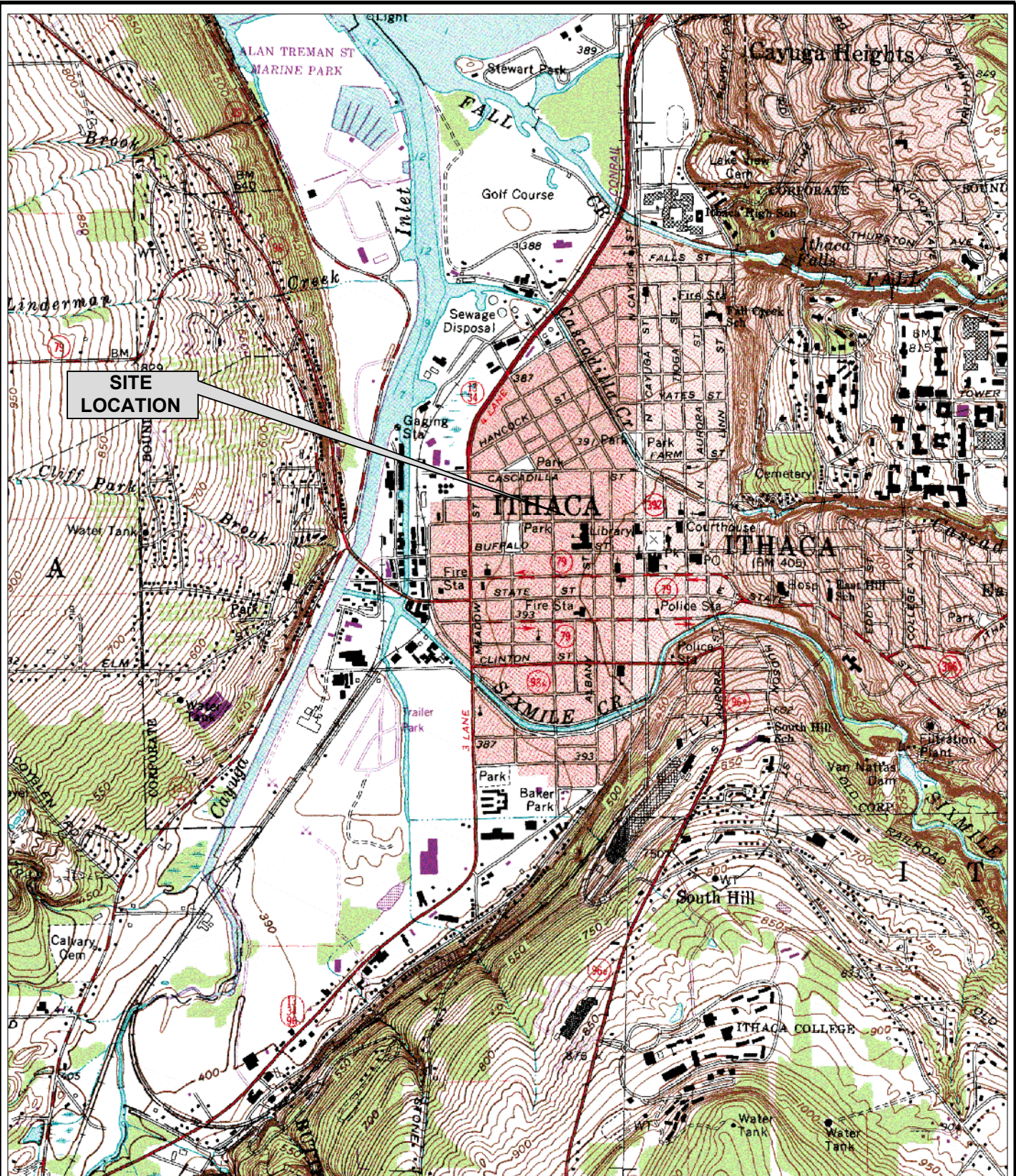
Appendix A: Groundwater Sampling Purge Forms

Appendix B: Analytical Laboratory Reports

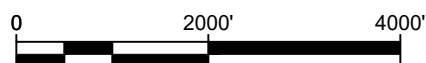
Appendix C: Data Usability Summary Report

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Figures



MAP REFERENCE:
IMAGE SHOWN FROM U.S.G.S. 7.5 MINUTE
QUADRANGLE, ITHACA - WEST AND EAST
SERIES

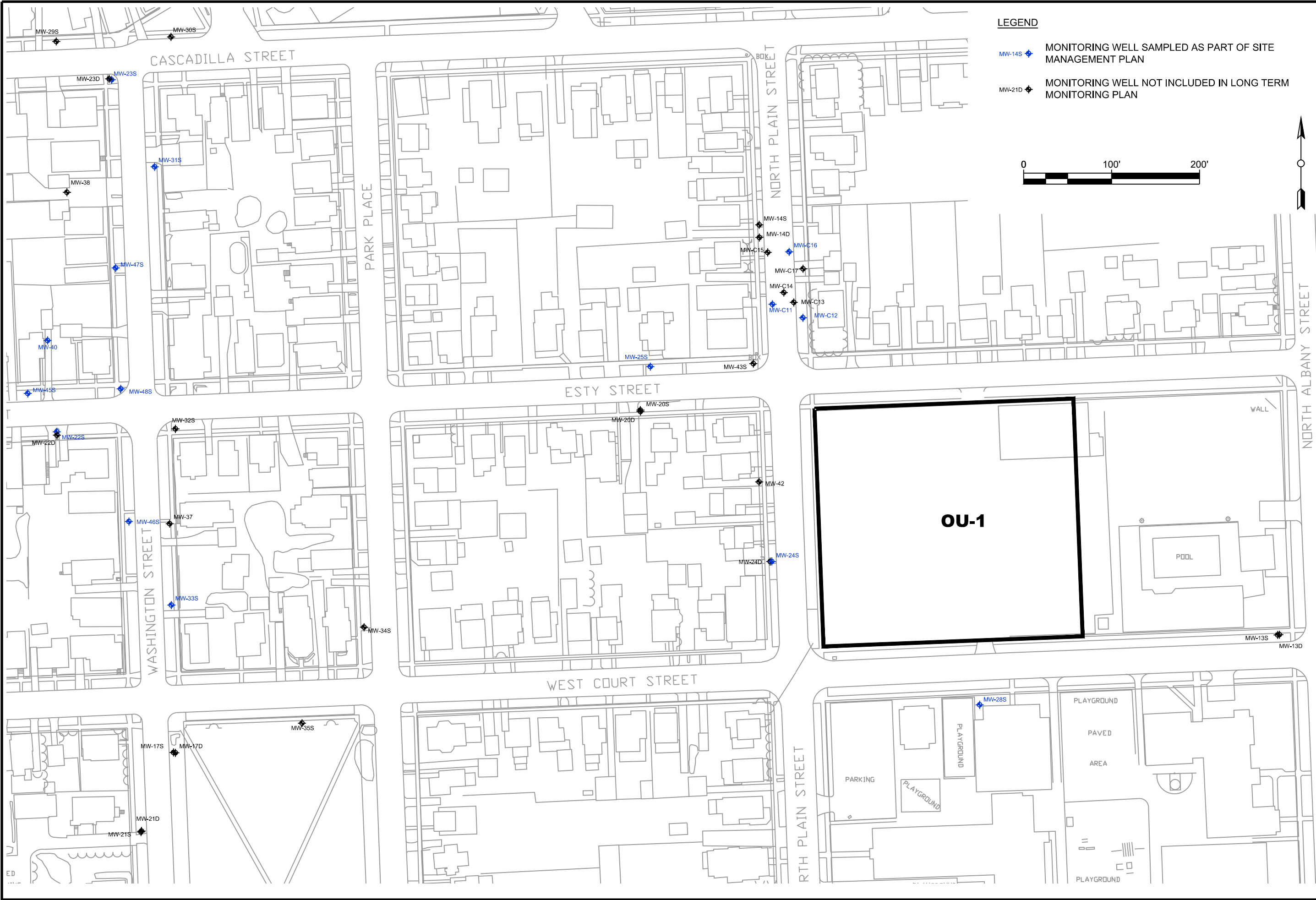


NEW YORK STATE ELECTRIC & GAS CORP.
FORMER COURT STREET MGP SITE - OU-2
ITHACA, NEW YORK
Project No.: 60615225 Date: NOVEMBER 2020

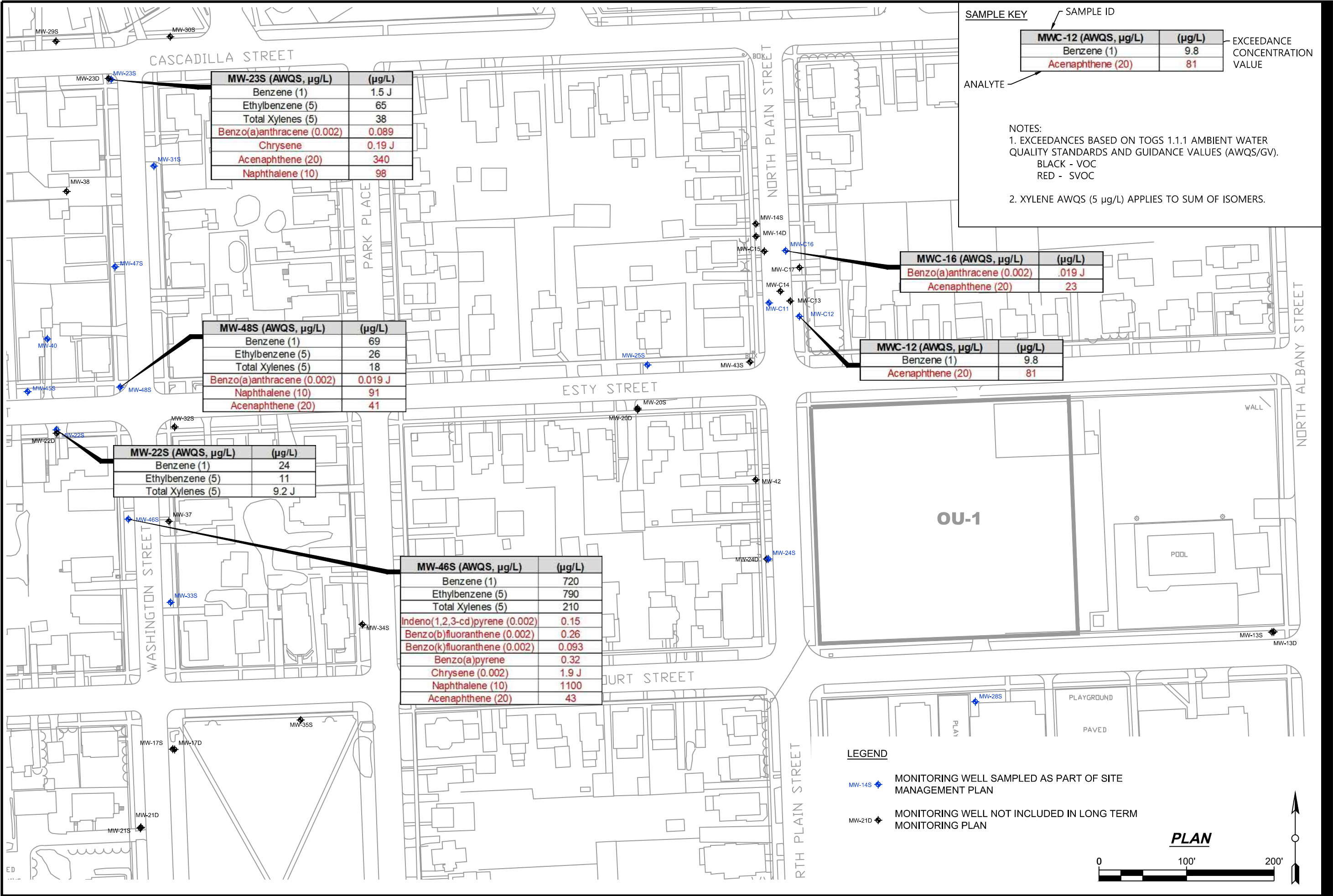
SITE LOCATION
PLAN

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Figure: 1







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Tables

Table 1: Groundwater Gauging Table
Groundwater Monitoring Event - September/ October 2020
Ithaca Court Street Former MGP Site - OU2
Ithaca, New York

Well ID	Date Gauged	Total Depth ¹ (ft bTOC)	Sump Interval (ft bTOC)	Screen Interval (ft bTOC)	Depth to Water (ft bTOC)	NAPL observed (Y/N)	NAPL thickness (ft)	PID Reading (ppm)	Well Inspection and Sampling Notes
SMP Monitoring Plan Locations - Gauged and Sampled									
MW - C11	9/28/2020	17.30	17 - 15	15 - 10	5.01	N	NA	0.2	Full of water, cracked road box; Gray cloudy water initially noted during purging.
MW - C12	9/28/2020	17.21	17 - 15	15 - 10	6.64	N	NA	0.8	Good condition; Water clear during purging.
MW - C16	9/28/2020	15.98	16 - 14	14 - 9	6.65	N	NA	0.0	Well surface seal cracked, very hard to open, rusted bolts; Slight MGP odor noted during sampling, black sludge in bottom of well at commencement of purging and became clear, slight sheen observed on purge water.
MW - 22S	9/29/2020	13.10	--	14 - 4	5.10	N	NA	0.0	Good condition; Water clear during purging.
MW - 23S	9/29/2020	13.70	--	14 - 4	6.80	N	NA	0.0	Good condition; Water clear during purging, solvent-like odor noted during sampling.
MW - 24S	9/28/2020	13.50	--	14 - 4	7.23	N	NA	0.1	Top of PVC casing bent/crushed; Water clear during purging.
MW - 25S	9/28/2020	9.40	--	10 - 3	7.12	N	NA	0.0	Partially overgrown with grass, good condition; Water clear during purging.
MW - 28S	9/28/2020	19.80	--	20 - 7	8.23	N	NA	0.1	Good condition; Water clear during purging.
MW - 31S	9/29/2020	11.30	--	12 - 4	7.45	N	NA	0.0	Good condition; Gray cloudy water initially noted during purging.
MW - 33S	9/29/2020	9.52	--	10 - 2.5	6.89	N	NA	1.0	Good condition; Rust-colored water initially noted during purging.
MW - 40	9/29/2020	8.30	--	9 - 3	6.71	N	NA	0.1	Good condition; Light brown cloudy water initially noted during purging.
MW - 45S	9/29/2020	17.00	15 - 14	14 - 4	5.25	N	NA	0.0	Good condition; Gray cloudy water initially noted during purging.
MW - 46S	9/29/2020	16.70	--	18 - 8	5.01	N	NA	16.1	Good condition; Water clear during purging.
MW - 47S	9/29/2020	14.50	--	15 - 5	5.01	N	NA	0.2	Good condition; Gray cloudy water initially noted during purging.
MW - 48S	9/29/2020	14.30	15 - 14	14 - 4	4.12	N	NA	0.2	Good condition; Gray/black cloudy water initially noted during purging and odor noted during sampling.
Additional Locations - Gauged Only									
MW - C13	9/28/2020	14.39	16 - 14	14 - 9	7.46	N	NA	0.0	Good condition
MW - 13S	9/28/2020	14.39	--	15 - 5	7.46	N	NA	1.5	In grass along curb, good condition
MW - 14S	9/28/2020	9.59	--	10 - 3	7.56	N	NA	2.0	Good condition
MW - 20S	9/28/2020	14.47	--	15 - 5	6.40	N	NA	0.5	Good condition
MW - 20D	9/28/2020	18.29	--	34 - 24	5.72	N	NA	0.4	Good condition
MW - 21S	9/29/2020	9.35	--	10 - 5	5.21	N	NA	4.8	Good condition
MW - 21D	9/29/2020	29.68	--	30 - 20	4.40	N	NA	7.2	Good condition
MW - 27	9/28/2020	8.86	--	10 - 3	7.22	N	NA	0.0	Directly in front of garage, good condition
MW - 29S	9/29/2020	12.06	--	--	8.15	N	NA	1.7	Good condition
MW - 30S	9/29/2020	9.81	--	12 - 2.5	7.00	N	NA	1.6	Good condition
MW - 32S	9/29/2020	9.59	--	--	5.40	N	NA	1.7	Only 1 bolt
MW - 34S	9/29/2020	9.80	--	--	7.35	N	NA	1.8	Good condition
MW - 35S	9/29/2020	4.00	--	8 - 3	Dry	N	NA	0.0	Good condition, well dry, note reduced well depth from initial 8ft
MW - 42	9/28/2020	14.20	--	--	7.26	N	NA	0.3	Good condition
MW - 43S	9/28/2020	14.30	--	15 - 5	6.71	N	NA	17.4	Good condition

Notes:
1. Measured at the time of gauging
2. ft bTOC- feet below top of casing
3. NA - Not applicable
4. PID - photoionization detector
5. ppm - parts per million
6. MGP - Manufactured Gas Plant

Table 2: BTEX, PAHs and Total Cyanide
Groundwater Monitoring Event - September/ October 2020
Ithaca Court Street Former MGP Site - OU2
Ithaca, New York

Sample ID	AW QS/GV ¹	MW -C11		MW -C12		MW -C16		MW -22S		MW -23S		MW -24S		MW -25S		MW -28S		MW -31S		MW -33S		MW -40		MW -45S		MW -46S		MW -47S		MW -48S		
Laboratory Report		2149189	175904	2149189	175904	2149189	175904	2150102	175829	2150484	175829	2149634	175904	2149634	175904	2149634	175904	2150484	175829	2150102	175829	2150484	175829	2150484	175829	2150102	175829	2150484	175829	2150102	175829	
Sample Date		6/7/2016	10/1/2020	6/7/2016	10/1/2020	6/7/2016	10/1/2020	6/9/2016	9/30/2020	6/10/2016	9/30/2020	6/8/2016	10/1/2020	6/8/2016	10/1/2020	6/8/2016	10/1/2020	6/10/2016	9/30/2020	6/9/2016	9/30/2020	6/9/2016	9/30/2020	6/9/2016	9/30/2020	6/9/2016	9/30/2020	6/9/2016	9/30/2020	6/9/2016	9/30/2020	
VOCs µg/L																																
Benzene	1	20.9	1 U	61.6	9.8	1 U	0.82 J	1 U	24	5 U	1.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	358	720	1 U	1 U	174	69	
Ethylbenzene	5	128	1 U	383	1 U	1 U	2 U	1 U	11	82.4	65	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	428	790	1 U	1 U	275	26	
Toluene	5	11.1	1 U	1 U	1 U	1 U	2 U	1 U	10 U	5 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	29.5	20 U	1 U	1 U	5 U	2 U	
Xylenes, Total	5	51	2 U	16.8	2 U	3 U	4 U	3 U	9.2 J	58.9	38	3 U	2 U	3 U	2 U	3 U	2 U	3 U	2 U	3 U	2 U	3 U	2 U	3 U	2 U	307	210	3 U	2 U	31.7	18	
SVOCs µg/L																																
Anthracene	50	1.6 U	2.4 U	1.4 U	0.096 J	1.4 U	9.5 U	1.7 U	0.48 U	3.8	6.5	1.7 U	0.48 U	1.4 U	0.48 U	1.6 U	0.48 U	1.7 U	0.48 U	1.4 U	0.48 U	1.8 U	0.48 U	1.4 U	0.48 U	1.8	2.2 J	1.6 U	2.5 U	1.6	1.4	
Pyrene	50	1.6 U	2.4 U	1.4 U	0.48 U	1.4 U	9.5 U	1.7 U	0.48 U	2.6	4.4	1.7 U	0.48 U	1.4 U	0.48 U	1.6 U	0.48 U	1.7 U	0.48 U	1.4 U	0.48 U	1.8 U	0.48 U	1.4 U	0.48 U	1.9	3.8 J	1.6 U	2.5 U	1.6 U	0.90	
Benzo(g,h,i)perylene	NS	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.15	1.6 U	0.050 U	1.6 U	0.050 U	
Indeno(1,2,3-cd)pyrene	0.002	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.15	1.6 U	0.050 U	1.6 U	0.050 U	
Benzo(b)fluoranthene	0.002	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.26	1.6 U	0.050 U	1.6 U	0.050 U	
Fluoranthene	50	1.6 U	2.4 U	1.4 U	0.48 U	1.4 U	9.5 U	1.7 U	0.48 U	1.8	3.0	1.7 U	0.48 U	1.4 U	0.48 U	1.6 U	0.48 U	1.7 U	0.48 U	1.4 U	0.48 U	1.8 U	0.48 U	1.4 U	0.48 U	1.5 U	2.3 J	1.6 U	2.5 U	1.6 U	0.72	
Benzo(k)fluoranthene	0.002	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.093	1.6 U	0.050 U	1.6 U	0.050 U	
Acenaphthylene	NS	1.6 U	0.53 J	1.4 U	1.0	1.4 U	5.7 U	1.7 U	0.29 U	1.4 U	1.9	1.7 U	0.29 U	1.4 U	0.29 U	1.6 U	0.29 U	1.7 U	0.29 U	1.4 U	0.29 U	1.8 U	0.29 U	1.4 U	0.29 U	3.2	2.8 J	1.6 U	1.5 U	1.6 U	1.5	
Chrysene	0.002	1.6 U	2.4 U	1.4 U	0.48 U	1.4 U	9.5 U	1.7 U	0.48 U	1.4 U	0.19 J	1.7 U	0.48 U	1.4 U	0.48 U	1.6 U	0.48 U	1.7 U	0.48 U	1.4 U	0.48 U	1.8 U	0.48 U	1.4 U	0.48 U	1.5 U	1.9 J	1.6 U	2.5 U	1.6 U	0.48 U	
Benzo(a)pyrene	Any Detection	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.32	1.6 U	0.050 U	1.6 U	0.050 U	
Dibenzo(a,h)anthracene	NS	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.045 J	1.6 U	0.050 U	1.6 U	0.050 U	
Benzo(a)anthracene	0.002	1.6 U	0.050 U	1.4 U	0.050 U	1.4 U	0.050 U	1.7 U	0.050 U	1.4 U	0.089	1.7 U	0.050 U	1.4 U	0.050 U	1.6 U	0.050 U	1.7 U	0.050 U	1.4 U	0.050 U	1.8 U	0.050 U	1.4 U	0.050 U	1.5 U	0.41	1.6 U	0.050 U	1.6 U	0.019 J	
Acenaphthene	20	2.4	3.6	56.7	81	3.2	23	1.7 U	2.4	68.8	98	1.7 U	0.046 J	1.4 U	0.48 U	1.6 U	0.48 U	1.7 U	0.48 U	1.4 U	0.48 U	1.8 U	0.48 U	1.4 U	0.0360 J	34.9	43	1.6 U	0.75 J	32.7	41	
Phenanthrene	50	1.6 U	0.95 U	2.9	0.90	1.4 U	3.8 U	1.7 U	0.19 U	10.7	26	1.7 U	0.19 U	1.4 U	0.19 U	1.6 U	0.19 U	1.7 U	0.19 U	1.4 U	0.19 U	1.8 U	0.19 U	1.4 U	0.19 U	7.1	7.6	1.6 U	1.0 U	6.9	4.6	
Fluorene	50	1.6 U	2.4 U	5.4	10	1.4 U	3.1 J	1.7 U	0.058 J	18	26	1.7 U	0.48 U	1.4 U	0.48 U	1.6 U	0.48 U	1.7 U	0.48 U	1.4 U	0.48 U	1.8 U	0.48 U	1.4 U	0.48 U	8.3	9.7	1.6 U	2.5 U	7.6	3.9	
Naphthalene	10	111	4.8 U	189 J	0.19 J	1.4 U	19 U	1.7 U	0.83 J	1.4 U	340	1.7 U	0.96 U	1.4 U	0.95 U	1.6 U	0.96 U	1.7 U	0.95 U	1.4 U	0.10 J	1.8 U	0.61 J	1.4 U	0.20 J	954	1100	1.6 U	1.6 J	16.4	91	
Cyanide (µg/L)																																
Cyanide, Total		200	27 J	10 U	16	16	7 J	9 J	540	76	5 U	10 U	5 U	10 U	18 J	26	5 U	10 U	5 U	6 J	5 U	7 J	5 U	10 U	5 U	7 J	5 U	10 U	5 UJ	10 U	5 U	10 U

- Notes:
1. Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (AWQS/GV) for water class GA.
 2. **Bold**- Analyte was detected in laboratory analysis
 3. Highlight- Analyte was detected above the AWQS/GV
 4. Xylene AWQS (5 µg/L) applies to the sum of isomers
 5. NS- No Standard
 6. U - Not detected above laboratory reporting limit.
 7. J - Result is estimated, detection was below the reporting limit but above the method detection limit.
 8. UJ- The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

Table 3: Monitored Natural Attenuation and Field Parameters
Groundwater Monitoring Event - September/ October 2020
Ithaca Court Street Former MGP Site - OU2
Ithaca, New York

Sample ID	AWQS/GV ¹	MW-C11	MW-C12	MW-C16	MW-22S	MW-23S	MW-24S	MW-25S	MW-28S	MW-31S	MW-33S	MW-40	MW-45S	MW-46S	MW-47S	MW-48S
Laboratory Report Number		175904	175904	175904	175829	175829	175904	175904	175904	175829	175829	175829	175829	175829	175829	175829
Sample Date		10/1/2020	10/1/2020	10/1/2020	9/30/2020	9/30/2020	10/1/2020	10/1/2020	10/1/2020	10/1/2020	9/30/2020	9/30/2020	9/30/2020	9/30/2020	9/30/2020	9/30/2020
MNA Parameters																
Sulfate (mg/L)	250	121	238	1320	10 U	4.1 J	0.87 J	121	10 U	10.2	21.2	3.6	10 U	12.7	17.8	40 U
Ammonia (mg/L)	2	0.54	2.5	0.77	3.4	1.1	2.7	0.52	0.88	0.096	3.9	10.1	3.4	3.6	7.6	2.7
Nitrate Nitrite as N (mg/L)	10	0.024 J	0.050 U	0.055	0.025 J	0.36	0.30	0.050 U	0.031 J	0.025 J	0.049 J	0.14	0.098	0.049 J	0.14	0.050 U
Nitrite as N (mg/L)	1	0.050 U	0.050 U	0.021 J	0.050 U	0.050 U	0.021 J	0.020 J	0.022 J	0.05 U	0.022 J	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Nitrate as N (mg/L)	10	0.024 J	0.050 U	0.034 J	0.025 J	0.36	0.28	0.050 U	0.050 U	0.025 J	0.027 J	0.14	0.098	0.049 J	0.14	0.050 U
Alkalinity, Total (mg/L)	NS	404	605	563	343	238	301	550	271	303	421	217	377	342	305	396
Ferrous Iron (mg/L)	NS	0.10 U	0.10 U	0.28 J	0.37 J	0.19 J	0.12 J	0.15 J	0.10 J	0.086 J	0.64 J	0.13 J	0.21 J	0.086 J	0.092 J	0.10 U J
Iron (mg/L)	0.3	4.70	2.80	26	8	2	29	7	1.80	2	21	20	30	7	41	6.90
Methane (µg/L)	NS	98	1000	380	7500	3100	1400	30	4000	580	190	950	5800	7900	8300	5000
Field Parameters																
pH (pH units)	NS	6.93	7.11	6.94	6.77	6.87	6.91	6.89	7.47	6.52	6.88	6.44	6.70	6.75	6.47	7.08
Turbidity (NTU)	NS	9.81	5.00	15.9	1.40	6.95	45.9	5.05	0.76	10.1	4.23	60.1	57.2	4.72	47.8	10.0
ORP (MeV)	NS	-87.9	-108.5	-124.3	-73.1	-63.7	-135.6	-40.6	-134.4	-11.4	-108.2	-70.1	-81.7	-89.9	-114.1	-114.6
Conductivity (mS/cm)	NS	2.29	1.72	3.57	0.85	0.69	0.95	3.51	0.79	0.67	0.92	0.376	1.08	1.06	0.84	3.33
Dissolved Oxygen (mg/L)	NS	0.20	0.21	0.40	0.39	1.08	0.32	0.30	0.28	0.52	0.77	0.44	0.50	0.32	0.12	0.38

- Notes:
1. Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (AWQS/GV) for water class GA.
 2. **Bold**- Analyte was detected in laboratory analysis
 3. Highlight- Highlight- Analyte was detected above the AWQS/GV
 4. NS - No Standard
 5. NA - Not Analyzed
 6. U- Not detected above laboratory reporting limit.
 7. J - Result is estimated, detection was below the reporting limit but above the method detection limit.
 8. UJ- The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.
 9. MNA - Monitored Natural Attenuation
 10. ORP - Oxidation Reduction Potential

Appendix A – Groundwater Sampling Purge Forms

Monitoring Well Purging/Sampling Form

Project Name and Number:

ITIMACA - NYSEB

Monitoring Well Number:

MW-245

Date:

10/1/20

Samplers:

Alexandra Holden + Gerinde Wolf

Sample Number:

MW-245

QA/QC Collected?

-

Purging / Sampling Method:

low flow peramp - dedicated LOPE

1. L = Total Well Depth:

13.5 feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

7.23 feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI + NTU

Parameter

Units

Readings

Time	24 hr	1125	1130	1135	1140	1145	1150	1155	1200
Water Level (0.33)	feet	7.23	7.36	7.45	7.65	7.90	7.92	7.95	7.99
Volume Purged	gal	-	.70	.20	.30	.40	.50	.60	.70
Flow Rate	mL / min	100	100	100	100	100	100	100	100
Turbidity (+/- 10%)	NTU	20.9	49.7	57.3	60.3	59.6	54.2	49.7	45.9
Dissolved Oxygen (+/- 10%)	%	4.3	2.9	2.7	2.7	5.2	4.1	3.9	3.5
Dissolved Oxygen (+/- 10%)	mg/L	0.39	0.27	0.25	0.25	0.48	.37	.35	.32
Eh / ORP (+/- 10)	MeV	-189.8	-186.0	-151.4	-132.4	-120.5	-127.6	-130.3	-135.6
Specific Conductivity (+/- 3%)	mS/cm ^c	1.15	1.12	1.07	1.05	1.03	1.05	1.06	1.06
Conductivity (+/- 3%)	mS/cm	1.02	1.00	0.96	0.93	0.92	0.94	0.96	.95
pH (+/- 0.1)	pH unit	7.13	7.12	7.01	6.93	6.82	6.84	6.89	6.91
Temp (+/- 0.5)	C	18.9	19.1	19.3	19.4	19.5	19.5	19.4	19.4
Color	Visual	clear	clear	clear	clear	clear	clear	clear	clear
Odor	Olfactory	-	-	-	-	-	-	-	-

Comments:

sample @ 1210
~~1200~~

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number:

ITHACA SITE - NMSE6

Monitoring Well Number:

MW-285

Date:

10/1/20

Samplers:

AG + GW

Sample Number:

MW - 285

QA/QC Collected?

-

Purging / Sampling Method:

low flow per pump - dedicated HDPE tubing

1. L = Total Well Depth:

19.80 feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

8.23 feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI + NTU

Parameter	Units	Readings							
Time	24 hr	12:45	12:50	12:55	13:00	13:05	13:10	13:15	✓
Water Level (0.33)	feet	8.23	8.23	8.25	8.25	8.25	8.26	8.25	✓
Volume Purged	gal	-	10	20	30	40	55	65	✓
Flow Rate	mL / min	100	100	100	100	100	100	100	✓
Turbidity (+/- 10%)	NTU	8.00	3.61	2.06	5.60	3.12	0.93	0.76	✓
Dissolved Oxygen (+/- 10%)	%	11.1	4.5	4.1	3.6	3.1	3.2	2.9	✓
Dissolved Oxygen (+/- 10%)	mg/L	1.04	0.43	0.39	0.34	0.30	0.30	0.28	✓
Eh / ORP (+/- 10)	MeV	3.4	-96.8	-108.5	-124.8	-132.2	-135.5	-134.4	✓
Specific Conductivity (+/- 3%)	mS/cm ^c	0.92	0.91	0.91	0.91	0.91	0.91	0.94	✓
Conductivity (+/- 3%)	mS/cm	0.77	0.76	0.76	0.76	0.76	0.76	0.79	✓
pH (+/- 0.1)	pH unit	7.34	7.44	7.45	7.47	7.49	7.49	7.47	✓
Temp (+/- 0.5)	C	16.5	16.4	16.4	16.4	16.5	16.5	16.6	✓
Color	Visual	clear	clear	clear	clear	clear	clear	clear	✓
Odor	Olfactory	-	-	-	-	-	-	-	✓

Comments:

Sample @ 1320

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number: ITITACT SITE - NYSEG

Monitoring Well Number: MW-C12 Date: 10/1/20

Samplers: Alexandra Golden + Gerlinde Wolf

Sample Number: MW-C12 QA/QC Collected? —

Purging / Sampling Method: low flow per pump - dedicated LDPE tubing

1. L = Total Well Depth: 17.10 feet
2. D = Riser Diameter (I.D.): — feet
3. W = Static Depth to Water (TOC): 6.42 feet
4. C = Column of Water in Casing: — feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ — gal
6. D2 = Pump Setting Depth (ft): — feet
7. C2 = Column of water in Pump/Tubing (ft): — feet
8. Tubing Volume = $C2(0.005737088)$ — gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using YSI + NTU

Parameter	Units	Readings							
Time	24 hr	0955	1000	1005	1010	1015	1020	1025	
Water Level (0.33)	feet	6.42	6.61	6.75	7.10	7.20	7.25	7.31	
Volume Purged	gal	—	.10	.20	.30	.40	.50	.60	
Flow Rate	mL / min	100	100	100	100	100	100	100	
Turbidity (+/- 10%)	NTU	21.3	14.6	12.1	9.97	8.63	5.61	5.00	
Dissolved Oxygen (+/- 10%)	%	7.9	3.9	3.2	2.7	2.4	2.3	2.2	
Dissolved Oxygen (+/- 10%)	mg/L	0.75	0.38	0.31	0.26	0.25	0.22	0.21	
Eh / ORP (+/- 10)	MeV	-48.2	-77.0	-85.4	-97.8	-103.5	-106.1	-108.5	
Specific Conductivity (+/- 3%)	mS/cm ^c	2.83	2.55	2.41	2.23	2.14	2.10	2.07	
Conductivity (+/- 3%)	mS/cm	2.35	2.11	1.99	1.86	1.78	1.74	1.72	
pH (+/- 0.1)	pH unit	7.05	7.05	7.08	7.08	7.09	7.10	7.11	
Temp (+/- 0.5)	C	16.3	16.1	15.9	16.3	16.2	16.1	16.2	
Color	Visual	clear	clear	clear	clear	clear	clear	clear	
Odor	Olfactory	—	—	—	—	—	—	—	

Comments:

Sampling @ 1030

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number: ITHACA SITE - NYSEG
 Monitoring Well Number: MW-C11 Date: 10/1/20
 Samplers: Alexandra Holden + Gerardo Wolf
 Sample Number: MW-C11 QA/QC Collected? —
 Purging / Sampling Method: low flow peripump - dedicated LDPE

1. L = Total Well Depth: 17.3 feet
2. D = Riser Diameter (I.D.): — feet
3. W = Static Depth to Water (TOC): 3.01 feet
4. C = Column of Water in Casing: — feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ — gal
6. D2 = Pump Setting Depth (ft): — feet
7. C2 = Column of water in Pump/Tubing (ft): — feet
8. Tubing Volume = $C2(0.005737088)$ — gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using YSI + NTU

Parameter	Units	Readings							
Time	24 hr	0835	0840	0845	0850	0855	0900	0905	✓
Water Level (0.33)	feet	5.01	5.37	5.00	6.30	6.47	6.51	6.60	✓
Volume Purged	gal	—	.10	.25	.35	.50	.65	.85	✓
Flow Rate	mL / min	100	100	100	100	100	100	100	✓
Turbidity (+/- 10%)	NTU	11.48	9.46	12.7	33	34.3	17.6	9.81	✓
Dissolved Oxygen (+/- 10%)	%	4.6	2.7	2.5	2.4	2.3	2.3	2.2	✓
Dissolved Oxygen (+/- 10%)	mg/L	.40	.25	.23	0.22	0.21	0.21	0.20	✓
Eh / ORP (+/- 10)	MeV	-23.0	-64.7	-74.4	-80.3	-84.1	-86.3	-87.9	✓
Specific Conductivity (+/- 3%)	mS/cm ^c	2.41	2.54	2.56	2.57	2.58	2.59	2.58	✓
Conductivity (+/- 3%)	mS/cm	2.14	2.24	2.26	2.28	2.29	2.29	2.29	✓
pH (+/- 0.1)	pH unit	6.87	6.89	6.91	6.92	6.93	6.92	6.93	✓
Temp (+/- 0.5)	C	19.1	19.0	18.9	19.1	19.1	19.1	19.0	✓
Color	Visual	clear	gray	clear	clear	clear	clear	clear	✓
Odor	Olfactory	—	—	—	—	—	—	—	✓

Comments:

D10: 0.2

Sample @ 0910

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number:

ITHACA SITE - NYSEG

Monitoring Well Number:

MW-315

Date:

9/30/20

Samplers:

Alexandra Golden + Geninde Wolf

Sample Number:

MW-315

QA/QC Collected?

—

Purging / Sampling Method:

low flow per-pump-dedicated LDPE tubing

1. L = Total Well Depth:

11.30 feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

7.45 feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI + NTU

Parameter	Units	Readings									
Time	24 hr	1515	1520	1525	1530	1535	1540	1545	1550		
Water Level (0.33)	feet	7.45	7.47	7.50	7.52	7.53	7.54	7.55	7.56		
Volume Purged	gal	—	.10	.20	.30	.40	.50	.60	.70		
Flow Rate	mL / min	120	120	120	120	120	120	120	120		
Turbidity (+/- 10%)	NTU	890	84	86.8	74.2	32.6	16.1	16.1	16.3		
Dissolved Oxygen (+/- 10%)	%	6.4	3.4	3.0	2.8	2.8	3.1	4.9	4.6		
Dissolved Oxygen (+/- 10%)	mg/L	0.62	0.32	0.28	0.27	0.27	0.30	.47	.45		
Eh / ORP (+/- 10)	MeV	-56.9	-87.8	-83.7	-75.4	-58.1	-44.0	-20.2	-14.7		
Specific Conductivity (+/- 3%)	mS/cm ^c	0.90	0.89	0.88	0.86	0.84	0.82	0.81	0.81		
Conductivity (+/- 3%)	mS/cm	0.75	0.74	0.73	0.71	0.70	0.69	0.67	0.67		
pH (+/- 0.1)	pH unit	6.67	6.73	6.72	6.68	6.60	6.58	6.54	6.53		
Temp (+/- 0.5)	C	15.9	16.0	16.1	16.1	16.2	16.2	16.2	16.3		
Color	Visual	gray	L. gray	L. gray	L. gray	L. gray	L. gray	clear	clear		
Odor	Olfactory	—	—	—	—	—	—	—	—		

Comments:

PLD - 0.0 ppm

Sample @ 1600

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 2

Monitoring Well Purging/Sampling Form

Project Name and Number: _____

Monitoring Well Number: _____

MW-31S cont

Date: _____

9/30/20

Samplers: _____

Sample Number: _____

MW-31S

QA/QC Collected? _____

—

Purging / Sampling Method: _____

1. L = Total Well Depth: _____

feet

2. D = Riser Diameter (I.D.): _____

feet

3. W = Static Depth to Water (TOC): _____

feet

4. C = Column of Water in Casing: _____

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft): _____

feet

7. C2 = Column of water in Pump/Tubing (ft): _____

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using _____

Parameter	Units	Readings						
Time	24 hr	1555						
Water Level (0.33)	feet	7.58						
Volume Purged	gal	.80						
Flow Rate	mL / min	120						
Turbidity (+/- 10%)	NTU	10.1						
Dissolved Oxygen (+/- 10%)	%	5.3						
Dissolved Oxygen (+/- 10%)	mg/L	.52						
Eh / ORP (+/- 10)	MeV	-11.4						
Specific Conductivity (+/- 3%)	mS/cm°	0.81						
Conductivity (+/- 3%)	mS/cm	0.67						
pH (+/- 0.1)	pH unit	6.52						
Temp (+/- 0.5)	C	14.3						
Color	Visual	clear						
Odor	Olfactory	—						

Comments:

sample @ 1600

tubing ✓
bck ✓

* Three consecutive readings within range indicates stabilization of that parameter.

pg 2 of 2

Monitoring Well Purging/Sampling Form

Project Name and Number: Imaca Site - NYSEG
 Monitoring Well Number: MW-475 Date: 9/30/20
 Samplers: Alexandra Golden + Gerinde Waf
 Sample Number: MW-475 QA/QC Collected? —
 Purging / Sampling Method: low flow per pump - LDPE dedicated

1. L = Total Well Depth: 14.5 feet
2. D = Riser Diameter (I.D.): — feet
3. W = Static Depth to Water (TOC): 5.01 feet
4. C = Column of Water in Casing: — feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ gal
6. D2 = Pump Setting Depth (ft): — feet
7. C2 = Column of water in Pump/Tubing (ft): — feet
8. Tubing Volume = $C2(0.005737088)$ gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using YSI + NTU

Parameter	Units	Readings	✓	✓	✓
Time	24 hr	1330 1335 1340 1345 1350 1355 1400			
Water Level (0.33)	feet	5.01 6.00 6.29 6.67 6.84 7.01 7.10			
Volume Purged	gal	— .10 .20 .35 .45 .55 .65			
Flow Rate	mL / min	100 100 100 100 100 100 100			
Turbidity (+/- 10%)	NTU	46.0 54.8 50.1 55.3 50.1 49.8 47.8			
Dissolved Oxygen (+/- 10%)	%	5.0 1.7 1.4 1.4 1.4 1.3 1.2			
Dissolved Oxygen (+/- 10%)	mg/L	0.49 .17 0.13 0.13 .14 .13 .12			
Eh / ORP (+/- 10)	MeV	-66.9 -98.9 -107.5 -110.6 -112.6 -113.9 -114.1			
Specific Conductivity (+/- 3%)	mS/cm°	0.98 0.98 0.98 0.98 0.98 0.98 1.00			
Conductivity (+/- 3%)	mS/cm	0.81 0.81 0.82 0.82 0.82 0.82 0.84			
pH (+/- 0.1)	pH unit	6.56 6.71 6.71 6.75 6.74 6.77 6.74			
Temp (+/- 0.5)	C	16.0 16.2 16.4 16.5 16.5 16.6 16.7			
Color	Visual	L. gray L. gray L. gray L. gray L. gray L. gray L. gray			
Odor	Olfactory				

Comments:

PID - .2 ppm

sample @ 1410

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number:

ITHACA SITE - NYSEG

Monitoring Well Number:

MW-40

Date:

9/30/20

Samplers:

Alexandra Holden + Gerlinde Wolf

Sample Number:

MW-40

QA/QC Collected?

—

Purging / Sampling Method:

low flow per pump - dedicated LDPE

1. L = Total Well Depth:

8.30 feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

6.71 feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI + NTU

Parameter	Units	Readings							
Time	24 hr	1130	1155	1200	1205	1210	1215	1220	
Water Level (0.33)	feet	6.71	6.85	7.00	7.10	7.20	7.22	7.25	
Volume Purged	gal	—	.10	.20	.25	.39	.45	.55	
Flow Rate	mL / min	150	100	100	100	100	100	100	
Turbidity (+/- 10%)	NTU	253	167	65.6	66.0	64.5	65.2	60.1	
Dissolved Oxygen (+/- 10%)	%	7.0	4.8	5.1	6.7	4.6	4.0	4.3	
Dissolved Oxygen (+/- 10%)	mg/L	.69	.48	.50	.65	.45	.39	.44	
Eh / ORP (+/- 10)	MeV	-120.8	-100.2	-86.0	-67.5	-65.8	-69.9	-70.1	
Specific Conductivity (+/- 3%)	mS/cm°	.603	.560	.527	.483	.475	.468	.464	
Conductivity (+/- 3%)	mS/cm	.487	.453	.427	.391	.383	.380	.376	
pH (+/- 0.1)	pH unit	6.85	6.68	6.61	6.52	6.48	6.44	6.44	
Temp (+/- 0.5)	C	14.9	15.0	15.0	15.0	15.0	15.1	15.0	
Color	Visual	clear	L. brown	L. brown	L. brown	L. brown	L. brown	L. brown	
Odor	Olfactory	—	—	—	—	—	—	—	

Comments:

L. brown

ppm 0.1

Sample @ 1230

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number: Ithaca NY - NYSEG
 Monitoring Well Number: MW-465 Date: 9/30/20
 Samplers: Alexandra Holden + Gerinde Wolf
 Sample Number: MW-465 QA/QC Collected?
 Purging / Sampling Method: low flow per - dedicated LDPE tubing

1. L = Total Well Depth: 16.70 feet
2. D = Riser Diameter (I.D.): feet
3. W = Static Depth to Water (TOC): 5.01 feet
4. C = Column of Water in Casing: feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ gal
6. D2 = Pump Setting Depth (ft): feet
7. C2 = Column of water in Pump/Tubing (ft): feet
8. Tubing Volume = $C2(0.005737088)$ gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using YSI + NTU

Parameter	Units	Readings							
Time	24 hr	0840	0845	0850	0855	0900	0905	0910	0915
Water Level (0.33)	feet	5.01	5.31	5.35	5.40	5.41	5.43	5.45	5.47
Volume Purged	gal	-	.15	.20	.25	.35	.45	.65	.85
Flow Rate	mL / min	125	125	125	125	125	125	125	125
Turbidity (+/- 10%)	NTU	29.2	20.9	16.8	13.1	9.20	7.74	5.14	4.72
Dissolved Oxygen (+/- 10%)	%	9.2	6.8	6.7	5.4	4.7	3.8	3.6	3.4
Dissolved Oxygen (+/- 10%)	mg/L	0.85	0.64	0.62	.51	.44	0.36	0.34	0.32
Eh / ORP (+/- 10)	MeV	-26.1	-37.3	-41.0	-56.1	-66.8	-82.0	-86.0	-89.9
Specific Conductivity (+/- 3%)	mS/cm°	0.90	0.89	0.96	0.99	1.12	1.17	1.21	1.24
Conductivity (+/- 3%)	mS/cm	0.68	0.77	0.82	0.85	0.95	1.00	1.04	1.06
pH (+/- 0.1)	pH unit	7.05	6.75	6.70	6.71	6.69	6.73	6.74	6.75
Temp (+/- 0.5)	C	17.2	17.4	17.4	17.4	17.4	17.4	17.4	17.4
Color	Visual	clear	clear	clear	clear	clear	clear	clear	clear
Odor	Olfactory	-	-	-	-	-	-	-	-

Comments: PID - 16.01

sample @ 0920

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number: Itasca Site - NYSEG
 Monitoring Well Number: MW-455 Date: 9/30/20
 Samplers: At + b/w
 Sample Number: MW-455 QA/QC Collected? —
 Purging / Sampling Method: low flow per pump - LDPE dedicated

1. L = Total Well Depth: 1 feet
 2. D = Riser Diameter (I.D.): — feet
 3. W = Static Depth to Water (TOC): 5.25 feet
 4. C = Column of Water in Casing: — feet
 5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ gal
 6. D2 = Pump Setting Depth (ft): — feet
 7. C2 = Column of water in Pump/Tubing (ft): — feet
 8. Tubing Volume = $C2(0.005737088)$ gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using YSI + NTU

Parameter	Units	Readings									
Time	24 hr	1005	1010	1015	1020	1025	1030	1035	1040		
Water Level (0.33)	feet	5.25	6.72	7.15	7.75	7.92	8.10	8.26	8.39		
Volume Purged	gal	—	.11	.25	.35	.50	.75	1.00	1.15		
Flow Rate	mL / min	150	150	150	150	150	150	150	150		
Turbidity (+/- 10%)	NTU	02	02	69.7	52.1	52.3	54.0	49.8	57.2		
Dissolved Oxygen (+/- 10%)	%	4.3	3.8	4.0	4.9	6.6	6.2	5.7	5.5		
Dissolved Oxygen (+/- 10%)	mg/L	41	36	38	47	0.61	0.58	.52	.50		
Eh / ORP (+/- 10)	MeV	-87.5	-95.6	-92.9	-85.4	-78.4	-72.8	-77.7	-81.7		
Specific Conductivity (+/- 3%)	mS/cm°	1.31	1.33	1.31	1.29	1.28	1.26	1.26	1.27		
Conductivity (+/- 3%)	mS/cm	1.11	1.12	1.11	1.10	1.09	1.08	1.08	1.08		
pH (+/- 0.1)	pH unit	6.74	6.78	6.74	6.71	6.70	6.69	6.70	6.70		
Temp (+/- 0.5)	C	16.7	16.6	17.0	17.2	17.2	17.3	17.3	17.2		
Color	Visual	gray	gray	L. gray	L. gray	clear	clear	clear	clear		
Odor	Olfactory	—	—	—	—	—	—	—	—		

Comments:

sample @ 1045

* Three consecutive readings within range indicates stabilization of that parameter.

pg 1 of 1

Monitoring Well Purging/Sampling Form

Project Name and Number:

Ithaca NYSEG

Monitoring Well Number:

MW-485

Date:

9.30.20

Samplers:

GW/A6

Sample Number:

MW-485

QA/QC Collected?

MS / MSD

Purging / Sampling Method:

low flow Peri Pump

1. L = Total Well Depth:

14.3

feet

2. D = Riser Diameter (I.D.):

4.12

feet

3. W = Static Depth to Water (TOC):

feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI / Turb Meter

Parameter	Units	Readings							
Time	24 hr	<u>1040</u>	<u>1045</u>	<u>1050</u>	<u>1055</u>	<u>1100</u>	<u>1105</u>	<u>1110</u>	
Water Level (0.33)	feet	<u>4.12</u>	<u>4.62</u>	<u>4.6</u>	<u>4.5</u>	<u>4.5</u>	<u>4.6</u>	<u>4.6</u>	
Volume Purged	gal	<u>0</u>	<u>0.1</u>	<u>0.2</u>	<u>0.3</u>	<u>0.5</u>	<u>0.6</u>	<u>0.8</u>	
Flow Rate	mL / min	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	
Turbidity (+/- 10%)	NTU	<u>over</u>	<u>over</u>	<u>over</u>	<u>59.1</u>	<u>35.9</u>	<u>16.3</u>	<u>10.0</u>	
Dissolved Oxygen (+/- 10%)	%	<u>22.8</u>	<u>7.0</u>	<u>3.9</u>	<u>4</u>	<u>4</u>	<u>4.4</u>	<u>4.2</u>	
Dissolved Oxygen (+/- 10%)	mg/L	<u>2.14</u>	<u>0.63</u>	<u>0.36</u>	<u>0.35</u>	<u>0.35</u>	<u>0.38</u>	<u>0.38</u>	
Eh / ORP (+/- 10)	MeV	<u>-84.9</u>	<u>-11.4</u>	<u>-113.8</u>	<u>-114.2</u>	<u>-115.2</u>	<u>-119.9</u>	<u>-114.6</u>	
Specific Conductivity (+/- 3%)	mS/cm ^c	<u>2770</u>	<u>3.30</u>	<u>3.53</u>	<u>3.6</u>	<u>3.65</u>	<u>3.67</u>	<u>3.66</u>	
Conductivity (+/- 3%)	mS/cm	<u>2.44</u>	<u>2.96</u>	<u>3.14</u>	<u>3.26</u>	<u>3.32</u>	<u>3.34</u>	<u>3.33</u>	
pH (+/- 0.1)	pH unit	<u>7.05</u>	<u>7.07</u>	<u>7.07</u>	<u>7.07</u>	<u>7.08</u>	<u>7.08</u>	<u>7.08</u>	
Temp (+/- 0.5)	C	<u>18.8</u>	<u>19.6</u>	<u>19.6</u>	<u>20.2</u>	<u>20.3</u>	<u>20.3</u>	<u>20.2</u>	
Color	Visual	<u>gray</u>	<u>"</u>	<u>(clearing)</u>	<u>"</u>	<u>(clearing)</u>	<u>"</u>	<u>"</u>	
Odor	Olfactory	<u>yes</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>"</u>	

Comments:

odor.
very gray + turbid.
Small black flecks.

W black flecks
good cond
PRO: 0.2

* Three consecutive readings within range indicates stabilization of that parameter.

Sample @ 1115

Monitoring Well Purging/Sampling Form

Project Name and Number:

NYSEG Ithaca

Monitoring Well Number:

MW-235

Date:

9.30.20

Samplers:

GW

Sample Number:

MW-235

QA/QC Collected?

✓

Purging / Sampling Method:

Low Flow / Peri Pump

1. L = Total Well Depth:

13.7

feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

6.80

feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI / Turb Meter

Parameter

Units

Readings

Time	24 hr	1450	1455	1500	1505	1510	1515
Water Level (0.33)	feet	6.8	6.85	6.85	6.86	6.9	6.93
Volume Purged	gal	0	0.2	0.5	0.8	1	1.2
Flow Rate	mL / min	100	100	100	100	100	100
Turbidity (+/- 10%)	NTU	32.1	27.5	9.8	9.23	7.61	6.95
Dissolved Oxygen (+/- 10%)	%	15.7	13.1	12.4	12.6	11.4	11.7
Dissolved Oxygen (+/- 10%)	mg/L	1.47	1.22	1.15	1.18	1.07	1.08
Eh / ORP (+/- 10)	MeV	-58.2	-60.3	-61.8	-62.1	-63.9	-63.7
Specific Conductivity (+/- 3%)	mS/cm ^c	0.84	0.83	0.80	0.80	0.79	0.79
Conductivity (+/- 3%)	mS/cm	0.73	0.72	0.70	0.70	0.69	0.69
pH (+/- 0.1)	pH unit	7.04	6.84	6.86	6.86	6.86	6.87
Temp (+/- 0.5)	C	18.0	18.0	18.2	18.3	18.3	18.3
Color	Visual	clear	"	"	"	"	"
Odor	Olfactory	yes	"	"	"	"	"

Comments:

Sample @ 1520

VOC - 0

good cond.

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging/Sampling Form

Project Name and Number:

NYSEG Ithaca

Monitoring Well Number:

MW-335

Date: 9.30.20

Samplers:

GW + AG

Sample Number:

MW-335

QA/QC Collected?

Purging / Sampling Method:

Low flow Peri Pump

1. L = Total Well Depth:

9.52 feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

6.89 feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

Turb. Meter + YSI

Parameter	Units	Readings	✓	✓	✓
Time	24 hr	910	915	920	925
Water Level (0.33)	feet	6.89	7.3	7.5	7.63
Volume Purged	gal	0	0.1	0.2	0.3
Flow Rate	mL / min	100	100	100	100
Turbidity (+/- 10%)	NTU	72.3	42.1	20.4	12.6
Dissolved Oxygen (+/- 10%)	%	134.3	22.7	12.4	10.2
Dissolved Oxygen (+/- 10%)	mg/L	12.72	2.27	1.23	1.02
Eh / ORP (+/- 10)	MeV	6.89	-83.0	-93.8	-98.4
Specific Conductivity (+/- 3%)	mS/cm ^c	1408	1116	1120	1121
Conductivity (+/- 3%)	mS/cm	0.91	0.92	0.92	0.92
pH (+/- 0.1)	pH unit	6.89	6.90	6.87	6.87
Temp (+/- 0.5)	C	15.8	15.7	15.8	15.8
Color	Visual	Rusty	Clear	Clear	"
Odor	Olfactory	no	no	no	"

Comments:

Sample @ 9:45

PID: 1

Very Rusty Water at bottom of well good cond

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging/Sampling Form

Project Name and Number:

NYSEG Ithaca

Monitoring Well Number:

MW-225

Date:

9.30.20

Samplers:

GW

Sample Number:

MW-225

QA/QC Collected?

Purging / Sampling Method:

Low Flow Peri Pump

1. L = Total Well Depth:

13.1

feet

2. D = Riser Diameter (I.D.):

5.1

feet

3. W = Static Depth to Water (TOC):

5.1

feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI / Turb Meter

Parameter	Units	Readings
Time	24 hr	1300 1305 1310 1315 1320 1325 1330
Water Level (0.33)	feet	5.1 5.32 5.39 5.45 5.5 5.5 5.53
Volume Purged	gal	0 0.2 0.5 1 1.3 1.5 1.8
Flow Rate	mL / min	100 100 100 100 100 100 100
Turbidity (+/- 10%)	NTU	32.7 4.48 2.28 2.26 1.53 1.42 1.40
Dissolved Oxygen (+/- 10%)	%	5.5 6.8 8.3 6.3 4.7 4.3 4.2
Dissolved Oxygen (+/- 10%)	mg/L	5.9 0.66 0.80 0.6 0.45 0.41 0.39
Eh / ORP (+/- 10)	MeV	-64.6 -63.4 -67.8 -71.8 -72.9 -72.9 -73.1
Specific Conductivity (+/- 3%)	mS/cm ^c	0.99 1.06 1.00 1.00 1.00 1.00 1.00
Conductivity (+/- 3%)	mS/cm	0.82 0.84 0.85 0.85 0.85 0.85 0.85
pH (+/- 0.1)	pH unit	7.44 6.75 6.76 6.75 6.77 6.77 6.77
Temp (+/- 0.5)	C	16.4 16.5 16.9 17.1 16.9 17.0 17.0
Color	Visual	clear " " " " " "
Odor	Olfactory	NO " " " " " "

Comments:

Sample @ 1330

P10 - 0
well in between
driveways in
weeds / garden

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging/Sampling Form

Project Name and Number:

NYSEG-Ithaca NY

Monitoring Well Number:

MW-C16

Date:

10.1.20

Samplers:

GW

Sample Number:

MW-C16

QA/QC Collected?

Purging / Sampling Method:

low flow Peri Pump

1. L = Total Well Depth:

feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

7.2

feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI + Turb Meter

Parameter	Units	Readings							
Time	24 hr	900	905	910	915	920	925	930	
Water Level (0.33)	feet	7.2	7.9	8.4	8.62	8.9	9.1	8.8	
Volume Purged	gal	0	0.1	0.3	0.6	0.9	1.1	1.3	
Flow Rate	mL / min	100	100	100	100	100	100	100	
Turbidity (+/- 10%)	NTU	22.9	22.9	25.5	22.8	24.5	15.5	17.5	
Dissolved Oxygen (+/- 10%)	%	10.8	10.8	6.8	5.3	3.8	3.5	4.7	
Dissolved Oxygen (+/- 10%)	mg/L	1.57	1.01	0.63	0.49	0.35	0.32	0.44	
Eh / ORP (+/- 10)	MeV	-127.9	-128.1	-125.5	-124.2	-123.5	-121.8	-126.1	
Specific Conductivity (+/- 3%)	mS/cm ^c	5.43	5.23	4.58	4.14	3.84	3.87	4.80	
Conductivity (+/- 3%)	mS/cm	4.69	4.54	3.97	3.60	3.35	3.33	4.19	
pH (+/- 0.1)	pH unit	6.95	6.95	6.94	6.95	6.95	6.95	6.90	
Temp (+/- 0.5)	C	18.0	18.1	18.2	18.3	18.3	18.3	18.3	
Color	Visual		"	"	"	"	"	"	
Odor	Olfactory	Slight	"	"	"	"	"	"	

Comments:

→ initial black sludge, then clear water w/
black flecks.

* slight sheen noticed in purge water Bucket

PG 1 of 2

* Three consecutive readings within range indicates stabilization of that parameter.

Monitoring Well Purging/Sampling Form

Project Name and Number: NYSEG Ithaca

Monitoring Well Number: MW-C16 Date: 10.1.20

Samplers: GW

Sample Number: MW-C16 QA/QC Collected? _____

Purging / Sampling Method: _____

1. L = Total Well Depth: _____ feet
2. D = Riser Diameter (I.D.): _____ feet
3. W = Static Depth to Water (TOC): _____ feet
4. C = Column of Water in Casing: _____ feet
5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ _____ gal
6. D2 = Pump Setting Depth: _____ feet
7. C2 = Column of water in Pump/Tubing (ft): _____ feet
8. Tubing Volume = $C2(0.005737088)$ _____ gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using _____

Parameter	Units	✓	✓	✓	Readings			
Time	24 hr	935	940	945				
Water Level (0.33)	feet	8.8	8.84	8.9				
Volume Purged	gal	1.5	1.8	2.1				
Flow Rate	mL / min	106	106	106				
Turbidity (+/- 10%)	NTU	16.8	17.7	15.9				
Dissolved Oxygen (+/- 10%)	%	4.3	4.2	4.3				
Dissolved Oxygen (+/- 10%)	mg/L	0.4	0.41	0.40				
Eh / ORP (+/- 10)	MeV	-125.2	-125.2	-124.3				
Specific Conductivity (+/- 3%)	mS/cm ^c	4.45	4.36	4.10				
Conductivity (+/- 3%)	mS/cm	3.87	3.79	3.57				
pH (+/- 0.1)	pH unit	6.91	6.97	6.94				
Temp (+/- 0.5)	C	18.2	18.2	18.2				
Color	Visual	"	"	"				
Odor	Olfactory	"	"	"				

Comments:

Sample @ 950

* Three consecutive readings within range indicates stabilization of that parameter.

PG 2 of 2

Monitoring Well Purging/Sampling Form

Project Name and Number:

NYSEG Ithaca

Monitoring Well Number:

MW-2SS

Date:

10.1.20

Samplers:

GW

Sample Number:

MW-2SS

QA/QC Collected?

—

Purging / Sampling Method:

Low flow / Peri Pump

1. L = Total Well Depth:

10.3 feet

2. D = Riser Diameter (I.D.):

feet

3. W = Static Depth to Water (TOC):

6.7 feet

4. C = Column of Water in Casing:

feet

5. V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$

gal

6. D2 = Pump Setting Depth (ft):

feet

7. C2 = Column of water in Pump/Tubing (ft):

feet

8. Tubing Volume = $C2(0.005737088)$

gal

D (inches)	D (feet)
1-inch	0.08
2-inch	0.17
3-inch	0.25
4-inch	0.33
6-inch	0.50

Conversion factors to determine V given C

D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
V (gal / ft)	0.041	0.163	0.37	0.65	1.5

Water Quality Readings Collected Using

YSI / Turb meter

Parameter	Units	Readings							
Time	24 hr	1045	1050	1055	1100	1105	1110	1115	
Water Level (0.33)	feet	6.7	7.45	7.6	7.74	7.85	7.93	8.1	
Volume Purged	gal	0	0.2	0.5	0.7	0.9	1.2	1.5	
Flow Rate	mL / min	100	100	100	100	100	100	100	
Turbidity (+/- 10%)	NTU	25.9	20.8	10.9	10.28	7.26	5.42	5.05	
Dissolved Oxygen (+/- 10%)	%	23.9	11.5	6.7	4.2	3.4	3.1	3.1	
Dissolved Oxygen (+/- 10%)	mg/L	2.24	1.08	0.66	0.40	0.33	0.30	0.30	
Eh / ORP (+/- 10)	MeV	69.9	-14.4	-24.7	-30.3	-34.7	-38.2	-40.6	
Specific Conductivity (+/- 3%)	mS/cm ^c	4.04	4.14	4.15	4.15	4.15	4.15	4.15	
Conductivity (+/- 3%)	mS/cm	3.42	3.50	3.51	3.51	3.51	3.51	3.51	
pH (+/- 0.1)	pH unit	6.84	6.87	6.87	6.89	6.89	6.89	6.89	
Temp (+/- 0.5)	C	17.0	17.0	17.0	17.0	17.0	17.0	16.9	
Color	Visual	clear	"	"	"	"	"	"	
Odor	Olfactory	no	"	"	"	"	"	"	

Comments:

Sample @ 1120

well in good cond.
almost cleargram
w/ Grass.

* Three consecutive readings within range indicates stabilization of that parameter.

Appendix B – Analytical Laboratory Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-175829-1

Client Project/Site: Ithaca Laboratory - Groundwater Analysis

For:

AECOM
125 Broad Street
16th Floor
New York, New York 10004

Attn: Ms. Melissa Saunders



Authorized for release by:

10/8/2020 3:40:50 PM

Rebecca Jones, Project Management Assistant I

Rebecca.Jones@Eurofinset.com

Designee for

John Schove, Project Manager II

(716)504-9838

John.Schove@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins TestAmerica, Buffalo

Case Narrative

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Job ID: 480-175829-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-175829-1

Comments

No additional comments.

Receipt

The samples were received on 10/1/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.8° C, 2.9° C, 3.0° C, 3.1° C and 3.4° C.

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2), MW-48S (480-175829-5), MW-48S (480-175829-5[MS]), MW-48S (480-175829-5[MSD]) and MW-23S (480-175829-8). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: MW-22S (480-175829-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: MW-47S (480-175829-6). Sample pH is 7.

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

GC/MS Semi VOA

Method 8270D LL: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following sample was diluted due to the nature of the sample matrix: MW-47S (480-175829-6). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2), MW-48S (480-175829-5), MW-48S (480-175829-5[MS]), MW-48S (480-175829-5[MSD]) and MW-23S (480-175829-8). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following samples required a dilution due to the abundance of target analytes: MW-46S (480-175829-2) and MW-23S (480-175829-8). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D SIM: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW-40 (480-175829-4). These results have been reported and qualified.

Method 8270D SIM: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4, Acenaphthene-d-10, Naphthalene-d8 and Phenanthrene-d10 for the following sample was outside acceptance criteria: MW-47S (480-175829-6). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8270D SIM: Internal standard (ISTD) response for Acenaphthene-d-10 for the following samples were outside acceptance criteria: MW-22S (480-175829-3), MW-48S (480-175829-5[MS]) and (MB 460-728957/1-A). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8270D SIM: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4 for the following sample was outside acceptance criteria: MW-33S (480-175829-1). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Case Narrative

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Job ID: 480-175829-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

Method 8270D SIM: Internal standard (ISTD) response for Naphthalene-d8 for the following samples were outside acceptance criteria: MW-48S (480-175829-5) and MW-48S (480-175829-5[MSD]). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

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

HPLC/IC

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: MW-33S (480-175829-1), MW-46S (480-175829-2), MW-22S (480-175829-3), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-23S (480-175829-8) and MW-45S (480-175829-9). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was reported with elevated reporting limits for all analytes: MW-31S (480-175829-7). The sample was analyzed at a dilution based on screening results.

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

GC VOA

Method RSK-175: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2), MW-22S (480-175829-3), MW-40 (480-175829-4), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-31S (480-175829-7), MW-23S (480-175829-8) and MW-45S (480-175829-9).

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 SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-33S (480-175829-1), MW-46S (480-175829-2), MW-22S (480-175829-3), MW-40 (480-175829-4), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-31S (480-175829-7), MW-23S (480-175829-8) and MW-45S (480-175829-9).

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-33S (480-175829-1), MW-46S (480-175829-2), MW-22S (480-175829-3), MW-40 (480-175829-4), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-31S (480-175829-7), MW-23S (480-175829-8) and MW-45S (480-175829-9).

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.

Detection Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MW-33S

Lab Sample ID: 480-175829-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.10	J	0.95	0.061	ug/L	1		8270D LL	Total/NA
Methane	190		4.0	1.0	ug/L	1		RSK-175	Total/NA
Iron	20.9		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	21.2		10.0	1.7	mg/L	5		300.0	Total/NA
Ammonia	3.9		0.040	0.018	mg/L	2		350.1	Total/NA
Nitrate Nitrite as N	0.049	J	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrite as N	0.022	J	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.0066	J	0.010	0.0050	mg/L	1		9012B	Total/NA
Nitrate as N	0.027	J	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	421		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.64	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.4	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-46S

Lab Sample ID: 480-175829-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	720		20	8.2	ug/L	20		8260C	Total/NA
Ethylbenzene	790		20	15	ug/L	20		8260C	Total/NA
Xylenes, Total	210		40	13	ug/L	20		8260C	Total/NA
Acenaphthene	43		4.8	0.34	ug/L	10		8270D LL	Total/NA
Acenaphthylene	2.8	J	2.9	0.53	ug/L	10		8270D LL	Total/NA
Anthracene	2.2	J	4.8	0.32	ug/L	10		8270D LL	Total/NA
Chrysene	1.9	J	4.8	0.70	ug/L	10		8270D LL	Total/NA
Fluoranthene	2.3	J	4.8	0.76	ug/L	10		8270D LL	Total/NA
Fluorene	9.7		4.8	0.55	ug/L	10		8270D LL	Total/NA
Naphthalene	480	E	9.5	0.61	ug/L	10		8270D LL	Total/NA
Phenanthrene	7.6	B	1.9	0.59	ug/L	10		8270D LL	Total/NA
Pyrene	3.8	J	4.8	0.72	ug/L	10		8270D LL	Total/NA
Acenaphthene - DL	44	J	95	6.9	ug/L	200		8270D LL	Total/NA
Naphthalene - DL	1100		190	12	ug/L	200		8270D LL	Total/NA
Benzo[a]anthracene	0.41		0.050	0.016	ug/L	1		8270D SIM	Total/NA
Benzo[a]pyrene	0.32		0.050	0.022	ug/L	1		8270D SIM	Total/NA
Benzo[b]fluoranthene	0.26		0.050	0.024	ug/L	1		8270D SIM	Total/NA
Benzo[g,h,i]perylene	0.15		0.050	0.035	ug/L	1		8270D SIM	Total/NA
Benzo[k]fluoranthene	0.093		0.050	0.028	ug/L	1		8270D SIM	Total/NA
Dibenz(a,h)anthracene	0.045	J	0.050	0.020	ug/L	1		8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.15		0.050	0.036	ug/L	1		8270D SIM	Total/NA
Methane	7900		180	44	ug/L	44		RSK-175	Total/NA
Iron	7.0		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	12.7		10.0	1.7	mg/L	5		300.0	Total/NA
Ammonia	3.6		0.040	0.018	mg/L	2		350.1	Total/NA
Nitrate Nitrite as N	0.049	J	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate as N	0.049	J	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	342		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.086	J HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.8	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MW-22S

Lab Sample ID: 480-175829-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	24		10	4.1	ug/L	10		8260C	Total/NA
Ethylbenzene	11		10	7.4	ug/L	10		8260C	Total/NA
Xylenes, Total	9.2	J	20	6.6	ug/L	10		8260C	Total/NA
Acenaphthene	2.4		0.48	0.035	ug/L	1		8270D LL	Total/NA
Fluorene	0.058	J	0.48	0.056	ug/L	1		8270D LL	Total/NA
Naphthalene	0.83	J	0.96	0.062	ug/L	1		8270D LL	Total/NA
Methane	7500		180	44	ug/L	44		RSK-175	Total/NA
Iron	7.7		0.050	0.019	mg/L	1		6010C	Total/NA
Ammonia	3.4		0.040	0.018	mg/L	2		350.1	Total/NA
Nitrate Nitrite as N	0.025	J	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.076		0.010	0.0050	mg/L	1		9012B	Total/NA
Nitrate as N	0.025	J	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	343		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.37	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	21.3	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-40

Lab Sample ID: 480-175829-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.61	J	0.95	0.061	ug/L	1		8270D LL	Total/NA
Methane	950		88	22	ug/L	22		RSK-175	Total/NA
Iron	20.4		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	3.6		2.0	0.35	mg/L	1		300.0	Total/NA
Ammonia	10.1		0.20	0.090	mg/L	10		350.1	Total/NA
Nitrate Nitrite as N	0.14		0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate as N	0.14		0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	217		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.13	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	6.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	21.0	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-48S

Lab Sample ID: 480-175829-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	69	F1	2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	26		2.0	1.5	ug/L	2		8260C	Total/NA
Xylenes, Total	18		4.0	1.3	ug/L	2		8260C	Total/NA
Acenaphthene	29	E	0.48	0.034	ug/L	1		8270D LL	Total/NA
Acenaphthylene	1.5		0.29	0.053	ug/L	1		8270D LL	Total/NA
Anthracene	1.4		0.48	0.032	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.72		0.48	0.076	ug/L	1		8270D LL	Total/NA
Fluorene	3.9		0.48	0.055	ug/L	1		8270D LL	Total/NA
Naphthalene	46	E	0.95	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	4.6	B	0.19	0.059	ug/L	1		8270D LL	Total/NA
Pyrene	0.90		0.48	0.072	ug/L	1		8270D LL	Total/NA
Acenaphthene - DL	41		4.8	0.34	ug/L	10		8270D LL	Total/NA
Acenaphthylene - DL	1.6	J	2.9	0.53	ug/L	10		8270D LL	Total/NA
Anthracene - DL	1.4	J	4.8	0.32	ug/L	10		8270D LL	Total/NA
Fluorene - DL	3.9	J	4.8	0.55	ug/L	10		8270D LL	Total/NA
Naphthalene - DL	91		9.5	0.61	ug/L	10		8270D LL	Total/NA
Phenanthrene - DL	4.5	B	1.9	0.59	ug/L	10		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-48S (Continued)

Lab Sample ID: 480-175829-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene - DL	0.86	J	4.8	0.72	ug/L	10		8270D LL	Total/NA
Benzo[a]anthracene	0.019	J	0.050	0.016	ug/L	1		8270D SIM	Total/NA
Methane	5000		180	44	ug/L	44		RSK-175	Total/NA
Iron	6.9		0.050	0.019	mg/L	1		6010C	Total/NA
Ammonia	2.7		0.040	0.018	mg/L	2		350.1	Total/NA
Alkalinity, Total	396		5.0	0.79	mg/L	1		SM 2320B	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.5	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-47S

Lab Sample ID: 480-175829-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.75	J	2.5	0.18	ug/L	5		8270D LL	Total/NA
Naphthalene	1.6	J	5.0	0.32	ug/L	5		8270D LL	Total/NA
Methane	8300		350	88	ug/L	88		RSK-175	Total/NA
Iron	40.6		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	17.8		10.0	1.7	mg/L	5		300.0	Total/NA
Ammonia	7.6		0.10	0.045	mg/L	5		350.1	Total/NA
Nitrate Nitrite as N	0.14		0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate as N	0.14		0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	305		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.092	J HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.2	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-31S

Lab Sample ID: 480-175829-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	580		88	22	ug/L	22		RSK-175	Total/NA
Iron	1.5		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	10.2		4.0	0.70	mg/L	2		300.0	Total/NA
Ammonia	0.096		0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.025	J	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.0056	J	0.010	0.0050	mg/L	1		9012B	Total/NA
Nitrate as N	0.025	J	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	303	F1	5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.086	J HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.3	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-23S

Lab Sample ID: 480-175829-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5	J	2.0	0.82	ug/L	2		8260C	Total/NA
Ethylbenzene	65		2.0	1.5	ug/L	2		8260C	Total/NA
Xylenes, Total	38		4.0	1.3	ug/L	2		8260C	Total/NA
Acenaphthene	45	E	0.48	0.034	ug/L	1		8270D LL	Total/NA
Acenaphthylene	1.9		0.29	0.053	ug/L	1		8270D LL	Total/NA
Anthracene	6.5		0.48	0.032	ug/L	1		8270D LL	Total/NA
Chrysene	0.19	J	0.48	0.070	ug/L	1		8270D LL	Total/NA
Fluoranthene	3.0		0.48	0.076	ug/L	1		8270D LL	Total/NA
Fluorene	20	E	0.48	0.055	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MW-23S (Continued)

Lab Sample ID: 480-175829-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	96	E	0.95	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	20	E B	0.19	0.059	ug/L	1		8270D LL	Total/NA
Pyrene	4.4		0.48	0.072	ug/L	1		8270D LL	Total/NA
Acenaphthene - DL	98		24	1.7	ug/L	50		8270D LL	Total/NA
Anthracene - DL	5.9	J	24	1.6	ug/L	50		8270D LL	Total/NA
Fluorene - DL	26		24	2.8	ug/L	50		8270D LL	Total/NA
Naphthalene - DL	340		48	3.0	ug/L	50		8270D LL	Total/NA
Phenanthrene - DL	26	B	9.5	3.0	ug/L	50		8270D LL	Total/NA
Pyrene - DL	3.9	J	24	3.6	ug/L	50		8270D LL	Total/NA
Benzo[a]anthracene	0.089		0.050	0.016	ug/L	1		8270D SIM	Total/NA
Methane	3100		88	22	ug/L	22		RSK-175	Total/NA
Iron	1.8		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	4.1	J	10.0	1.7	mg/L	5		300.0	Total/NA
Ammonia	1.1		0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.36		0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate as N	0.36		0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	238		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.19	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.4	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-45S

Lab Sample ID: 480-175829-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.036	J	0.48	0.034	ug/L	1		8270D LL	Total/NA
Naphthalene	0.20	J	0.95	0.061	ug/L	1		8270D LL	Total/NA
Pyrene	0.10	J	0.48	0.072	ug/L	1		8270D LL	Total/NA
Methane	5800		88	22	ug/L	22		RSK-175	Total/NA
Iron	30.1		0.050	0.019	mg/L	1		6010C	Total/NA
Ammonia	3.4		0.040	0.018	mg/L	2		350.1	Total/NA
Nitrate Nitrite as N	0.098		0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.0065	J	0.010	0.0050	mg/L	1		9012B	Total/NA
Nitrate as N	0.098		0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	377		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.21	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.9	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: DUP

Lab Sample ID: 480-175829-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	21		1.0	0.41	ug/L	1		8260C	Total/NA
Ethylbenzene	11		1.0	0.74	ug/L	1		8260C	Total/NA
Toluene	0.51	J	1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	8.6		2.0	0.66	ug/L	1		8260C	Total/NA
Acenaphthene	3.2		0.48	0.034	ug/L	1		8270D LL	Total/NA
Fluorene	0.095	J	0.48	0.055	ug/L	1		8270D LL	Total/NA
Naphthalene	0.82	J	0.95	0.061	ug/L	1		8270D LL	Total/NA
Cyanide, Total	0.092		0.010	0.0050	mg/L	1		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-33S

Lab Sample ID: 480-175829-1

Date Collected: 09/30/20 09:45

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 11:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 11:38	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 11:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 11:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		10/04/20 11:38	1
4-Bromofluorobenzene (Surr)	106		73 - 120		10/04/20 11:38	1
Dibromofluoromethane (Surr)	103		75 - 123		10/04/20 11:38	1
Toluene-d8 (Surr)	100		80 - 120		10/04/20 11:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 19:55	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 19:55	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 19:55	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 19:55	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 19:55	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 19:55	1
Naphthalene	0.10	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 19:55	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 19:55	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	126		24 - 146	10/03/20 14:15	10/05/20 19:55	1
2-Fluorobiphenyl	86		37 - 120	10/03/20 14:15	10/05/20 19:55	1
2-Fluorophenol (Surr)	49		10 - 120	10/03/20 14:15	10/05/20 19:55	1
Nitrobenzene-d5 (Surr)	79		26 - 120	10/03/20 14:15	10/05/20 19:55	1
Phenol-d5 (Surr)	31		11 - 120	10/03/20 14:15	10/05/20 19:55	1
p-Terphenyl-d14	112		64 - 127	10/03/20 14:15	10/05/20 19:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/04/20 23:52	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/04/20 23:52	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/04/20 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	105		40 - 140	10/04/20 09:32	10/04/20 23:52	1
Nitrobenzene-d5	122		41 - 144	10/04/20 09:32	10/04/20 23:52	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	190		4.0	1.0	ug/L			10/01/20 18:24	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-33S

Date Collected: 09/30/20 09:45

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-1

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20.9		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	21.2		10.0	1.7	mg/L			10/06/20 02:19	5
Ammonia	3.9		0.040	0.018	mg/L			10/01/20 11:53	2
Nitrate Nitrite as N	0.049	J	0.050	0.020	mg/L			10/01/20 20:07	1
Nitrite as N	0.022	J	0.050	0.020	mg/L			10/01/20 16:54	1
Cyanide, Total	0.0066	J	0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:38	1
Nitrate as N	0.027	J	0.050	0.020	mg/L			10/01/20 16:54	1
Alkalinity, Total	421		5.0	0.79	mg/L			10/05/20 00:08	1
Ferrous Iron	0.64	HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/01/20 13:59	1
Temperature	20.4	HF	0.001	0.001	Degrees C			10/01/20 13:59	1

Client Sample ID: MW-46S

Date Collected: 09/30/20 09:20

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	720		20	8.2	ug/L			10/04/20 12:02	20
Ethylbenzene	790		20	15	ug/L			10/04/20 12:02	20
Toluene	ND		20	10	ug/L			10/04/20 12:02	20
Xylenes, Total	210		40	13	ug/L			10/04/20 12:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		10/04/20 12:02	20
4-Bromofluorobenzene (Surr)	106		73 - 120		10/04/20 12:02	20
Dibromofluoromethane (Surr)	101		75 - 123		10/04/20 12:02	20
Toluene-d8 (Surr)	98		80 - 120		10/04/20 12:02	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	43		4.8	0.34	ug/L		10/03/20 14:15	10/05/20 20:23	10
Acenaphthylene	2.8	J	2.9	0.53	ug/L		10/03/20 14:15	10/05/20 20:23	10
Anthracene	2.2	J	4.8	0.32	ug/L		10/03/20 14:15	10/05/20 20:23	10
Chrysene	1.9	J	4.8	0.70	ug/L		10/03/20 14:15	10/05/20 20:23	10
Fluoranthene	2.3	J	4.8	0.76	ug/L		10/03/20 14:15	10/05/20 20:23	10
Fluorene	9.7		4.8	0.55	ug/L		10/03/20 14:15	10/05/20 20:23	10
Naphthalene	480	E	9.5	0.61	ug/L		10/03/20 14:15	10/05/20 20:23	10
Phenanthrene	7.6	B	1.9	0.59	ug/L		10/03/20 14:15	10/05/20 20:23	10
Pyrene	3.8	J	4.8	0.72	ug/L		10/03/20 14:15	10/05/20 20:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	111		24 - 146	10/03/20 14:15	10/05/20 20:23	10
2-Fluorobiphenyl	71		37 - 120	10/03/20 14:15	10/05/20 20:23	10
2-Fluorophenol (Surr)	40		10 - 120	10/03/20 14:15	10/05/20 20:23	10
Nitrobenzene-d5 (Surr)	62		26 - 120	10/03/20 14:15	10/05/20 20:23	10
Phenol-d5 (Surr)	23		11 - 120	10/03/20 14:15	10/05/20 20:23	10

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-46S

Lab Sample ID: 480-175829-2

Date Collected: 09/30/20 09:20

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	85		64 - 127	10/03/20 14:15	10/05/20 20:23	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	44	J	95	6.9	ug/L		10/03/20 14:15	10/06/20 17:52	200
Acenaphthylene	ND		57	11	ug/L		10/03/20 14:15	10/06/20 17:52	200
Anthracene	ND		95	6.5	ug/L		10/03/20 14:15	10/06/20 17:52	200
Chrysene	ND		95	14	ug/L		10/03/20 14:15	10/06/20 17:52	200
Fluoranthene	ND		95	15	ug/L		10/03/20 14:15	10/06/20 17:52	200
Fluorene	ND		95	11	ug/L		10/03/20 14:15	10/06/20 17:52	200
Naphthalene	1100		190	12	ug/L		10/03/20 14:15	10/06/20 17:52	200
Phenanthrene	ND		38	12	ug/L		10/03/20 14:15	10/06/20 17:52	200
Pyrene	ND		95	14	ug/L		10/03/20 14:15	10/06/20 17:52	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	532	X	24 - 146	10/03/20 14:15	10/06/20 17:52	200
2-Fluorobiphenyl	70		37 - 120	10/03/20 14:15	10/06/20 17:52	200
2-Fluorophenol (Surr)	37		10 - 120	10/03/20 14:15	10/06/20 17:52	200
Nitrobenzene-d5 (Surr)	59		26 - 120	10/03/20 14:15	10/06/20 17:52	200
Phenol-d5 (Surr)	22		11 - 120	10/03/20 14:15	10/06/20 17:52	200
p-Terphenyl-d14	86		64 - 127	10/03/20 14:15	10/06/20 17:52	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.41		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[a]pyrene	0.32		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[b]fluoranthene	0.26		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[g,h,i]perylene	0.15		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[k]fluoranthene	0.093		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 00:13	1
Dibenz(a,h)anthracene	0.045	J	0.050	0.020	ug/L		10/04/20 09:32	10/05/20 00:13	1
Indeno[1,2,3-cd]pyrene	0.15		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 00:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		40 - 140	10/04/20 09:32	10/05/20 00:13	1
Nitrobenzene-d5	91		41 - 144	10/04/20 09:32	10/05/20 00:13	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	7900		180	44	ug/L			10/02/20 00:42	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.0		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	12.7		10.0	1.7	mg/L			10/06/20 02:34	5
Ammonia	3.6		0.040	0.018	mg/L			10/01/20 12:14	2
Nitrate Nitrite as N	0.049	J	0.050	0.020	mg/L			10/01/20 20:08	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:56	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:27	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-46S

Lab Sample ID: 480-175829-2

Date Collected: 09/30/20 09:20

Matrix: Water

Date Received: 10/01/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.049	J	0.050	0.020	mg/L			10/01/20 16:56	1
Alkalinity, Total	342		5.0	0.79	mg/L			10/05/20 00:16	1
Ferrous Iron	0.086	J HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF	0.1	0.1	SU			10/01/20 14:00	1
Temperature	20.8	HF	0.001	0.001	Degrees C			10/01/20 14:00	1

Client Sample ID: MW-22S

Lab Sample ID: 480-175829-3

Date Collected: 09/30/20 13:30

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	24		10	4.1	ug/L			10/04/20 12:26	10
Ethylbenzene	11		10	7.4	ug/L			10/04/20 12:26	10
Toluene	ND		10	5.1	ug/L			10/04/20 12:26	10
Xylenes, Total	9.2	J	20	6.6	ug/L			10/04/20 12:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120					10/04/20 12:26	10
4-Bromofluorobenzene (Surr)	104		73 - 120					10/04/20 12:26	10
Dibromofluoromethane (Surr)	101		75 - 123					10/04/20 12:26	10
Toluene-d8 (Surr)	97		80 - 120					10/04/20 12:26	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2.4		0.48	0.035	ug/L		10/03/20 14:15	10/05/20 20:52	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/03/20 14:15	10/05/20 20:52	1
Anthracene	ND		0.48	0.033	ug/L		10/03/20 14:15	10/05/20 20:52	1
Chrysene	ND		0.48	0.071	ug/L		10/03/20 14:15	10/05/20 20:52	1
Fluoranthene	ND		0.48	0.077	ug/L		10/03/20 14:15	10/05/20 20:52	1
Fluorene	0.058	J	0.48	0.056	ug/L		10/03/20 14:15	10/05/20 20:52	1
Naphthalene	0.83	J	0.96	0.062	ug/L		10/03/20 14:15	10/05/20 20:52	1
Phenanthrene	ND		0.19	0.060	ug/L		10/03/20 14:15	10/05/20 20:52	1
Pyrene	ND		0.48	0.073	ug/L		10/03/20 14:15	10/05/20 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	120		24 - 146				10/03/20 14:15	10/05/20 20:52	1
2-Fluorobiphenyl	78		37 - 120				10/03/20 14:15	10/05/20 20:52	1
2-Fluorophenol (Surr)	48		10 - 120				10/03/20 14:15	10/05/20 20:52	1
Nitrobenzene-d5 (Surr)	78		26 - 120				10/03/20 14:15	10/05/20 20:52	1
Phenol-d5 (Surr)	31		11 - 120				10/03/20 14:15	10/05/20 20:52	1
p-Terphenyl-d14	104		64 - 127				10/03/20 14:15	10/05/20 20:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 00:35	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-22S

Lab Sample ID: 480-175829-3

Date Collected: 09/30/20 13:30

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 00:35	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 00:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72	*3	40 - 140				10/04/20 09:32	10/05/20 00:35	1
Nitrobenzene-d5	71		41 - 144				10/04/20 09:32	10/05/20 00:35	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	7500		180	44	ug/L			10/02/20 01:01	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.7		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		10.0	1.7	mg/L			10/06/20 02:48	5
Ammonia	3.4		0.040	0.018	mg/L			10/01/20 12:05	2
Nitrate Nitrite as N	0.025	J	0.050	0.020	mg/L			10/01/20 20:10	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:57	1
Cyanide, Total	0.076		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:25	1
Nitrate as N	0.025	J	0.050	0.020	mg/L			10/01/20 16:57	1
Alkalinity, Total	343		5.0	0.79	mg/L			10/05/20 00:23	1
Ferrous Iron	0.37	HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/01/20 14:02	1
Temperature	21.3	HF	0.001	0.001	Degrees C			10/01/20 14:02	1

Client Sample ID: MW-40

Lab Sample ID: 480-175829-4

Date Collected: 09/30/20 12:30

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 12:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 12:50	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 12:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 12:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120					10/04/20 12:50	1
4-Bromofluorobenzene (Surr)	113		73 - 120					10/04/20 12:50	1
Dibromofluoromethane (Surr)	115		75 - 123					10/04/20 12:50	1
Toluene-d8 (Surr)	96		80 - 120					10/04/20 12:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 21:20	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 21:20	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 21:20	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-40

Lab Sample ID: 480-175829-4

Date Collected: 09/30/20 12:30

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 21:20	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 21:20	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 21:20	1
Naphthalene	0.61	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 21:20	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 21:20	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	122		24 - 146	10/03/20 14:15	10/05/20 21:20	1
2-Fluorobiphenyl	91		37 - 120	10/03/20 14:15	10/05/20 21:20	1
2-Fluorophenol (Surr)	51		10 - 120	10/03/20 14:15	10/05/20 21:20	1
Nitrobenzene-d5 (Surr)	83		26 - 120	10/03/20 14:15	10/05/20 21:20	1
Phenol-d5 (Surr)	33		11 - 120	10/03/20 14:15	10/05/20 21:20	1
p-Terphenyl-d14	110		64 - 127	10/03/20 14:15	10/05/20 21:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 00:56	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 00:56	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		40 - 140	10/04/20 09:32	10/05/20 00:56	1
Nitrobenzene-d5	154	X	41 - 144	10/04/20 09:32	10/05/20 00:56	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	950		88	22	ug/L			10/02/20 01:20	22

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20.4		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3.6		2.0	0.35	mg/L			10/06/20 03:03	1
Ammonia	10.1		0.20	0.090	mg/L			10/01/20 12:15	10
Nitrate Nitrite as N	0.14		0.050	0.020	mg/L			10/01/20 20:11	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:58	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:24	1
Nitrate as N	0.14		0.050	0.020	mg/L			10/01/20 16:58	1
Alkalinity, Total	217		5.0	0.79	mg/L			10/05/20 00:31	1
Ferrous Iron	0.13	HF	0.10	0.075	mg/L			10/03/20 11:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF	0.1	0.1	SU			10/01/20 14:06	1
Temperature	21.0	HF	0.001	0.001	Degrees C			10/01/20 14:06	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-48S

Lab Sample ID: 480-175829-5

Date Collected: 09/30/20 11:15

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	69	F1	2.0	0.82	ug/L			10/04/20 13:14	2
Ethylbenzene	26		2.0	1.5	ug/L			10/04/20 13:14	2
Toluene	ND		2.0	1.0	ug/L			10/04/20 13:14	2
Xylenes, Total	18		4.0	1.3	ug/L			10/04/20 13:14	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120					10/04/20 13:14	2
4-Bromofluorobenzene (Surr)	111		73 - 120					10/04/20 13:14	2
Dibromofluoromethane (Surr)	111		75 - 123					10/04/20 13:14	2
Toluene-d8 (Surr)	98		80 - 120					10/04/20 13:14	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	29	E	0.48	0.034	ug/L		10/03/20 14:15	10/05/20 19:27	1
Acenaphthylene	1.5		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 19:27	1
Anthracene	1.4		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 19:27	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 19:27	1
Fluoranthene	0.72		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 19:27	1
Fluorene	3.9		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 19:27	1
Naphthalene	46	E	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 19:27	1
Phenanthrene	4.6	B	0.19	0.059	ug/L		10/03/20 14:15	10/05/20 19:27	1
Pyrene	0.90		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 19:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	136		24 - 146				10/03/20 14:15	10/05/20 19:27	1
2-Fluorobiphenyl	95		37 - 120				10/03/20 14:15	10/05/20 19:27	1
2-Fluorophenol (Surr)	59		10 - 120				10/03/20 14:15	10/05/20 19:27	1
Nitrobenzene-d5 (Surr)	95		26 - 120				10/03/20 14:15	10/05/20 19:27	1
Phenol-d5 (Surr)	38		11 - 120				10/03/20 14:15	10/05/20 19:27	1
p-Terphenyl-d14	104		64 - 127				10/03/20 14:15	10/05/20 19:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	41		4.8	0.34	ug/L		10/03/20 14:15	10/06/20 17:24	10
Acenaphthylene	1.6	J	2.9	0.53	ug/L		10/03/20 14:15	10/06/20 17:24	10
Anthracene	1.4	J	4.8	0.32	ug/L		10/03/20 14:15	10/06/20 17:24	10
Chrysene	ND		4.8	0.70	ug/L		10/03/20 14:15	10/06/20 17:24	10
Fluoranthene	ND		4.8	0.76	ug/L		10/03/20 14:15	10/06/20 17:24	10
Fluorene	3.9	J	4.8	0.55	ug/L		10/03/20 14:15	10/06/20 17:24	10
Naphthalene	91		9.5	0.61	ug/L		10/03/20 14:15	10/06/20 17:24	10
Phenanthrene	4.5	B	1.9	0.59	ug/L		10/03/20 14:15	10/06/20 17:24	10
Pyrene	0.86	J	4.8	0.72	ug/L		10/03/20 14:15	10/06/20 17:24	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	138		24 - 146				10/03/20 14:15	10/06/20 17:24	10
2-Fluorobiphenyl	99		37 - 120				10/03/20 14:15	10/06/20 17:24	10
2-Fluorophenol (Surr)	54		10 - 120				10/03/20 14:15	10/06/20 17:24	10
Nitrobenzene-d5 (Surr)	83		26 - 120				10/03/20 14:15	10/06/20 17:24	10
Phenol-d5 (Surr)	35		11 - 120				10/03/20 14:15	10/06/20 17:24	10
p-Terphenyl-d14	102		64 - 127				10/03/20 14:15	10/06/20 17:24	10

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-48S

Lab Sample ID: 480-175829-5

Date Collected: 09/30/20 11:15

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.019	J	0.050	0.016	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/04/20 22:49	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/04/20 22:49	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/04/20 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	97		40 - 140	10/04/20 09:32	10/04/20 22:49	1
Nitrobenzene-d5	84	*3	41 - 144	10/04/20 09:32	10/04/20 22:49	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	5000		180	44	ug/L			10/02/20 01:39	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6.9		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		40.0	7.0	mg/L			10/06/20 04:30	20
Ammonia	2.7		0.040	0.018	mg/L			10/01/20 12:16	2
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 20:12	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:00	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:09	1
Nitrate as N	ND		0.050	0.020	mg/L			10/01/20 17:00	1
Alkalinity, Total	396		5.0	0.79	mg/L			10/05/20 00:39	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF	0.1	0.1	SU			10/01/20 14:07	1
Temperature	20.5	HF	0.001	0.001	Degrees C			10/01/20 14:07	1

Client Sample ID: MW-47S

Lab Sample ID: 480-175829-6

Date Collected: 09/30/20 14:10

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 13:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 13:38	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 13:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 13:38	1
4-Bromofluorobenzene (Surr)	102		73 - 120		10/04/20 13:38	1
Dibromofluoromethane (Surr)	106		75 - 123		10/04/20 13:38	1
Toluene-d8 (Surr)	96		80 - 120		10/04/20 13:38	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-47S

Lab Sample ID: 480-175829-6

Date Collected: 09/30/20 14:10

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.75	J	2.5	0.18	ug/L		10/03/20 14:15	10/05/20 21:48	5
Acenaphthylene	ND		1.5	0.28	ug/L		10/03/20 14:15	10/05/20 21:48	5
Anthracene	ND		2.5	0.17	ug/L		10/03/20 14:15	10/05/20 21:48	5
Chrysene	ND		2.5	0.37	ug/L		10/03/20 14:15	10/05/20 21:48	5
Fluoranthene	ND		2.5	0.40	ug/L		10/03/20 14:15	10/05/20 21:48	5
Fluorene	ND		2.5	0.29	ug/L		10/03/20 14:15	10/05/20 21:48	5
Naphthalene	1.6	J	5.0	0.32	ug/L		10/03/20 14:15	10/05/20 21:48	5
Phenanthrene	ND		1.0	0.31	ug/L		10/03/20 14:15	10/05/20 21:48	5
Pyrene	ND		2.5	0.38	ug/L		10/03/20 14:15	10/05/20 21:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	107		24 - 146	10/03/20 14:15	10/05/20 21:48	5
2-Fluorobiphenyl	80		37 - 120	10/03/20 14:15	10/05/20 21:48	5
2-Fluorophenol (Surr)	45		10 - 120	10/03/20 14:15	10/05/20 21:48	5
Nitrobenzene-d5 (Surr)	68		26 - 120	10/03/20 14:15	10/05/20 21:48	5
Phenol-d5 (Surr)	28		11 - 120	10/03/20 14:15	10/05/20 21:48	5
p-Terphenyl-d14	82		64 - 127	10/03/20 14:15	10/05/20 21:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 01:17	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 01:17	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93	*3	40 - 140	10/04/20 09:32	10/05/20 01:17	1
Nitrobenzene-d5	91	*3	41 - 144	10/04/20 09:32	10/05/20 01:17	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	8300		350	88	ug/L			10/02/20 01:58	88

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	40.6		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	17.8		10.0	1.7	mg/L			10/06/20 04:45	5
Ammonia	7.6		0.10	0.045	mg/L			10/01/20 12:17	5
Nitrate Nitrite as N	0.14		0.050	0.020	mg/L			10/01/20 20:13	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:01	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:14	1
Nitrate as N	0.14		0.050	0.020	mg/L			10/01/20 17:01	1
Alkalinity, Total	305		5.0	0.79	mg/L			10/05/20 00:46	1
Ferrous Iron	0.092	J HF	0.10	0.075	mg/L			10/03/20 11:20	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-47S

Date Collected: 09/30/20 14:10

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/01/20 14:08	1
Temperature	20.2	HF	0.001	0.001	Degrees C			10/01/20 14:08	1

Client Sample ID: MW-31S

Date Collected: 09/30/20 16:00

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 14:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 14:02	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 14:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120					10/04/20 14:02	1
4-Bromofluorobenzene (Surr)	106		73 - 120					10/04/20 14:02	1
Dibromofluoromethane (Surr)	100		75 - 123					10/04/20 14:02	1
Toluene-d8 (Surr)	95		80 - 120					10/04/20 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 22:17	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 22:17	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 22:17	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 22:17	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 22:17	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 22:17	1
Naphthalene	ND		0.95	0.061	ug/L		10/03/20 14:15	10/05/20 22:17	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 22:17	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 22:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	120		24 - 146				10/03/20 14:15	10/05/20 22:17	1
2-Fluorobiphenyl	88		37 - 120				10/03/20 14:15	10/05/20 22:17	1
2-Fluorophenol (Surr)	50		10 - 120				10/03/20 14:15	10/05/20 22:17	1
Nitrobenzene-d5 (Surr)	80		26 - 120				10/03/20 14:15	10/05/20 22:17	1
Phenol-d5 (Surr)	32		11 - 120				10/03/20 14:15	10/05/20 22:17	1
p-Terphenyl-d14	113		64 - 127				10/03/20 14:15	10/05/20 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 01:38	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 01:38	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	135		40 - 140				10/04/20 09:32	10/05/20 01:38	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-31S

Lab Sample ID: 480-175829-7

Date Collected: 09/30/20 16:00

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	107		41 - 144	10/04/20 09:32	10/05/20 01:38	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	580		88	22	ug/L			10/02/20 02:17	22

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.5		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	10.2		4.0	0.70	mg/L			10/06/20 05:00	2
Ammonia	0.096		0.020	0.0090	mg/L			10/01/20 12:12	1
Nitrate Nitrite as N	0.025	J	0.050	0.020	mg/L			10/01/20 20:15	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:02	1
Cyanide, Total	0.0056	J	0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:15	1
Nitrate as N	0.025	J	0.050	0.020	mg/L			10/01/20 17:02	1
Alkalinity, Total	303	F1	5.0	0.79	mg/L			10/05/20 01:17	1
Ferrous Iron	0.086	J HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/01/20 14:09	1
Temperature	20.3	HF	0.001	0.001	Degrees C			10/01/20 14:09	1

Client Sample ID: MW-23S

Lab Sample ID: 480-175829-8

Date Collected: 09/30/20 15:20

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.5	J	2.0	0.82	ug/L			10/04/20 14:27	2
Ethylbenzene	65		2.0	1.5	ug/L			10/04/20 14:27	2
Toluene	ND		2.0	1.0	ug/L			10/04/20 14:27	2
Xylenes, Total	38		4.0	1.3	ug/L			10/04/20 14:27	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		10/04/20 14:27	2
4-Bromofluorobenzene (Surr)	107		73 - 120		10/04/20 14:27	2
Dibromofluoromethane (Surr)	99		75 - 123		10/04/20 14:27	2
Toluene-d8 (Surr)	99		80 - 120		10/04/20 14:27	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	45	E	0.48	0.034	ug/L		10/03/20 14:15	10/05/20 22:46	1
Acenaphthylene	1.9		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 22:46	1
Anthracene	6.5		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 22:46	1
Chrysene	0.19	J	0.48	0.070	ug/L		10/03/20 14:15	10/05/20 22:46	1
Fluoranthene	3.0		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 22:46	1
Fluorene	20	E	0.48	0.055	ug/L		10/03/20 14:15	10/05/20 22:46	1
Naphthalene	96	E	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 22:46	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-23S

Lab Sample ID: 480-175829-8

Date Collected: 09/30/20 15:20

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	20	E B	0.19	0.059	ug/L		10/03/20 14:15	10/05/20 22:46	1
Pyrene	4.4		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 22:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	129		24 - 146				10/03/20 14:15	10/05/20 22:46	1
2-Fluorobiphenyl	74		37 - 120				10/03/20 14:15	10/05/20 22:46	1
2-Fluorophenol (Surr)	45		10 - 120				10/03/20 14:15	10/05/20 22:46	1
Nitrobenzene-d5 (Surr)	97		26 - 120				10/03/20 14:15	10/05/20 22:46	1
Phenol-d5 (Surr)	30		11 - 120				10/03/20 14:15	10/05/20 22:46	1
p-Terphenyl-d14	109		64 - 127				10/03/20 14:15	10/05/20 22:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	98		24	1.7	ug/L		10/03/20 14:15	10/06/20 18:21	50
Acenaphthylene	ND		14	2.7	ug/L		10/03/20 14:15	10/06/20 18:21	50
Anthracene	5.9	J	24	1.6	ug/L		10/03/20 14:15	10/06/20 18:21	50
Chrysene	ND		24	3.5	ug/L		10/03/20 14:15	10/06/20 18:21	50
Fluoranthene	ND		24	3.8	ug/L		10/03/20 14:15	10/06/20 18:21	50
Fluorene	26		24	2.8	ug/L		10/03/20 14:15	10/06/20 18:21	50
Naphthalene	340		48	3.0	ug/L		10/03/20 14:15	10/06/20 18:21	50
Phenanthrene	26	B	9.5	3.0	ug/L		10/03/20 14:15	10/06/20 18:21	50
Pyrene	3.9	J	24	3.6	ug/L		10/03/20 14:15	10/06/20 18:21	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	203	X	24 - 146				10/03/20 14:15	10/06/20 18:21	50
2-Fluorobiphenyl	81		37 - 120				10/03/20 14:15	10/06/20 18:21	50
2-Fluorophenol (Surr)	37		10 - 120				10/03/20 14:15	10/06/20 18:21	50
Nitrobenzene-d5 (Surr)	63		26 - 120				10/03/20 14:15	10/06/20 18:21	50
Phenol-d5 (Surr)	25		11 - 120				10/03/20 14:15	10/06/20 18:21	50
p-Terphenyl-d14	95		64 - 127				10/03/20 14:15	10/06/20 18:21	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.089		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 01:59	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 01:59	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 01:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		40 - 140				10/04/20 09:32	10/05/20 01:59	1
Nitrobenzene-d5	85		41 - 144				10/04/20 09:32	10/05/20 01:59	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	3100		88	22	ug/L			10/02/20 02:36	22

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-23S

Date Collected: 09/30/20 15:20

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-8

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.8		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	4.1	J	10.0	1.7	mg/L			10/06/20 05:14	5
Ammonia	1.1		0.020	0.0090	mg/L			10/01/20 12:02	1
Nitrate Nitrite as N	0.36		0.050	0.020	mg/L			10/01/20 20:18	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:05	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:17	1
Nitrate as N	0.36		0.050	0.020	mg/L			10/01/20 17:05	1
Alkalinity, Total	238		5.0	0.79	mg/L			10/05/20 01:31	1
Ferrous Iron	0.19	HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/01/20 14:11	1
Temperature	20.4	HF	0.001	0.001	Degrees C			10/01/20 14:11	1

Client Sample ID: MW-45S

Date Collected: 09/30/20 10:45

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 14:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 14:51	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 14:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 14:51	1
4-Bromofluorobenzene (Surr)	103		73 - 120		10/04/20 14:51	1
Dibromofluoromethane (Surr)	100		75 - 123		10/04/20 14:51	1
Toluene-d8 (Surr)	94		80 - 120		10/04/20 14:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.036	J	0.48	0.034	ug/L		10/03/20 14:15	10/05/20 23:14	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 23:14	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 23:14	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 23:14	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 23:14	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 23:14	1
Naphthalene	0.20	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 23:14	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 23:14	1
Pyrene	0.10	J	0.48	0.072	ug/L		10/03/20 14:15	10/05/20 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	128		24 - 146	10/03/20 14:15	10/05/20 23:14	1
2-Fluorobiphenyl	95		37 - 120	10/03/20 14:15	10/05/20 23:14	1
2-Fluorophenol (Surr)	53		10 - 120	10/03/20 14:15	10/05/20 23:14	1
Nitrobenzene-d5 (Surr)	87		26 - 120	10/03/20 14:15	10/05/20 23:14	1
Phenol-d5 (Surr)	33		11 - 120	10/03/20 14:15	10/05/20 23:14	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-45S

Lab Sample ID: 480-175829-9

Date Collected: 09/30/20 10:45

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	106		64 - 127	10/03/20 14:15	10/05/20 23:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 02:20	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 02:20	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 02:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		40 - 140	10/04/20 09:32	10/05/20 02:20	1
Nitrobenzene-d5	102		41 - 144	10/04/20 09:32	10/05/20 02:20	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	5800		88	22	ug/L			10/02/20 02:54	22

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	30.1		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		10.0	1.7	mg/L			10/06/20 05:29	5
Ammonia	3.4		0.040	0.018	mg/L			10/01/20 12:03	2
Nitrate Nitrite as N	0.098		0.050	0.020	mg/L			10/01/20 20:21	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:08	1
Cyanide, Total	0.0065	J	0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:21	1
Nitrate as N	0.098		0.050	0.020	mg/L			10/01/20 17:08	1
Alkalinity, Total	377		5.0	0.79	mg/L			10/05/20 01:47	1
Ferrous Iron	0.21	HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/01/20 14:12	1
Temperature	20.9	HF	0.001	0.001	Degrees C			10/01/20 14:12	1

Client Sample ID: DUP

Lab Sample ID: 480-175829-10

Date Collected: 09/30/20 00:00

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	21		1.0	0.41	ug/L			10/04/20 15:15	1
Ethylbenzene	11		1.0	0.74	ug/L			10/04/20 15:15	1
Toluene	0.51	J	1.0	0.51	ug/L			10/04/20 15:15	1
Xylenes, Total	8.6		2.0	0.66	ug/L			10/04/20 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 15:15	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: DUP

Lab Sample ID: 480-175829-10

Date Collected: 09/30/20 00:00

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		73 - 120		10/04/20 15:15	1
Dibromofluoromethane (Surr)	101		75 - 123		10/04/20 15:15	1
Toluene-d8 (Surr)	99		80 - 120		10/04/20 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.2		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 23:42	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 23:42	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 23:42	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 23:42	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 23:42	1
Fluorene	0.095	J	0.48	0.055	ug/L		10/03/20 14:15	10/05/20 23:42	1
Naphthalene	0.82	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 23:42	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 23:42	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	132		24 - 146	10/03/20 14:15	10/05/20 23:42	1
2-Fluorobiphenyl	89		37 - 120	10/03/20 14:15	10/05/20 23:42	1
2-Fluorophenol (Surr)	52		10 - 120	10/03/20 14:15	10/05/20 23:42	1
Nitrobenzene-d5 (Surr)	84		26 - 120	10/03/20 14:15	10/05/20 23:42	1
Phenol-d5 (Surr)	34		11 - 120	10/03/20 14:15	10/05/20 23:42	1
p-Terphenyl-d14	113		64 - 127	10/03/20 14:15	10/05/20 23:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 02:42	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 02:42	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 02:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	126		40 - 140	10/04/20 09:32	10/05/20 02:42	1
Nitrobenzene-d5	93		41 - 144	10/04/20 09:32	10/05/20 02:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.092		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:22	1

Surrogate Summary

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-175829-1	MW-33S	103	106	103	100
480-175829-2	MW-46S	106	106	101	98
480-175829-3	MW-22S	107	104	101	97
480-175829-4	MW-40	106	113	115	96
480-175829-5	MW-48S	113	111	111	98
480-175829-5 MS	MW-48S	104	105	105	100
480-175829-5 MSD	MW-48S	101	105	98	100
480-175829-6	MW-47S	107	102	106	96
480-175829-7	MW-31S	105	106	100	95
480-175829-8	MW-23S	106	107	99	99
480-175829-9	MW-45S	107	103	100	94
480-175829-10	DUP	107	108	101	99
LCS 480-552371/5	Lab Control Sample	101	100	99	98
MB 480-552371/7	Method Blank	107	104	103	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (24-146)	FBP (37-120)	2FP (10-120)	NBZ (26-120)	PHL (11-120)	TPHd14 (64-127)
480-175829-1	MW-33S	126	86	49	79	31	112
480-175829-2	MW-46S	111	71	40	62	23	85
480-175829-2 - DL	MW-46S	532 X	70	37	59	22	86
480-175829-3	MW-22S	120	78	48	78	31	104
480-175829-4	MW-40	122	91	51	83	33	110
480-175829-5	MW-48S	136	95	59	95	38	104
480-175829-5 - DL	MW-48S	138	99	54	83	35	102
480-175829-5 MS	MW-48S	131	89	51	91	35	95
480-175829-5 MS - DL	MW-48S	136	92	49	82	35	93
480-175829-5 MSD	MW-48S	122	88	51	91	35	94
480-175829-5 MSD - DL	MW-48S	128	88	46	82	32	91
480-175829-6	MW-47S	107	80	45	68	28	82
480-175829-7	MW-31S	120	88	50	80	32	113
480-175829-8	MW-23S	129	74	45	97	30	109
480-175829-8 - DL	MW-23S	203 X	81	37	63	25	95
480-175829-9	MW-45S	128	95	53	87	33	106
480-175829-10	DUP	132	89	52	84	34	113
LCS 480-552351/2-A	Lab Control Sample	122	94	57	94	39	104
MB 480-552351/1-A	Method Blank	106	92	55	84	35	111

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

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Surrogate Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPHD14 = p-Terphenyl-d14

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TBP	NBZ
		(40-140)	(41-144)
480-175829-1	MW-33S	105	122
480-175829-2	MW-46S	89	91
480-175829-3	MW-22S	72 *3	71
480-175829-4	MW-40	104	154 X
480-175829-5	MW-48S	97	84 *3
480-175829-5 MS	MW-48S	106 *3	99
480-175829-5 MSD	MW-48S	125	99 *3
480-175829-6	MW-47S	93 *3	91 *3
480-175829-7	MW-31S	135	107
480-175829-8	MW-23S	104	85
480-175829-9	MW-45S	109	102
480-175829-10	DUP	126	93
LCS 460-728957/2-A	Lab Control Sample	113	113
LCSD 460-728957/3-A	Lab Control Sample Dup	122	126
MB 460-728957/1-A	Method Blank	92 *3	91

Surrogate Legend

TBP = 2,4,6-Tribromophenol

NBZ = Nitrobenzene-d5

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-552371/7

Matrix: Water

Analysis Batch: 552371

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 11:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 11:04	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 11:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 11:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 11:04	1
4-Bromofluorobenzene (Surr)	104		73 - 120		10/04/20 11:04	1
Dibromofluoromethane (Surr)	103		75 - 123		10/04/20 11:04	1
Toluene-d8 (Surr)	97		80 - 120		10/04/20 11:04	1

Lab Sample ID: LCS 480-552371/5

Matrix: Water

Analysis Batch: 552371

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.2		ug/L		101	71 - 124
Ethylbenzene	25.0	25.4		ug/L		102	77 - 123
Toluene	25.0	25.4		ug/L		102	80 - 122
Xylenes, Total	50.0	52.1		ug/L		104	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 480-175829-5 MS

Matrix: Water

Analysis Batch: 552371

Client Sample ID: MW-48S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	69	F1	50.0	108		ug/L		77	71 - 124
Ethylbenzene	26		50.0	79.1		ug/L		106	77 - 123
Toluene	ND		50.0	51.1		ug/L		102	80 - 122
Xylenes, Total	18		100	123		ug/L		105	76 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		77 - 120
4-Bromofluorobenzene (Surr)	105		73 - 120
Dibromofluoromethane (Surr)	105		75 - 123
Toluene-d8 (Surr)	100		80 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

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

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 552371

Client Sample ID: MW-48S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	69	F1	50.0	103	F1	ug/L		67	71 - 124	4	13
Ethylbenzene	26		50.0	79.3		ug/L		106	77 - 123	0	15
Toluene	ND		50.0	49.4		ug/L		99	80 - 122	3	15
Xylenes, Total	18		100	121		ug/L		103	76 - 122	1	16

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		77 - 120
4-Bromofluorobenzene (Surr)	105		73 - 120
Dibromofluoromethane (Surr)	98		75 - 123
Toluene-d8 (Surr)	100		80 - 120

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

Lab Sample ID: MB 480-552351/1-A

Matrix: Water

Analysis Batch: 552496

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552351

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.50	0.036	ug/L		10/03/20 14:15	10/05/20 17:33	1
Acenaphthylene	ND		0.30	0.056	ug/L		10/03/20 14:15	10/05/20 17:33	1
Anthracene	ND		0.50	0.034	ug/L		10/03/20 14:15	10/05/20 17:33	1
Chrysene	ND		0.50	0.074	ug/L		10/03/20 14:15	10/05/20 17:33	1
Fluoranthene	ND		0.50	0.080	ug/L		10/03/20 14:15	10/05/20 17:33	1
Fluorene	ND		0.50	0.058	ug/L		10/03/20 14:15	10/05/20 17:33	1
Naphthalene	ND		1.0	0.064	ug/L		10/03/20 14:15	10/05/20 17:33	1
Phenanthrene	0.0746	J	0.20	0.062	ug/L		10/03/20 14:15	10/05/20 17:33	1
Pyrene	ND		0.50	0.076	ug/L		10/03/20 14:15	10/05/20 17:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	106		24 - 146	10/03/20 14:15	10/05/20 17:33	1
2-Fluorobiphenyl	92		37 - 120	10/03/20 14:15	10/05/20 17:33	1
2-Fluorophenol (Surr)	55		10 - 120	10/03/20 14:15	10/05/20 17:33	1
Nitrobenzene-d5 (Surr)	84		26 - 120	10/03/20 14:15	10/05/20 17:33	1
Phenol-d5 (Surr)	35		11 - 120	10/03/20 14:15	10/05/20 17:33	1
p-Terphenyl-d14	111		64 - 127	10/03/20 14:15	10/05/20 17:33	1

Lab Sample ID: LCS 480-552351/2-A

Matrix: Water

Analysis Batch: 552496

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	8.00	7.39		ug/L		92	62 - 120
Acenaphthylene	8.00	7.85		ug/L		98	57 - 120
Anthracene	8.00	8.03		ug/L		100	65 - 123
Chrysene	8.00	7.95		ug/L		99	75 - 120
Fluoranthene	8.00	8.41		ug/L		105	74 - 133
Fluorene	8.00	7.81		ug/L		98	64 - 120
Naphthalene	8.00	7.10		ug/L		89	40 - 138

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

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

Lab Sample ID: LCS 480-552351/2-A

Matrix: Water

Analysis Batch: 552496

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenanthrene	8.00	8.01		ug/L		100	71 - 122
Pyrene	8.00	7.86		ug/L		98	65 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	122		24 - 146
2-Fluorobiphenyl	94		37 - 120
2-Fluorophenol (Surr)	57		10 - 120
Nitrobenzene-d5 (Surr)	94		26 - 120
Phenol-d5 (Surr)	39		11 - 120
p-Terphenyl-d14	104		64 - 127

Lab Sample ID: 480-175829-5 MS

Matrix: Water

Analysis Batch: 552496

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	29	E	7.62	32.7	E	ug/L		48	35 - 125
Acenaphthylene	1.5		7.62	8.73		ug/L		95	43 - 141
Anthracene	1.4		7.62	9.27		ug/L		103	65 - 123
Chrysene	ND		7.62	7.38		ug/L		97	66 - 144
Fluoranthene	0.72		7.62	8.71		ug/L		105	63 - 146
Fluorene	3.9		7.62	11.3		ug/L		97	54 - 137
Naphthalene	46	E	7.62	47.1	E 4	ug/L		10	25 - 138
Phenanthrene	4.6	B	7.62	12.1	E	ug/L		99	60 - 143
Pyrene	0.90		7.62	8.52		ug/L		100	65 - 139

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	131		24 - 146
2-Fluorobiphenyl	89		37 - 120
2-Fluorophenol (Surr)	51		10 - 120
Nitrobenzene-d5 (Surr)	91		26 - 120
Phenol-d5 (Surr)	35		11 - 120
p-Terphenyl-d14	95		64 - 127

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 552496

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	29	E	7.62	33.4	E	ug/L		56	35 - 125	2	24
Acenaphthylene	1.5		7.62	8.61		ug/L		93	43 - 141	1	18
Anthracene	1.4		7.62	8.96		ug/L		99	65 - 123	3	15
Chrysene	ND		7.62	7.20		ug/L		95	66 - 144	2	15
Fluoranthene	0.72		7.62	8.32		ug/L		100	63 - 146	5	15
Fluorene	3.9		7.62	11.2		ug/L		97	54 - 137	0	15
Naphthalene	46	E	7.62	50.6	E 4	ug/L		56	25 - 138	7	29
Phenanthrene	4.6	B	7.62	12.3	E	ug/L		101	60 - 143	1	15
Pyrene	0.90		7.62	8.33		ug/L		97	65 - 139	2	19

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

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

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 552496

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552351

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	122		24 - 146
2-Fluorobiphenyl	88		37 - 120
2-Fluorophenol (Surr)	51		10 - 120
Nitrobenzene-d5 (Surr)	91		26 - 120
Phenol-d5 (Surr)	35		11 - 120
p-Terphenyl-d14	94		64 - 127

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

Lab Sample ID: 480-175829-5 MS

Matrix: Water

Analysis Batch: 552651

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene - DL	41		7.62	48.3	4	ug/L		90	35 - 125
Acenaphthylene - DL	1.6	J	7.62	8.99		ug/L		98	43 - 141
Anthracene - DL	1.4	J	7.62	9.34		ug/L		104	65 - 123
Chrysene - DL	ND		7.62	7.60		ug/L		100	66 - 144
Fluoranthene - DL	ND		7.62	9.00		ug/L		118	63 - 146
Fluorene - DL	3.9	J	7.62	11.9		ug/L		105	54 - 137
Naphthalene - DL	91		7.62	104	4	ug/L		166	25 - 138
Phenanthrene - DL	4.5	B	7.62	13.3		ug/L		116	60 - 143
Pyrene - DL	0.86	J	7.62	8.56		ug/L		101	65 - 139

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr) - DL	136		24 - 146
2-Fluorobiphenyl - DL	92		37 - 120
2-Fluorophenol (Surr) - DL	49		10 - 120
Nitrobenzene-d5 (Surr) - DL	82		26 - 120
Phenol-d5 (Surr) - DL	35		11 - 120
p-Terphenyl-d14 - DL	93		64 - 127

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 552651

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Acenaphthene - DL	41		7.62	46.1	4	ug/L		62	35 - 125	5	24
Acenaphthylene - DL	1.6	J	7.62	8.62		ug/L		93	43 - 141	4	18
Anthracene - DL	1.4	J	7.62	8.94		ug/L		99	65 - 123	4	15
Chrysene - DL	ND		7.62	7.36		ug/L		97	66 - 144	3	15
Fluoranthene - DL	ND		7.62	8.44		ug/L		111	63 - 146	6	15
Fluorene - DL	3.9	J	7.62	11.6		ug/L		102	54 - 137	2	15
Naphthalene - DL	91		7.62	114	E 4	ug/L		303	25 - 138	10	29
Phenanthrene - DL	4.5	B	7.62	13.4		ug/L		117	60 - 143	1	15
Pyrene - DL	0.86	J	7.62	8.27		ug/L		97	65 - 139	3	19

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

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

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 552651

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552351

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol (Surr) - DL	128		24 - 146
2-Fluorobiphenyl - DL	88		37 - 120
2-Fluorophenol (Surr) - DL	46		10 - 120
Nitrobenzene-d5 (Surr) - DL	82		26 - 120
Phenol-d5 (Surr) - DL	32		11 - 120
p-Terphenyl-d14 - DL	91		64 - 127

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

Lab Sample ID: MB 460-728957/1-A

Matrix: Water

Analysis Batch: 728648

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 728957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/04/20 21:45	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/04/20 21:45	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/04/20 21:45	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/04/20 21:45	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/04/20 21:45	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/04/20 21:45	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/04/20 21:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	92	*3	40 - 140				10/04/20 09:32	10/04/20 21:45	1
Nitrobenzene-d5	91		41 - 144				10/04/20 09:32	10/04/20 21:45	1

Lab Sample ID: LCS 460-728957/2-A

Matrix: Water

Analysis Batch: 728648

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 728957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.779		ug/L		97	44 - 150
Benzo[a]pyrene	0.800	0.782		ug/L		98	38 - 139
Benzo[b]fluoranthene	0.800	0.830		ug/L		104	32 - 148
Benzo[g,h,i]perylene	0.800	0.909		ug/L		114	20 - 150
Benzo[k]fluoranthene	0.800	0.826		ug/L		103	44 - 150
Dibenz(a,h)anthracene	0.800	0.943		ug/L		118	23 - 134
Indeno[1,2,3-cd]pyrene	0.800	0.909		ug/L		114	21 - 126
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4,6-Tribromophenol	113		40 - 140				
Nitrobenzene-d5	113		41 - 144				

QC Sample Results

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

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

Lab Sample ID: LCSD 460-728957/3-A

Matrix: Water

Analysis Batch: 728648

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 728957

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]anthracene	0.800	0.684		ug/L		86	44 - 150	13	30
Benzo[a]pyrene	0.800	0.644		ug/L		80	38 - 139	19	30
Benzo[b]fluoranthene	0.800	0.668		ug/L		83	32 - 148	22	30
Benzo[g,h,i]perylene	0.800	0.774		ug/L		97	20 - 150	16	30
Benzo[k]fluoranthene	0.800	0.661		ug/L		83	44 - 150	22	30
Dibenz(a,h)anthracene	0.800	0.751		ug/L		94	23 - 134	23	30
Indeno[1,2,3-cd]pyrene	0.800	0.842		ug/L		105	21 - 126	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	122		40 - 140
Nitrobenzene-d5	126		41 - 144

Lab Sample ID: 480-175829-5 MS

Matrix: Water

Analysis Batch: 728648

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 728957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.019	J	0.800	0.806		ug/L		98	44 - 150
Benzo[a]pyrene	ND		0.800	0.700		ug/L		87	38 - 139
Benzo[b]fluoranthene	ND		0.800	0.735		ug/L		92	32 - 148
Benzo[g,h,i]perylene	ND		0.800	0.682		ug/L		85	20 - 150
Benzo[k]fluoranthene	ND		0.800	0.722		ug/L		90	44 - 150
Dibenz(a,h)anthracene	ND		0.800	0.755		ug/L		94	23 - 134
Indeno[1,2,3-cd]pyrene	ND		0.800	0.739		ug/L		92	21 - 126

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	106	*3	40 - 140
Nitrobenzene-d5	99		41 - 144

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 728648

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 728957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]anthracene	0.019	J	0.800	0.722		ug/L		88	44 - 150	11	30
Benzo[a]pyrene	ND		0.800	0.702		ug/L		88	38 - 139	0	30
Benzo[b]fluoranthene	ND		0.800	0.851		ug/L		106	32 - 148	15	30
Benzo[g,h,i]perylene	ND		0.800	0.809		ug/L		101	20 - 150	17	30
Benzo[k]fluoranthene	ND		0.800	0.792		ug/L		99	44 - 150	9	30
Dibenz(a,h)anthracene	ND		0.800	0.878		ug/L		110	23 - 134	15	30
Indeno[1,2,3-cd]pyrene	ND		0.800	0.789		ug/L		99	21 - 126	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2,4,6-Tribromophenol	125		40 - 140
Nitrobenzene-d5	99	*3	41 - 144

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-552098/27

Matrix: Water

Analysis Batch: 552098

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			10/01/20 21:34	1

Lab Sample ID: MB 480-552098/3

Matrix: Water

Analysis Batch: 552098

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			10/01/20 13:52	1

Lab Sample ID: LCS 480-552098/28

Matrix: Water

Analysis Batch: 552098

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	19.7		ug/L		102	85 - 120

Lab Sample ID: LCS 480-552098/4

Matrix: Water

Analysis Batch: 552098

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	19.2		ug/L		100	85 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-552219/1-A

Matrix: Water

Analysis Batch: 552456

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552219

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:03	1

Lab Sample ID: LCS 480-552219/2-A

Matrix: Water

Analysis Batch: 552456

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	10.06		mg/L		101	80 - 120

Lab Sample ID: 480-175829-1 MS

Matrix: Water

Analysis Batch: 552456

Client Sample ID: MW-33S

Prep Type: Total/NA

Prep Batch: 552219

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	20.9		10.0	30.55		mg/L		97	75 - 125

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

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

Lab Sample ID: 480-175829-1 MSD

Matrix: Water

Analysis Batch: 552456

Client Sample ID: MW-33S

Prep Type: Total/NA

Prep Batch: 552219

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	20.9		10.0	30.49		mg/L		96	75 - 125	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-552525/28

Matrix: Water

Analysis Batch: 552525

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			10/06/20 04:16	1

Lab Sample ID: MB 480-552525/4

Matrix: Water

Analysis Batch: 552525

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			10/05/20 22:26	1

Lab Sample ID: LCS 480-552525/27

Matrix: Water

Analysis Batch: 552525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	48.07		mg/L		96	90 - 110

Lab Sample ID: LCS 480-552525/3

Matrix: Water

Analysis Batch: 552525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	48.26		mg/L		97	90 - 110

Lab Sample ID: 480-175829-4 MS

Matrix: Water

Analysis Batch: 552525

Client Sample ID: MW-40

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	3.6		50.0	50.77		mg/L		94	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-552082/27

Matrix: Water

Analysis Batch: 552082

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020	0.0090	mg/L			10/01/20 12:10	1

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-552082/3

Matrix: Water

Analysis Batch: 552082

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020	0.0090	mg/L			10/01/20 11:49	1

Lab Sample ID: LCS 480-552082/28

Matrix: Water

Analysis Batch: 552082

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	0.993		mg/L		99	90 - 110

Lab Sample ID: LCS 480-552082/4

Matrix: Water

Analysis Batch: 552082

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.00		mg/L		100	90 - 110

Lab Sample ID: 480-175829-7 MS

Matrix: Water

Analysis Batch: 552082

Client Sample ID: MW-31S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.096		0.200	0.292		mg/L		98	90 - 110

Lab Sample ID: 480-175829-7 DU

Matrix: Water

Analysis Batch: 552082

Client Sample ID: MW-31S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	0.096		0.0957		mg/L		0.4	20

Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 480-552146/3

Matrix: Water

Analysis Batch: 552146

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:52	1

Lab Sample ID: LCS 480-552146/4

Matrix: Water

Analysis Batch: 552146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	1.50	1.61		mg/L		107	90 - 110

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: 353.2 - Nitrogen, Nitrite (Continued)

Lab Sample ID: 480-175829-1 MS

Matrix: Water

Analysis Batch: 552146

Client Sample ID: MW-33S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.022	J	1.00	1.07		mg/L		105	90 - 110

Lab Sample ID: 480-175829-8 MS

Matrix: Water

Analysis Batch: 552146

Client Sample ID: MW-23S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	ND		1.00	1.08		mg/L		108	90 - 110

Lab Sample ID: 480-175829-8 DU

Matrix: Water

Analysis Batch: 552146

Client Sample ID: MW-23S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrite as N	ND		ND		mg/L		NC	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 480-552170/4

Matrix: Water

Analysis Batch: 552170

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 20:04	1

Lab Sample ID: LCS 480-552170/5

Matrix: Water

Analysis Batch: 552170

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.50	1.50		mg/L		100	90 - 110

Lab Sample ID: 480-175829-2 MS

Matrix: Water

Analysis Batch: 552170

Client Sample ID: MW-46S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.049	J	1.00	1.05		mg/L		100	90 - 110

Lab Sample ID: 480-175829-8 MS

Matrix: Water

Analysis Batch: 552170

Client Sample ID: MW-23S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.36		1.00	1.41		mg/L		105	90 - 110

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 480-175829-8 DU

Matrix: Water

Analysis Batch: 552170

Client Sample ID: MW-23S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.36		0.364		mg/L		1	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-552169/1-A

Matrix: Water

Analysis Batch: 552297

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:04	1

Lab Sample ID: LCS 480-552169/2-A

Matrix: Water

Analysis Batch: 552297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.363		mg/L		91	90 - 110

Lab Sample ID: LCS 480-552169/3-A

Matrix: Water

Analysis Batch: 552297

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.250		mg/L		100	90 - 110

Lab Sample ID: 480-175829-1 MS

Matrix: Water

Analysis Batch: 552297

Client Sample ID: MW-33S

Prep Type: Total/NA

Prep Batch: 552169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0066	J	0.100	0.0992		mg/L		93	90 - 110

Lab Sample ID: 480-175829-5 MS

Matrix: Water

Analysis Batch: 552297

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.0985		mg/L		99	90 - 110

Lab Sample ID: 480-175829-5 MSD

Matrix: Water

Analysis Batch: 552297

Client Sample ID: MW-48S

Prep Type: Total/NA

Prep Batch: 552169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		0.100	0.104		mg/L		104	90 - 110	5	15

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-552442/52

Matrix: Water

Analysis Batch: 552442

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0	0.79	mg/L			10/04/20 22:03	1

Lab Sample ID: MB 480-552442/76

Matrix: Water

Analysis Batch: 552442

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0	0.79	mg/L			10/05/20 01:03	1

Lab Sample ID: LCS 480-552442/53

Matrix: Water

Analysis Batch: 552442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	96.48		mg/L		96	90 - 110

Lab Sample ID: LCS 480-552442/77

Matrix: Water

Analysis Batch: 552442

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	100.7		mg/L		101	90 - 110

Lab Sample ID: 480-175829-7 MS

Matrix: Water

Analysis Batch: 552442

Client Sample ID: MW-31S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	303	F1	100	364.6		mg/L		62	60 - 140

Lab Sample ID: 480-175829-8 DU

Matrix: Water

Analysis Batch: 552442

Client Sample ID: MW-23S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	238		237.6		mg/L		0.1	20

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-552367/27

Matrix: Water

Analysis Batch: 552367

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10	0.075	mg/L			10/03/20 11:20	1

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric (Continued)

Lab Sample ID: MB 480-552367/3

Matrix: Water

Analysis Batch: 552367

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10	0.075	mg/L			10/03/20 11:20	1

Lab Sample ID: LCS 480-552367/28

Matrix: Water

Analysis Batch: 552367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.00	2.03		mg/L		102	90 - 110

Lab Sample ID: LCS 480-552367/4

Matrix: Water

Analysis Batch: 552367

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.00	2.07		mg/L		103	90 - 110

Lab Sample ID: 480-175829-4 MS

Matrix: Water

Analysis Batch: 552367

Client Sample ID: MW-40

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	0.13	HF	2.00	2.32		mg/L		110	70 - 130

Lab Sample ID: 480-175829-8 MS

Matrix: Water

Analysis Batch: 552367

Client Sample ID: MW-23S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	0.19	HF	2.00	2.36		mg/L		108	70 - 130

Lab Sample ID: 480-175829-1 DU

Matrix: Water

Analysis Batch: 552367

Client Sample ID: MW-33S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.64	HF	0.631		mg/L		1	20

Lab Sample ID: 480-175829-2 DU

Matrix: Water

Analysis Batch: 552367

Client Sample ID: MW-46S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.086	J HF	ND		mg/L		NC	20

Lab Sample ID: 480-175829-3 DU

Matrix: Water

Analysis Batch: 552367

Client Sample ID: MW-22S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.37	HF	0.365		mg/L		2	20

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QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: 480-175829-4 DU
Matrix: Water
Analysis Batch: 552367

Client Sample ID: MW-40
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.13	HF	0.152		mg/L		17	20

Lab Sample ID: 480-175829-5 DU
Matrix: Water
Analysis Batch: 552367

Client Sample ID: MW-48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175829-6 DU
Matrix: Water
Analysis Batch: 552367

Client Sample ID: MW-47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.092	J HF	0.0978	J	mg/L		6	20

Lab Sample ID: 480-175829-7 DU
Matrix: Water
Analysis Batch: 552367

Client Sample ID: MW-31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.086	J HF	0.0796	J	mg/L		7	20

Lab Sample ID: 480-175829-8 DU
Matrix: Water
Analysis Batch: 552367

Client Sample ID: MW-23S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.19	HF	0.201		mg/L		3	20

Lab Sample ID: 480-175829-9 DU
Matrix: Water
Analysis Batch: 552367

Client Sample ID: MW-45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.21	HF	0.219		mg/L		3	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-552107/1
Matrix: Water
Analysis Batch: 552107

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		101	99 - 101

QC Association Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

GC/MS VOA

Analysis Batch: 552371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	8260C	
480-175829-2	MW-46S	Total/NA	Water	8260C	
480-175829-3	MW-22S	Total/NA	Water	8260C	
480-175829-4	MW-40	Total/NA	Water	8260C	
480-175829-5	MW-48S	Total/NA	Water	8260C	
480-175829-6	MW-47S	Total/NA	Water	8260C	
480-175829-7	MW-31S	Total/NA	Water	8260C	
480-175829-8	MW-23S	Total/NA	Water	8260C	
480-175829-9	MW-45S	Total/NA	Water	8260C	
480-175829-10	DUP	Total/NA	Water	8260C	
MB 480-552371/7	Method Blank	Total/NA	Water	8260C	
LCS 480-552371/5	Lab Control Sample	Total/NA	Water	8260C	
480-175829-5 MS	MW-48S	Total/NA	Water	8260C	
480-175829-5 MSD	MW-48S	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 552351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	3510C	
480-175829-2 - DL	MW-46S	Total/NA	Water	3510C	
480-175829-2	MW-46S	Total/NA	Water	3510C	
480-175829-3	MW-22S	Total/NA	Water	3510C	
480-175829-4	MW-40	Total/NA	Water	3510C	
480-175829-5	MW-48S	Total/NA	Water	3510C	
480-175829-5 - DL	MW-48S	Total/NA	Water	3510C	
480-175829-6	MW-47S	Total/NA	Water	3510C	
480-175829-7	MW-31S	Total/NA	Water	3510C	
480-175829-8	MW-23S	Total/NA	Water	3510C	
480-175829-8 - DL	MW-23S	Total/NA	Water	3510C	
480-175829-9	MW-45S	Total/NA	Water	3510C	
480-175829-10	DUP	Total/NA	Water	3510C	
MB 480-552351/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-552351/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-175829-5 MS	MW-48S	Total/NA	Water	3510C	
480-175829-5 MS - DL	MW-48S	Total/NA	Water	3510C	
480-175829-5 MSD - DL	MW-48S	Total/NA	Water	3510C	
480-175829-5 MSD	MW-48S	Total/NA	Water	3510C	

Analysis Batch: 552496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	8270D LL	552351
480-175829-2	MW-46S	Total/NA	Water	8270D LL	552351
480-175829-3	MW-22S	Total/NA	Water	8270D LL	552351
480-175829-4	MW-40	Total/NA	Water	8270D LL	552351
480-175829-5	MW-48S	Total/NA	Water	8270D LL	552351
480-175829-6	MW-47S	Total/NA	Water	8270D LL	552351
480-175829-7	MW-31S	Total/NA	Water	8270D LL	552351
480-175829-8	MW-23S	Total/NA	Water	8270D LL	552351
480-175829-9	MW-45S	Total/NA	Water	8270D LL	552351
480-175829-10	DUP	Total/NA	Water	8270D LL	552351

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QC Association Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

GC/MS Semi VOA (Continued)

Analysis Batch: 552496 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-552351/1-A	Method Blank	Total/NA	Water	8270D LL	552351
LCS 480-552351/2-A	Lab Control Sample	Total/NA	Water	8270D LL	552351
480-175829-5 MS	MW-48S	Total/NA	Water	8270D LL	552351
480-175829-5 MSD	MW-48S	Total/NA	Water	8270D LL	552351

Analysis Batch: 552651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-2 - DL	MW-46S	Total/NA	Water	8270D LL	552351
480-175829-5 - DL	MW-48S	Total/NA	Water	8270D LL	552351
480-175829-8 - DL	MW-23S	Total/NA	Water	8270D LL	552351
480-175829-5 MS - DL	MW-48S	Total/NA	Water	8270D LL	552351
480-175829-5 MSD - DL	MW-48S	Total/NA	Water	8270D LL	552351

Analysis Batch: 728648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	8270D SIM	728957
480-175829-2	MW-46S	Total/NA	Water	8270D SIM	728957
480-175829-3	MW-22S	Total/NA	Water	8270D SIM	728957
480-175829-4	MW-40	Total/NA	Water	8270D SIM	728957
480-175829-5	MW-48S	Total/NA	Water	8270D SIM	728957
480-175829-6	MW-47S	Total/NA	Water	8270D SIM	728957
480-175829-7	MW-31S	Total/NA	Water	8270D SIM	728957
480-175829-8	MW-23S	Total/NA	Water	8270D SIM	728957
480-175829-9	MW-45S	Total/NA	Water	8270D SIM	728957
480-175829-10	DUP	Total/NA	Water	8270D SIM	728957
MB 460-728957/1-A	Method Blank	Total/NA	Water	8270D SIM	728957
LCS 460-728957/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	728957
LCSD 460-728957/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	728957
480-175829-5 MS	MW-48S	Total/NA	Water	8270D SIM	728957
480-175829-5 MSD	MW-48S	Total/NA	Water	8270D SIM	728957

Prep Batch: 728957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	3510C	
480-175829-2	MW-46S	Total/NA	Water	3510C	
480-175829-3	MW-22S	Total/NA	Water	3510C	
480-175829-4	MW-40	Total/NA	Water	3510C	
480-175829-5	MW-48S	Total/NA	Water	3510C	
480-175829-6	MW-47S	Total/NA	Water	3510C	
480-175829-7	MW-31S	Total/NA	Water	3510C	
480-175829-8	MW-23S	Total/NA	Water	3510C	
480-175829-9	MW-45S	Total/NA	Water	3510C	
480-175829-10	DUP	Total/NA	Water	3510C	
MB 460-728957/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-728957/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-728957/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
480-175829-5 MS	MW-48S	Total/NA	Water	3510C	
480-175829-5 MSD	MW-48S	Total/NA	Water	3510C	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

GC VOA

Analysis Batch: 552098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	RSK-175	
480-175829-2	MW-46S	Total/NA	Water	RSK-175	
480-175829-3	MW-22S	Total/NA	Water	RSK-175	
480-175829-4	MW-40	Total/NA	Water	RSK-175	
480-175829-5	MW-48S	Total/NA	Water	RSK-175	
480-175829-6	MW-47S	Total/NA	Water	RSK-175	
480-175829-7	MW-31S	Total/NA	Water	RSK-175	
480-175829-8	MW-23S	Total/NA	Water	RSK-175	
480-175829-9	MW-45S	Total/NA	Water	RSK-175	
MB 480-552098/27	Method Blank	Total/NA	Water	RSK-175	
MB 480-552098/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-552098/28	Lab Control Sample	Total/NA	Water	RSK-175	
LCS 480-552098/4	Lab Control Sample	Total/NA	Water	RSK-175	

Metals

Prep Batch: 552219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	3005A	
480-175829-2	MW-46S	Total/NA	Water	3005A	
480-175829-3	MW-22S	Total/NA	Water	3005A	
480-175829-4	MW-40	Total/NA	Water	3005A	
480-175829-5	MW-48S	Total/NA	Water	3005A	
480-175829-6	MW-47S	Total/NA	Water	3005A	
480-175829-7	MW-31S	Total/NA	Water	3005A	
480-175829-8	MW-23S	Total/NA	Water	3005A	
480-175829-9	MW-45S	Total/NA	Water	3005A	
MB 480-552219/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-552219/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-175829-1 MS	MW-33S	Total/NA	Water	3005A	
480-175829-1 MSD	MW-33S	Total/NA	Water	3005A	

Analysis Batch: 552456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	6010C	552219
480-175829-2	MW-46S	Total/NA	Water	6010C	552219
480-175829-3	MW-22S	Total/NA	Water	6010C	552219
480-175829-4	MW-40	Total/NA	Water	6010C	552219
480-175829-5	MW-48S	Total/NA	Water	6010C	552219
480-175829-6	MW-47S	Total/NA	Water	6010C	552219
480-175829-7	MW-31S	Total/NA	Water	6010C	552219
480-175829-8	MW-23S	Total/NA	Water	6010C	552219
480-175829-9	MW-45S	Total/NA	Water	6010C	552219
MB 480-552219/1-A	Method Blank	Total/NA	Water	6010C	552219
LCS 480-552219/2-A	Lab Control Sample	Total/NA	Water	6010C	552219
480-175829-1 MS	MW-33S	Total/NA	Water	6010C	552219
480-175829-1 MSD	MW-33S	Total/NA	Water	6010C	552219

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

General Chemistry

Analysis Batch: 552082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	350.1	
480-175829-2	MW-46S	Total/NA	Water	350.1	
480-175829-3	MW-22S	Total/NA	Water	350.1	
480-175829-4	MW-40	Total/NA	Water	350.1	
480-175829-5	MW-48S	Total/NA	Water	350.1	
480-175829-6	MW-47S	Total/NA	Water	350.1	
480-175829-7	MW-31S	Total/NA	Water	350.1	
480-175829-8	MW-23S	Total/NA	Water	350.1	
480-175829-9	MW-45S	Total/NA	Water	350.1	
MB 480-552082/27	Method Blank	Total/NA	Water	350.1	
MB 480-552082/3	Method Blank	Total/NA	Water	350.1	
LCS 480-552082/28	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-552082/4	Lab Control Sample	Total/NA	Water	350.1	
480-175829-7 MS	MW-31S	Total/NA	Water	350.1	
480-175829-7 DU	MW-31S	Total/NA	Water	350.1	

Analysis Batch: 552107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	SM 4500 H+ B	
480-175829-2	MW-46S	Total/NA	Water	SM 4500 H+ B	
480-175829-3	MW-22S	Total/NA	Water	SM 4500 H+ B	
480-175829-4	MW-40	Total/NA	Water	SM 4500 H+ B	
480-175829-5	MW-48S	Total/NA	Water	SM 4500 H+ B	
480-175829-6	MW-47S	Total/NA	Water	SM 4500 H+ B	
480-175829-7	MW-31S	Total/NA	Water	SM 4500 H+ B	
480-175829-8	MW-23S	Total/NA	Water	SM 4500 H+ B	
480-175829-9	MW-45S	Total/NA	Water	SM 4500 H+ B	
LCS 480-552107/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 552146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	353.2	
480-175829-2	MW-46S	Total/NA	Water	353.2	
480-175829-3	MW-22S	Total/NA	Water	353.2	
480-175829-4	MW-40	Total/NA	Water	353.2	
480-175829-5	MW-48S	Total/NA	Water	353.2	
480-175829-6	MW-47S	Total/NA	Water	353.2	
480-175829-7	MW-31S	Total/NA	Water	353.2	
480-175829-8	MW-23S	Total/NA	Water	353.2	
480-175829-9	MW-45S	Total/NA	Water	353.2	
MB 480-552146/3	Method Blank	Total/NA	Water	353.2	
LCS 480-552146/4	Lab Control Sample	Total/NA	Water	353.2	
480-175829-1 MS	MW-33S	Total/NA	Water	353.2	
480-175829-8 MS	MW-23S	Total/NA	Water	353.2	
480-175829-8 DU	MW-23S	Total/NA	Water	353.2	

Prep Batch: 552169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	9012B	
480-175829-2	MW-46S	Total/NA	Water	9012B	
480-175829-3	MW-22S	Total/NA	Water	9012B	

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QC Association Summary

Client: AECOM

Job ID: 480-175829-1

General Chemistry (Continued)

Prep Batch: 552169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-4	MW-40	Total/NA	Water	9012B	
480-175829-5	MW-48S	Total/NA	Water	9012B	
480-175829-6	MW-47S	Total/NA	Water	9012B	
480-175829-7	MW-31S	Total/NA	Water	9012B	
480-175829-8	MW-23S	Total/NA	Water	9012B	
480-175829-9	MW-45S	Total/NA	Water	9012B	
480-175829-10	DUP	Total/NA	Water	9012B	
MB 480-552169/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-552169/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-552169/3-A	Lab Control Sample	Total/NA	Water	9012B	
480-175829-1 MS	MW-33S	Total/NA	Water	9012B	
480-175829-5 MS	MW-48S	Total/NA	Water	9012B	
480-175829-5 MSD	MW-48S	Total/NA	Water	9012B	

Analysis Batch: 552170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	353.2	
480-175829-2	MW-46S	Total/NA	Water	353.2	
480-175829-3	MW-22S	Total/NA	Water	353.2	
480-175829-4	MW-40	Total/NA	Water	353.2	
480-175829-5	MW-48S	Total/NA	Water	353.2	
480-175829-6	MW-47S	Total/NA	Water	353.2	
480-175829-7	MW-31S	Total/NA	Water	353.2	
480-175829-8	MW-23S	Total/NA	Water	353.2	
480-175829-9	MW-45S	Total/NA	Water	353.2	
MB 480-552170/4	Method Blank	Total/NA	Water	353.2	
LCS 480-552170/5	Lab Control Sample	Total/NA	Water	353.2	
480-175829-2 MS	MW-46S	Total/NA	Water	353.2	
480-175829-8 MS	MW-23S	Total/NA	Water	353.2	
480-175829-8 DU	MW-23S	Total/NA	Water	353.2	

Analysis Batch: 552297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	9012B	552169
480-175829-2	MW-46S	Total/NA	Water	9012B	552169
480-175829-3	MW-22S	Total/NA	Water	9012B	552169
480-175829-4	MW-40	Total/NA	Water	9012B	552169
480-175829-5	MW-48S	Total/NA	Water	9012B	552169
480-175829-6	MW-47S	Total/NA	Water	9012B	552169
480-175829-7	MW-31S	Total/NA	Water	9012B	552169
480-175829-8	MW-23S	Total/NA	Water	9012B	552169
480-175829-9	MW-45S	Total/NA	Water	9012B	552169
480-175829-10	DUP	Total/NA	Water	9012B	552169
MB 480-552169/1-A	Method Blank	Total/NA	Water	9012B	552169
LCS 480-552169/2-A	Lab Control Sample	Total/NA	Water	9012B	552169
LCS 480-552169/3-A	Lab Control Sample	Total/NA	Water	9012B	552169
480-175829-1 MS	MW-33S	Total/NA	Water	9012B	552169
480-175829-5 MS	MW-48S	Total/NA	Water	9012B	552169
480-175829-5 MSD	MW-48S	Total/NA	Water	9012B	552169

QC Association Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

General Chemistry

Analysis Batch: 552345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	Nitrate by calc	
480-175829-2	MW-46S	Total/NA	Water	Nitrate by calc	
480-175829-3	MW-22S	Total/NA	Water	Nitrate by calc	
480-175829-4	MW-40	Total/NA	Water	Nitrate by calc	
480-175829-5	MW-48S	Total/NA	Water	Nitrate by calc	
480-175829-6	MW-47S	Total/NA	Water	Nitrate by calc	
480-175829-7	MW-31S	Total/NA	Water	Nitrate by calc	
480-175829-8	MW-23S	Total/NA	Water	Nitrate by calc	
480-175829-9	MW-45S	Total/NA	Water	Nitrate by calc	

Analysis Batch: 552367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	SM 3500 FE D	
480-175829-2	MW-46S	Total/NA	Water	SM 3500 FE D	
480-175829-3	MW-22S	Total/NA	Water	SM 3500 FE D	
480-175829-4	MW-40	Total/NA	Water	SM 3500 FE D	
480-175829-5	MW-48S	Total/NA	Water	SM 3500 FE D	
480-175829-6	MW-47S	Total/NA	Water	SM 3500 FE D	
480-175829-7	MW-31S	Total/NA	Water	SM 3500 FE D	
480-175829-8	MW-23S	Total/NA	Water	SM 3500 FE D	
480-175829-9	MW-45S	Total/NA	Water	SM 3500 FE D	
MB 480-552367/27	Method Blank	Total/NA	Water	SM 3500 FE D	
MB 480-552367/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 480-552367/28	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
LCS 480-552367/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
480-175829-4 MS	MW-40	Total/NA	Water	SM 3500 FE D	
480-175829-8 MS	MW-23S	Total/NA	Water	SM 3500 FE D	
480-175829-1 DU	MW-33S	Total/NA	Water	SM 3500 FE D	
480-175829-2 DU	MW-46S	Total/NA	Water	SM 3500 FE D	
480-175829-3 DU	MW-22S	Total/NA	Water	SM 3500 FE D	
480-175829-4 DU	MW-40	Total/NA	Water	SM 3500 FE D	
480-175829-5 DU	MW-48S	Total/NA	Water	SM 3500 FE D	
480-175829-6 DU	MW-47S	Total/NA	Water	SM 3500 FE D	
480-175829-7 DU	MW-31S	Total/NA	Water	SM 3500 FE D	
480-175829-8 DU	MW-23S	Total/NA	Water	SM 3500 FE D	
480-175829-9 DU	MW-45S	Total/NA	Water	SM 3500 FE D	

Analysis Batch: 552442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	SM 2320B	
480-175829-2	MW-46S	Total/NA	Water	SM 2320B	
480-175829-3	MW-22S	Total/NA	Water	SM 2320B	
480-175829-4	MW-40	Total/NA	Water	SM 2320B	
480-175829-5	MW-48S	Total/NA	Water	SM 2320B	
480-175829-6	MW-47S	Total/NA	Water	SM 2320B	
480-175829-7	MW-31S	Total/NA	Water	SM 2320B	
480-175829-8	MW-23S	Total/NA	Water	SM 2320B	
480-175829-9	MW-45S	Total/NA	Water	SM 2320B	
MB 480-552442/52	Method Blank	Total/NA	Water	SM 2320B	
MB 480-552442/76	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-552442/53	Lab Control Sample	Total/NA	Water	SM 2320B	

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QC Association Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

General Chemistry (Continued)

Analysis Batch: 552442 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-552442/77	Lab Control Sample	Total/NA	Water	SM 2320B	
480-175829-7 MS	MW-31S	Total/NA	Water	SM 2320B	
480-175829-8 DU	MW-23S	Total/NA	Water	SM 2320B	

Analysis Batch: 552525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175829-1	MW-33S	Total/NA	Water	300.0	
480-175829-2	MW-46S	Total/NA	Water	300.0	
480-175829-3	MW-22S	Total/NA	Water	300.0	
480-175829-4	MW-40	Total/NA	Water	300.0	
480-175829-5	MW-48S	Total/NA	Water	300.0	
480-175829-6	MW-47S	Total/NA	Water	300.0	
480-175829-7	MW-31S	Total/NA	Water	300.0	
480-175829-8	MW-23S	Total/NA	Water	300.0	
480-175829-9	MW-45S	Total/NA	Water	300.0	
MB 480-552525/28	Method Blank	Total/NA	Water	300.0	
MB 480-552525/4	Method Blank	Total/NA	Water	300.0	
LCS 480-552525/27	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-552525/3	Lab Control Sample	Total/NA	Water	300.0	
480-175829-4 MS	MW-40	Total/NA	Water	300.0	

Lab Chronicle

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MW-33S

Lab Sample ID: 480-175829-1

Date Collected: 09/30/20 09:45

Matrix: Water

Date Received: 10/01/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552371	10/04/20 11:38	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 19:55	RJS	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/04/20 23:52	YAH	TAL EDI
Total/NA	Analysis	RSK-175		1	552098	10/01/20 18:24	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 03:22	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552525	10/06/20 02:19	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552082	10/01/20 11:53	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 16:54	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:07	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:38	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 16:54	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 00:08	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 13:59	BEF	TAL BUF

Client Sample ID: MW-46S

Lab Sample ID: 480-175829-2

Date Collected: 09/30/20 09:20

Matrix: Water

Date Received: 10/01/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	552371	10/04/20 12:02	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		10	552496	10/05/20 20:23	RJS	TAL BUF
Total/NA	Prep	3510C	DL		552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL	DL	200	552651	10/06/20 17:52	PJQ	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 00:13	YAH	TAL EDI
Total/NA	Analysis	RSK-175		44	552098	10/02/20 00:42	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 03:42	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552525	10/06/20 02:34	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552082	10/01/20 12:14	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 16:56	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:08	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:27	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 16:56	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 00:16	BEF	TAL BUF

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Lab Chronicle

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-46S

Date Collected: 09/30/20 09:20

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:00	BEF	TAL BUF

Client Sample ID: MW-22S

Date Collected: 09/30/20 13:30

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	552371	10/04/20 12:26	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 20:52	RJS	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 00:35	YAH	TAL EDI
Total/NA	Analysis	RSK-175		44	552098	10/02/20 01:01	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 03:45	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552525	10/06/20 02:48	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552082	10/01/20 12:05	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 16:57	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:10	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:25	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 16:57	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 00:23	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:02	BEF	TAL BUF

Client Sample ID: MW-40

Date Collected: 09/30/20 12:30

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552371	10/04/20 12:50	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 21:20	RJS	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 00:56	YAH	TAL EDI
Total/NA	Analysis	RSK-175		22	552098	10/02/20 01:20	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 03:49	LMH	TAL BUF
Total/NA	Analysis	300.0		1	552525	10/06/20 03:03	RJS	TAL BUF
Total/NA	Analysis	350.1		10	552082	10/01/20 12:15	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 16:58	ALT	TAL BUF

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Lab Chronicle

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-40

Date Collected: 09/30/20 12:30

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	552170	10/01/20 20:11	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:24	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 16:58	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 00:31	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:06	BEF	TAL BUF

Client Sample ID: MW-48S

Date Collected: 09/30/20 11:15

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	552371	10/04/20 13:14	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 19:27	RJS	TAL BUF
Total/NA	Prep	3510C	DL		552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL	DL	10	552651	10/06/20 17:24	PJQ	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/04/20 22:49	YAH	TAL EDI
Total/NA	Analysis	RSK-175		44	552098	10/02/20 01:39	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 03:53	LMH	TAL BUF
Total/NA	Analysis	300.0		20	552525	10/06/20 04:30	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552082	10/01/20 12:16	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 17:00	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:12	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:09	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 17:00	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 00:39	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:07	BEF	TAL BUF

Client Sample ID: MW-47S

Date Collected: 09/30/20 14:10

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552371	10/04/20 13:38	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		5	552496	10/05/20 21:48	RJS	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-47S

Date Collected: 09/30/20 14:10

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 01:17	YAH	TAL EDI
Total/NA	Analysis	RSK-175		88	552098	10/02/20 01:58	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 04:09	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552525	10/06/20 04:45	RJS	TAL BUF
Total/NA	Analysis	350.1		5	552082	10/01/20 12:17	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 17:01	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:13	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:14	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 17:01	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 00:46	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:08	BEF	TAL BUF

Client Sample ID: MW-31S

Date Collected: 09/30/20 16:00

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552371	10/04/20 14:02	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 22:17	RJS	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 01:38	YAH	TAL EDI
Total/NA	Analysis	RSK-175		22	552098	10/02/20 02:17	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 04:12	LMH	TAL BUF
Total/NA	Analysis	300.0		2	552525	10/06/20 05:00	RJS	TAL BUF
Total/NA	Analysis	350.1		1	552082	10/01/20 12:12	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 17:02	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:15	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:15	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 17:02	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 01:17	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:09	BEF	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MW-23S

Lab Sample ID: 480-175829-8

Date Collected: 09/30/20 15:20

Matrix: Water

Date Received: 10/01/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	552371	10/04/20 14:27	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 22:46	RJS	TAL BUF
Total/NA	Prep	3510C	DL		552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL	DL	50	552651	10/06/20 18:21	PJQ	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 01:59	YAH	TAL EDI
Total/NA	Analysis	RSK-175		22	552098	10/02/20 02:36	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 04:16	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552525	10/06/20 05:14	RJS	TAL BUF
Total/NA	Analysis	350.1		1	552082	10/01/20 12:02	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 17:05	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:18	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:17	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 17:05	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 01:31	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:11	BEF	TAL BUF

Client Sample ID: MW-45S

Lab Sample ID: 480-175829-9

Date Collected: 09/30/20 10:45

Matrix: Water

Date Received: 10/01/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552371	10/04/20 14:51	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 23:14	RJS	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 02:20	YAH	TAL EDI
Total/NA	Analysis	RSK-175		22	552098	10/02/20 02:54	MAN	TAL BUF
Total/NA	Prep	3005A			552219	10/02/20 09:34	ADM	TAL BUF
Total/NA	Analysis	6010C		1	552456	10/03/20 04:20	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552525	10/06/20 05:29	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552082	10/01/20 12:03	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552146	10/01/20 17:08	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552170	10/01/20 20:21	ALT	TAL BUF
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:21	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552345	10/01/20 17:08	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552442	10/05/20 01:47	BEF	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-45S

Lab Sample ID: 480-175829-9

Date Collected: 09/30/20 10:45

Matrix: Water

Date Received: 10/01/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 FE D		1	552367	10/03/20 11:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552107	10/01/20 14:12	BEF	TAL BUF

Client Sample ID: DUP

Lab Sample ID: 480-175829-10

Date Collected: 09/30/20 00:00

Matrix: Water

Date Received: 10/01/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552371	10/04/20 15:15	AMM	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/05/20 23:42	RJS	TAL BUF
Total/NA	Prep	3510C			728957	10/04/20 09:32	DXD	TAL EDI
Total/NA	Analysis	8270D SIM		1	728648	10/05/20 02:42	YAH	TAL EDI
Total/NA	Prep	9012B			552169	10/01/20 20:26	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552297	10/02/20 15:22	CRK	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 3500 FE D		Water	Ferrous Iron
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-20 *
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
Georgia	State	12028 (NJ)	07-01-21
Massachusetts	State	M-NJ312	06-30-21
New Jersey	NELAP	12028	06-30-21
New York	NELAP	11452	04-01-21
Pennsylvania	NELAP	68-00522	02-28-21
Rhode Island	State	LAO00132	12-31-20
USDA	US Federal Programs	P330-18-00135	05-03-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL BUF
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL BUF
353.2	Nitrogen, Nitrite	MCAWW	TAL BUF
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL BUF

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

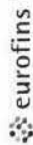
Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175829-1	MW-33S	Water	09/30/20 09:45	10/01/20 08:00	
480-175829-2	MW-46S	Water	09/30/20 09:20	10/01/20 08:00	
480-175829-3	MW-22S	Water	09/30/20 13:30	10/01/20 08:00	
480-175829-4	MW-40	Water	09/30/20 12:30	10/01/20 08:00	
480-175829-5	MW-48S	Water	09/30/20 11:15	10/01/20 08:00	
480-175829-6	MW-47S	Water	09/30/20 14:10	10/01/20 08:00	
480-175829-7	MW-31S	Water	09/30/20 16:00	10/01/20 08:00	
480-175829-8	MW-23S	Water	09/30/20 15:20	10/01/20 08:00	
480-175829-9	MW-45S	Water	09/30/20 10:45	10/01/20 08:00	
480-175829-10	DUP	Water	09/30/20 00:00	10/01/20 08:00	

Chain of Custody Record

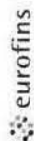


Client Information Client Contact: Ms. Melissa Saunders Company: AECOM Address: 125 Broad Street, 16th Floor City: New York State, Zip: NY, 10004 Phone: 212-377-8637 (Tel) Email: Melissa.Saunders@aecom.com Project Name: Ithaca Laboratory - Groundwater Analysis Site: NYSEG Ithaca		Sampler: Gerlinde Wolf Lab PM: Schove, John R Phone: 585-490-0987 E-Mail: John.Schove@Eurofinset.com		COC No: 480-149893-33321.1 Page: Page 1 of 2 Job #: #225	
Due Date Requested: TAT Requested (days): 5 day TAT		Analysis Requested			
PO #: 60615225 WO #: 48022675 Project #: 48022675 SSOW#:		Field Filtered Sample (Yes or No) ☒ Perform MS/MSD (Yes or No) ☒ 8270D - PAH Semivolatiles - (Low Level SIM) ☒ 300.0, 280 - Sulfate ☒ 350.1, 353.2, Pres ☒ 6010C - Metals (ICP) - Iron ☒ RSK_175 - Methane ☒ 9012B - Cyanide, Total ☒ 353.2, Nitrite, Nitrate, Calc, SM4500, H+ ☒ 2320B - Alkalinity ☒ 3500, Fe, D - Iron, Ferrous ☒ 8260C - BTEX ☒			
Sample Identification		Special Instructions/Note:			
Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=soil, B=biomass, A=air)		Total Number of containers			
MWC-12 MWC-16 MWC-24S MWC-25S MWC-26S MWC-33S MWC-46S MWC-22S MWC-40 MWC-48S MWC-47S		Water Water Water Water Water Water Water Water Water Water			
9:30:20 9:30:20 9:30:20 9:30:20 9:30:20 9:30:20 9:30:20 9:30:20 9:30:20 9:30:20		18			
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) Category B Required		Special Instructions/QC Requirements:			
Empty Kit Relinquished by: gwoy		Method of Shipment:			
Relinquished by: R. Engle		Received by: [Signature]			
Relinquished by:		Received by: [Signature]			
Relinquished by:		Received by: [Signature]			
Custody Seals Intact: ☒ Yes ☐ No		Cooler Temperature(s) °C and Other Remarks: #1 31.3, 4.3, 0.2, 8.2, 9			

Chain of Custody Record

Client Information Client Contact: Ms. Melissa Saunders Company: AECOM Address: 125 Broad Street 16th Floor City: New York State, Zip: NY, 10004 Phone: 212-377-8637 (Tel) Email: Melissa.Saunders@aecom.com Project Name: Ithaca Laboratory - Groundwater Analysis Site: NYSEG ITHACA		Sampler: Gerlinde Wolf Lab PM: Schove, John R Phone: 585-490-0987 E-Mail: John.Schove@Eurofinset.com		COC No: 480-149893-33321.2 Page: Page 2 of 2 Job #: #225																																																																																																																																																																	
Analysis Requested Due Date Requested: TAT Requested (days): 5 day PO #: 60615225 WO #: 48022675 Project #: 48022675 SSOW#:																																																																																																																																																																					
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Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify) Category B Required																																																																																																																																																																					
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/OC Requirements: Empty Kit Relinquished by: gwork Date: 9:30:20 1630 Relinquished by: RLEnglish Date: 9:30:20, 1800 Relinquished by: Date:																																																																																																																																																																					
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Cooler Temperature(s) °C and Other Remarks:																																																																																																																																																																					

Chain of Custody Record



Environment Testing
 America

Client Information (Sub Contract Lab)		Lab PM: Schove, John R		Carrier Tracking No(s):		IOC No: 480-59012.1	
Client Contact: Shipping/Receiving		E-Mail: John.Schove@Eurofinset.com		State of Origin: New York		Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-175829-1		Preservation Codes:	
Address: 777 New Durham Road,		Due Date Requested: 10/7/2020		Analysis Requested		Total Number of Containers	
City: Edison		TAT Requested (days):					
State, Zip: NJ, 08817		PO #:					
Phone: 732-549-3900(Tel) 732-549-3679(Fax)		WO #:					
Email:		Project #:					
Project Name: Ithaca Laboratory - Groundwater Analysis		48022675					
Site:		SSOW#:					

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=Solid, O=Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D, SIM/3510C, LVI SVOC SIM Analytes	Special Instructions/Note:
MW-33S (480-175829-1)	9/30/20	09:45 Eastern		Water		X		
MW-46S (480-175829-2)	9/30/20	09:20 Eastern		Water		X		
MW-22S (480-175829-3)	9/30/20	13:30 Eastern		Water		X		
MW-40 (480-175829-4)	9/30/20	12:30 Eastern		Water		X		
MW-48S (480-175829-5)	9/30/20	11:15 Eastern		Water		X		
MW-48S (480-175829-5MS)	9/30/20	11:15 Eastern	MS	Water		X		
MW-48S (480-175829-5MSD)	9/30/20	11:15 Eastern	MSD	Water		X		
MW-47S (480-175829-6)	9/30/20	14:10 Eastern		Water		X		
MW-31S (480-175829-7)	9/30/20	16:00 Eastern		Water		X		

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		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:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 10/1/20 17:50	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seal No.: 149938, 149939		Cooler Temperature(s) °C and Other Remarks: 4.6 2.3 °C FPI	

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175829-1

Login Number: 175829

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175829-1

Login Number: 175829

List Number: 2

Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison

List Creation: 10/02/20 03:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1149938, 1149939
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6, 2.3°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

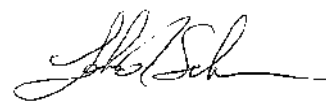
Laboratory Job ID: 480-175904-1

Client Project/Site: Ithaca Laboratory - Groundwater Analysis

For:

AECOM
125 Broad Street
16th Floor
New York, New York 10004

Attn: Ms. Melissa Saunders



Authorized for release by:
10/9/2020 6:33:41 PM

John Schove, Project Manager II
(716)504-9838
John.Schove@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Job ID: 480-175904-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-175904-1

Comments

No additional comments.

Receipt

The samples were received on 10/2/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6° C, 2.7° C, 3.0° C and 3.1° C.

GC/MS VOA

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MWC-16 (480-175904-2). 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 8270D LL: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-16 (480-175904-2). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following sample was diluted due to the nature of the sample matrix: MWC-11 (480-175904-6). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following sample required a dilution due to the nature of the sample matrix: MWC-16 (480-175904-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWC-12 (480-175904-1). 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 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-12 (480-175904-1). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: MW-24S (480-175904-3), MW-25S (480-175904-4), MW-28S (480-175904-5) and MWC-11 (480-175904-6). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-16 (480-175904-2). 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 VOA

Method RSK-175: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-16 (480-175904-2).

Method RSK-175: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-24S (480-175904-3) and MW-28S (480-175904-5). Elevated reporting limits (RLs) are provided.

Method RSK-175: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-12 (480-175904-1). 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.

Case Narrative

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Job ID: 480-175904-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

Metals

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

General Chemistry

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: EQUIPMENT BLANK (480-175904-7).

Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MWC-12 (480-175904-1), MWC-16 (480-175904-2), MW-24S (480-175904-3), MW-25S (480-175904-4), MW-28S (480-175904-5) and MWC-11 (480-175904-6).

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MWC-12 (480-175904-1), MWC-16 (480-175904-2), MW-24S (480-175904-3), MW-25S (480-175904-4), MW-28S (480-175904-5) and MWC-11 (480-175904-6).

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

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-552780.

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

Detection Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MWC-12

Lab Sample ID: 480-175904-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.8		1.0	0.41	ug/L	1		8260C	Total/NA
Acenaphthene	50	E	0.48	0.034	ug/L	1		8270D LL	Total/NA
Acenaphthylene	1.0		0.29	0.053	ug/L	1		8270D LL	Total/NA
Anthracene	0.096	J	0.48	0.032	ug/L	1		8270D LL	Total/NA
Fluorene	10		0.48	0.055	ug/L	1		8270D LL	Total/NA
Naphthalene	0.19	J	0.95	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.90	B	0.19	0.059	ug/L	1		8270D LL	Total/NA
Acenaphthene - DL	81		4.8	0.34	ug/L	10		8270D LL	Total/NA
Acenaphthylene - DL	0.90	J	2.9	0.53	ug/L	10		8270D LL	Total/NA
Fluorene - DL	9.2		4.8	0.55	ug/L	10		8270D LL	Total/NA
Phenanthrene - DL	0.90	J B	1.9	0.59	ug/L	10		8270D LL	Total/NA
Methane	1000		44	11	ug/L	11		RSK-175	Total/NA
Iron	2.8		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	238		10.0	1.7	mg/L	5		300.0	Total/NA
Ammonia	2.5		0.040	0.018	mg/L	2		350.1	Total/NA
Cyanide, Total	0.016		0.010	0.0050	mg/L	1		9012B	Total/NA
Alkalinity, Total	605		5.0	0.79	mg/L	1		SM 2320B	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.5	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MWC-16

Lab Sample ID: 480-175904-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.82	J	2.0	0.82	ug/L	2		8260C	Total/NA
Acenaphthene	23		9.5	0.69	ug/L	20		8270D LL	Total/NA
Fluorene	3.1	J	9.5	1.1	ug/L	20		8270D LL	Total/NA
Benzo[a]anthracene	0.019	J	0.050	0.016	ug/L	1		8270D SIM	Total/NA
Methane	380		44	11	ug/L	11		RSK-175	Total/NA
Iron	25.8		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	1320		40.0	7.0	mg/L	20		300.0	Total/NA
Ammonia	0.77	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.055		0.050	0.020	mg/L	1		353.2	Total/NA
Nitrite as N	0.021	J	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.0090	J	0.010	0.0050	mg/L	1		9012B	Total/NA
Nitrate as N	0.034	J	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	563		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.28	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	6.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.9	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-24S

Lab Sample ID: 480-175904-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.046	J	0.48	0.035	ug/L	1		8270D LL	Total/NA
Methane	1400		44	11	ug/L	11		RSK-175	Total/NA
Iron	29.4		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	0.87	J	4.0	0.70	mg/L	2		300.0	Total/NA
Ammonia	2.7		0.040	0.018	mg/L	2		350.1	Total/NA
Nitrate Nitrite as N	0.30		0.050	0.020	mg/L	1		353.2	Total/NA
Nitrite as N	0.021	J	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate as N	0.28		0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	301		5.0	0.79	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-24S (Continued)

Lab Sample ID: 480-175904-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ferrous Iron	0.12	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.0	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.9	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-25S

Lab Sample ID: 480-175904-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	30		4.0	1.0	ug/L	1		RSK-175	Total/NA
Iron	6.5		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	121		20.0	3.5	mg/L	10		300.0	Total/NA
Ammonia	0.52	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrite as N	0.020	J	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.026		0.010	0.0050	mg/L	1		9012B	Total/NA
Alkalinity, Total	550		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Ferrous Iron	0.15	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	14.8	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MW-28S

Lab Sample ID: 480-175904-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methane	4000		180	44	ug/L	44		RSK-175	Total/NA
Iron	1.8		0.050	0.019	mg/L	1		6010C	Total/NA
Ammonia	0.88	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.031	J	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrite as N	0.022	J	0.050	0.020	mg/L	1		353.2	Total/NA
Alkalinity, Total	271		5.0	0.79	mg/L	1		SM 2320B	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.5	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	3.6		2.4	0.17	ug/L	5		8270D LL	Total/NA
Acenaphthylene	0.53	J	1.4	0.27	ug/L	5		8270D LL	Total/NA
Methane	98		4.0	1.0	ug/L	1		RSK-175	Total/NA
Iron	4.7		0.050	0.019	mg/L	1		6010C	Total/NA
Sulfate	121		20.0	3.5	mg/L	10		300.0	Total/NA
Ammonia	0.54	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.024	J	0.050	0.020	mg/L	1		353.2	Total/NA
Nitrate as N	0.024	J	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Alkalinity, Total	404		5.0	0.79	mg/L	1		SM 2320B	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	16.7	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-175904-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.064	J B	0.19	0.060	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-12

Lab Sample ID: 480-175904-1

Date Collected: 10/01/20 10:30

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.8		1.0	0.41	ug/L			10/07/20 14:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 14:03	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 14:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 14:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120					10/07/20 14:03	1
4-Bromofluorobenzene (Surr)	102		73 - 120					10/07/20 14:03	1
Dibromofluoromethane (Surr)	104		75 - 123					10/07/20 14:03	1
Toluene-d8 (Surr)	97		80 - 120					10/07/20 14:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	50	E	0.48	0.034	ug/L		10/03/20 14:15	10/06/20 00:11	1
Acenaphthylene	1.0		0.29	0.053	ug/L		10/03/20 14:15	10/06/20 00:11	1
Anthracene	0.096	J	0.48	0.032	ug/L		10/03/20 14:15	10/06/20 00:11	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/06/20 00:11	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/06/20 00:11	1
Fluorene	10		0.48	0.055	ug/L		10/03/20 14:15	10/06/20 00:11	1
Naphthalene	0.19	J	0.95	0.061	ug/L		10/03/20 14:15	10/06/20 00:11	1
Phenanthrene	0.90	B	0.19	0.059	ug/L		10/03/20 14:15	10/06/20 00:11	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/06/20 00:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	129		24 - 146				10/03/20 14:15	10/06/20 00:11	1
2-Fluorobiphenyl	90		37 - 120				10/03/20 14:15	10/06/20 00:11	1
2-Fluorophenol (Surr)	49		10 - 120				10/03/20 14:15	10/06/20 00:11	1
Nitrobenzene-d5 (Surr)	79		26 - 120				10/03/20 14:15	10/06/20 00:11	1
Phenol-d5 (Surr)	32		11 - 120				10/03/20 14:15	10/06/20 00:11	1
p-Terphenyl-d14	109		64 - 127				10/03/20 14:15	10/06/20 00:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	81		4.8	0.34	ug/L		10/03/20 14:15	10/06/20 18:49	10
Acenaphthylene	0.90	J	2.9	0.53	ug/L		10/03/20 14:15	10/06/20 18:49	10
Anthracene	ND		4.8	0.32	ug/L		10/03/20 14:15	10/06/20 18:49	10
Chrysene	ND		4.8	0.70	ug/L		10/03/20 14:15	10/06/20 18:49	10
Fluoranthene	ND		4.8	0.76	ug/L		10/03/20 14:15	10/06/20 18:49	10
Fluorene	9.2		4.8	0.55	ug/L		10/03/20 14:15	10/06/20 18:49	10
Naphthalene	ND		9.5	0.61	ug/L		10/03/20 14:15	10/06/20 18:49	10
Phenanthrene	0.90	J B	1.9	0.59	ug/L		10/03/20 14:15	10/06/20 18:49	10
Pyrene	ND		4.8	0.72	ug/L		10/03/20 14:15	10/06/20 18:49	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	121		24 - 146				10/03/20 14:15	10/06/20 18:49	10
2-Fluorobiphenyl	87		37 - 120				10/03/20 14:15	10/06/20 18:49	10
2-Fluorophenol (Surr)	43		10 - 120				10/03/20 14:15	10/06/20 18:49	10
Nitrobenzene-d5 (Surr)	69		26 - 120				10/03/20 14:15	10/06/20 18:49	10
Phenol-d5 (Surr)	29		11 - 120				10/03/20 14:15	10/06/20 18:49	10
p-Terphenyl-d14	101		64 - 127				10/03/20 14:15	10/06/20 18:49	10

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-12

Lab Sample ID: 480-175904-1

Date Collected: 10/01/20 10:30

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 05:02	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 05:02	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 05:02	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1000		44	11	ug/L			10/05/20 17:39	11

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.8		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 22:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	238		10.0	1.7	mg/L			10/04/20 02:17	5
Ammonia	2.5		0.040	0.018	mg/L			10/05/20 09:25	2
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 21:34	1
Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 17:53	1
Cyanide, Total	0.016		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:20	1
Nitrate as N	ND		0.050	0.020	mg/L			10/02/20 17:53	1
Alkalinity, Total	605		5.0	0.79	mg/L			10/05/20 13:02	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF	0.1	0.1	SU			10/04/20 12:01	1
Temperature	15.5	HF	0.001	0.001	Degrees C			10/04/20 12:01	1

Client Sample ID: MWC-16

Lab Sample ID: 480-175904-2

Date Collected: 10/01/20 09:50

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.82	J	2.0	0.82	ug/L			10/07/20 12:03	2
Ethylbenzene	ND		2.0	1.5	ug/L			10/07/20 12:03	2
Toluene	ND		2.0	1.0	ug/L			10/07/20 12:03	2
Xylenes, Total	ND		4.0	1.3	ug/L			10/07/20 12:03	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		10/07/20 12:03	2
4-Bromofluorobenzene (Surr)	105		73 - 120		10/07/20 12:03	2
Dibromofluoromethane (Surr)	104		75 - 123		10/07/20 12:03	2
Toluene-d8 (Surr)	98		80 - 120		10/07/20 12:03	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	23		9.5	0.69	ug/L		10/03/20 14:15	10/06/20 00:39	20
Acenaphthylene	ND		5.7	1.1	ug/L		10/03/20 14:15	10/06/20 00:39	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-16

Lab Sample ID: 480-175904-2

Date Collected: 10/01/20 09:50

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		9.5	0.65	ug/L		10/03/20 14:15	10/06/20 00:39	20
Chrysene	ND		9.5	1.4	ug/L		10/03/20 14:15	10/06/20 00:39	20
Fluoranthene	ND		9.5	1.5	ug/L		10/03/20 14:15	10/06/20 00:39	20
Fluorene	3.1	J	9.5	1.1	ug/L		10/03/20 14:15	10/06/20 00:39	20
Naphthalene	ND		19	1.2	ug/L		10/03/20 14:15	10/06/20 00:39	20
Phenanthrene	ND		3.8	1.2	ug/L		10/03/20 14:15	10/06/20 00:39	20
Pyrene	ND		9.5	1.4	ug/L		10/03/20 14:15	10/06/20 00:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	150	X	24 - 146	10/03/20 14:15	10/06/20 00:39	20
2-Fluorobiphenyl	96		37 - 120	10/03/20 14:15	10/06/20 00:39	20
2-Fluorophenol (Surr)	50		10 - 120	10/03/20 14:15	10/06/20 00:39	20
Nitrobenzene-d5 (Surr)	72		26 - 120	10/03/20 14:15	10/06/20 00:39	20
Phenol-d5 (Surr)	29		11 - 120	10/03/20 14:15	10/06/20 00:39	20
p-Terphenyl-d14	108		64 - 127	10/03/20 14:15	10/06/20 00:39	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.019	J	0.050	0.016	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 05:23	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 05:23	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 05:23	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	380		44	11	ug/L			10/02/20 15:43	11

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25.8		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1320		40.0	7.0	mg/L			10/06/20 05:43	20
Ammonia	0.77	B	0.020	0.0090	mg/L			10/05/20 08:42	1
Nitrate Nitrite as N	0.055		0.050	0.020	mg/L			10/02/20 21:35	1
Nitrite as N	0.021	J	0.050	0.020	mg/L			10/02/20 17:56	1
Cyanide, Total	0.0090	J	0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:22	1
Nitrate as N	0.034	J	0.050	0.020	mg/L			10/02/20 17:56	1
Alkalinity, Total	563		5.0	0.79	mg/L			10/05/20 13:11	1
Ferrous Iron	0.28	HF	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF	0.1	0.1	SU			10/04/20 12:02	1
Temperature	14.9	HF	0.001	0.001	Degrees C			10/04/20 12:02	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-24S

Lab Sample ID: 480-175904-3

Date Collected: 10/01/20 12:10

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 12:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 12:27	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 12:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		10/07/20 12:27	1
4-Bromofluorobenzene (Surr)	104		73 - 120		10/07/20 12:27	1
Dibromofluoromethane (Surr)	105		75 - 123		10/07/20 12:27	1
Toluene-d8 (Surr)	97		80 - 120		10/07/20 12:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	J	0.48	0.035	ug/L		10/03/20 14:15	10/06/20 01:07	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/03/20 14:15	10/06/20 01:07	1
Anthracene	ND		0.48	0.033	ug/L		10/03/20 14:15	10/06/20 01:07	1
Chrysene	ND		0.48	0.071	ug/L		10/03/20 14:15	10/06/20 01:07	1
Fluoranthene	ND		0.48	0.077	ug/L		10/03/20 14:15	10/06/20 01:07	1
Fluorene	ND		0.48	0.056	ug/L		10/03/20 14:15	10/06/20 01:07	1
Naphthalene	ND		0.96	0.062	ug/L		10/03/20 14:15	10/06/20 01:07	1
Phenanthrene	ND		0.19	0.060	ug/L		10/03/20 14:15	10/06/20 01:07	1
Pyrene	ND		0.48	0.073	ug/L		10/03/20 14:15	10/06/20 01:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	131		24 - 146	10/03/20 14:15	10/06/20 01:07	1
2-Fluorobiphenyl	93		37 - 120	10/03/20 14:15	10/06/20 01:07	1
2-Fluorophenol (Surr)	53		10 - 120	10/03/20 14:15	10/06/20 01:07	1
Nitrobenzene-d5 (Surr)	84		26 - 120	10/03/20 14:15	10/06/20 01:07	1
Phenol-d5 (Surr)	34		11 - 120	10/03/20 14:15	10/06/20 01:07	1
p-Terphenyl-d14	118		64 - 127	10/03/20 14:15	10/06/20 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 05:43	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 05:43	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 05:43	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1400		44	11	ug/L			10/05/20 06:34	11

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	29.4		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-24S

Lab Sample ID: 480-175904-3

Date Collected: 10/01/20 12:10

Matrix: Water

Date Received: 10/02/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.87	J	4.0	0.70	mg/L			10/04/20 02:45	2
Ammonia	2.7		0.040	0.018	mg/L			10/05/20 09:26	2
Nitrate Nitrite as N	0.30		0.050	0.020	mg/L			10/02/20 21:39	1
Nitrite as N	0.021	J	0.050	0.020	mg/L			10/02/20 17:57	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:26	1
Nitrate as N	0.28		0.050	0.020	mg/L			10/02/20 17:57	1
Alkalinity, Total	301		5.0	0.79	mg/L			10/05/20 13:19	1
Ferrous Iron	0.12	HF	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1	0.1	SU			10/04/20 12:04	1
Temperature	14.9	HF	0.001	0.001	Degrees C			10/04/20 12:04	1

Client Sample ID: MW-25S

Lab Sample ID: 480-175904-4

Date Collected: 10/01/20 11:20

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 12:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 12:51	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 12:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 12:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120					10/07/20 12:51	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/07/20 12:51	1
Dibromofluoromethane (Surr)	104		75 - 123					10/07/20 12:51	1
Toluene-d8 (Surr)	97		80 - 120					10/07/20 12:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/06/20 01:36	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/06/20 01:36	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/06/20 01:36	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/06/20 01:36	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/06/20 01:36	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/06/20 01:36	1
Naphthalene	ND		0.95	0.061	ug/L		10/03/20 14:15	10/06/20 01:36	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/06/20 01:36	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/06/20 01:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	118		24 - 146				10/03/20 14:15	10/06/20 01:36	1
2-Fluorobiphenyl	87		37 - 120				10/03/20 14:15	10/06/20 01:36	1
2-Fluorophenol (Surr)	50		10 - 120				10/03/20 14:15	10/06/20 01:36	1
Nitrobenzene-d5 (Surr)	80		26 - 120				10/03/20 14:15	10/06/20 01:36	1
Phenol-d5 (Surr)	32		11 - 120				10/03/20 14:15	10/06/20 01:36	1
p-Terphenyl-d14	86		64 - 127				10/03/20 14:15	10/06/20 01:36	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-25S

Lab Sample ID: 480-175904-4

Date Collected: 10/01/20 11:20

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 06:04	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 06:04	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 06:04	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	30		4.0	1.0	ug/L			10/02/20 14:46	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6.5		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	121		20.0	3.5	mg/L			10/04/20 02:59	10
Ammonia	0.52	B	0.020	0.0090	mg/L			10/05/20 08:44	1
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 21:42	1
Nitrite as N	0.020	J	0.050	0.020	mg/L			10/02/20 17:59	1
Cyanide, Total	0.026		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:28	1
Nitrate as N	ND		0.050	0.020	mg/L			10/02/20 17:59	1
Alkalinity, Total	550		5.0	0.79	mg/L			10/05/20 13:28	1
Ferrous Iron	0.15	HF	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF	0.1	0.1	SU			10/04/20 12:05	1
Temperature	14.8	HF	0.001	0.001	Degrees C			10/04/20 12:05	1

Client Sample ID: MW-28S

Lab Sample ID: 480-175904-5

Date Collected: 10/01/20 13:20

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 13:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 13:15	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 13:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		10/07/20 13:15	1
4-Bromofluorobenzene (Surr)	100		73 - 120		10/07/20 13:15	1
Dibromofluoromethane (Surr)	107		75 - 123		10/07/20 13:15	1
Toluene-d8 (Surr)	96		80 - 120		10/07/20 13:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.035	ug/L		10/03/20 14:15	10/06/20 02:05	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/03/20 14:15	10/06/20 02:05	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-28S

Lab Sample ID: 480-175904-5

Date Collected: 10/01/20 13:20

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.48	0.033	ug/L		10/03/20 14:15	10/06/20 02:05	1
Chrysene	ND		0.48	0.071	ug/L		10/03/20 14:15	10/06/20 02:05	1
Fluoranthene	ND		0.48	0.077	ug/L		10/03/20 14:15	10/06/20 02:05	1
Fluorene	ND		0.48	0.056	ug/L		10/03/20 14:15	10/06/20 02:05	1
Naphthalene	ND		0.96	0.062	ug/L		10/03/20 14:15	10/06/20 02:05	1
Phenanthrene	ND		0.19	0.060	ug/L		10/03/20 14:15	10/06/20 02:05	1
Pyrene	ND		0.48	0.073	ug/L		10/03/20 14:15	10/06/20 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	131		24 - 146	10/03/20 14:15	10/06/20 02:05	1
2-Fluorobiphenyl	94		37 - 120	10/03/20 14:15	10/06/20 02:05	1
2-Fluorophenol (Surr)	53		10 - 120	10/03/20 14:15	10/06/20 02:05	1
Nitrobenzene-d5 (Surr)	85		26 - 120	10/03/20 14:15	10/06/20 02:05	1
Phenol-d5 (Surr)	34		11 - 120	10/03/20 14:15	10/06/20 02:05	1
p-Terphenyl-d14	122		64 - 127	10/03/20 14:15	10/06/20 02:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 06:25	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 06:25	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 06:25	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4000		180	44	ug/L			10/05/20 06:53	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.8		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		10.0	1.7	mg/L			10/04/20 03:13	5
Ammonia	0.88	B	0.020	0.0090	mg/L			10/05/20 08:45	1
Nitrate Nitrite as N	0.031	J	0.050	0.020	mg/L			10/02/20 21:43	1
Nitrite as N	0.022	J	0.050	0.020	mg/L			10/02/20 18:00	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:29	1
Nitrate as N	ND		0.050	0.020	mg/L			10/02/20 18:00	1
Alkalinity, Total	271		5.0	0.79	mg/L			10/05/20 13:35	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF	0.1	0.1	SU			10/04/20 12:07	1
Temperature	15.5	HF	0.001	0.001	Degrees C			10/04/20 12:07	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Date Collected: 10/01/20 09:10

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 13:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 13:39	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 13:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		10/07/20 13:39	1
4-Bromofluorobenzene (Surr)	100		73 - 120		10/07/20 13:39	1
Dibromofluoromethane (Surr)	105		75 - 123		10/07/20 13:39	1
Toluene-d8 (Surr)	97		80 - 120		10/07/20 13:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.6		2.4	0.17	ug/L		10/03/20 14:15	10/06/20 02:34	5
Acenaphthylene	0.53	J	1.4	0.27	ug/L		10/03/20 14:15	10/06/20 02:34	5
Anthracene	ND		2.4	0.16	ug/L		10/03/20 14:15	10/06/20 02:34	5
Chrysene	ND		2.4	0.35	ug/L		10/03/20 14:15	10/06/20 02:34	5
Fluoranthene	ND		2.4	0.38	ug/L		10/03/20 14:15	10/06/20 02:34	5
Fluorene	ND		2.4	0.28	ug/L		10/03/20 14:15	10/06/20 02:34	5
Naphthalene	ND		4.8	0.30	ug/L		10/03/20 14:15	10/06/20 02:34	5
Phenanthrene	ND		0.95	0.30	ug/L		10/03/20 14:15	10/06/20 02:34	5
Pyrene	ND		2.4	0.36	ug/L		10/03/20 14:15	10/06/20 02:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	113		24 - 146	10/03/20 14:15	10/06/20 02:34	5
2-Fluorobiphenyl	88		37 - 120	10/03/20 14:15	10/06/20 02:34	5
2-Fluorophenol (Surr)	47		10 - 120	10/03/20 14:15	10/06/20 02:34	5
Nitrobenzene-d5 (Surr)	70		26 - 120	10/03/20 14:15	10/06/20 02:34	5
Phenol-d5 (Surr)	30		11 - 120	10/03/20 14:15	10/06/20 02:34	5
p-Terphenyl-d14	105		64 - 127	10/03/20 14:15	10/06/20 02:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 06:46	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 06:46	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 06:46	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	98		4.0	1.0	ug/L			10/02/20 15:24	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4.7		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:37	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Date Collected: 10/01/20 09:10

Matrix: Water

Date Received: 10/02/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	121		20.0	3.5	mg/L			10/04/20 03:27	10
Ammonia	0.54	B	0.020	0.0090	mg/L			10/05/20 08:46	1
Nitrate Nitrite as N	0.024	J	0.050	0.020	mg/L			10/02/20 21:45	1
Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 18:01	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:31	1
Nitrate as N	0.024	J	0.050	0.020	mg/L			10/02/20 18:01	1
Alkalinity, Total	404		5.0	0.79	mg/L			10/05/20 13:55	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3	HF	0.1	0.1	SU			10/04/20 12:08	1
Temperature	16.7	HF	0.001	0.001	Degrees C			10/04/20 12:08	1

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-175904-7

Date Collected: 10/01/20 11:15

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/03/20 12:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/03/20 12:44	1
Toluene	ND		1.0	0.51	ug/L			10/03/20 12:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/03/20 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120					10/03/20 12:44	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/03/20 12:44	1
Dibromofluoromethane (Surr)	111		75 - 123					10/03/20 12:44	1
Toluene-d8 (Surr)	97		80 - 120					10/03/20 12:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.49	0.035	ug/L		10/07/20 09:04	10/08/20 09:29	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/07/20 09:04	10/08/20 09:29	1
Anthracene	ND		0.49	0.033	ug/L		10/07/20 09:04	10/08/20 09:29	1
Chrysene	ND		0.49	0.072	ug/L		10/07/20 09:04	10/08/20 09:29	1
Fluoranthene	ND		0.49	0.078	ug/L		10/07/20 09:04	10/08/20 09:29	1
Fluorene	ND		0.49	0.056	ug/L		10/07/20 09:04	10/08/20 09:29	1
Naphthalene	ND		0.97	0.062	ug/L		10/07/20 09:04	10/08/20 09:29	1
Phenanthrene	0.064	J B	0.19	0.060	ug/L		10/07/20 09:04	10/08/20 09:29	1
Pyrene	ND		0.49	0.074	ug/L		10/07/20 09:04	10/08/20 09:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	113		24 - 146				10/07/20 09:04	10/08/20 09:29	1
2-Fluorobiphenyl	97		37 - 120				10/07/20 09:04	10/08/20 09:29	1
2-Fluorophenol (Surr)	57		10 - 120				10/07/20 09:04	10/08/20 09:29	1
Nitrobenzene-d5 (Surr)	87		26 - 120				10/07/20 09:04	10/08/20 09:29	1
Phenol-d5 (Surr)	37		11 - 120				10/07/20 09:04	10/08/20 09:29	1
p-Terphenyl-d14	113		64 - 127				10/07/20 09:04	10/08/20 09:29	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-175904-7

Date Collected: 10/01/20 11:15

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 07:07	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 07:07	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 07:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/06/20 22:14	10/07/20 12:19	1

Surrogate Summary

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (77-120)	BFB (73-120)	DBFM (75-123)	TOL (80-120)
480-175904-1	MWC-12	108	102	104	97
480-175904-2	MWC-16	108	105	104	98
480-175904-3	MW-24S	111	104	105	97
480-175904-4	MW-25S	113	101	104	97
480-175904-5	MW-28S	112	100	107	96
480-175904-6	MWC-11	112	100	105	97
480-175904-7	EQUIPMENT BLANK	111	101	111	97
LCS 480-552341/5	Lab Control Sample	103	100	107	96
LCS 480-552736/5	Lab Control Sample	111	104	113	104
MB 480-552341/7	Method Blank	106	91	106	90
MB 480-552736/7	Method Blank	107	103	102	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (24-146)	FBP (37-120)	2FP (10-120)	NBZ (26-120)	PHL (11-120)	TPHd14 (64-127)
480-175904-1	MWC-12	129	90	49	79	32	109
480-175904-1 - DL	MWC-12	121	87	43	69	29	101
480-175904-2	MWC-16	150 X	96	50	72	29	108
480-175904-3	MW-24S	131	93	53	84	34	118
480-175904-4	MW-25S	118	87	50	80	32	86
480-175904-5	MW-28S	131	94	53	85	34	122
480-175904-6	MWC-11	113	88	47	70	30	105
480-175904-7	EQUIPMENT BLANK	113	97	57	87	37	113
LCS 480-552351/2-A	Lab Control Sample	122	94	57	94	39	104
LCS 480-552780/2-A	Lab Control Sample	116	91	57	93	40	105
LCSD 480-552780/3-A	Lab Control Sample Dup	121	92	56	92	38	104
MB 480-552351/1-A	Method Blank	106	92	55	84	35	111
MB 480-552780/1-A	Method Blank	111	92	55	86	38	114

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-552341/7

Matrix: Water

Analysis Batch: 552341

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/03/20 10:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/03/20 10:54	1
Toluene	ND		1.0	0.51	ug/L			10/03/20 10:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/03/20 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		10/03/20 10:54	1
4-Bromofluorobenzene (Surr)	91		73 - 120		10/03/20 10:54	1
Dibromofluoromethane (Surr)	106		75 - 123		10/03/20 10:54	1
Toluene-d8 (Surr)	90		80 - 120		10/03/20 10:54	1

Lab Sample ID: LCS 480-552341/5

Matrix: Water

Analysis Batch: 552341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.7		ug/L		99	71 - 124
Ethylbenzene	25.0	22.3		ug/L		89	77 - 123
Toluene	25.0	22.7		ug/L		91	80 - 122
Xylenes, Total	50.0	45.9		ug/L		92	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	107		75 - 123
Toluene-d8 (Surr)	96		80 - 120

Lab Sample ID: MB 480-552736/7

Matrix: Water

Analysis Batch: 552736

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 10:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 10:15	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 10:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 10:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/07/20 10:15	1
4-Bromofluorobenzene (Surr)	103		73 - 120		10/07/20 10:15	1
Dibromofluoromethane (Surr)	102		75 - 123		10/07/20 10:15	1
Toluene-d8 (Surr)	101		80 - 120		10/07/20 10:15	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

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

Lab Sample ID: LCS 480-552736/5

Matrix: Water

Analysis Batch: 552736

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.7		ug/L		103	71 - 124
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123
Toluene	25.0	25.0		ug/L		100	80 - 122
Xylenes, Total	50.0	52.1		ug/L		104	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		77 - 120
4-Bromofluorobenzene (Surr)	104		73 - 120
Dibromofluoromethane (Surr)	113		75 - 123
Toluene-d8 (Surr)	104		80 - 120

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

Lab Sample ID: MB 480-552351/1-A

Matrix: Water

Analysis Batch: 552496

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552351

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.50	0.036	ug/L		10/03/20 14:15	10/05/20 17:33	1
Acenaphthylene	ND		0.30	0.056	ug/L		10/03/20 14:15	10/05/20 17:33	1
Anthracene	ND		0.50	0.034	ug/L		10/03/20 14:15	10/05/20 17:33	1
Chrysene	ND		0.50	0.074	ug/L		10/03/20 14:15	10/05/20 17:33	1
Fluoranthene	ND		0.50	0.080	ug/L		10/03/20 14:15	10/05/20 17:33	1
Fluorene	ND		0.50	0.058	ug/L		10/03/20 14:15	10/05/20 17:33	1
Naphthalene	ND		1.0	0.064	ug/L		10/03/20 14:15	10/05/20 17:33	1
Phenanthrene	0.0746	J	0.20	0.062	ug/L		10/03/20 14:15	10/05/20 17:33	1
Pyrene	ND		0.50	0.076	ug/L		10/03/20 14:15	10/05/20 17:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	106		24 - 146	10/03/20 14:15	10/05/20 17:33	1
2-Fluorobiphenyl	92		37 - 120	10/03/20 14:15	10/05/20 17:33	1
2-Fluorophenol (Surr)	55		10 - 120	10/03/20 14:15	10/05/20 17:33	1
Nitrobenzene-d5 (Surr)	84		26 - 120	10/03/20 14:15	10/05/20 17:33	1
Phenol-d5 (Surr)	35		11 - 120	10/03/20 14:15	10/05/20 17:33	1
p-Terphenyl-d14	111		64 - 127	10/03/20 14:15	10/05/20 17:33	1

Lab Sample ID: LCS 480-552351/2-A

Matrix: Water

Analysis Batch: 552496

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	8.00	7.39		ug/L		92	62 - 120
Acenaphthylene	8.00	7.85		ug/L		98	57 - 120
Anthracene	8.00	8.03		ug/L		100	65 - 123
Chrysene	8.00	7.95		ug/L		99	75 - 120
Fluoranthene	8.00	8.41		ug/L		105	74 - 133
Fluorene	8.00	7.81		ug/L		98	64 - 120
Naphthalene	8.00	7.10		ug/L		89	40 - 138

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

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

Lab Sample ID: LCS 480-552351/2-A

Matrix: Water

Analysis Batch: 552496

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552351

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenanthrene	8.00	8.01		ug/L		100	71 - 122
Pyrene	8.00	7.86		ug/L		98	65 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	122		24 - 146
2-Fluorobiphenyl	94		37 - 120
2-Fluorophenol (Surr)	57		10 - 120
Nitrobenzene-d5 (Surr)	94		26 - 120
Phenol-d5 (Surr)	39		11 - 120
p-Terphenyl-d14	104		64 - 127

Lab Sample ID: MB 480-552780/1-A

Matrix: Water

Analysis Batch: 552867

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552780

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.50	0.036	ug/L		10/07/20 09:04	10/08/20 08:04	1
Acenaphthylene	ND		0.30	0.056	ug/L		10/07/20 09:04	10/08/20 08:04	1
Anthracene	ND		0.50	0.034	ug/L		10/07/20 09:04	10/08/20 08:04	1
Chrysene	ND		0.50	0.074	ug/L		10/07/20 09:04	10/08/20 08:04	1
Fluoranthene	ND		0.50	0.080	ug/L		10/07/20 09:04	10/08/20 08:04	1
Fluorene	ND		0.50	0.058	ug/L		10/07/20 09:04	10/08/20 08:04	1
Naphthalene	ND		1.0	0.064	ug/L		10/07/20 09:04	10/08/20 08:04	1
Phenanthrene	0.106	J	0.20	0.062	ug/L		10/07/20 09:04	10/08/20 08:04	1
Pyrene	ND		0.50	0.076	ug/L		10/07/20 09:04	10/08/20 08:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	111		24 - 146	10/07/20 09:04	10/08/20 08:04	1
2-Fluorobiphenyl	92		37 - 120	10/07/20 09:04	10/08/20 08:04	1
2-Fluorophenol (Surr)	55		10 - 120	10/07/20 09:04	10/08/20 08:04	1
Nitrobenzene-d5 (Surr)	86		26 - 120	10/07/20 09:04	10/08/20 08:04	1
Phenol-d5 (Surr)	38		11 - 120	10/07/20 09:04	10/08/20 08:04	1
p-Terphenyl-d14	114		64 - 127	10/07/20 09:04	10/08/20 08:04	1

Lab Sample ID: LCS 480-552780/2-A

Matrix: Water

Analysis Batch: 552867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	8.00	7.17		ug/L		90	62 - 120
Acenaphthylene	8.00	7.73		ug/L		97	57 - 120
Anthracene	8.00	7.81		ug/L		98	65 - 123
Chrysene	8.00	7.85		ug/L		98	75 - 120
Fluoranthene	8.00	8.44		ug/L		105	74 - 133
Fluorene	8.00	7.69		ug/L		96	64 - 120
Naphthalene	8.00	6.92		ug/L		87	40 - 138
Phenanthrene	8.00	7.83		ug/L		98	71 - 122
Pyrene	8.00	7.80		ug/L		97	65 - 126

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

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

Lab Sample ID: LCS 480-552780/2-A

Matrix: Water

Analysis Batch: 552867

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552780

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	116		24 - 146
2-Fluorobiphenyl	91		37 - 120
2-Fluorophenol (Surr)	57		10 - 120
Nitrobenzene-d5 (Surr)	93		26 - 120
Phenol-d5 (Surr)	40		11 - 120
p-Terphenyl-d14	105		64 - 127

Lab Sample ID: LCSD 480-552780/3-A

Matrix: Water

Analysis Batch: 552867

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 552780

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	8.00	7.19		ug/L		90	62 - 120	0	30
Acenaphthylene	8.00	7.82		ug/L		98	57 - 120	1	30
Anthracene	8.00	7.88		ug/L		98	65 - 123	1	25
Chrysene	8.00	7.89		ug/L		99	75 - 120	1	18
Fluoranthene	8.00	8.50		ug/L		106	74 - 133	1	26
Fluorene	8.00	7.66		ug/L		96	64 - 120	0	28
Naphthalene	8.00	6.87		ug/L		86	40 - 138	1	32
Phenanthrene	8.00	7.83		ug/L		98	71 - 122	0	24
Pyrene	8.00	7.81		ug/L		98	65 - 126	0	22

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	121		24 - 146
2-Fluorobiphenyl	92		37 - 120
2-Fluorophenol (Surr)	56		10 - 120
Nitrobenzene-d5 (Surr)	92		26 - 120
Phenol-d5 (Surr)	38		11 - 120
p-Terphenyl-d14	104		64 - 127

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

Lab Sample ID: MB 460-729834/1-A

Matrix: Water

Analysis Batch: 729930

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 729834

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 01:54	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 01:54	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 01:54	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 01:54	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 01:54	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 01:54	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 01:54	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

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

Lab Sample ID: LCS 460-729834/4-A
Matrix: Water
Analysis Batch: 729930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729834

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.742		ug/L		93	44 - 150
Benzo[a]pyrene	0.800	0.720		ug/L		90	38 - 139
Benzo[b]fluoranthene	0.800	0.750		ug/L		94	32 - 148
Benzo[g,h,i]perylene	0.800	0.838		ug/L		105	20 - 150
Benzo[k]fluoranthene	0.800	0.742		ug/L		93	44 - 150
Dibenz(a,h)anthracene	0.800	0.811		ug/L		101	23 - 134
Indeno[1,2,3-cd]pyrene	0.800	0.810		ug/L		101	21 - 126

Lab Sample ID: LCSD 460-729834/5-A
Matrix: Water
Analysis Batch: 729930

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 729834

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]anthracene	0.800	0.747		ug/L		93	44 - 150	1	30
Benzo[a]pyrene	0.800	0.665		ug/L		83	38 - 139	8	30
Benzo[b]fluoranthene	0.800	0.756		ug/L		95	32 - 148	1	30
Benzo[g,h,i]perylene	0.800	0.826		ug/L		103	20 - 150	1	30
Benzo[k]fluoranthene	0.800	0.728		ug/L		91	44 - 150	2	30
Dibenz(a,h)anthracene	0.800	0.811		ug/L		101	23 - 134	0	30
Indeno[1,2,3-cd]pyrene	0.800	0.804		ug/L		101	21 - 126	1	30

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-552247/3
Matrix: Water
Analysis Batch: 552247

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			10/02/20 10:28	1

Lab Sample ID: LCS 480-552247/4
Matrix: Water
Analysis Batch: 552247

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	21.3		ug/L		110	85 - 120

Lab Sample ID: LCSD 480-552247/5
Matrix: Water
Analysis Batch: 552247

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	19.2	20.5		ug/L		107	85 - 120	3	50

Lab Sample ID: MB 480-552402/6
Matrix: Water
Analysis Batch: 552402

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			10/04/20 23:31	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: LCS 480-552402/7
Matrix: Water
Analysis Batch: 552402

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	17.0		ug/L		88	85 - 120

Lab Sample ID: MB 480-552519/3
Matrix: Water
Analysis Batch: 552519

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			10/05/20 16:30	1

Lab Sample ID: LCS 480-552519/4
Matrix: Water
Analysis Batch: 552519

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	19.2	18.1		ug/L		94	85 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-552292/1-A
Matrix: Water
Analysis Batch: 552611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 552292

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 22:40	1

Lab Sample ID: LCS 480-552292/2-A
Matrix: Water
Analysis Batch: 552611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552292

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	9.75		mg/L		98	80 - 120

Lab Sample ID: LCSD 480-552292/3-A
Matrix: Water
Analysis Batch: 552611

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 552292

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	10.0	9.81		mg/L		98	80 - 120	1	20

Lab Sample ID: 480-175904-1 MS
Matrix: Water
Analysis Batch: 552611

Client Sample ID: MWC-12
Prep Type: Total/NA
Prep Batch: 552292

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.8		10.0	12.47		mg/L		97	75 - 125

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

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

Lab Sample ID: 480-175904-1 MSD

Matrix: Water

Analysis Batch: 552611

Client Sample ID: MWC-12

Prep Type: Total/NA

Prep Batch: 552292

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	2.8		10.0	12.69		mg/L		99	75 - 125	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-552358/29

Matrix: Water

Analysis Batch: 552358

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			10/03/20 22:59	1

Lab Sample ID: LCS 480-552358/28

Matrix: Water

Analysis Batch: 552358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	49.26		mg/L		99	90 - 110

Lab Sample ID: 480-175904-6 MS

Matrix: Water

Analysis Batch: 552358

Client Sample ID: MWC-11

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	121		500	644.3		mg/L		105	80 - 120

Lab Sample ID: MB 480-552525/28

Matrix: Water

Analysis Batch: 552525

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			10/06/20 04:16	1

Lab Sample ID: LCS 480-552525/27

Matrix: Water

Analysis Batch: 552525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	50.0	48.07		mg/L		96	90 - 110

Lab Sample ID: 480-175904-2 MS

Matrix: Water

Analysis Batch: 552525

Client Sample ID: MWC-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1320		1000	2186	E	mg/L		87	80 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-175904-2 MSD

Matrix: Water

Analysis Batch: 552525

Client Sample ID: MWC-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1320		1000	2147	E	mg/L		83	80 - 120	2	15

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-552466/27

Matrix: Water

Analysis Batch: 552466

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020	0.0090	mg/L			10/05/20 08:58	1

Lab Sample ID: MB 480-552466/3

Matrix: Water

Analysis Batch: 552466

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0137	J	0.020	0.0090	mg/L			10/05/20 08:38	1

Lab Sample ID: MB 480-552466/51

Matrix: Water

Analysis Batch: 552466

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.020	0.0090	mg/L			10/05/20 09:19	1

Lab Sample ID: LCS 480-552466/28

Matrix: Water

Analysis Batch: 552466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.02		mg/L		102	90 - 110

Lab Sample ID: LCS 480-552466/4

Matrix: Water

Analysis Batch: 552466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.02		mg/L		102	90 - 110

Lab Sample ID: LCS 480-552466/52

Matrix: Water

Analysis Batch: 552466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.02		mg/L		102	90 - 110

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 480-552310/3

Matrix: Water

Analysis Batch: 552310

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 17:51	1

Lab Sample ID: LCS 480-552310/4

Matrix: Water

Analysis Batch: 552310

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	1.50	1.49		mg/L		99	90 - 110

Lab Sample ID: 480-175904-1 MS

Matrix: Water

Analysis Batch: 552310

Client Sample ID: MWC-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	ND		1.00	0.965		mg/L		97	90 - 110

Lab Sample ID: 480-175904-1 DU

Matrix: Water

Analysis Batch: 552310

Client Sample ID: MWC-12

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Nitrite as N	ND		0.0219	J	mg/L		NC	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 480-552326/28

Matrix: Water

Analysis Batch: 552326

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 21:25	1

Lab Sample ID: MB 480-552326/4

Matrix: Water

Analysis Batch: 552326

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 20:58	1

Lab Sample ID: LCS 480-552326/29

Matrix: Water

Analysis Batch: 552326

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.50	1.52		mg/L		101	90 - 110

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: LCS 480-552326/5

Matrix: Water

Analysis Batch: 552326

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	1.50	1.56		mg/L		104	90 - 110

Lab Sample ID: 480-175904-3 MS

Matrix: Water

Analysis Batch: 552326

Client Sample ID: MW-24S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.30		1.00	1.24		mg/L		94	90 - 110

Lab Sample ID: 480-175904-3 DU

Matrix: Water

Analysis Batch: 552326

Client Sample ID: MW-24S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate Nitrite as N	0.30		0.296		mg/L		0	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-552318/1-A

Matrix: Water

Analysis Batch: 552349

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552318

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:09	1

Lab Sample ID: LCS 480-552318/2-A

Matrix: Water

Analysis Batch: 552349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552318

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.399		mg/L		100	90 - 110

Lab Sample ID: LCS 480-552318/3-A

Matrix: Water

Analysis Batch: 552349

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 552318

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.258		mg/L		103	90 - 110

Lab Sample ID: MB 480-552725/1-A

Matrix: Water

Analysis Batch: 552844

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 552725

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/06/20 22:14	10/07/20 12:13	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 480-552725/2-A
Matrix: Water
Analysis Batch: 552844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.380		mg/L		95	90 - 110

Lab Sample ID: LCS 480-552725/3-A
Matrix: Water
Analysis Batch: 552844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 552725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.237		mg/L		95	90 - 110

Lab Sample ID: 480-175904-7 MS
Matrix: Water
Analysis Batch: 552844

Client Sample ID: EQUIPMENT BLANK
Prep Type: Total/NA
Prep Batch: 552725

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		0.100	0.0957		mg/L		96	90 - 110

Lab Sample ID: 480-175904-7 DU
Matrix: Water
Analysis Batch: 552844

Client Sample ID: EQUIPMENT BLANK
Prep Type: Total/NA
Prep Batch: 552725

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cyanide, Total	ND		ND		mg/L		NC	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-552518/4
Matrix: Water
Analysis Batch: 552518

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0	0.79	mg/L			10/05/20 12:46	1

Lab Sample ID: LCS 480-552518/5
Matrix: Water
Analysis Batch: 552518

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	98.40		mg/L		98	90 - 110

Lab Sample ID: 480-175904-5 MS
Matrix: Water
Analysis Batch: 552518

Client Sample ID: MW-28S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	271		100	333.0		mg/L		62	60 - 140

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 480-175904-6 DU
Matrix: Water
Analysis Batch: 552518

Client Sample ID: MWC-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Alkalinity, Total	404		405.4		mg/L		0.3	20

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-553068/3
Matrix: Water
Analysis Batch: 553068

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10	0.075	mg/L			10/08/20 10:20	1

Lab Sample ID: LCS 480-553068/4
Matrix: Water
Analysis Batch: 553068

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.00	2.06		mg/L		103	90 - 110

Lab Sample ID: 480-175904-4 MS
Matrix: Water
Analysis Batch: 553068

Client Sample ID: MW-25S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	0.15	HF	2.00	2.20		mg/L		102	70 - 130

Lab Sample ID: 480-175904-6 MS
Matrix: Water
Analysis Batch: 553068

Client Sample ID: MWC-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	ND	HF	2.00	2.03		mg/L		102	70 - 130

Lab Sample ID: 480-175904-1 DU
Matrix: Water
Analysis Batch: 553068

Client Sample ID: MWC-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175904-2 DU
Matrix: Water
Analysis Batch: 553068

Client Sample ID: MWC-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ferrous Iron	0.28	HF	0.274		mg/L		2	20

QC Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Method: SM 3500 FE D - Iron, Ferrous and Ferric (Continued)

Lab Sample ID: 480-175904-3 DU

Matrix: Water

Analysis Batch: 553068

Client Sample ID: MW-24S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.12	HF	0.128		mg/L		10	20

Lab Sample ID: 480-175904-4 DU

Matrix: Water

Analysis Batch: 553068

Client Sample ID: MW-25S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.15	HF	0.134		mg/L		13	20

Lab Sample ID: 480-175904-5 DU

Matrix: Water

Analysis Batch: 553068

Client Sample ID: MW-28S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Lab Sample ID: 480-175904-6 DU

Matrix: Water

Analysis Batch: 553068

Client Sample ID: MWC-11

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-552385/1

Matrix: Water

Analysis Batch: 552385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

GC/MS VOA

Analysis Batch: 552341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	8260C	
MB 480-552341/7	Method Blank	Total/NA	Water	8260C	
LCS 480-552341/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 552736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	8260C	
480-175904-2	MWC-16	Total/NA	Water	8260C	
480-175904-3	MW-24S	Total/NA	Water	8260C	
480-175904-4	MW-25S	Total/NA	Water	8260C	
480-175904-5	MW-28S	Total/NA	Water	8260C	
480-175904-6	MWC-11	Total/NA	Water	8260C	
MB 480-552736/7	Method Blank	Total/NA	Water	8260C	
LCS 480-552736/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 552351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1 - DL	MWC-12	Total/NA	Water	3510C	
480-175904-1	MWC-12	Total/NA	Water	3510C	
480-175904-2	MWC-16	Total/NA	Water	3510C	
480-175904-3	MW-24S	Total/NA	Water	3510C	
480-175904-4	MW-25S	Total/NA	Water	3510C	
480-175904-5	MW-28S	Total/NA	Water	3510C	
480-175904-6	MWC-11	Total/NA	Water	3510C	
MB 480-552351/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-552351/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 552496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	8270D LL	552351
480-175904-2	MWC-16	Total/NA	Water	8270D LL	552351
480-175904-3	MW-24S	Total/NA	Water	8270D LL	552351
480-175904-4	MW-25S	Total/NA	Water	8270D LL	552351
480-175904-5	MW-28S	Total/NA	Water	8270D LL	552351
480-175904-6	MWC-11	Total/NA	Water	8270D LL	552351
MB 480-552351/1-A	Method Blank	Total/NA	Water	8270D LL	552351
LCS 480-552351/2-A	Lab Control Sample	Total/NA	Water	8270D LL	552351

Analysis Batch: 552651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1 - DL	MWC-12	Total/NA	Water	8270D LL	552351

Prep Batch: 552780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	3510C	
MB 480-552780/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-552780/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-552780/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

GC/MS Semi VOA

Analysis Batch: 552867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	8270D LL	552780
MB 480-552780/1-A	Method Blank	Total/NA	Water	8270D LL	552780
LCS 480-552780/2-A	Lab Control Sample	Total/NA	Water	8270D LL	552780
LCSD 480-552780/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	552780

Prep Batch: 729834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	3510C	
480-175904-2	MWC-16	Total/NA	Water	3510C	
480-175904-3	MW-24S	Total/NA	Water	3510C	
480-175904-4	MW-25S	Total/NA	Water	3510C	
480-175904-5	MW-28S	Total/NA	Water	3510C	
480-175904-6	MWC-11	Total/NA	Water	3510C	
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	3510C	
MB 460-729834/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-729834/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-729834/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 729930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	8270D SIM	729834
480-175904-2	MWC-16	Total/NA	Water	8270D SIM	729834
480-175904-3	MW-24S	Total/NA	Water	8270D SIM	729834
480-175904-4	MW-25S	Total/NA	Water	8270D SIM	729834
480-175904-5	MW-28S	Total/NA	Water	8270D SIM	729834
480-175904-6	MWC-11	Total/NA	Water	8270D SIM	729834
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	8270D SIM	729834
MB 460-729834/1-A	Method Blank	Total/NA	Water	8270D SIM	729834
LCS 460-729834/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	729834
LCSD 460-729834/5-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	729834

GC VOA

Analysis Batch: 552247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-2	MWC-16	Total/NA	Water	RSK-175	
480-175904-4	MW-25S	Total/NA	Water	RSK-175	
480-175904-6	MWC-11	Total/NA	Water	RSK-175	
MB 480-552247/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-552247/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 480-552247/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	

Analysis Batch: 552402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-3	MW-24S	Total/NA	Water	RSK-175	
480-175904-5	MW-28S	Total/NA	Water	RSK-175	
MB 480-552402/6	Method Blank	Total/NA	Water	RSK-175	
LCS 480-552402/7	Lab Control Sample	Total/NA	Water	RSK-175	

QC Association Summary

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

GC VOA

Analysis Batch: 552519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	RSK-175	
MB 480-552519/3	Method Blank	Total/NA	Water	RSK-175	
LCS 480-552519/4	Lab Control Sample	Total/NA	Water	RSK-175	

Metals

Prep Batch: 552292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	3005A	
480-175904-2	MWC-16	Total/NA	Water	3005A	
480-175904-3	MW-24S	Total/NA	Water	3005A	
480-175904-4	MW-25S	Total/NA	Water	3005A	
480-175904-5	MW-28S	Total/NA	Water	3005A	
480-175904-6	MWC-11	Total/NA	Water	3005A	
MB 480-552292/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-552292/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-552292/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-175904-1 MS	MWC-12	Total/NA	Water	3005A	
480-175904-1 MSD	MWC-12	Total/NA	Water	3005A	

Analysis Batch: 552611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	6010C	552292
480-175904-2	MWC-16	Total/NA	Water	6010C	552292
480-175904-3	MW-24S	Total/NA	Water	6010C	552292
480-175904-4	MW-25S	Total/NA	Water	6010C	552292
480-175904-5	MW-28S	Total/NA	Water	6010C	552292
480-175904-6	MWC-11	Total/NA	Water	6010C	552292
MB 480-552292/1-A	Method Blank	Total/NA	Water	6010C	552292
LCS 480-552292/2-A	Lab Control Sample	Total/NA	Water	6010C	552292
LCSD 480-552292/3-A	Lab Control Sample Dup	Total/NA	Water	6010C	552292
480-175904-1 MS	MWC-12	Total/NA	Water	6010C	552292
480-175904-1 MSD	MWC-12	Total/NA	Water	6010C	552292

General Chemistry

Analysis Batch: 552310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	353.2	
480-175904-2	MWC-16	Total/NA	Water	353.2	
480-175904-3	MW-24S	Total/NA	Water	353.2	
480-175904-4	MW-25S	Total/NA	Water	353.2	
480-175904-5	MW-28S	Total/NA	Water	353.2	
480-175904-6	MWC-11	Total/NA	Water	353.2	
MB 480-552310/3	Method Blank	Total/NA	Water	353.2	
LCS 480-552310/4	Lab Control Sample	Total/NA	Water	353.2	
480-175904-1 MS	MWC-12	Total/NA	Water	353.2	
480-175904-1 DU	MWC-12	Total/NA	Water	353.2	

Prep Batch: 552318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	9012B	

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QC Association Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

General Chemistry (Continued)

Prep Batch: 552318 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-2	MWC-16	Total/NA	Water	9012B	
480-175904-3	MW-24S	Total/NA	Water	9012B	
480-175904-4	MW-25S	Total/NA	Water	9012B	
480-175904-5	MW-28S	Total/NA	Water	9012B	
480-175904-6	MWC-11	Total/NA	Water	9012B	
MB 480-552318/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-552318/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-552318/3-A	Lab Control Sample	Total/NA	Water	9012B	

Analysis Batch: 552326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	353.2	
480-175904-2	MWC-16	Total/NA	Water	353.2	
480-175904-3	MW-24S	Total/NA	Water	353.2	
480-175904-4	MW-25S	Total/NA	Water	353.2	
480-175904-5	MW-28S	Total/NA	Water	353.2	
480-175904-6	MWC-11	Total/NA	Water	353.2	
MB 480-552326/28	Method Blank	Total/NA	Water	353.2	
MB 480-552326/4	Method Blank	Total/NA	Water	353.2	
LCS 480-552326/29	Lab Control Sample	Total/NA	Water	353.2	
LCS 480-552326/5	Lab Control Sample	Total/NA	Water	353.2	
480-175904-3 MS	MW-24S	Total/NA	Water	353.2	
480-175904-3 DU	MW-24S	Total/NA	Water	353.2	

Analysis Batch: 552344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	Nitrate by calc	
480-175904-2	MWC-16	Total/NA	Water	Nitrate by calc	
480-175904-3	MW-24S	Total/NA	Water	Nitrate by calc	
480-175904-4	MW-25S	Total/NA	Water	Nitrate by calc	
480-175904-5	MW-28S	Total/NA	Water	Nitrate by calc	
480-175904-6	MWC-11	Total/NA	Water	Nitrate by calc	

Analysis Batch: 552349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	9012B	552318
480-175904-2	MWC-16	Total/NA	Water	9012B	552318
480-175904-3	MW-24S	Total/NA	Water	9012B	552318
480-175904-4	MW-25S	Total/NA	Water	9012B	552318
480-175904-5	MW-28S	Total/NA	Water	9012B	552318
480-175904-6	MWC-11	Total/NA	Water	9012B	552318
MB 480-552318/1-A	Method Blank	Total/NA	Water	9012B	552318
LCS 480-552318/2-A	Lab Control Sample	Total/NA	Water	9012B	552318
LCS 480-552318/3-A	Lab Control Sample	Total/NA	Water	9012B	552318

Analysis Batch: 552358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	300.0	
480-175904-3	MW-24S	Total/NA	Water	300.0	
480-175904-4	MW-25S	Total/NA	Water	300.0	
480-175904-5	MW-28S	Total/NA	Water	300.0	

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QC Association Summary

Client: AECOM

Job ID: 480-175904-1

General Chemistry (Continued)

Analysis Batch: 552358 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-6	MWC-11	Total/NA	Water	300.0	
MB 480-552358/29	Method Blank	Total/NA	Water	300.0	
LCS 480-552358/28	Lab Control Sample	Total/NA	Water	300.0	
480-175904-6 MS	MWC-11	Total/NA	Water	300.0	

Analysis Batch: 552385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	SM 4500 H+ B	
480-175904-2	MWC-16	Total/NA	Water	SM 4500 H+ B	
480-175904-3	MW-24S	Total/NA	Water	SM 4500 H+ B	
480-175904-4	MW-25S	Total/NA	Water	SM 4500 H+ B	
480-175904-5	MW-28S	Total/NA	Water	SM 4500 H+ B	
480-175904-6	MWC-11	Total/NA	Water	SM 4500 H+ B	
LCS 480-552385/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 552466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	350.1	
480-175904-2	MWC-16	Total/NA	Water	350.1	
480-175904-3	MW-24S	Total/NA	Water	350.1	
480-175904-4	MW-25S	Total/NA	Water	350.1	
480-175904-5	MW-28S	Total/NA	Water	350.1	
480-175904-6	MWC-11	Total/NA	Water	350.1	
MB 480-552466/27	Method Blank	Total/NA	Water	350.1	
MB 480-552466/3	Method Blank	Total/NA	Water	350.1	
MB 480-552466/51	Method Blank	Total/NA	Water	350.1	
LCS 480-552466/28	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-552466/4	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-552466/52	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 552518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	SM 2320B	
480-175904-2	MWC-16	Total/NA	Water	SM 2320B	
480-175904-3	MW-24S	Total/NA	Water	SM 2320B	
480-175904-4	MW-25S	Total/NA	Water	SM 2320B	
480-175904-5	MW-28S	Total/NA	Water	SM 2320B	
480-175904-6	MWC-11	Total/NA	Water	SM 2320B	
MB 480-552518/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-552518/5	Lab Control Sample	Total/NA	Water	SM 2320B	
480-175904-5 MS	MW-28S	Total/NA	Water	SM 2320B	
480-175904-6 DU	MWC-11	Total/NA	Water	SM 2320B	

Analysis Batch: 552525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-2	MWC-16	Total/NA	Water	300.0	
MB 480-552525/28	Method Blank	Total/NA	Water	300.0	
LCS 480-552525/27	Lab Control Sample	Total/NA	Water	300.0	
480-175904-2 MS	MWC-16	Total/NA	Water	300.0	
480-175904-2 MSD	MWC-16	Total/NA	Water	300.0	

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QC Association Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

General Chemistry

Prep Batch: 552725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	9012B	
MB 480-552725/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-552725/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-552725/3-A	Lab Control Sample	Total/NA	Water	9012B	
480-175904-7 MS	EQUIPMENT BLANK	Total/NA	Water	9012B	
480-175904-7 DU	EQUIPMENT BLANK	Total/NA	Water	9012B	

Analysis Batch: 552844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-7	EQUIPMENT BLANK	Total/NA	Water	9012B	552725
MB 480-552725/1-A	Method Blank	Total/NA	Water	9012B	552725
LCS 480-552725/2-A	Lab Control Sample	Total/NA	Water	9012B	552725
LCS 480-552725/3-A	Lab Control Sample	Total/NA	Water	9012B	552725
480-175904-7 MS	EQUIPMENT BLANK	Total/NA	Water	9012B	552725
480-175904-7 DU	EQUIPMENT BLANK	Total/NA	Water	9012B	552725

Analysis Batch: 553068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-175904-1	MWC-12	Total/NA	Water	SM 3500 FE D	
480-175904-2	MWC-16	Total/NA	Water	SM 3500 FE D	
480-175904-3	MW-24S	Total/NA	Water	SM 3500 FE D	
480-175904-4	MW-25S	Total/NA	Water	SM 3500 FE D	
480-175904-5	MW-28S	Total/NA	Water	SM 3500 FE D	
480-175904-6	MWC-11	Total/NA	Water	SM 3500 FE D	
MB 480-553068/3	Method Blank	Total/NA	Water	SM 3500 FE D	
LCS 480-553068/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
480-175904-4 MS	MW-25S	Total/NA	Water	SM 3500 FE D	
480-175904-6 MS	MWC-11	Total/NA	Water	SM 3500 FE D	
480-175904-1 DU	MWC-12	Total/NA	Water	SM 3500 FE D	
480-175904-2 DU	MWC-16	Total/NA	Water	SM 3500 FE D	
480-175904-3 DU	MW-24S	Total/NA	Water	SM 3500 FE D	
480-175904-4 DU	MW-25S	Total/NA	Water	SM 3500 FE D	
480-175904-5 DU	MW-28S	Total/NA	Water	SM 3500 FE D	
480-175904-6 DU	MWC-11	Total/NA	Water	SM 3500 FE D	

Lab Chronicle

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MWC-12

Lab Sample ID: 480-175904-1

Date Collected: 10/01/20 10:30

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552736	10/07/20 14:03	LCH	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/06/20 00:11	RJS	TAL BUF
Total/NA	Prep	3510C	DL		552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL	DL	10	552651	10/06/20 18:49	PJQ	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 05:02	MME	TAL EDI
Total/NA	Analysis	RSK-175		11	552519	10/05/20 17:39	DSC	TAL BUF
Total/NA	Prep	3005A			552292	10/02/20 15:46	KMP	TAL BUF
Total/NA	Analysis	6010C		1	552611	10/05/20 22:51	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552358	10/04/20 02:17	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552466	10/05/20 09:25	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552310	10/02/20 17:53	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552326	10/02/20 21:34	ALT	TAL BUF
Total/NA	Prep	9012B			552318	10/02/20 19:23	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552349	10/03/20 12:20	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552344	10/02/20 17:53	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552518	10/05/20 13:02	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	553068	10/08/20 10:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552385	10/04/20 12:01	BEF	TAL BUF

Client Sample ID: MWC-16

Lab Sample ID: 480-175904-2

Date Collected: 10/01/20 09:50

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	552736	10/07/20 12:03	LCH	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		20	552496	10/06/20 00:39	RJS	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 05:23	MME	TAL EDI
Total/NA	Analysis	RSK-175		11	552247	10/02/20 15:43	MAN	TAL BUF
Total/NA	Prep	3005A			552292	10/02/20 15:46	KMP	TAL BUF
Total/NA	Analysis	6010C		1	552611	10/05/20 23:22	LMH	TAL BUF
Total/NA	Analysis	300.0		20	552525	10/06/20 05:43	RJS	TAL BUF
Total/NA	Analysis	350.1		1	552466	10/05/20 08:42	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552310	10/02/20 17:56	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552326	10/02/20 21:35	ALT	TAL BUF
Total/NA	Prep	9012B			552318	10/02/20 19:23	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552349	10/03/20 12:22	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552344	10/02/20 17:56	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552518	10/05/20 13:11	BEF	TAL BUF

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Lab Chronicle

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-16

Date Collected: 10/01/20 09:50

Date Received: 10/02/20 08:00

Lab Sample ID: 480-175904-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 FE D		1	553068	10/08/20 10:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552385	10/04/20 12:02	BEF	TAL BUF

Client Sample ID: MW-24S

Date Collected: 10/01/20 12:10

Date Received: 10/02/20 08:00

Lab Sample ID: 480-175904-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552736	10/07/20 12:27	LCH	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/06/20 01:07	RJS	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 05:43	MME	TAL EDI
Total/NA	Analysis	RSK-175		11	552402	10/05/20 06:34	DSC	TAL BUF
Total/NA	Prep	3005A			552292	10/02/20 15:46	KMP	TAL BUF
Total/NA	Analysis	6010C		1	552611	10/05/20 23:26	LMH	TAL BUF
Total/NA	Analysis	300.0		2	552358	10/04/20 02:45	RJS	TAL BUF
Total/NA	Analysis	350.1		2	552466	10/05/20 09:26	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552310	10/02/20 17:57	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552326	10/02/20 21:39	ALT	TAL BUF
Total/NA	Prep	9012B			552318	10/02/20 19:23	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552349	10/03/20 12:26	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552344	10/02/20 17:57	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552518	10/05/20 13:19	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	553068	10/08/20 10:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552385	10/04/20 12:04	BEF	TAL BUF

Client Sample ID: MW-25S

Date Collected: 10/01/20 11:20

Date Received: 10/02/20 08:00

Lab Sample ID: 480-175904-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552736	10/07/20 12:51	LCH	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/06/20 01:36	RJS	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 06:04	MME	TAL EDI
Total/NA	Analysis	RSK-175		1	552247	10/02/20 14:46	MAN	TAL BUF
Total/NA	Prep	3005A			552292	10/02/20 15:46	KMP	TAL BUF
Total/NA	Analysis	6010C		1	552611	10/05/20 23:29	LMH	TAL BUF
Total/NA	Analysis	300.0		10	552358	10/04/20 02:59	RJS	TAL BUF
Total/NA	Analysis	350.1		1	552466	10/05/20 08:44	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552310	10/02/20 17:59	ALT	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-25S

Lab Sample ID: 480-175904-4

Date Collected: 10/01/20 11:20

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	552326	10/02/20 21:42	ALT	TAL BUF
Total/NA	Prep	9012B			552318	10/02/20 19:23	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552349	10/03/20 12:28	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552344	10/02/20 17:59	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552518	10/05/20 13:28	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	553068	10/08/20 10:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552385	10/04/20 12:05	BEF	TAL BUF

Client Sample ID: MW-28S

Lab Sample ID: 480-175904-5

Date Collected: 10/01/20 13:20

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552736	10/07/20 13:15	LCH	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552496	10/06/20 02:05	RJS	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 06:25	MME	TAL EDI
Total/NA	Analysis	RSK-175		44	552402	10/05/20 06:53	DSC	TAL BUF
Total/NA	Prep	3005A			552292	10/02/20 15:46	KMP	TAL BUF
Total/NA	Analysis	6010C		1	552611	10/05/20 23:33	LMH	TAL BUF
Total/NA	Analysis	300.0		5	552358	10/04/20 03:13	RJS	TAL BUF
Total/NA	Analysis	350.1		1	552466	10/05/20 08:45	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552310	10/02/20 18:00	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552326	10/02/20 21:43	ALT	TAL BUF
Total/NA	Prep	9012B			552318	10/02/20 19:23	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552349	10/03/20 12:29	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552344	10/02/20 18:00	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552518	10/05/20 13:35	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	553068	10/08/20 10:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552385	10/04/20 12:07	BEF	TAL BUF

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Date Collected: 10/01/20 09:10

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552736	10/07/20 13:39	LCH	TAL BUF
Total/NA	Prep	3510C			552351	10/03/20 14:15	JMP	TAL BUF
Total/NA	Analysis	8270D LL		5	552496	10/06/20 02:34	RJS	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 06:46	MME	TAL EDI
Total/NA	Analysis	RSK-175		1	552247	10/02/20 15:24	MAN	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Date Collected: 10/01/20 09:10

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			552292	10/02/20 15:46	KMP	TAL BUF
Total/NA	Analysis	6010C		1	552611	10/05/20 23:37	LMH	TAL BUF
Total/NA	Analysis	300.0		10	552358	10/04/20 03:27	RJS	TAL BUF
Total/NA	Analysis	350.1		1	552466	10/05/20 08:46	CLT	TAL BUF
Total/NA	Analysis	353.2		1	552310	10/02/20 18:01	ALT	TAL BUF
Total/NA	Analysis	353.2		1	552326	10/02/20 21:45	ALT	TAL BUF
Total/NA	Prep	9012B			552318	10/02/20 19:23	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552349	10/03/20 12:31	CRK	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	552344	10/02/20 18:01	CSS	TAL BUF
Total/NA	Analysis	SM 2320B		1	552518	10/05/20 13:55	BEF	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	553068	10/08/20 10:20	CSS	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	552385	10/04/20 12:08	BEF	TAL BUF

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-175904-7

Date Collected: 10/01/20 11:15

Matrix: Water

Date Received: 10/02/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	552341	10/03/20 12:44	LCH	TAL BUF
Total/NA	Prep	3510C			552780	10/07/20 09:04	JMP	TAL BUF
Total/NA	Analysis	8270D LL		1	552867	10/08/20 09:29	PJQ	TAL BUF
Total/NA	Prep	3510C			729834	10/07/20 15:21	ATF	TAL EDI
Total/NA	Analysis	8270D SIM		1	729930	10/08/20 07:07	MME	TAL EDI
Total/NA	Prep	9012B			552725	10/06/20 22:14	E1T	TAL BUF
Total/NA	Analysis	9012B		1	552844	10/07/20 12:19	CRK	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 3500 FE D		Water	Ferrous Iron
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-20 *
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
Georgia	State	12028 (NJ)	07-01-21
Massachusetts	State	M-NJ312	06-30-21
New Jersey	NELAP	12028	06-30-21
New York	NELAP	11452	04-01-21
Pennsylvania	NELAP	68-00522	02-28-21
Rhode Island	State	LAO00132	12-31-20
USDA	US Federal Programs	P330-18-00135	05-03-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL BUF
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
RSK-175	Dissolved Gases (GC)	RSK	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL BUF
353.2	Nitrogen, Nitrite	MCAWW	TAL BUF
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
3005A	Preparation, Total Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL BUF

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175904-1	MWC-12	Water	10/01/20 10:30	10/02/20 08:00	
480-175904-2	MWC-16	Water	10/01/20 09:50	10/02/20 08:00	
480-175904-3	MW-24S	Water	10/01/20 12:10	10/02/20 08:00	
480-175904-4	MW-25S	Water	10/01/20 11:20	10/02/20 08:00	
480-175904-5	MW-28S	Water	10/01/20 13:20	10/02/20 08:00	
480-175904-6	MWC-11	Water	10/01/20 09:10	10/02/20 08:00	
480-175904-7	EQUIPMENT BLANK	Water	10/01/20 11:15	10/02/20 08:00	

Chain of Custody Record



Client Information Client Contact: Ms. Melissa Saunders Company: AECOM Address: 125 Broad Street 16th Floor City: New York State, Zip: NY, 10004 Phone: 212-377-8637 (Tel) Email: Melissa.Saunders@aecom.com Project Name: Ithaca Laboratory - Groundwater Analysis Site: NYSEG Ithaca NY		Sampler: Gerlinde Wolf Lab PM: Schove, John R Phone: 585-490-0987 E-Mail: John.Schove@Eurofinset.com		COC No: 480-149893-33321.1 Page: Page 1 of 2 Job #: #225	
Due Date Requested: TAT Requested (days): 5 Day PO #: 60615225 WO #: Project #: 48022675 SSOW#:		Analysis Requested Perform MS/MSD (Yes or No) ☒ Field Filtered Sample (Yes or No) ☒ 8270D - PAH Semivolatiles ☒ 300.0_28D - Sulfate ☒ 350.1, 353.2, Pres ☒ 6010C - Metals (ICP) - Iron ☒ RSK_175 - Methane ☒ 9012B - Cyanide, Total ☒ 353.2_Nitrite, Nitrate, Calc, SM4500_H+ ☒ 2320B - Alkalinity ☒ 3500_FE_D - Iron, Ferrous ☒ 8260C - BTEX ☒			
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=Grab) Matrix (W=Water, S=solid, O=waste/oil, BT=Tissue, A=Air)		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 Other:			
Sample Identification MWC-12 MWC-16 MW-24S MW-25S MW-28S MW-33S MW-46S MW-22S MW-40 MW-48S MW-47S		Special Instructions/Note: Total Number of containers 480-175904 Chain of Custody			
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify) Category B		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: Relinquished by: Relinquished by: Relinquished by: Custody Seals Intact: Δ Yes Δ No		Method of Shipment: Received by: Received by: Received by: Cooler Temperature(s) °C and Other Remarks: 3.0, 2.6, 2.7, 3.1 #1			

Chain of Custody Record

Environment Testing
America

Client Information		Sampler		Lab PM:		Syracuse		COC No:										
Client Contact: Ms. Melissa Saunders		Gerlinde Wolf		Schove, John R		#225		480-149893-33321.2										
Company: AECOM		Phone: 585-490-0987		E-Mail: John.Schove@Eurofinset.com				Page: Page 2 of 2										
Address: 125 Broad Street 16th Floor		Due Date Requested:		Analysis Requested				Job #:										
City: New York		TAT Requested (days): 5 day						Preservation Codes:										
State, Zip: NY, 10004		PO #: 60615225						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 - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)										
Phone: 212-377-8637 (Tel)		WO #: 48022675						Other:										
Email: Melissa.Saunders@aecom.com		Project #:																
Project Name: Ithaca Laboratory - Groundwater Analysis		SSOW#:																
Site: NYSEG Ithaca																		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Newwater, Seawater, On-wash, etc.)	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	8270D - PAH Semivolatiles	300.0_28D - Sulfate	350.1, 353.2, Pres	6010C - Metals (ICP) - Iron	RSK_175 - Methane	9012B - Cyanide, Total	353.2_Nitrite, Nitrate, Calc, SM4500_H+	2320B - Alkalinity	3500_FE_D - Iron, Ferrous	8260C - BTEX	Total Number of Containers	Special Instructions/Note:
MWC-31S				Water														
MWC-23S				Water														
MWC-11	10.1.20	910	G	Water			X	X	X	X	X	X	X	X	X	X	18	
DUP				Water														
MS				Water														
MSD				Water														
Equipment Blank	10.1.20	1115	G	Water			X					X					8	

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify) Cat B

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:

Relinquished by: gwook Date/Time: 10.1.20 1500 Company: AECOM

Relinquished by: R. English Date/Time: 10.1.20, 1900 Company: AECOM

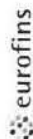
Relinquished by: Date/Time: Company:

Custody Seal No.:
 Δ Yes Δ No

Custody Seal Intact:
 Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Lab PM: Schove, John R		Carrier Tracking No(s):		COC No: 480-59132.1	
Client Contact:		Phone:		State of Origin:		Page: 1 of 1	
Shipping/Receiving		E-Mail: John.Schove@Eurofinset.com		New York			
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #:		480-175904-1	
Address: 777 New Durham Road,		Due Date Requested: 10/8/2020		Analysis Requested		Preservation Codes:	
City: Edison		TAT Requested (days):				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 Other:	
State, Zip: NJ, 08817		PO #:				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: 732-549-3900(Tel) 732-549-3679(Fax)		WO #:					
Email:		Project #:					
Ithaca Laboratory - Groundwater Analysis		48022675					
Site:		SSOW#:					

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, B=biomass, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	82700_SIM/3510C_LVI SVOC SIM Analytes	Total Number of Containers	Special Instructions/Note:
MWC-12 (480-175904-1)	10/1/20	10:30 Eastern		Water		X	X	1	
MWC-16 (480-175904-2)	10/1/20	09:50 Eastern		Water		X	X	1	
MW-24S (480-175904-3)	10/1/20	12:10 Eastern		Water		X	X	1	
MW-25S (480-175904-4)	10/1/20	11:20 Eastern		Water		X	X	1	
MW-28S (480-175904-5)	10/1/20	13:20 Eastern		Water		X	X	1	
MWC-11 (480-175904-6)	10/1/20	09:10 Eastern		Water		X	X	1	
EQUIPMENT BLANK (480-175904-7)	10/1/20	11:15 Eastern		Water		X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		☐ 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:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Received by: <i>v.a. Feltz</i>	
Relinquished by:		Date/Time: 10/7/20 1000	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seal No: 1149970		Cooler Temperature(s) °C and Other Remarks: 4.1°C	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175904-1

Login Number: 175904

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0 2.6 2.7 3.1 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aecom
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175904-1

Login Number: 175904

List Number: 2

Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison

List Creation: 10/07/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1149970
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C – Data Usability Summary Report (DUSR)



Prepared for:
NYSEG
Binghamton, NY

Prepared by:
AECOM
Pittsburgh, PA
60615225.5
October 2020

October 12, 2020

Data Usability Summary Report

NYSEG/Ithaca Court Street Former
MGP Site
Groundwater Sampling Event
Eurofins TestAmerica Laboratory Data
September-October 2020
Final



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60615225.5
October 2020

Data Usability Summary Report

NYSEG/Ithaca Court Street Former MGP Site Groundwater Sampling Event Eurofins TestAmerica Laboratory Data September-October 2020 Final

Prepared By
Gregory Malzone, Project Chemist
AECOM
Gulf Tower
707 Grant Street, 5th floor
Pittsburgh, PA 15219

Reviewed By
Robert Davis, Data Validator/Database Technician
AECOM
1360 Peachtree Street NE, Suite 500
Atlanta, GA 30309

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Appendix A Glossary of Data Qualifier Codes

Appendix B Data Qualification Summaries

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Executive Summary

Overview

Data validation was performed by Gregory A. Malzone of AECOM-Pittsburgh on two data packages from Eurofins TestAmerica Laboratory, 10 Hazelwood Drive, Amherst, NY 14228-2298 (ETAL-Buffalo) for the analysis of groundwater samples collected on September 30 and October 1, 2020 at the NYSEG/Ithaca Court Street former manufactured gas plant (MGP) site.

The following analytical methods were requested on the chain-of-custody (CoC) records.

- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) by USEPA SW-846 Method 8260C
- Polynuclear Aromatic Hydrocarbons (PAHs) by USEPA SW-846 Method 8270D Low-Level and in Selected Ion Monitoring (SIM) Mode
- Methane by USEPA Method RSK-175
- Total Iron by USEPA SW-846 Method 6010C

General Chemistry

- Total Cyanide by USEPA SW-846 Method 9012B
- Sulfate by USEPA MCAWW Method 300.0
- Ammonia by USEPA MCAWW Method 350.1
- Nitrate and Nitrite by MCAWW Method 353.2 (Nitrate by Calculation)
- Total Alkalinity by Standard Method 2320B
- Ferrous Iron by Standard Method 3500 FE D
- Temperature and pH by Standard Method 4500 H+ B

The PAH determinations using GC/MS in SIM mode were performed at the Eurofins TestAmerica Laboratory in Edison, NJ.

The data were evaluated for conformance to method specifications and qualifiers were applied using the USEPA Region 2 SOPs and the validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Superfund Methods Data Review*, EPA-540-R-2017-002, January 2017 and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA-540-R-2017-001, January 2017, as they apply to the analytical methods employed.

Field duplicate relative percent difference (RPD) review and applicable control limits were taken from the *USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, December 1996 and *USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses*, June 1988.

The samples were processed, and the results were reported under two sample delivery groups (SDGs) 480-175829-1 and 480-175904-1. Table 1 provides a sample submittal list with the field IDs cross-referenced with the ETAL-Buffalo IDs.

Table 1 - Sample Submittals – NYSEG/Ithaca Former MGP Groundwater

Field ID	Laboratory ID	QC	Matrix	Date Sampled
MW-33S	480-175829-1		Groundwater	9/30/2020 9:45
MW-46S	480-175829-2		Groundwater	9/30/2020 9:20
MW-22S	480-175829-3		Groundwater	9/30/2020 13:30
MW-40	480-175829-4		Groundwater	9/30/2020 12:30
MW-48S	480-175829-5	MS/MSD	Groundwater	9/30/2020 11:15
MW-47S	480-175829-6		Groundwater	9/30/2020 14:10
MW-31S	480-175829-7		Groundwater	9/30/2020 16:00
MW-23S	480-175829-8		Groundwater	9/30/2020 15:20
MW-45S	480-175829-9		Groundwater	9/30/2020 10:45
DUP	480-175829-10	MW-22S	Groundwater (QC)	9/30/2020 0:00
MWC-12	480-175904-1		Groundwater	10/1/2020 10:30
MWC-16	480-175904-2		Groundwater	10/1/2020 9:50
MW-24S	480-175904-3		Groundwater	10/1/2020 12:10
MW-25S	480-175904-4		Groundwater	10/1/2020 11:20
MW-28S	480-175904-5		Groundwater	10/1/2020 13:20
MWC-11	480-175904-6		Groundwater	10/1/2020 9:10
Equipment Blank	480-175904-7	rinsate blank	Aqueous (QC)	10/1/2020 11:15

Summary

Data quality for the organic analyses was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance standards, internal standards, initial and continuing calibrations, matrix spike/matrix spike duplicates (MS/MSD), surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory and field duplicates, compound identification, and compound quantitation.

Inorganic data quality was evaluated by reviewing the following parameters: holding times, matrix spikes, initial calibrations, continuing calibration verification standard recoveries, contract required detection limit standard recoveries, laboratory control samples, ICP interference check sample recoveries, ICP serial dilution results, field and laboratory duplicates, laboratory blanks, and analyte quantitation.

All data have been determined to be useable for the purpose of assessing the presence/absence and quantitative concentrations of the compounds and analytes in the media tested (i.e., groundwater) with the qualifications described below. No data points were rejected. Completeness of 100% was achieved for this data set. This is within the goal of 90-100% and is acceptable.

A glossary of data qualifier definitions is included in Appendix A of this report. The data qualifier summaries are attached as Appendix B of this report.

Each noncompliance with specific data usability criteria that required data qualification is discussed below. Support documentation for data qualifications was included in Appendix C of this report.

1.0 Benzene, Toluene, Ethylbenzene and Total Xylenes

Sample Preservation: The pH measurement for sample MW-47S was greater than 2 SU, at 7 SU. The analysis of sample MW-47S was performed on the fifth day following the date of sample collection. The BTEX analysis of sample MW-47S was performed within the seven-day holding time for unpreserved samples. No data qualifications were required.

Matrix Spike Recoveries: Sample MW-48S was designated in the field to be processed as a quality control sample, that is, as the MS/MSD. The MW-48S MSD recovery for benzene was less than the lower advisory limit, but greater than 20%. The MW-48S MS recovery for benzene and the RPD between the MS and MSD recoveries for benzene were within the advisory limits. No data qualification was required.

Reporting and Detection Limits: Samples MW-22S, MW-23S, MW-46S, MW-48S and MWC-11 required analysis at an initial dilution to bring the target compound concentration(s) into the calibration range. The initial dilution elevated the reporting limits (RLs) and method detection limits (MDLs). The surrogate recoveries were within the quality control limits. No data qualifications were required.

Sample MWC-16 required analysis at an initial two-fold dilution to minimize the matrix interference that caused purge and trap foaming to occur. The initial dilution elevated the RLs and MDLs. The surrogate recoveries were within the quality control limits. No data qualifications were required.

2.0 Polynuclear Aromatic Hydrocarbons

Reporting and Detection Limits: Low-level GC/MS sample MW-46S required analysis at an initial dilution to bring the target compound concentration(s) into the calibration range. The RLs and MDLs were elevated as required. The surrogate recoveries were within the quality control limits. No data qualifications were required.

Low-level GC/MS sample MW-46S required analysis at a 200-fold secondary dilution to bring the naphthalene concentration into the calibration range. The diluted-out surrogates could not be used to evaluate method accuracy. There was enough, acceptable quality control data to show that the analytical process was in control. No data qualifications were required.

Low-level GC/MS sample MW-48S required analysis at a ten-fold dilution to bring the acenaphthene and naphthalene concentrations into the calibration range. The surrogate recoveries were within the quality control limits. No data qualifications were required.

Low-level GC/MS sample MWC-12 required analysis at a ten-fold dilution to bring the acenaphthene concentration into the calibration range. The surrogate recoveries were within the quality control limits. No data qualifications were required.

Low-level GC/MS samples MW-47S and MWC-11 required analysis at an initial five-fold or greater dilution because of the nature of the sample extract (i.e. high viscosity). The surrogate recoveries were within the quality control limits. The RLs and MDLs were elevated as required. No data qualifications were required.

Low-level GC/MS samples MW-23S and MWC-16 required analysis at a 20-fold or greater dilution to bring the target compound concentration(s) into the calibration range. The diluted-out surrogates could not be used to evaluate method accuracy. There was enough, acceptable quality control data to show that the analytical process was in control. No data qualifications were required.

Surrogate Recoveries: The GC/MS SIM nitrobenzene-d5 surrogate recovery for sample MW-40 was greater than the upper quality control limit. No SIM PAHs were detected in sample MW-40. No data qualifications were required.

Blank Contamination: Phenanthrene was detected in the method blank MB 480-552351/1-A at an estimated concentration of 0.0746 J µg/L. The phenanthrene results for associated samples MWC-11, MWC-12, MWC-16, MW-22S, MW-23S, MW-24S, MW-25S, MW-28S, MW-31S, MW-33S, MW-45S, MW-46S, MW-40, MW-47S, MW-48S and DUP were non-detect or greater than five times the blank concentration and did not require qualification.

Phenanthrene was detected in the method blank MB 480-552780/1-A at an estimated concentration of 0.106 J µg/L. The phenanthrene result for associated sample Equipment Blank was estimated to be less than the RL and was qualified "U," as undetected at the RL, because of laboratory contamination.

3.0 Methane

Dilutions: Samples MWC-12, MWC-16, MW-22S, MW-23S, MW-24S, MW-28S, MW-31S, MW-40, MW-45S, MW-46S, MW-47S and MW-48S required analysis at an initial dilution to bring the methane concentration into the calibration range. The initial dilution elevated the RLs and MDLs. No data qualifications were required.

4.0 Total Iron

No data quality issues were noted. No data qualifications were required.

5.0 General Chemistry

Holding Time: All ferrous iron samples were analyzed beyond the method holding time of 24 hours. Ferrous iron should be performed as a field test. The positive and non-detect ferrous iron results were qualified "J/UJ," as estimates, because the holding time was exceeded.

All pH and temperature samples were analyzed beyond the method holding time of "immediately" (i.e., within 15 minutes of sample collection). The pH and temperature determinations should be performed as field tests. All pH and temperature results were qualified "J," as estimates, because the holding time was exceeded.

Blank Contamination: Ammonia was detected in the method blank MB 480-552466/3 at 0.0137 mg/L. Ammonia was also detected in the continuing calibration blank (CCB) analyzed on 10/05/20 on 08:37. The ammonia concentration was highest in the method blank. The ammonia results for associated samples MW-16, MW-25S, MW-28S and MWC-11 were greater than ten times the method blank concentration and did not require qualification.

6.0 Field Duplicate Precision

A field duplicate sample was collected at MW-22S. The calculated RPDs and absolute differences are listed in Tables 2 below. Field duplicate results were evaluated using the following criteria.

Organics: The RPD must be $\leq 30\%$ for results greater than or equal to two times the reporting detection limit. If one of the results is non-detect or less than two times the reporting limit, and the duplicate is greater than two times the reporting detection limit, the difference between the parent and field duplicate results must be less than or equal to two times the reporting limit.

Inorganics: The RPD must be $\leq 30\%$, for results greater than or equal to five times the reporting limit. For results less than five times the reporting limit, the difference between the parent and field duplicate results must be less than or equal to two times the reporting limit.

Action applies only to the affected analyte in the duplicate sample pair.

Field sampling/laboratory precision and sample homogeneity were acceptable; no data qualification was required.

Table 2 - Field Duplicate Precision - NYSEG/Ithaca Former MGP Groundwater

Parameter	Units	MW-22S		DUP		Abs. Diff.	RPD (%)	QUALs
Benzene	µg/L	24		21		—	13	None
Toluene	µg/L	11		11		—	0	None
Ethylbenzene	µg/L	10 U		0.51	J	0.51	—	±2RL, None
Total Xylenes	µg/L	9.2	J	8.6		—	6.7	None
Acenaphthene	µg/L	2.4		3.2		—	29	None
Fluorene	µg/L	0.058	J	0.095	J	0.037	—	±2RL, None
Naphthene	µg/L	0.83	J	0.82	J	0.01	—	±2RL, None
Total Cyanide	mg/L	0.076		0.092		—	19	None

RPD: Relative percent difference

Abs. Diff.: Absolute difference

QUALs: Qualifications

µg/L: micrograms per liter (ppb)

mg/L: milligrams per liter (ppm)

7.0 Notes

Matrix spike and matrix spike duplicates, laboratory duplicates, and ICP serial dilutions that were performed on non-project samples were not evaluated because matrix similarity to project samples could not be assumed.

Positive results less than the RL, but greater than the MDL were qualified “J,” as estimated concentrations, due to increased uncertainty near the detection limit. These “J” qualifiers were maintained in the data validation. Sample results reported between the MDL and RL are usable as estimated values with an unknown directional bias.

Appendix A

Glossary of Data Qualifier Codes

Glossary of Data Qualifier Codes

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.
- J+ The result is an estimated quantity but may be biased high.
- J- The result is an estimated quantity but may be biased low.
- R The data are unusable. The sample results are rejected due to serious deficiencies in the ability to meet quality control criteria. The presence or absence of the analyte cannot be verified.
- N (Organics) The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
- NJ (Organics) The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

Appendix B

Data Qualification Summaries

Sample Summary

Client: AECOM

Job ID: 480-175829-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175829-1	MW-33S	Water	09/30/20 09:45	10/01/20 08:00	
480-175829-2	MW-46S	Water	09/30/20 09:20	10/01/20 08:00	
480-175829-3	MW-22S	Water	09/30/20 13:30	10/01/20 08:00	
480-175829-4	MW-40	Water	09/30/20 12:30	10/01/20 08:00	
480-175829-5	MW-48S	Water	09/30/20 11:15	10/01/20 08:00	
480-175829-6	MW-47S	Water	09/30/20 14:10	10/01/20 08:00	
480-175829-7	MW-31S	Water	09/30/20 16:00	10/01/20 08:00	
480-175829-8	MW-23S	Water	09/30/20 15:20	10/01/20 08:00	
480-175829-9	MW-45S	Water	09/30/20 10:45	10/01/20 08:00	
480-175829-10	DUP	Water	09/30/20 00:00	10/01/20 08:00	

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-33S

Lab Sample ID: 480-175829-1

Date Collected: 09/30/20 09:45

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 11:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 11:38	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 11:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 11:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		10/04/20 11:38	1
4-Bromofluorobenzene (Surr)	106		73 - 120		10/04/20 11:38	1
Dibromofluoromethane (Surr)	103		75 - 123		10/04/20 11:38	1
Toluene-d8 (Surr)	100		80 - 120		10/04/20 11:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 19:55	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 19:55	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 19:55	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 19:55	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 19:55	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 19:55	1
Naphthalene	0.10	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 19:55	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 19:55	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	126		24 - 146	10/03/20 14:15	10/05/20 19:55	1
2-Fluorobiphenyl	86		37 - 120	10/03/20 14:15	10/05/20 19:55	1
2-Fluorophenol (Surr)	49		10 - 120	10/03/20 14:15	10/05/20 19:55	1
Nitrobenzene-d5 (Surr)	79		26 - 120	10/03/20 14:15	10/05/20 19:55	1
Phenol-d5 (Surr)	31		11 - 120	10/03/20 14:15	10/05/20 19:55	1
p-Terphenyl-d14	112		64 - 127	10/03/20 14:15	10/05/20 19:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/04/20 23:52	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/04/20 23:52	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/04/20 23:52	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/04/20 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	105		40 - 140	10/04/20 09:32	10/04/20 23:52	1
Nitrobenzene-d5	122		41 - 144	10/04/20 09:32	10/04/20 23:52	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	190		4.0	1.0	ug/L			10/01/20 18:24	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-33S

Date Collected: 09/30/20 09:45

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-1

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20.9		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	21.2		10.0	1.7	mg/L			10/06/20 02:19	5
Ammonia	3.9		0.040	0.018	mg/L			10/01/20 11:53	2
Nitrate Nitrite as N	0.049	J	0.050	0.020	mg/L			10/01/20 20:07	1
Nitrite as N	0.022	J	0.050	0.020	mg/L			10/01/20 16:54	1
Cyanide, Total	0.0066	J	0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:38	1
Nitrate as N	0.027	J	0.050	0.020	mg/L			10/01/20 16:54	1
Alkalinity, Total	421		5.0	0.79	mg/L			10/05/20 00:08	1
Ferrous Iron	0.64	HF J	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/01/20 13:59	1
Temperature	20.4	HF J	0.001	0.001	Degrees C			10/01/20 13:59	1

Client Sample ID: MW-46S

Date Collected: 09/30/20 09:20

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	720		20	8.2	ug/L			10/04/20 12:02	20
Ethylbenzene	790		20	15	ug/L			10/04/20 12:02	20
Toluene	ND		20	10	ug/L			10/04/20 12:02	20
Xylenes, Total	210		40	13	ug/L			10/04/20 12:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		10/04/20 12:02	20
4-Bromofluorobenzene (Surr)	106		73 - 120		10/04/20 12:02	20
Dibromofluoromethane (Surr)	101		75 - 123		10/04/20 12:02	20
Toluene-d8 (Surr)	98		80 - 120		10/04/20 12:02	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	43		4.8	0.34	ug/L		10/03/20 14:15	10/05/20 20:23	10
Acenaphthylene	2.8	J	2.9	0.53	ug/L		10/03/20 14:15	10/05/20 20:23	10
Anthracene	2.2	J	4.8	0.32	ug/L		10/03/20 14:15	10/05/20 20:23	10
Chrysene	1.9	J	4.8	0.70	ug/L		10/03/20 14:15	10/05/20 20:23	10
Fluoranthene	2.3	J	4.8	0.76	ug/L		10/03/20 14:15	10/05/20 20:23	10
Fluorene	9.7		4.8	0.55	ug/L		10/03/20 14:15	10/05/20 20:23	10
Naphthalene	480	E	9.5	0.61	ug/L		10/03/20 14:15	10/05/20 20:23	10
Phenanthrene	7.6	B	1.9	0.59	ug/L		10/03/20 14:15	10/05/20 20:23	10
Pyrene	3.8	J	4.8	0.72	ug/L		10/03/20 14:15	10/05/20 20:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	111		24 - 146	10/03/20 14:15	10/05/20 20:23	10
2-Fluorobiphenyl	71		37 - 120	10/03/20 14:15	10/05/20 20:23	10
2-Fluorophenol (Surr)	40		10 - 120	10/03/20 14:15	10/05/20 20:23	10
Nitrobenzene-d5 (Surr)	62		26 - 120	10/03/20 14:15	10/05/20 20:23	10
Phenol-d5 (Surr)	23		11 - 120	10/03/20 14:15	10/05/20 20:23	10

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-46S

Lab Sample ID: 480-175829-2

Date Collected: 09/30/20 09:20

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	85		64 - 127	10/03/20 14:15	10/05/20 20:23	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	44	J	95	6.9	ug/L		10/03/20 14:15	10/06/20 17:52	200
Acenaphthylene	ND		57	11	ug/L		10/03/20 14:15	10/06/20 17:52	200
Anthracene	ND		95	6.5	ug/L		10/03/20 14:15	10/06/20 17:52	200
Chrysene	ND		95	14	ug/L		10/03/20 14:15	10/06/20 17:52	200
Fluoranthene	ND		95	15	ug/L		10/03/20 14:15	10/06/20 17:52	200
Fluorene	ND		95	11	ug/L		10/03/20 14:15	10/06/20 17:52	200
Naphthalene	1100		190	12	ug/L		10/03/20 14:15	10/06/20 17:52	200
Phenanthrene	ND		38	12	ug/L		10/03/20 14:15	10/06/20 17:52	200
Pyrene	ND		95	14	ug/L		10/03/20 14:15	10/06/20 17:52	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	532	X	24 - 146	10/03/20 14:15	10/06/20 17:52	200
2-Fluorobiphenyl	70		37 - 120	10/03/20 14:15	10/06/20 17:52	200
2-Fluorophenol (Surr)	37		10 - 120	10/03/20 14:15	10/06/20 17:52	200
Nitrobenzene-d5 (Surr)	59		26 - 120	10/03/20 14:15	10/06/20 17:52	200
Phenol-d5 (Surr)	22		11 - 120	10/03/20 14:15	10/06/20 17:52	200
p-Terphenyl-d14	86		64 - 127	10/03/20 14:15	10/06/20 17:52	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.41		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[a]pyrene	0.32		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[b]fluoranthene	0.26		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[g,h,i]perylene	0.15		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 00:13	1
Benzo[k]fluoranthene	0.093		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 00:13	1
Dibenz(a,h)anthracene	0.045	J	0.050	0.020	ug/L		10/04/20 09:32	10/05/20 00:13	1
Indeno[1,2,3-cd]pyrene	0.15		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 00:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	89		40 - 140	10/04/20 09:32	10/05/20 00:13	1
Nitrobenzene-d5	91		41 - 144	10/04/20 09:32	10/05/20 00:13	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	7900		180	44	ug/L			10/02/20 00:42	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.0		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	12.7		10.0	1.7	mg/L			10/06/20 02:34	5
Ammonia	3.6		0.040	0.018	mg/L			10/01/20 12:14	2
Nitrate Nitrite as N	0.049	J	0.050	0.020	mg/L			10/01/20 20:08	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:56	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:27	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-46S

Lab Sample ID: 480-175829-2

Date Collected: 09/30/20 09:20

Matrix: Water

Date Received: 10/01/20 08:00

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.049	J	0.050	0.020	mg/L			10/01/20 16:56	1
Alkalinity, Total	342		5.0	0.79	mg/L			10/05/20 00:16	1
Ferrous Iron	0.086	J HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF J	0.1	0.1	SU			10/01/20 14:00	1
Temperature	20.8	HF J	0.001	0.001	Degrees C			10/01/20 14:00	1

Client Sample ID: MW-22S

Lab Sample ID: 480-175829-3

Date Collected: 09/30/20 13:30

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	24		10	4.1	ug/L			10/04/20 12:26	10
Ethylbenzene	11		10	7.4	ug/L			10/04/20 12:26	10
Toluene	ND		10	5.1	ug/L			10/04/20 12:26	10
Xylenes, Total	9.2	J	20	6.6	ug/L			10/04/20 12:26	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120					10/04/20 12:26	10
4-Bromofluorobenzene (Surr)	104		73 - 120					10/04/20 12:26	10
Dibromofluoromethane (Surr)	101		75 - 123					10/04/20 12:26	10
Toluene-d8 (Surr)	97		80 - 120					10/04/20 12:26	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2.4		0.48	0.035	ug/L		10/03/20 14:15	10/05/20 20:52	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/03/20 14:15	10/05/20 20:52	1
Anthracene	ND		0.48	0.033	ug/L		10/03/20 14:15	10/05/20 20:52	1
Chrysene	ND		0.48	0.071	ug/L		10/03/20 14:15	10/05/20 20:52	1
Fluoranthene	ND		0.48	0.077	ug/L		10/03/20 14:15	10/05/20 20:52	1
Fluorene	0.058	J	0.48	0.056	ug/L		10/03/20 14:15	10/05/20 20:52	1
Naphthalene	0.83	J	0.96	0.062	ug/L		10/03/20 14:15	10/05/20 20:52	1
Phenanthrene	ND		0.19	0.060	ug/L		10/03/20 14:15	10/05/20 20:52	1
Pyrene	ND		0.48	0.073	ug/L		10/03/20 14:15	10/05/20 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	120		24 - 146				10/03/20 14:15	10/05/20 20:52	1
2-Fluorobiphenyl	78		37 - 120				10/03/20 14:15	10/05/20 20:52	1
2-Fluorophenol (Surr)	48		10 - 120				10/03/20 14:15	10/05/20 20:52	1
Nitrobenzene-d5 (Surr)	78		26 - 120				10/03/20 14:15	10/05/20 20:52	1
Phenol-d5 (Surr)	31		11 - 120				10/03/20 14:15	10/05/20 20:52	1
p-Terphenyl-d14	104		64 - 127				10/03/20 14:15	10/05/20 20:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 00:35	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 00:35	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-22S

Lab Sample ID: 480-175829-3

Date Collected: 09/30/20 13:30

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 00:35	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 00:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72	*3	40 - 140				10/04/20 09:32	10/05/20 00:35	1
Nitrobenzene-d5	71		41 - 144				10/04/20 09:32	10/05/20 00:35	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	7500		180	44	ug/L			10/02/20 01:01	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	7.7		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		10.0	1.7	mg/L			10/06/20 02:48	5
Ammonia	3.4		0.040	0.018	mg/L			10/01/20 12:05	2
Nitrate Nitrite as N	0.025	J	0.050	0.020	mg/L			10/01/20 20:10	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:57	1
Cyanide, Total	0.076		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:25	1
Nitrate as N	0.025	J	0.050	0.020	mg/L			10/01/20 16:57	1
Alkalinity, Total	343		5.0	0.79	mg/L			10/05/20 00:23	1
Ferrous Iron	0.37	HF J	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/01/20 14:02	1
Temperature	21.3	HF J	0.001	0.001	Degrees C			10/01/20 14:02	1

Client Sample ID: MW-40

Lab Sample ID: 480-175829-4

Date Collected: 09/30/20 12:30

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 12:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 12:50	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 12:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 12:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120					10/04/20 12:50	1
4-Bromofluorobenzene (Surr)	113		73 - 120					10/04/20 12:50	1
Dibromofluoromethane (Surr)	115		75 - 123					10/04/20 12:50	1
Toluene-d8 (Surr)	96		80 - 120					10/04/20 12:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 21:20	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 21:20	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 21:20	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-40

Lab Sample ID: 480-175829-4

Date Collected: 09/30/20 12:30

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 21:20	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 21:20	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 21:20	1
Naphthalene	0.61	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 21:20	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 21:20	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	122		24 - 146	10/03/20 14:15	10/05/20 21:20	1
2-Fluorobiphenyl	91		37 - 120	10/03/20 14:15	10/05/20 21:20	1
2-Fluorophenol (Surr)	51		10 - 120	10/03/20 14:15	10/05/20 21:20	1
Nitrobenzene-d5 (Surr)	83		26 - 120	10/03/20 14:15	10/05/20 21:20	1
Phenol-d5 (Surr)	33		11 - 120	10/03/20 14:15	10/05/20 21:20	1
p-Terphenyl-d14	110		64 - 127	10/03/20 14:15	10/05/20 21:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 00:56	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 00:56	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 00:56	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		40 - 140	10/04/20 09:32	10/05/20 00:56	1
Nitrobenzene-d5	154	X	41 - 144	10/04/20 09:32	10/05/20 00:56	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	950		88	22	ug/L			10/02/20 01:20	22

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20.4		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3.6		2.0	0.35	mg/L			10/06/20 03:03	1
Ammonia	10.1		0.20	0.090	mg/L			10/01/20 12:15	10
Nitrate Nitrite as N	0.14		0.050	0.020	mg/L			10/01/20 20:11	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 16:58	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:24	1
Nitrate as N	0.14		0.050	0.020	mg/L			10/01/20 16:58	1
Alkalinity, Total	217		5.0	0.79	mg/L			10/05/20 00:31	1
Ferrous Iron	0.13	HF J	0.10	0.075	mg/L			10/03/20 11:20	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF J	0.1	0.1	SU			10/01/20 14:06	1
Temperature	21.0	HF J	0.001	0.001	Degrees C			10/01/20 14:06	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-48S

Lab Sample ID: 480-175829-5

Date Collected: 09/30/20 11:15

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	69	F4	2.0	0.82	ug/L			10/04/20 13:14	2
Ethylbenzene	26		2.0	1.5	ug/L			10/04/20 13:14	2
Toluene	ND		2.0	1.0	ug/L			10/04/20 13:14	2
Xylenes, Total	18		4.0	1.3	ug/L			10/04/20 13:14	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120					10/04/20 13:14	2
4-Bromofluorobenzene (Surr)	111		73 - 120					10/04/20 13:14	2
Dibromofluoromethane (Surr)	111		75 - 123					10/04/20 13:14	2
Toluene-d8 (Surr)	98		80 - 120					10/04/20 13:14	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	29	E	0.48	0.034	ug/L		10/03/20 14:15	10/05/20 19:27	1
Acenaphthylene	1.5		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 19:27	1
Anthracene	1.4		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 19:27	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 19:27	1
Fluoranthene	0.72		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 19:27	1
Fluorene	3.9		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 19:27	1
Naphthalene	46	E	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 19:27	1
Phenanthrene	4.6	B	0.19	0.059	ug/L		10/03/20 14:15	10/05/20 19:27	1
Pyrene	0.90		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 19:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	136		24 - 146				10/03/20 14:15	10/05/20 19:27	1
2-Fluorobiphenyl	95		37 - 120				10/03/20 14:15	10/05/20 19:27	1
2-Fluorophenol (Surr)	59		10 - 120				10/03/20 14:15	10/05/20 19:27	1
Nitrobenzene-d5 (Surr)	95		26 - 120				10/03/20 14:15	10/05/20 19:27	1
Phenol-d5 (Surr)	38		11 - 120				10/03/20 14:15	10/05/20 19:27	1
p-Terphenyl-d14	104		64 - 127				10/03/20 14:15	10/05/20 19:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	41		4.8	0.34	ug/L		10/03/20 14:15	10/06/20 17:24	10
Acenaphthylene	1.6	J	2.9	0.53	ug/L		10/03/20 14:15	10/06/20 17:24	10
Anthracene	1.4	J	4.8	0.32	ug/L		10/03/20 14:15	10/06/20 17:24	10
Chrysene	ND		4.8	0.70	ug/L		10/03/20 14:15	10/06/20 17:24	10
Fluoranthene	ND		4.8	0.76	ug/L		10/03/20 14:15	10/06/20 17:24	10
Fluorene	3.9	J	4.8	0.55	ug/L		10/03/20 14:15	10/06/20 17:24	10
Naphthalene	91		9.5	0.61	ug/L		10/03/20 14:15	10/06/20 17:24	10
Phenanthrene	4.5	B	1.9	0.59	ug/L		10/03/20 14:15	10/06/20 17:24	10
Pyrene	0.86	J	4.8	0.72	ug/L		10/03/20 14:15	10/06/20 17:24	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	138		24 - 146				10/03/20 14:15	10/06/20 17:24	10
2-Fluorobiphenyl	99		37 - 120				10/03/20 14:15	10/06/20 17:24	10
2-Fluorophenol (Surr)	54		10 - 120				10/03/20 14:15	10/06/20 17:24	10
Nitrobenzene-d5 (Surr)	83		26 - 120				10/03/20 14:15	10/06/20 17:24	10
Phenol-d5 (Surr)	35		11 - 120				10/03/20 14:15	10/06/20 17:24	10
p-Terphenyl-d14	102		64 - 127				10/03/20 14:15	10/06/20 17:24	10

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-48S

Lab Sample ID: 480-175829-5

Date Collected: 09/30/20 11:15

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.019	J	0.050	0.016	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/04/20 22:49	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/04/20 22:49	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/04/20 22:49	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/04/20 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	97		40 - 140	10/04/20 09:32	10/04/20 22:49	1
Nitrobenzene-d5	84	*3	41 - 144	10/04/20 09:32	10/04/20 22:49	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	5000		180	44	ug/L			10/02/20 01:39	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6.9		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 03:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		40.0	7.0	mg/L			10/06/20 04:30	20
Ammonia	2.7		0.040	0.018	mg/L			10/01/20 12:16	2
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 20:12	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:00	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:09	1
Nitrate as N	ND		0.050	0.020	mg/L			10/01/20 17:00	1
Alkalinity, Total	396		5.0	0.79	mg/L			10/05/20 00:39	1
Ferrous Iron	ND	HF J	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF J	0.1	0.1	SU			10/01/20 14:07	1
Temperature	20.5	HF J	0.001	0.001	Degrees C			10/01/20 14:07	1

Client Sample ID: MW-47S

Lab Sample ID: 480-175829-6

Date Collected: 09/30/20 14:10

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 13:38	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 13:38	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 13:38	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 13:38	1
4-Bromofluorobenzene (Surr)	102		73 - 120		10/04/20 13:38	1
Dibromofluoromethane (Surr)	106		75 - 123		10/04/20 13:38	1
Toluene-d8 (Surr)	96		80 - 120		10/04/20 13:38	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-47S

Lab Sample ID: 480-175829-6

Date Collected: 09/30/20 14:10

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.75	J	2.5	0.18	ug/L		10/03/20 14:15	10/05/20 21:48	5
Acenaphthylene	ND		1.5	0.28	ug/L		10/03/20 14:15	10/05/20 21:48	5
Anthracene	ND		2.5	0.17	ug/L		10/03/20 14:15	10/05/20 21:48	5
Chrysene	ND		2.5	0.37	ug/L		10/03/20 14:15	10/05/20 21:48	5
Fluoranthene	ND		2.5	0.40	ug/L		10/03/20 14:15	10/05/20 21:48	5
Fluorene	ND		2.5	0.29	ug/L		10/03/20 14:15	10/05/20 21:48	5
Naphthalene	1.6	J	5.0	0.32	ug/L		10/03/20 14:15	10/05/20 21:48	5
Phenanthrene	ND		1.0	0.31	ug/L		10/03/20 14:15	10/05/20 21:48	5
Pyrene	ND		2.5	0.38	ug/L		10/03/20 14:15	10/05/20 21:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	107		24 - 146	10/03/20 14:15	10/05/20 21:48	5
2-Fluorobiphenyl	80		37 - 120	10/03/20 14:15	10/05/20 21:48	5
2-Fluorophenol (Surr)	45		10 - 120	10/03/20 14:15	10/05/20 21:48	5
Nitrobenzene-d5 (Surr)	68		26 - 120	10/03/20 14:15	10/05/20 21:48	5
Phenol-d5 (Surr)	28		11 - 120	10/03/20 14:15	10/05/20 21:48	5
p-Terphenyl-d14	82		64 - 127	10/03/20 14:15	10/05/20 21:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 01:17	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 01:17	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 01:17	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 01:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	93	*3	40 - 140	10/04/20 09:32	10/05/20 01:17	1
Nitrobenzene-d5	91	*3	41 - 144	10/04/20 09:32	10/05/20 01:17	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	8300		350	88	ug/L			10/02/20 01:58	88

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	40.6		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	17.8		10.0	1.7	mg/L			10/06/20 04:45	5
Ammonia	7.6		0.10	0.045	mg/L			10/01/20 12:17	5
Nitrate Nitrite as N	0.14		0.050	0.020	mg/L			10/01/20 20:13	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:01	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:14	1
Nitrate as N	0.14		0.050	0.020	mg/L			10/01/20 17:01	1
Alkalinity, Total	305		5.0	0.79	mg/L			10/05/20 00:46	1
Ferrous Iron	0.092	J HF	0.10	0.075	mg/L			10/03/20 11:20	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-47S

Date Collected: 09/30/20 14:10

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/01/20 14:08	1
Temperature	20.2	HF J	0.001	0.001	Degrees C			10/01/20 14:08	1

Client Sample ID: MW-31S

Date Collected: 09/30/20 16:00

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 14:02	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 14:02	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 14:02	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 14:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120					10/04/20 14:02	1
4-Bromofluorobenzene (Surr)	106		73 - 120					10/04/20 14:02	1
Dibromofluoromethane (Surr)	100		75 - 123					10/04/20 14:02	1
Toluene-d8 (Surr)	95		80 - 120					10/04/20 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 22:17	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 22:17	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 22:17	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 22:17	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 22:17	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 22:17	1
Naphthalene	ND		0.95	0.061	ug/L		10/03/20 14:15	10/05/20 22:17	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 22:17	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 22:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	120		24 - 146				10/03/20 14:15	10/05/20 22:17	1
2-Fluorobiphenyl	88		37 - 120				10/03/20 14:15	10/05/20 22:17	1
2-Fluorophenol (Surr)	50		10 - 120				10/03/20 14:15	10/05/20 22:17	1
Nitrobenzene-d5 (Surr)	80		26 - 120				10/03/20 14:15	10/05/20 22:17	1
Phenol-d5 (Surr)	32		11 - 120				10/03/20 14:15	10/05/20 22:17	1
p-Terphenyl-d14	113		64 - 127				10/03/20 14:15	10/05/20 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 01:38	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 01:38	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 01:38	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	135		40 - 140				10/04/20 09:32	10/05/20 01:38	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-31S

Lab Sample ID: 480-175829-7

Date Collected: 09/30/20 16:00

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	107		41 - 144	10/04/20 09:32	10/05/20 01:38	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	580		88	22	ug/L			10/02/20 02:17	22

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.5		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	10.2		4.0	0.70	mg/L			10/06/20 05:00	2
Ammonia	0.096		0.020	0.0090	mg/L			10/01/20 12:12	1
Nitrate Nitrite as N	0.025	J	0.050	0.020	mg/L			10/01/20 20:15	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:02	1
Cyanide, Total	0.0056	J	0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:15	1
Nitrate as N	0.025	J	0.050	0.020	mg/L			10/01/20 17:02	1
Alkalinity, Total	303	F4	5.0	0.79	mg/L			10/05/20 01:17	1
Ferrous Iron	0.086	J HF	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/01/20 14:09	1
Temperature	20.3	HF J	0.001	0.001	Degrees C			10/01/20 14:09	1

Client Sample ID: MW-23S

Lab Sample ID: 480-175829-8

Date Collected: 09/30/20 15:20

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.5	J	2.0	0.82	ug/L			10/04/20 14:27	2
Ethylbenzene	65		2.0	1.5	ug/L			10/04/20 14:27	2
Toluene	ND		2.0	1.0	ug/L			10/04/20 14:27	2
Xylenes, Total	38		4.0	1.3	ug/L			10/04/20 14:27	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		10/04/20 14:27	2
4-Bromofluorobenzene (Surr)	107		73 - 120		10/04/20 14:27	2
Dibromofluoromethane (Surr)	99		75 - 123		10/04/20 14:27	2
Toluene-d8 (Surr)	99		80 - 120		10/04/20 14:27	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	45	E	0.48	0.034	ug/L		10/03/20 14:15	10/05/20 22:46	1
Acenaphthylene	1.9		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 22:46	1
Anthracene	6.5		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 22:46	1
Chrysene	0.19	J	0.48	0.070	ug/L		10/03/20 14:15	10/05/20 22:46	1
Fluoranthene	3.0		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 22:46	1
Fluorene	20	E	0.48	0.055	ug/L		10/03/20 14:15	10/05/20 22:46	1
Naphthalene	96	E	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 22:46	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-23S

Lab Sample ID: 480-175829-8

Date Collected: 09/30/20 15:20

Matrix: Water

Date Received: 10/01/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	20	E B	0.19	0.059	ug/L		10/03/20 14:15	10/05/20 22:46	1
Pyrene	4.4		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 22:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	129		24 - 146				10/03/20 14:15	10/05/20 22:46	1
2-Fluorobiphenyl	74		37 - 120				10/03/20 14:15	10/05/20 22:46	1
2-Fluorophenol (Surr)	45		10 - 120				10/03/20 14:15	10/05/20 22:46	1
Nitrobenzene-d5 (Surr)	97		26 - 120				10/03/20 14:15	10/05/20 22:46	1
Phenol-d5 (Surr)	30		11 - 120				10/03/20 14:15	10/05/20 22:46	1
p-Terphenyl-d14	109		64 - 127				10/03/20 14:15	10/05/20 22:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	98		24	1.7	ug/L		10/03/20 14:15	10/06/20 18:21	50
Acenaphthylene	ND		14	2.7	ug/L		10/03/20 14:15	10/06/20 18:21	50
Anthracene	5.9	J	24	1.6	ug/L		10/03/20 14:15	10/06/20 18:21	50
Chrysene	ND		24	3.5	ug/L		10/03/20 14:15	10/06/20 18:21	50
Fluoranthene	ND		24	3.8	ug/L		10/03/20 14:15	10/06/20 18:21	50
Fluorene	26		24	2.8	ug/L		10/03/20 14:15	10/06/20 18:21	50
Naphthalene	340		48	3.0	ug/L		10/03/20 14:15	10/06/20 18:21	50
Phenanthrene	26	B	9.5	3.0	ug/L		10/03/20 14:15	10/06/20 18:21	50
Pyrene	3.9	J	24	3.6	ug/L		10/03/20 14:15	10/06/20 18:21	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	203	X	24 - 146				10/03/20 14:15	10/06/20 18:21	50
2-Fluorobiphenyl	81		37 - 120				10/03/20 14:15	10/06/20 18:21	50
2-Fluorophenol (Surr)	37		10 - 120				10/03/20 14:15	10/06/20 18:21	50
Nitrobenzene-d5 (Surr)	63		26 - 120				10/03/20 14:15	10/06/20 18:21	50
Phenol-d5 (Surr)	25		11 - 120				10/03/20 14:15	10/06/20 18:21	50
p-Terphenyl-d14	95		64 - 127				10/03/20 14:15	10/06/20 18:21	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.089		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 01:59	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 01:59	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 01:59	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 01:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		40 - 140				10/04/20 09:32	10/05/20 01:59	1
Nitrobenzene-d5	85		41 - 144				10/04/20 09:32	10/05/20 01:59	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	3100		88	22	ug/L			10/02/20 02:36	22

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-23S

Date Collected: 09/30/20 15:20

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-8

Matrix: Water

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.8		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	4.1	J	10.0	1.7	mg/L			10/06/20 05:14	5
Ammonia	1.1		0.020	0.0090	mg/L			10/01/20 12:02	1
Nitrate Nitrite as N	0.36		0.050	0.020	mg/L			10/01/20 20:18	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:05	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:17	1
Nitrate as N	0.36		0.050	0.020	mg/L			10/01/20 17:05	1
Alkalinity, Total	238		5.0	0.79	mg/L			10/05/20 01:31	1
Ferrous Iron	0.19	HF J	0.10	0.075	mg/L			10/03/20 11:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/01/20 14:11	1
Temperature	20.4	HF J	0.001	0.001	Degrees C			10/01/20 14:11	1

Client Sample ID: MW-45S

Date Collected: 09/30/20 10:45

Date Received: 10/01/20 08:00

Lab Sample ID: 480-175829-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/04/20 14:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/04/20 14:51	1
Toluene	ND		1.0	0.51	ug/L			10/04/20 14:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/04/20 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 14:51	1
4-Bromofluorobenzene (Surr)	103		73 - 120		10/04/20 14:51	1
Dibromofluoromethane (Surr)	100		75 - 123		10/04/20 14:51	1
Toluene-d8 (Surr)	94		80 - 120		10/04/20 14:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.036	J	0.48	0.034	ug/L		10/03/20 14:15	10/05/20 23:14	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 23:14	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 23:14	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 23:14	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 23:14	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/05/20 23:14	1
Naphthalene	0.20	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 23:14	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 23:14	1
Pyrene	0.10	J	0.48	0.072	ug/L		10/03/20 14:15	10/05/20 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	128		24 - 146	10/03/20 14:15	10/05/20 23:14	1
2-Fluorobiphenyl	95		37 - 120	10/03/20 14:15	10/05/20 23:14	1
2-Fluorophenol (Surr)	53		10 - 120	10/03/20 14:15	10/05/20 23:14	1
Nitrobenzene-d5 (Surr)	87		26 - 120	10/03/20 14:15	10/05/20 23:14	1
Phenol-d5 (Surr)	33		11 - 120	10/03/20 14:15	10/05/20 23:14	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: MW-45S

Lab Sample ID: 480-175829-9

Date Collected: 09/30/20 10:45

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14	106		64 - 127	10/03/20 14:15	10/05/20 23:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 02:20	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 02:20	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 02:20	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 02:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	109		40 - 140	10/04/20 09:32	10/05/20 02:20	1
Nitrobenzene-d5	102		41 - 144	10/04/20 09:32	10/05/20 02:20	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	5800		88	22	ug/L			10/02/20 02:54	22

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	30.1		0.050	0.019	mg/L		10/02/20 09:34	10/03/20 04:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		10.0	1.7	mg/L			10/06/20 05:29	5
Ammonia	3.4		0.040	0.018	mg/L			10/01/20 12:03	2
Nitrate Nitrite as N	0.098		0.050	0.020	mg/L			10/01/20 20:21	1
Nitrite as N	ND		0.050	0.020	mg/L			10/01/20 17:08	1
Cyanide, Total	0.0065	J	0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:21	1
Nitrate as N	0.098		0.050	0.020	mg/L			10/01/20 17:08	1
Alkalinity, Total	377		5.0	0.79	mg/L			10/05/20 01:47	1
Ferrous Iron	0.21	HF J	0.10	0.075	mg/L			10/03/20 11:20	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/01/20 14:12	1
Temperature	20.9	HF J	0.001	0.001	Degrees C			10/01/20 14:12	1

Client Sample ID: DUP

Lab Sample ID: 480-175829-10

Date Collected: 09/30/20 00:00

Matrix: Water

Date Received: 10/01/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	21		1.0	0.41	ug/L			10/04/20 15:15	1
Ethylbenzene	11		1.0	0.74	ug/L			10/04/20 15:15	1
Toluene	0.51	J	1.0	0.51	ug/L			10/04/20 15:15	1
Xylenes, Total	8.6		2.0	0.66	ug/L			10/04/20 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		10/04/20 15:15	1

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175829-1

Client Sample ID: DUP

Lab Sample ID: 480-175829-10

Date Collected: 09/30/20 00:00

Matrix: Water

Date Received: 10/01/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		73 - 120		10/04/20 15:15	1
Dibromofluoromethane (Surr)	101		75 - 123		10/04/20 15:15	1
Toluene-d8 (Surr)	99		80 - 120		10/04/20 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.2		0.48	0.034	ug/L		10/03/20 14:15	10/05/20 23:42	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/05/20 23:42	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/05/20 23:42	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/05/20 23:42	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/05/20 23:42	1
Fluorene	0.095	J	0.48	0.055	ug/L		10/03/20 14:15	10/05/20 23:42	1
Naphthalene	0.82	J	0.95	0.061	ug/L		10/03/20 14:15	10/05/20 23:42	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/05/20 23:42	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/05/20 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	132		24 - 146	10/03/20 14:15	10/05/20 23:42	1
2-Fluorobiphenyl	89		37 - 120	10/03/20 14:15	10/05/20 23:42	1
2-Fluorophenol (Surr)	52		10 - 120	10/03/20 14:15	10/05/20 23:42	1
Nitrobenzene-d5 (Surr)	84		26 - 120	10/03/20 14:15	10/05/20 23:42	1
Phenol-d5 (Surr)	34		11 - 120	10/03/20 14:15	10/05/20 23:42	1
p-Terphenyl-d14	113		64 - 127	10/03/20 14:15	10/05/20 23:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/04/20 09:32	10/05/20 02:42	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/04/20 09:32	10/05/20 02:42	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/04/20 09:32	10/05/20 02:42	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/04/20 09:32	10/05/20 02:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	126		40 - 140	10/04/20 09:32	10/05/20 02:42	1
Nitrobenzene-d5	93		41 - 144	10/04/20 09:32	10/05/20 02:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.092		0.010	0.0050	mg/L		10/01/20 20:26	10/02/20 15:22	1

Sample Summary

Client: AECOM

Job ID: 480-175904-1

Project/Site: Ithaca Laboratory - Groundwater Analysis

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-175904-1	MWC-12	Water	10/01/20 10:30	10/02/20 08:00	
480-175904-2	MWC-16	Water	10/01/20 09:50	10/02/20 08:00	
480-175904-3	MW-24S	Water	10/01/20 12:10	10/02/20 08:00	
480-175904-4	MW-25S	Water	10/01/20 11:20	10/02/20 08:00	
480-175904-5	MW-28S	Water	10/01/20 13:20	10/02/20 08:00	
480-175904-6	MWC-11	Water	10/01/20 09:10	10/02/20 08:00	
480-175904-7	EQUIPMENT BLANK	Water	10/01/20 11:15	10/02/20 08:00	

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-12

Lab Sample ID: 480-175904-1

Date Collected: 10/01/20 10:30

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.8		1.0	0.41	ug/L			10/07/20 14:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 14:03	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 14:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 14:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120					10/07/20 14:03	1
4-Bromofluorobenzene (Surr)	102		73 - 120					10/07/20 14:03	1
Dibromofluoromethane (Surr)	104		75 - 123					10/07/20 14:03	1
Toluene-d8 (Surr)	97		80 - 120					10/07/20 14:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	50	E	0.48	0.034	ug/L		10/03/20 14:15	10/06/20 00:11	1
Acenaphthylene	1.0		0.29	0.053	ug/L		10/03/20 14:15	10/06/20 00:11	1
Anthracene	0.096	J	0.48	0.032	ug/L		10/03/20 14:15	10/06/20 00:11	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/06/20 00:11	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/06/20 00:11	1
Fluorene	10		0.48	0.055	ug/L		10/03/20 14:15	10/06/20 00:11	1
Naphthalene	0.19	J	0.95	0.061	ug/L		10/03/20 14:15	10/06/20 00:11	1
Phenanthrene	0.90	B	0.19	0.059	ug/L		10/03/20 14:15	10/06/20 00:11	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/06/20 00:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	129		24 - 146				10/03/20 14:15	10/06/20 00:11	1
2-Fluorobiphenyl	90		37 - 120				10/03/20 14:15	10/06/20 00:11	1
2-Fluorophenol (Surr)	49		10 - 120				10/03/20 14:15	10/06/20 00:11	1
Nitrobenzene-d5 (Surr)	79		26 - 120				10/03/20 14:15	10/06/20 00:11	1
Phenol-d5 (Surr)	32		11 - 120				10/03/20 14:15	10/06/20 00:11	1
p-Terphenyl-d14	109		64 - 127				10/03/20 14:15	10/06/20 00:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	81		4.8	0.34	ug/L		10/03/20 14:15	10/06/20 18:49	10
Acenaphthylene	0.90	J	2.9	0.53	ug/L		10/03/20 14:15	10/06/20 18:49	10
Anthracene	ND		4.8	0.32	ug/L		10/03/20 14:15	10/06/20 18:49	10
Chrysene	ND		4.8	0.70	ug/L		10/03/20 14:15	10/06/20 18:49	10
Fluoranthene	ND		4.8	0.76	ug/L		10/03/20 14:15	10/06/20 18:49	10
Fluorene	9.2		4.8	0.55	ug/L		10/03/20 14:15	10/06/20 18:49	10
Naphthalene	ND		9.5	0.61	ug/L		10/03/20 14:15	10/06/20 18:49	10
Phenanthrene	0.90	J-B	1.9	0.59	ug/L		10/03/20 14:15	10/06/20 18:49	10
Pyrene	ND		4.8	0.72	ug/L		10/03/20 14:15	10/06/20 18:49	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	121		24 - 146				10/03/20 14:15	10/06/20 18:49	10
2-Fluorobiphenyl	87		37 - 120				10/03/20 14:15	10/06/20 18:49	10
2-Fluorophenol (Surr)	43		10 - 120				10/03/20 14:15	10/06/20 18:49	10
Nitrobenzene-d5 (Surr)	69		26 - 120				10/03/20 14:15	10/06/20 18:49	10
Phenol-d5 (Surr)	29		11 - 120				10/03/20 14:15	10/06/20 18:49	10
p-Terphenyl-d14	101		64 - 127				10/03/20 14:15	10/06/20 18:49	10

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Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-12

Lab Sample ID: 480-175904-1

Date Collected: 10/01/20 10:30

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 05:02	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 05:02	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 05:02	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 05:02	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1000		44	11	ug/L			10/05/20 17:39	11

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.8		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 22:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	238		10.0	1.7	mg/L			10/04/20 02:17	5
Ammonia	2.5		0.040	0.018	mg/L			10/05/20 09:25	2
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 21:34	1
Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 17:53	1
Cyanide, Total	0.016		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:20	1
Nitrate as N	ND		0.050	0.020	mg/L			10/02/20 17:53	1
Alkalinity, Total	605		5.0	0.79	mg/L			10/05/20 13:02	1
Ferrous Iron	ND	HF J	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF J	0.1	0.1	SU			10/04/20 12:01	1
Temperature	15.5	HF J	0.001	0.001	Degrees C			10/04/20 12:01	1

Client Sample ID: MWC-16

Lab Sample ID: 480-175904-2

Date Collected: 10/01/20 09:50

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.82	J	2.0	0.82	ug/L			10/07/20 12:03	2
Ethylbenzene	ND		2.0	1.5	ug/L			10/07/20 12:03	2
Toluene	ND		2.0	1.0	ug/L			10/07/20 12:03	2
Xylenes, Total	ND		4.0	1.3	ug/L			10/07/20 12:03	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		10/07/20 12:03	2
4-Bromofluorobenzene (Surr)	105		73 - 120		10/07/20 12:03	2
Dibromofluoromethane (Surr)	104		75 - 123		10/07/20 12:03	2
Toluene-d8 (Surr)	98		80 - 120		10/07/20 12:03	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	23		9.5	0.69	ug/L		10/03/20 14:15	10/06/20 00:39	20
Acenaphthylene	ND		5.7	1.1	ug/L		10/03/20 14:15	10/06/20 00:39	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-16

Lab Sample ID: 480-175904-2

Date Collected: 10/01/20 09:50

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		9.5	0.65	ug/L		10/03/20 14:15	10/06/20 00:39	20
Chrysene	ND		9.5	1.4	ug/L		10/03/20 14:15	10/06/20 00:39	20
Fluoranthene	ND		9.5	1.5	ug/L		10/03/20 14:15	10/06/20 00:39	20
Fluorene	3.1	J	9.5	1.1	ug/L		10/03/20 14:15	10/06/20 00:39	20
Naphthalene	ND		19	1.2	ug/L		10/03/20 14:15	10/06/20 00:39	20
Phenanthrene	ND		3.8	1.2	ug/L		10/03/20 14:15	10/06/20 00:39	20
Pyrene	ND		9.5	1.4	ug/L		10/03/20 14:15	10/06/20 00:39	20

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	150	X	24 - 146				10/03/20 14:15	10/06/20 00:39	20
2-Fluorobiphenyl	96		37 - 120				10/03/20 14:15	10/06/20 00:39	20
2-Fluorophenol (Surr)	50		10 - 120				10/03/20 14:15	10/06/20 00:39	20
Nitrobenzene-d5 (Surr)	72		26 - 120				10/03/20 14:15	10/06/20 00:39	20
Phenol-d5 (Surr)	29		11 - 120				10/03/20 14:15	10/06/20 00:39	20
p-Terphenyl-d14	108		64 - 127				10/03/20 14:15	10/06/20 00:39	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.019	J	0.050	0.016	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 05:23	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 05:23	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 05:23	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 05:23	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	380		44	11	ug/L			10/02/20 15:43	11

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25.8		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1320		40.0	7.0	mg/L			10/06/20 05:43	20
Ammonia	0.77	B	0.020	0.0090	mg/L			10/05/20 08:42	1
Nitrate Nitrite as N	0.055		0.050	0.020	mg/L			10/02/20 21:35	1
Nitrite as N	0.021	J	0.050	0.020	mg/L			10/02/20 17:56	1
Cyanide, Total	0.0090	J	0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:22	1
Nitrate as N	0.034	J	0.050	0.020	mg/L			10/02/20 17:56	1
Alkalinity, Total	563		5.0	0.79	mg/L			10/05/20 13:11	1
Ferrous Iron	0.28	HF J	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.9	HF J	0.1	0.1	SU			10/04/20 12:02	1
Temperature	14.9	HF J	0.001	0.001	Degrees C			10/04/20 12:02	1

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-24S

Lab Sample ID: 480-175904-3

Date Collected: 10/01/20 12:10

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 12:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 12:27	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 12:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 12:27	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120					10/07/20 12:27	1
4-Bromofluorobenzene (Surr)	104		73 - 120					10/07/20 12:27	1
Dibromofluoromethane (Surr)	105		75 - 123					10/07/20 12:27	1
Toluene-d8 (Surr)	97		80 - 120					10/07/20 12:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.046	J	0.48	0.035	ug/L		10/03/20 14:15	10/06/20 01:07	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/03/20 14:15	10/06/20 01:07	1
Anthracene	ND		0.48	0.033	ug/L		10/03/20 14:15	10/06/20 01:07	1
Chrysene	ND		0.48	0.071	ug/L		10/03/20 14:15	10/06/20 01:07	1
Fluoranthene	ND		0.48	0.077	ug/L		10/03/20 14:15	10/06/20 01:07	1
Fluorene	ND		0.48	0.056	ug/L		10/03/20 14:15	10/06/20 01:07	1
Naphthalene	ND		0.96	0.062	ug/L		10/03/20 14:15	10/06/20 01:07	1
Phenanthrene	ND		0.19	0.060	ug/L		10/03/20 14:15	10/06/20 01:07	1
Pyrene	ND		0.48	0.073	ug/L		10/03/20 14:15	10/06/20 01:07	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	131		24 - 146				10/03/20 14:15	10/06/20 01:07	1
2-Fluorobiphenyl	93		37 - 120				10/03/20 14:15	10/06/20 01:07	1
2-Fluorophenol (Surr)	53		10 - 120				10/03/20 14:15	10/06/20 01:07	1
Nitrobenzene-d5 (Surr)	84		26 - 120				10/03/20 14:15	10/06/20 01:07	1
Phenol-d5 (Surr)	34		11 - 120				10/03/20 14:15	10/06/20 01:07	1
p-Terphenyl-d14	118		64 - 127				10/03/20 14:15	10/06/20 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 05:43	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 05:43	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 05:43	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 05:43	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	1400		44	11	ug/L			10/05/20 06:34	11

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	29.4		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:26	1

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-24S

Lab Sample ID: 480-175904-3

Date Collected: 10/01/20 12:10

Matrix: Water

Date Received: 10/02/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.87	J	4.0	0.70	mg/L			10/04/20 02:45	2
Ammonia	2.7		0.040	0.018	mg/L			10/05/20 09:26	2
Nitrate Nitrite as N	0.30		0.050	0.020	mg/L			10/02/20 21:39	1
Nitrite as N	0.021	J	0.050	0.020	mg/L			10/02/20 17:57	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:26	1
Nitrate as N	0.28		0.050	0.020	mg/L			10/02/20 17:57	1
Alkalinity, Total	301		5.0	0.79	mg/L			10/05/20 13:19	1
Ferrous Iron	0.12	HF J	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF J	0.1	0.1	SU			10/04/20 12:04	1
Temperature	14.9	HF J	0.001	0.001	Degrees C			10/04/20 12:04	1

Client Sample ID: MW-25S

Lab Sample ID: 480-175904-4

Date Collected: 10/01/20 11:20

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 12:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 12:51	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 12:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 12:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120					10/07/20 12:51	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/07/20 12:51	1
Dibromofluoromethane (Surr)	104		75 - 123					10/07/20 12:51	1
Toluene-d8 (Surr)	97		80 - 120					10/07/20 12:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.034	ug/L		10/03/20 14:15	10/06/20 01:36	1
Acenaphthylene	ND		0.29	0.053	ug/L		10/03/20 14:15	10/06/20 01:36	1
Anthracene	ND		0.48	0.032	ug/L		10/03/20 14:15	10/06/20 01:36	1
Chrysene	ND		0.48	0.070	ug/L		10/03/20 14:15	10/06/20 01:36	1
Fluoranthene	ND		0.48	0.076	ug/L		10/03/20 14:15	10/06/20 01:36	1
Fluorene	ND		0.48	0.055	ug/L		10/03/20 14:15	10/06/20 01:36	1
Naphthalene	ND		0.95	0.061	ug/L		10/03/20 14:15	10/06/20 01:36	1
Phenanthrene	ND		0.19	0.059	ug/L		10/03/20 14:15	10/06/20 01:36	1
Pyrene	ND		0.48	0.072	ug/L		10/03/20 14:15	10/06/20 01:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	118		24 - 146				10/03/20 14:15	10/06/20 01:36	1
2-Fluorobiphenyl	87		37 - 120				10/03/20 14:15	10/06/20 01:36	1
2-Fluorophenol (Surr)	50		10 - 120				10/03/20 14:15	10/06/20 01:36	1
Nitrobenzene-d5 (Surr)	80		26 - 120				10/03/20 14:15	10/06/20 01:36	1
Phenol-d5 (Surr)	32		11 - 120				10/03/20 14:15	10/06/20 01:36	1
p-Terphenyl-d14	86		64 - 127				10/03/20 14:15	10/06/20 01:36	1

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-25S

Lab Sample ID: 480-175904-4

Date Collected: 10/01/20 11:20

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 06:04	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 06:04	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 06:04	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 06:04	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	30		4.0	1.0	ug/L			10/02/20 14:46	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	6.5		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	121		20.0	3.5	mg/L			10/04/20 02:59	10
Ammonia	0.52	B	0.020	0.0090	mg/L			10/05/20 08:44	1
Nitrate Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 21:42	1
Nitrite as N	0.020	J	0.050	0.020	mg/L			10/02/20 17:59	1
Cyanide, Total	0.026		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:28	1
Nitrate as N	ND		0.050	0.020	mg/L			10/02/20 17:59	1
Alkalinity, Total	550		5.0	0.79	mg/L			10/05/20 13:28	1
Ferrous Iron	0.15	HF J	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF J	0.1	0.1	SU			10/04/20 12:05	1
Temperature	14.8	HF J	0.001	0.001	Degrees C			10/04/20 12:05	1

Client Sample ID: MW-28S

Lab Sample ID: 480-175904-5

Date Collected: 10/01/20 13:20

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 13:15	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 13:15	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 13:15	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		10/07/20 13:15	1
4-Bromofluorobenzene (Surr)	100		73 - 120		10/07/20 13:15	1
Dibromofluoromethane (Surr)	107		75 - 123		10/07/20 13:15	1
Toluene-d8 (Surr)	96		80 - 120		10/07/20 13:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.48	0.035	ug/L		10/03/20 14:15	10/06/20 02:05	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/03/20 14:15	10/06/20 02:05	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MW-28S

Lab Sample ID: 480-175904-5

Date Collected: 10/01/20 13:20

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		0.48	0.033	ug/L		10/03/20 14:15	10/06/20 02:05	1
Chrysene	ND		0.48	0.071	ug/L		10/03/20 14:15	10/06/20 02:05	1
Fluoranthene	ND		0.48	0.077	ug/L		10/03/20 14:15	10/06/20 02:05	1
Fluorene	ND		0.48	0.056	ug/L		10/03/20 14:15	10/06/20 02:05	1
Naphthalene	ND		0.96	0.062	ug/L		10/03/20 14:15	10/06/20 02:05	1
Phenanthrene	ND		0.19	0.060	ug/L		10/03/20 14:15	10/06/20 02:05	1
Pyrene	ND		0.48	0.073	ug/L		10/03/20 14:15	10/06/20 02:05	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	131		24 - 146				10/03/20 14:15	10/06/20 02:05	1
2-Fluorobiphenyl	94		37 - 120				10/03/20 14:15	10/06/20 02:05	1
2-Fluorophenol (Surr)	53		10 - 120				10/03/20 14:15	10/06/20 02:05	1
Nitrobenzene-d5 (Surr)	85		26 - 120				10/03/20 14:15	10/06/20 02:05	1
Phenol-d5 (Surr)	34		11 - 120				10/03/20 14:15	10/06/20 02:05	1
p-Terphenyl-d14	122		64 - 127				10/03/20 14:15	10/06/20 02:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 06:25	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 06:25	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 06:25	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 06:25	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	4000		180	44	ug/L			10/05/20 06:53	44

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.8		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		10.0	1.7	mg/L			10/04/20 03:13	5
Ammonia	0.88	B	0.020	0.0090	mg/L			10/05/20 08:45	1
Nitrate Nitrite as N	0.031	J	0.050	0.020	mg/L			10/02/20 21:43	1
Nitrite as N	0.022	J	0.050	0.020	mg/L			10/02/20 18:00	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:29	1
Nitrate as N	ND		0.050	0.020	mg/L			10/02/20 18:00	1
Alkalinity, Total	271		5.0	0.79	mg/L			10/05/20 13:35	1
Ferrous Iron	ND	HF J	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.5	HF J	0.1	0.1	SU			10/04/20 12:07	1
Temperature	15.5	HF J	0.001	0.001	Degrees C			10/04/20 12:07	1

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Date Collected: 10/01/20 09:10

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/07/20 13:39	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/07/20 13:39	1
Toluene	ND		1.0	0.51	ug/L			10/07/20 13:39	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/07/20 13:39	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120					10/07/20 13:39	1
4-Bromofluorobenzene (Surr)	100		73 - 120					10/07/20 13:39	1
Dibromofluoromethane (Surr)	105		75 - 123					10/07/20 13:39	1
Toluene-d8 (Surr)	97		80 - 120					10/07/20 13:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.6		2.4	0.17	ug/L		10/03/20 14:15	10/06/20 02:34	5
Acenaphthylene	0.53	J	1.4	0.27	ug/L		10/03/20 14:15	10/06/20 02:34	5
Anthracene	ND		2.4	0.16	ug/L		10/03/20 14:15	10/06/20 02:34	5
Chrysene	ND		2.4	0.35	ug/L		10/03/20 14:15	10/06/20 02:34	5
Fluoranthene	ND		2.4	0.38	ug/L		10/03/20 14:15	10/06/20 02:34	5
Fluorene	ND		2.4	0.28	ug/L		10/03/20 14:15	10/06/20 02:34	5
Naphthalene	ND		4.8	0.30	ug/L		10/03/20 14:15	10/06/20 02:34	5
Phenanthrene	ND		0.95	0.30	ug/L		10/03/20 14:15	10/06/20 02:34	5
Pyrene	ND		2.4	0.36	ug/L		10/03/20 14:15	10/06/20 02:34	5

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	113		24 - 146				10/03/20 14:15	10/06/20 02:34	5
2-Fluorobiphenyl	88		37 - 120				10/03/20 14:15	10/06/20 02:34	5
2-Fluorophenol (Surr)	47		10 - 120				10/03/20 14:15	10/06/20 02:34	5
Nitrobenzene-d5 (Surr)	70		26 - 120				10/03/20 14:15	10/06/20 02:34	5
Phenol-d5 (Surr)	30		11 - 120				10/03/20 14:15	10/06/20 02:34	5
p-Terphenyl-d14	105		64 - 127				10/03/20 14:15	10/06/20 02:34	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 06:46	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 06:46	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 06:46	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 06:46	1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	98		4.0	1.0	ug/L			10/02/20 15:24	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	4.7		0.050	0.019	mg/L		10/02/20 15:46	10/05/20 23:37	1

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: MWC-11

Lab Sample ID: 480-175904-6

Date Collected: 10/01/20 09:10

Matrix: Water

Date Received: 10/02/20 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	121		20.0	3.5	mg/L			10/04/20 03:27	10
Ammonia	0.54	B	0.020	0.0090	mg/L			10/05/20 08:46	1
Nitrate Nitrite as N	0.024	J	0.050	0.020	mg/L			10/02/20 21:45	1
Nitrite as N	ND		0.050	0.020	mg/L			10/02/20 18:01	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/02/20 19:23	10/03/20 12:31	1
Nitrate as N	0.024	J	0.050	0.020	mg/L			10/02/20 18:01	1
Alkalinity, Total	404		5.0	0.79	mg/L			10/05/20 13:55	1
Ferrous Iron	ND	HF J	0.10	0.075	mg/L			10/08/20 10:20	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3	HF J	0.1	0.1	SU			10/04/20 12:08	1
Temperature	16.7	HF J	0.001	0.001	Degrees C			10/04/20 12:08	1

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-175904-7

Date Collected: 10/01/20 11:15

Matrix: Water

Date Received: 10/02/20 08:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/03/20 12:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/03/20 12:44	1
Toluene	ND		1.0	0.51	ug/L			10/03/20 12:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/03/20 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120					10/03/20 12:44	1
4-Bromofluorobenzene (Surr)	101		73 - 120					10/03/20 12:44	1
Dibromofluoromethane (Surr)	111		75 - 123					10/03/20 12:44	1
Toluene-d8 (Surr)	97		80 - 120					10/03/20 12:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.49	0.035	ug/L		10/07/20 09:04	10/08/20 09:29	1
Acenaphthylene	ND		0.29	0.054	ug/L		10/07/20 09:04	10/08/20 09:29	1
Anthracene	ND		0.49	0.033	ug/L		10/07/20 09:04	10/08/20 09:29	1
Chrysene	ND		0.49	0.072	ug/L		10/07/20 09:04	10/08/20 09:29	1
Fluoranthene	ND		0.49	0.078	ug/L		10/07/20 09:04	10/08/20 09:29	1
Fluorene	ND		0.49	0.056	ug/L		10/07/20 09:04	10/08/20 09:29	1
Naphthalene	ND		0.97	0.062	ug/L		10/07/20 09:04	10/08/20 09:29	1
Phenanthrene	0.064	J B 0.19 U	0.19	0.060	ug/L		10/07/20 09:04	10/08/20 09:29	1
Pyrene	ND		0.49	0.074	ug/L		10/07/20 09:04	10/08/20 09:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	113		24 - 146				10/07/20 09:04	10/08/20 09:29	1
2-Fluorobiphenyl	97		37 - 120				10/07/20 09:04	10/08/20 09:29	1
2-Fluorophenol (Surr)	57		10 - 120				10/07/20 09:04	10/08/20 09:29	1
Nitrobenzene-d5 (Surr)	87		26 - 120				10/07/20 09:04	10/08/20 09:29	1
Phenol-d5 (Surr)	37		11 - 120				10/07/20 09:04	10/08/20 09:29	1
p-Terphenyl-d14	113		64 - 127				10/07/20 09:04	10/08/20 09:29	1

Client Sample Results

Client: AECOM
Project/Site: Ithaca Laboratory - Groundwater Analysis

Job ID: 480-175904-1

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-175904-7

Date Collected: 10/01/20 11:15

Matrix: Water

Date Received: 10/02/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.050	0.016	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[a]pyrene	ND		0.050	0.022	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[b]fluoranthene	ND		0.050	0.024	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[g,h,i]perylene	ND		0.050	0.035	ug/L		10/07/20 15:21	10/08/20 07:07	1
Benzo[k]fluoranthene	ND		0.050	0.028	ug/L		10/07/20 15:21	10/08/20 07:07	1
Dibenz(a,h)anthracene	ND		0.050	0.020	ug/L		10/07/20 15:21	10/08/20 07:07	1
Indeno[1,2,3-cd]pyrene	ND		0.050	0.036	ug/L		10/07/20 15:21	10/08/20 07:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/06/20 22:14	10/07/20 12:19	1

Appendix C

Support Documentation

Job Narrative
480-175829-1

Comments

No additional comments.

Receipt

The samples were received on 10/1/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.8° C, 2.9° C, 3.0° C, 3.1° C and 3.4° C.

GC/MS VOA

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2), MW-48S (480-175829-5), MW-48S (480-175829-5[MS]), MW-48S (480-175829-5[MSD]) and MW-23S (480-175829-8). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: MW-22S (480-175829-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved samples: MW-47S (480-175829-6). Sample pH is 7.

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

GC/MS Semi VOA

Method 8270D LL: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following sample was diluted due to the nature of the sample matrix: MW-47S (480-175829-6). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2), MW-48S (480-175829-5), MW-48S (480-175829-5[MS]), MW-48S (480-175829-5[MSD]) and MW-23S (480-175829-8). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following samples required a dilution due to the abundance of target analytes: MW-46S (480-175829-2) and MW-23S (480-175829-8). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D SIM: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW-40 (480-175829-4). These results have been reported and qualified.

Method 8270D SIM: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4, Acenaphthene-d-10, Naphthalene-d8 and Phenanthrene-d10 for the following sample was outside acceptance criteria: MW-47S (480-175829-6). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8270D SIM: Internal standard (ISTD) response for Acenaphthene-d-10 for the following samples were outside acceptance criteria: MW-22S (480-175829-3), MW-48S (480-175829-5[MS]) and (MB 460-728957/1-A). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8270D SIM: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4 for the following sample was outside acceptance criteria: MW-33S (480-175829-1). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method 8270D SIM: Internal standard (ISTD) response for Naphthalene-d8 for the following samples were outside acceptance criteria: MW-48S (480-175829-5) and MW-48S (480-175829-5[MSD]). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

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

HPLC/IC

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: MW-33S (480-175829-1), MW-46S (480-175829-2), MW-22S (480-175829-3), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-23S (480-175829-8) and MW-45S (480-175829-9). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was reported with elevated reporting limits for all analytes: MW-31S (480-175829-7). The sample was analyzed at a dilution based on screening results.

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

GC VOA

Method RSK-175: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-46S (480-175829-2), MW-22S (480-175829-3), MW-40 (480-175829-4), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-31S (480-175829-7), MW-23S (480-175829-8) and MW-45S (480-175829-9).

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 SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-33S (480-175829-1), MW-46S (480-175829-2), MW-22S (480-175829-3), MW-40 (480-175829-4), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-31S (480-175829-7), MW-23S (480-175829-8) and MW-45S (480-175829-9).

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-33S (480-175829-1), MW-46S (480-175829-2), MW-22S (480-175829-3), MW-40 (480-175829-4), MW-48S (480-175829-5), MW-47S (480-175829-6), MW-31S (480-175829-7), MW-23S (480-175829-8) and MW-45S (480-175829-9).

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1

SDG No.: _____

Batch Number: 552371 Batch Start Date: 10/04/20 09:03 Batch Analyst: Moffat, Alyssa MBatch Method: 8260C Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	8260 CORP mix 00194	BFB_WRK 00110	GAS CORP mix 00420
BFB 480-552371/2		8260C		1 uL	1 uL			1 uL	
CCVIS 480-552371/3		8260C		5 mL	5 mL		12.5 uL		12.5 uL
LCS 480-552371/5		8260C		5 mL	5 mL		12.5 uL		12.5 uL
MB 480-552371/7		8260C		5 mL	5 mL				
480-175829-N-1	MW-33S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-2	MW-46S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-3	MW-22S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-4	MW-40	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-5	MW-48S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-6	MW-47S	8260C	T	5 mL	5 mL	7 SU			
480-175829-N-7	MW-31S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-8	MW-23S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-N-9	MW-45S	8260C	T	5 mL	5 mL	<2 SU			
480-175829-G-10	DUP	8260C	T	5 mL	5 mL	<2 SU			
480-175829-F-5 MS	MW-48S	8260C	T	5 mL	5 mL	<2 SU	12.5 uL		12.5 uL
480-175829-F-5 MSD	MW-48S	8260C	T	5 mL	5 mL	<2 SU	12.5 uL		12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	N 8260 IS 00198	N 8260 IS 00199	N_8260_Surr 00400	N_8260_Surr 00401	AnalysisComment	
BFB 480-552371/2		8260C							
CCVIS 480-552371/3		8260C		1 uL		1 uL			
LCS 480-552371/5		8260C			1 uL		1 uL		
MB 480-552371/7		8260C			1 uL		1 uL		
480-175829-N-1	MW-33S	8260C	T		1 uL		1 uL		
480-175829-N-2	MW-46S	8260C	T		1 uL		1 uL	Targets	
480-175829-N-3	MW-22S	8260C	T		1 uL		1 uL	TICS	
480-175829-N-4	MW-40	8260C	T		1 uL		1 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
SDG No.: _____
Matrix: Water Level: Low Lab File ID: N6486.D
Lab ID: 480-175829-5 MS Client ID: MW-48S MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Benzene	50.0	69	108	77	71-124	
Ethylbenzene	50.0	26	79.1	106	77-123	
Toluene	50.0	ND	51.1	102	80-122	
Xylenes, Total	100	18	123	105	76-122	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: N6487.D
 Lab ID: 480-175829-5 MSD Client ID: MW-48S MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Benzene	50.0	103	67	4	13	71-124	F1
Ethylbenzene	50.0	79.3	106	0	15	77-123	
Toluene	50.0	49.4	99	3	15	80-122	
Xylenes, Total	100	121	103	1	16	76-122	

Column to be used to flag recovery and RPD values

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Edison Job No.: 480-175829-1
 SDG No.: _____
 Sample No.: CCVIS 460-728648/2 Date Analyzed: 10/04/2020 19:24
 Instrument ID: CBNAMS9 GC Column: Rtxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): h260204a.d Heated Purge: (Y/N) N
 Calibration ID: 81777

	DCBd4		NPT		ANT	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	18878	3.88	45315	5.10	20812	6.76
UPPER LIMIT	37756	4.38	90630	5.60	41624	7.26
LOWER LIMIT	9439	3.38	22658	4.60	10406	6.26
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 460-728957/1-A		34557	3.87	85721	5.10	45235*3 6.76
LCS 460-728957/2-A		28589	3.87	70079	5.10	36496 6.76
LCSD 460-728957/3-A		29663	3.87	73643	5.10	39959 6.76
480-175829-5	MW-48S	26883	3.87	94045*3	5.10	33338 6.76
480-175829-5 MS	MW-48S MS	25202	3.87	64039	5.10	42728*3 6.76
480-175829-5 MSD	MW-48S MSD	31028	3.87	114139*3	5.10	37182 6.76
480-175829-1	MW-33S	38874*3	3.87	73115	5.10	37011 6.76
480-175829-2	MW-46S	28322	3.87	71804	5.10	36884 6.76
480-175829-3	MW-22S	27114	3.87	89885	5.10	43879*3 6.76
480-175829-4	MW-40	33304	3.87	63248	5.10	31469 6.76
480-175829-6	MW-47S	45999*3	3.87	114231*3	5.10	55136*3 6.76
480-175829-7	MW-31S	31664	3.87	69195	5.10	33385 6.76
480-175829-8	MW-23S	30442	3.87	76589	5.10	41404 6.76
480-175829-9	MW-45S	31336	3.87	79605	5.10	30492 6.76
480-175829-10	DUP	30470	3.87	60367	5.10	27929 6.76

DCBd4 = 1,4-Dichlorobenzene-d4

NPT = Naphthalene-d8

ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Edison Job No.: 480-175829-1
 SDG No.: _____
 Sample No.: CCVIS 460-728648/2 Date Analyzed: 10/04/2020 19:24
 Instrument ID: CBNAMS9 GC Column: Rtxi-5Sil MS ID: 0.25 (mm)
 Lab File ID (Standard): h260204a.d Heated Purge: (Y/N) N
 Calibration ID: 81777

PAH IS Areas were CRY and PRY

	PHN		CRY		PRY	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	38315	8.15	26037	10.67	30588	12.35
UPPER LIMIT	76630	8.65	52074	11.17	61176	12.85
LOWER LIMIT	19158	7.65	13019	10.17	15294	11.85
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 460-728957/1-A		67609	8.15	43641	10.66	36676 12.34
LCS 460-728957/2-A		57474	8.15	44521	10.66	35408 12.34
LCSD 460-728957/3-A		58782	8.15	38571	10.66	38147 12.34
480-175829-5	MW-48S	49634	8.15	36978	10.66	36887 12.34
480-175829-5 MS	MW-48S MS	47029	8.15	32247	10.66	30183 12.34
480-175829-5 MSD	MW-48S MSD	58103	8.15	38752	10.66	30965 12.34
480-175829-1	MW-33S	55468	8.15	38455	10.66	49589 12.34
480-175829-2	MW-46S	49531	8.15	48532	10.66	35883 12.34
480-175829-3	MW-22S	48057	8.15	32966	10.66	31859 12.34
480-175829-4	MW-40	49030	8.15	33403	10.66	32854 12.33
480-175829-6	MW-47S	78057*3	8.15	41486	10.66	42684 12.33
480-175829-7	MW-31S	70868	8.15	45614	10.66	33547 12.33
480-175829-8	MW-23S	69809	8.15	37959	10.66	38877 12.33
480-175829-9	MW-45S	46760	8.15	33314	10.66	34236 12.34
480-175829-10	DUP	61411	8.15	41937	10.66	41434 12.33

PHN = Phenanthrene-d10
 CRY = Chrysene-d12
 PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-175829-1

SDG No.: _____

Matrix: Water

Level: Low

GC Column (1): RXI-5Sil MS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPHd14 #
MW-33S	480-175829-1	49	31	79	86	126	112
MW-46S	480-175829-2	40	23	62	71	111	85
MW-46S DL	480-175829-2 DL	37	22	59	70	532 X	86
MW-22S	480-175829-3	48	31	78	78	120	104
MW-40	480-175829-4	51	33	83	91	122	110
MW-48S	480-175829-5	59	38	95	95	136	104
MW-48S DL	480-175829-5 DL	54	35	83	99	138	102
MW-47S	480-175829-6	45	28	68	80	107	82
MW-31S	480-175829-7	50	32	80	88	120	113
MW-23S	480-175829-8	45	30	97	74	129	109
MW-23S DL	480-175829-8 DL	37	25	63	81	203 X	95
MW-45S	480-175829-9	53	33	87	95	128	106
DUP	480-175829-10	52	34	84	89	132	113
	MB 480-552351/1-A	55	35	84	92	106	111
	LCS 480-552351/2-A	57	39	94	94	122	104
MW-48S MS	480-175829-5 MS	51	35	91	89	131	95
MW-48S MS DL	480-175829-5 MS DL	49	35	82	92	136	93
MW-48S MSD	480-175829-5 MSD	51	35	91	88	122	94
MW-48S MSD DL	480-175829-5 MSD DL	46	32	82	88	128	91

QC LIMITS

2FP = 2-Fluorophenol (Surr)
 PHL = Phenol-d5 (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 FBP = 2-Fluorobiphenyl
 TBP = 2,4,6-Tribromophenol (Surr)
 TPHd14 = p-Terphenyl-d14

10-120
 11-120
 26-120
 37-120
 24-146
 64-127

Column to be used to flag recovery values

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: W0009875.d
 Lab ID: 480-175829-5 MS Client ID: MW-48S MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Acenaphthene	7.62	29	32.7	48	35-125	E
Acenaphthylene	7.62	1.5	8.73	95	43-141	
Anthracene	7.62	1.4	9.27	103	65-123	
Chrysene	7.62	ND	7.38	97	66-144	
Fluoranthene	7.62	0.72	8.71	105	63-146	
Fluorene	7.62	3.9	11.3	97	54-137	
Naphthalene	7.62	46	47.1	10	25-138	E 4
Phenanthrene	7.62	4.6	12.1	99	60-143	E
Pyrene	7.62	0.90	8.52	100	65-139	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: W0009900.d
 Lab ID: 480-175829-5 MS DL Client ID: MW-48S MS DL

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Acenaphthene	7.62	41	48.3	90	35-125	4
Acenaphthylene	7.62	1.6 J	8.99	98	43-141	
Anthracene	7.62	1.4 J	9.34	104	65-123	
Chrysene	7.62	ND	7.60	100	66-144	
Fluoranthene	7.62	ND	9.00	118	63-146	
Fluorene	7.62	3.9 J	11.9	105	54-137	
Naphthalene	7.62	91	104	166	25-138	4
Phenanthrene	7.62	4.5	13.3	116	60-143	
Pyrene	7.62	0.86 J	8.56	101	65-139	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: W0009876.d
 Lab ID: 480-175829-5 MSD Client ID: MW-48S MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Acenaphthene	7.62	33.4	56	2	24	35-125	E
Acenaphthylene	7.62	8.61	93	1	18	43-141	
Anthracene	7.62	8.96	99	3	15	65-123	
Chrysene	7.62	7.20	95	2	15	66-144	
Fluoranthene	7.62	8.32	100	5	15	63-146	
Fluorene	7.62	11.2	97	0	15	54-137	
Naphthalene	7.62	50.6	56	7	29	25-138	E 4
Phenanthrene	7.62	12.3	101	1	15	60-143	E
Pyrene	7.62	8.33	97	2	19	65-139	

Column to be used to flag recovery and RPD values

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
 SDG No.: _____
 Matrix: Water Level: Low Lab File ID: W0009901.d
 Lab ID: 480-175829-5 MSD DL Client ID: MW-48S MSD DL

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Acenaphthene	7.62	46.1	62	5	24	35-125	4
Acenaphthylene	7.62	8.62	93	4	18	43-141	
Anthracene	7.62	8.94	99	4	15	65-123	
Chrysene	7.62	7.36	97	3	15	66-144	
Fluoranthene	7.62	8.44	111	6	15	63-146	
Fluorene	7.62	11.6	102	2	15	54-137	
Naphthalene	7.62	114	303	10	29	25-138	E 4
Phenanthrene	7.62	13.4	117	1	15	60-143	
Pyrene	7.62	8.27	97	3	19	65-139	

Column to be used to flag recovery and RPD values

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Edison Job No.: 480-175829-1
 SDG No.: _____
 Matrix: Water Level: Low
 GC Column (1): Rtxi-5Sil M ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	NBZ #	TBP #
MW-33S	480-175829-1	122	105
MW-46S	480-175829-2	91	89
MW-22S	480-175829-3	71	72 *3
MW-40	480-175829-4	154 X	104
MW-48S	480-175829-5	84 *3	97
MW-47S	480-175829-6	91 *3	93 *3
MW-31S	480-175829-7	107	135
MW-23S	480-175829-8	85	104
MW-45S	480-175829-9	102	109
DUP	480-175829-10	93	126
	MB 460-728957/1-A	91	92 *3
	LCS 460-728957/2-A	113	113
	LCSD 460-728957/3-A	126	122
MW-48S MS	480-175829-5 MS	99	106 *3
MW-48S MSD	480-175829-5 MSD	99 *3	125

NBZ = Nitrobenzene-d5
 TBP = 2,4,6-Tribromophenol

QC LIMITS
 41-144
 40-140

Column to be used to flag recovery values

FORM II 8270D SIM

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175829-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 480-552351/1-A
 Matrix: Water Lab File ID: W0009873.d
 Analysis Method: 8270D LL Date Collected: _____
 Extract. Method: 3510C Date Extracted: 10/03/2020 14:15
 Sample wt/vol: 1000 (mL) Date Analyzed: 10/05/2020 17:33
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 2 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 552496 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.50	0.036
208-96-8	Acenaphthylene	ND		0.30	0.056
120-12-7	Anthracene	ND		0.50	0.034
218-01-9	Chrysene	ND		0.50	0.074
206-44-0	Fluoranthene	ND		0.50	0.080
86-73-7	Fluorene	ND		0.50	0.058
91-20-3	Naphthalene	ND		1.0	0.064
85-01-8	Phenanthrene	0.0746	J	0.20	0.062
129-00-0	Pyrene	ND		0.50	0.076

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	106		24-146
321-60-8	2-Fluorobiphenyl	92		37-120
367-12-4	2-Fluorophenol (Surr)	55		10-120
4165-60-0	Nitrobenzene-d5 (Surr)	84		26-120
4165-62-2	Phenol-d5 (Surr)	35		11-120
1718-51-0	p-Terphenyl-d14	111		64-127

Job Narrative
480-175904-1

Comments

No additional comments.

Receipt

The samples were received on 10/2/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.6° C, 2.7° C, 3.0° C and 3.1° C.

GC/MS VOA

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MWC-16 (480-175904-2). 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 8270D LL: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-16 (480-175904-2). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following sample was diluted due to the nature of the sample matrix: MWC-11 (480-175904-6). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The following sample required a dilution due to the nature of the sample matrix: MWC-16 (480-175904-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D LL: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWC-12 (480-175904-1). 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 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-12 (480-175904-1). Elevated reporting limits (RLs) are provided.

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: MW-24S (480-175904-3), MW-25S (480-175904-4), MW-28S (480-175904-5) and MWC-11 (480-175904-6). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-16 (480-175904-2). 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 VOA

Method RSK-175: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-16 (480-175904-2).

Method RSK-175: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-24S (480-175904-3) and MW-28S (480-175904-5). Elevated reporting limits (RLs) are provided.

Method RSK-175: The following sample was diluted to bring the concentration of target analytes within the calibration range: MWC-12 (480-175904-1). 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 SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: EQUIPMENT BLANK (480-175904-7).

Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MWC-12 (480-175904-1), MWC-16 (480-175904-2), MW-24S (480-175904-3), MW-25S (480-175904-4), MW-28S (480-175904-5) and MWC-11 (480-175904-6).

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MWC-12 (480-175904-1), MWC-16 (480-175904-2), MW-24S (480-175904-3), MW-25S (480-175904-4), MW-28S (480-175904-5) and MWC-11 (480-175904-6).

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

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-552780.

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

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175904-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 480-552780/1-A
 Matrix: Water Lab File ID: W0009964.d
 Analysis Method: 8270D LL Date Collected: _____
 Extract. Method: 3510C Date Extracted: 10/07/2020 09:04
 Sample wt/vol: 1000 (mL) Date Analyzed: 10/08/2020 08:04
 Con. Extract Vol.: 1 (mL) Dilution Factor: 1
 Injection Volume: 2 (uL) Level: (low/med) Low
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 552867 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		0.50	0.036
208-96-8	Acenaphthylene	ND		0.30	0.056
120-12-7	Anthracene	ND		0.50	0.034
218-01-9	Chrysene	ND		0.50	0.074
206-44-0	Fluoranthene	ND		0.50	0.080
86-73-7	Fluorene	ND		0.50	0.058
91-20-3	Naphthalene	ND		1.0	0.064
85-01-8	Phenanthrene	0.106	J	0.20	0.062
129-00-0	Pyrene	ND		0.50	0.076

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	111		24-146
321-60-8	2-Fluorobiphenyl	92		37-120
367-12-4	2-Fluorophenol (Surr)	55		10-120
4165-60-0	Nitrobenzene-d5 (Surr)	86		26-120
4165-62-2	Phenol-d5 (Surr)	38		11-120
1718-51-0	p-Terphenyl-d14	114		64-127

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Buffalo

Job No.: 480-175904-1

SDG No.: _____

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 552358 Date: 10/03/2020 22:59							
300.0	MB 480-552358/29	Sulfate	ND		mg/L	2.0	1
Batch ID: 552525 Date: 10/06/2020 04:16							
300.0	MB 480-552525/28	Sulfate	ND		mg/L	2.0	1
Batch ID: 552466 Date: 10/05/2020 08:38							
350.1	MB 480-552466/3	Ammonia	0.0137	J	mg/L	0.020	1
Batch ID: 552466 Date: 10/05/2020 08:58							
350.1	MB 480-552466/27	Ammonia	ND		mg/L	0.020	1
Batch ID: 552466 Date: 10/05/2020 09:19							
350.1	MB 480-552466/51	Ammonia	ND		mg/L	0.020	1
Batch ID: 552310 Date: 10/02/2020 17:51							
353.2	MB 480-552310/3	Nitrite as N	ND		mg/L	0.050	1
Batch ID: 552326 Date: 10/02/2020 20:58							
353.2	MB 480-552326/4	Nitrate Nitrite as N	ND		mg/L	0.050	1
Batch ID: 552326 Date: 10/02/2020 21:25							
353.2	MB 480-552326/28	Nitrate Nitrite as N	ND		mg/L	0.050	1
Batch ID: 552349 Date: 10/03/2020 12:09 Prep Batch: 552318 Date: 10/02/2020 19:23							
9012B	MB 480-552318/1-A	Cyanide, Total	ND		mg/L	0.010	1
Batch ID: 552844 Date: 10/07/2020 12:13 Prep Batch: 552725 Date: 10/06/2020 22:14							
9012B	MB 480-552725/1-A	Cyanide, Total	ND		mg/L	0.010	1
Batch ID: 552518 Date: 10/05/2020 12:46							
SM 2320B	MB 480-552518/4	Alkalinity, Total	ND		mg/L	5.0	1
Batch ID: 553068 Date: 10/08/2020 10:20							
SM 3500 FE	MB 480-553068/3	Ferrous Iron	ND		mg/L	0.10	1
D							

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175904-1
 SDG No.: _____
 Analyst: CLT Batch Start Date: 10/05/2020
 Reporting Units: mg/L Analytical Batch No.: 552466

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:36	Ammonia	0.996	1.00	100	90-110		NH3 CCV_01188
2	CCB	08:37	Ammonia	0.0103				J	
13	CCV	08:46	Ammonia	1.02	1.00	102	90-110		NH3 CCV_01188
14	CCB	08:47	Ammonia	ND					
25	CCV	08:57	Ammonia	1.01	1.00	101	90-110		NH3 CCV_01188
26	CCB	08:58	Ammonia	ND					
37	CCV	09:07	Ammonia	1.01	1.00	101	90-110		NH3 CCV_01188
38	CCB	09:08	Ammonia	ND					
49	CCV	09:17	Ammonia	1.02	1.00	102	90-110		NH3 CCV_01188
50	CCB	09:18	Ammonia	ND					
61	CCV	09:27	Ammonia	1.02	1.00	102	90-110		NH3 CCV_01188
62	CCB	09:28	Ammonia	ND					

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

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175904-1

SDG No.: _____

Instrument ID: LACHAT1 Method: 350.1

Start Date: 10/05/2020 08:36 End Date: 10/05/2020 09:31

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				N H 3																	
CCV 480-552466/1	1		08:36	X																	
CCB 480-552466/2	1		08:37	X																	
MB 480-552466/3	1	T	08:38	X																	
LCS 480-552466/4	1	T	08:39	X																	
ZZZZZZ			08:40																		
ZZZZZZ			08:40																		
ZZZZZZ			08:41																		
480-175904-2	1	T	08:42	X																	
ZZZZZZ			08:43																		
480-175904-4	1	T	08:44	X																	
480-175904-5	1	T	08:45	X																	
480-175904-6	1	T	08:46	X																	
CCV 480-552466/13	1		08:46	X																	
CCB 480-552466/14	1		08:47	X																	
ZZZZZZ			08:48																		
ZZZZZZ			08:49																		
ZZZZZZ			08:50																		
ZZZZZZ			08:51																		
ZZZZZZ			08:52																		
ZZZZZZ			08:52																		
ZZZZZZ			08:53																		
ZZZZZZ			08:54																		
ZZZZZZ			08:55																		
ZZZZZZ			08:56																		
CCV 480-552466/25	1		08:57	X																	
CCB 480-552466/26	1		08:58	X																	
MB 480-552466/27	1	T	08:58	X																	
LCS 480-552466/28	1	T	08:59	X																	
ZZZZZZ			09:00																		
ZZZZZZ			09:01																		
ZZZZZZ			09:02																		
ZZZZZZ			09:03																		
ZZZZZZ			09:04																		
ZZZZZZ			09:04																		
ZZZZZZ			09:05																		
ZZZZZZ			09:06																		
CCV 480-552466/37	1		09:07	X																	
CCB 480-552466/38	1		09:08	X																	
ZZZZZZ			09:09																		
ZZZZZZ			09:10																		
ZZZZZZ			09:10																		
ZZZZZZ			09:11																		

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-175904-1

SDG No.: _____

Instrument ID: LACHAT1 Method: 350.1

Start Date: 10/05/2020 08:36 End Date: 10/05/2020 09:31

Lab Sample ID	D / F	T y p e	Time	Analytes																	
				N H 3																	
ZZZZZZ			09:12																		
ZZZZZZ			09:13																		
ZZZZZZ			09:14																		
ZZZZZZ			09:15																		
ZZZZZZ			09:16																		
ZZZZZZ			09:16																		
CCV 480-552466/49	1		09:17	X																	
CCB 480-552466/50	1		09:18	X																	
MB 480-552466/51	1	T	09:19	X																	
LCS 480-552466/52	1	T	09:20	X																	
ZZZZZZ			09:21																		
ZZZZZZ			09:22																		
ZZZZZZ			09:22																		
ZZZZZZ			09:23																		
ZZZZZZ			09:24																		
480-175904-1	2	T	09:25	X																	
480-175904-3	2	T	09:26	X																	
ZZZZZZ			09:27																		
CCV 480-552466/61	1		09:27	X																	
CCB 480-552466/62	1		09:28	X																	
ZZZZZZ			09:29																		
CCV 480-552466/64			09:30																		
CCB 480-552466/65			09:31																		

Prep Types
T = Total/NA

Chain of Custody Record

Environment Testing
AmericaSyracuse
Testing Facility

Client Information

Client Contact

Ms. Melissa Saunders

Company:

AECOM

Address:

125 Broad Street 16th Floor

City:

New York

State:

NY

Zip:

10004

Phone:

212-377-8637(Tel)

Email:

Melissa.Saunders@aecom.com

Project Name:

Ithaca Laboratory - Groundwater Analysis

Site:

NYSEG Ithaca

Sampler:

Gerlinde Wolf

Phone:

585-490-0987

Lab PM:

Schove, John R

E-Mail:

John.Schove@Eurofinset.com

COC No:

480-149893-33321.1

Page:

Page 1 of 2

Job #:

#225

Analysis Requested

Due Date Requested:

TAT Requested (days):

5 day TAT

PO #:

60615225

WO #:

Project #:

48022675

SSOW#:

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

8270D - PAH Semivolatiles - Low Level SIM

300.0 - 280 - Sulfate

350.1, 353.2, Pres

6010C - Metals (ICP) - Iron

RSK_175 - Methane

9012B - Cyanide, Total

353.2, Nitrite, Nitrate, Calc, SM4500_H+

2320B - Alkalinity

3500_Fe, D - Iron, Ferrous

8260C - BTEX

Total Number of Containers

Special Instructions/Note:

Matrix (W=water, S=solid, O=soil, B=biological, T=tissue, A=air)

Sample Type (C=Comp, G=grab)

Sample Time

Sample Date

Preservation Code:

Water

Water

Water

Water

Water

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Possible Hazard Identification

☒ Non-Hazard☐ Flammable☐ Skin Irritant☐ Poison B☐ Unknown☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Category B Required

Empty Kit Relinquished by:

gwox

Relinquished by:

R. Englich

Relinquished by:

Relinquished by:

Relinquished by:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Custody Seal No.:

Time:

Date:

Date:

Date:

Date:

Date:

Date:

Date:

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Date:

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Date:

Date:

Date:

Method of Shipment:

Received by:

Received by:

Received by:

Received by:

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Received by:

Received by:

Received by:

Received by:

Received by:

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:

Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

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Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

Special Instructions/QC Requirements:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

Syracuse

COC No:
480-149893-33321.2Page:
Page 2 of 2

Job #:

Lab PM:
Schove, John RE-Mail:
John.Schove@Eurofinset.comSampler: Gerlinde WolfPhone: 585.490.0987

Client Information

Client Contact:
Ms. Melissa SaundersCompany:
AECOMAddress:
125 Broad Street 16th FloorCity:
New YorkState Zip:
NY, 10004Phone:
212-377-8637(Tel)PO #:
60615225

WC #:

Project #:
48022675Project Name:
Ithaca Laboratory - Groundwater AnalysisSite:
NYSEG Ithaca

Analysis Requested

Due Date Requested:

TAT Requested (days):
5 day

PO #:

WC #:

Project #:

Project Name:

Site:

Due Date Requested:

TAT Requested (days):

PO #:

WC #:

Project #:

Project Name:

Site:

Analysis Requested

TAT Requested (days):

PO #:

WC #:

Project #:

Project Name:

Site:

Analysis Requested

TAT Requested (days):

PO #:

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TAT Requested (days):

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Project Name:

Site:

Analysis Requested

TAT Requested (days):

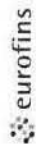
PO #:

WC #:

Project #:

Project Name:

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No:
Client Contact: Shipping/Receiving		Phone:	Schove, John R		480-59012.1
Company: TestAmerica Laboratories, Inc.		E-Mail: John.Schove@Eurofinset.com		State of Origin:	Page:
Address: 777 New Durham Road,		Accreditations Required (See note): NELAP - New York		New York	Page 1 of 2
City: Edison	Due Date Requested: 10/7/2020	Job #: 480-175829-1			
State, Zip: NJ, 08817	TAT Requested (days):	Preservation Codes:			
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:	A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify)			
Email:	WO #:	Other:			
Project Name: Ithaca Laboratory - Groundwater Analysis	Project #: 48022675				
Site:	SSOW#:				

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=wastewater, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D SIM/3510C LVI SVOC SIM Analyses	Total Number of Containers	Special Instructions/Note:
MW-33S (480-175829-1)	9/30/20	09:45 Eastern		Water			X	2	
MW-46S (480-175829-2)	9/30/20	09:20 Eastern		Water			X	2	
MW-22S (480-175829-3)	9/30/20	13:30 Eastern		Water			X	2	
MW-40 (480-175829-4)	9/30/20	12:30 Eastern		Water			X	2	
MW-48S (480-175829-5)	9/30/20	11:15 Eastern		Water			X	2	
MW-48S (480-175829-5MS)	9/30/20	11:15 Eastern	MS	Water			X	2	
MW-48S (480-175829-5MSD)	9/30/20	11:15 Eastern	MSD	Water			X	2	
MW-47S (480-175829-6)	9/30/20	14:10 Eastern		Water			X	2	
MW-31S (480-175829-7)	9/30/20	16:00 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica 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/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		☐ 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:		Time:	
Relinquished by:	Date:	Received by:	Date/Time:
Relinquished by:	10/1/20 17:00	John Schove	10/2/20 1000
Relinquished by:		Company:	Company:
Relinquished by:		Company:	Company:
Relinquished by:		Company:	Company:
Custody Seals Intact: A-Yes Δ-No	Custody Seal No.: 1149938, 1149939	Cooler Temperature(s) °C and Other Remarks:	4.6 2.3 °C JPI

[illegible]

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175829-1

Login Number: 175829

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	AECOM
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175829-1

Login Number: 175829
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 10/02/20 03:57 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1149938, 1149939
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6, 2.3°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Chain of Custody Record



Client Information		Sampler: Gerlinde Wolk		Lab PM: Schove, John R		COC No: 480-149893-33321.1	
Client Contact: Ms. Melissa Saunders		Phone: 585-490-0987		E-Mail: John.Schove@Eurofinset.com		Page: Page 1 of 2	
Company: AECOM						Job #:	
Address: 125 Broad Street 16th Floor		Due Date Requested:		Analysis Requested		Preservation Codes:	
City: New York		TAT Requested (days): 5 Day				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 Other:	
State, Zip: NY, 10004		PO #: 60615225				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 212-377-8637(Tel)		WO #: 48022675					
Email: Melissa.Saunders@aecom.com		Project #: 48022675					
Project Name: Ithaca Laboratory - Groundwater Analysis		SSOW#:					
Site: NYSEG Ithaca NY							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note:
MWC-12	10.1.20	1030	G	Water			
MWC-16	10.1.20	950	G	Water			
MW-24S	10.1.20	1210	G	Water			
MW-25S	10.1.20	1120	G	Water			
MW-28S	10.1.20	1320	G	Water			
MW-33S				Water			
MW-46S				Water			
MW-22S				Water			
MW-40				Water			
MW-48S				Water			
MW-ATS				Water			
480-175904 Chain of Custody							
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify) category B							
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: _____ Relinquished by: gmm Date: 10.1.20 1500 Company: AECOM Relinquished by: RE-191.1.4 Date: 10.1.20, 1900 Company: gmm Relinquished by: _____ Date: _____ Company: _____ Custody Seals Intact: ☐ Yes ☐ No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 3.0, 2.6, 2.7, 3.1 #1							

Chain of Custody Record





Client Information					
(Sub Contract Lab)					
Carrier Tracking No(s):					
COC NO:					
Page:					
E-Mail:	John.Schove@Eurofins.com				
Sale of Origin:	New York				
Job #:	NELAP - New York				
Accreditations Required (See note):					
Due Date Requested:	Analysis Requested				
TAT Requested (days):					
PO #:					
WO #:					
Project #:					
SSOW#:					
Sample Identification - Client ID (Lab ID)					
MWC-12 (480-175904-1)	10/1/20	10:30 Eastern	X	Water	X
MWC-16 (480-175904-2)	10/1/20	09:50 Eastern	X	Water	X
MW-24S (480-175904-3)	10/1/20	12:10 Eastern	X	Water	X
MW-25S (480-175904-4)	10/1/20	11:20 Eastern	X	Water	X
MW-28S (480-175904-5)	10/1/20	13:20 Eastern	X	Water	X
MWC-11 (480-175904-6)	10/1/20	09:10 Eastern	X	Water	X
EQUIPMENT BLANK (480-175904-7)	10/1/20	11:15 Eastern	X	Water	X
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our 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/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately.					
Possible Hazard Identification Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify) _____ Months					
Empty Kit Relinquished by: _____ Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____ Received by: _____ Company: _____ Special Instructions/QC Requirements: ☐ Return To Client ☒ Disposal By Lab Archive For _____ Months					
Custody Seal No.: 1149970 Yes Δ No Cooler Temperature(s) °C and Other Remarks: 4.1°C FRII					

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175904-1

Login Number: 175904

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0 2.6 2.7 3.1 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aecom
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 480-175904-1

Login Number: 175904
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins TestAmerica, Edison
List Creation: 10/07/20 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1149970
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	