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2022 First Semiannual Groundwater/Surface Water Quality Monitoring Report

Mineral Springs Road Former MGP Site (NYSDEC #V00195)
West Seneca, New York

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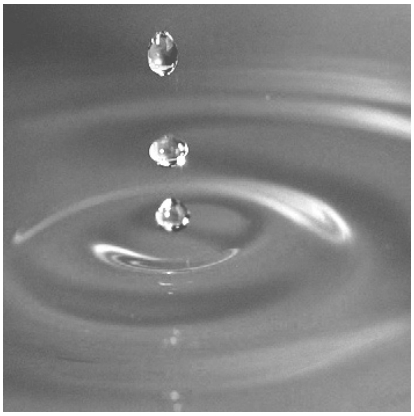

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1. INTRODUCTION

This report presents a summary of groundwater and surface water quality monitoring results for the 2022 first semiannual monitoring event at the National Fuel Gas Mineral Springs facility at 365 Mineral Springs Road in West Seneca, New York (Site). The site is a former manufactured gas plant (MGP) and implements ongoing operations and maintenance which includes groundwater and surface water quality monitoring. The 2021 second semiannual monitoring report was transmitted to the Department on October 5, 2021.

1.1 Background

The Site is currently an active National Fuel Gas service center consisting of approximately 81 acres and includes seven active buildings, numerous parking areas, pipeline equipment and staging areas, and undeveloped areas. The site location and site layout are shown in Figures 1 and 2, respectively.

National Fuel completed remedial construction which included source removal and containment in 2001 under a Voluntary Cleanup Agreement (VCA) No. B9-0538-98-08 between National Fuel and the New York State Department of Environmental Conservation (NYSDEC). Remedial and engineering control features include perimeter fencing, six asphalt caps, a clay cap, an HDPE cap, and a capped drainage feature consisting of both clay and HDPE caps. National Fuel performs operations and maintenance (O&M) activities for the remedy in accordance with the Final Engineering Report, Volume II – Operations and Maintenance (O&M) Plan, dated May 2002 (O&M Plan). The O&M Plan specifies groundwater and surface water quality monitoring conducted on a semiannual basis. An assessment of institutional and engineering controls is summarized each year in a Site Management Periodic Review Report (PRR). The most recent PRR was submitted to the NYSDEC on October 29, 2022.

1.2 Site Conditions

The Site is relatively flat lying. An unnamed surface water drainage feature, classified as a Class D stream, is situated along the southern site boundary and flows in a westward direction. The stratigraphy of the site in order of occurrence is:

- soil fill (4 to 8 feet in thickness)
- approximately 10 feet of a laterally extensive clay (referred to as the upper confining clay layer {UCL})

- silt, sand, and gravel
- a lower confining clay layer (LCL), and bedrock.

Overburden groundwater is typically encountered 5 to 12 feet below ground surface and fluctuates approximately 2 feet seasonally. Overburden groundwater flow is generally to the north and northwest toward Mineral Springs Road, Calais Street, and the Buffalo River. Average overburden groundwater velocity across the site was calculated to be approximately 0.06 feet per day (22 feet per year).

2. MONITORING NETWORK AND SAMPLING METHODS

Groundwater monitoring well and surface water sampling locations are shown on Figure 2. The groundwater monitoring wells were installed during and following completion of remedial construction and are screened to monitor groundwater flowing in the lower UCL and the silt, sand, and gravel layer. The O&M Plan specifies groundwater sample collection and analysis from 13 on-site and off-site monitoring wells. In addition, the determination for accumulated DNAPL in Recovery Well #1 (RTW-1) and purging of accumulated liquid, if present, is included in the groundwater monitoring program. Consistent with the O&M Plan, groundwater samples were collected using low-flow sampling methods with peristaltic pumps.

Surface water sample locations identified in the O&M Plan include SW-01 and SW-02 situated upstream and downstream of the facility. On July 7, 2020, a staff gauge was installed at SW-02 to facilitate the collection of surface water elevation data at the upstream sampling location. Survey reference data is included in Table 1.

Groundwater and surface water samples for the 2022 first semiannual monitoring event were collected on April 19 and 20, 2022 by a GEI sampling team. Monitoring was consistent with sampling procedures described in the O&M Plan. Table 1 summarizes sampling location, sample analysis, and Quality Control sample analysis, and current reference elevations. A synoptic round of water levels was measured in monitoring wells on April 19, 2022, and water levels were recorded prior to purging and sampling. Groundwater elevations are summarized in Table 2. Groundwater elevations were generally between one and two feet higher during the April 2022 sampling event when compared to the 2021 summer sampling event and most groundwater elevations were similar this event when compared to the spring event monitored in 2021. The surface water elevation in the stream was higher this event. The surface water elevation at staff gauge location SW-2 was 1.37 feet higher when compared to the downstream SW-1 location. Surface water elevations are influenced seasonally by precipitation events and groundwater elevations adjacent to the stream. April 2021 surface water elevations are comparable to historic measurements made during Spring monitoring events.

Field measured parameters were taken periodically during purging and include temperature, pH, Oxidation-Reduction Potential (ORP), electrical conductance, and turbidity. A summary of final field measured parameters is included in Table 3. All samples were placed in coolers and iced during same day transport under chain-of-custody to the analytical laboratory (Eurofins Test America) located in Amherst, New York. Final laboratory analytical data

reports were made available to GEI on May 13, 2022, and subsequently evaluated for data usability.

3. LABORATORY METHODS AND QUALITY CONTROL

3.1 Laboratory Methods

Samples were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260C, polycyclic aromatic hydrocarbon (PAH) semi-volatile organic compounds (SVOCs) by SW-846 Method 8270D, total cyanide by SW-846 Method 9012B, and free cyanide by SW-846 Method 9016. Surface water samples and groundwater well MW-11A were analyzed for suspended solids (TSS) by Standard Methods to assess the influence of particulates on cyanide detections. Except for free cyanide, water samples were analyzed by Eurofins Test America Laboratories, Inc. (Eurofins) of Amherst, New York. Free cyanide analyses were performed by Eurofins Test America of Edison, New Jersey. Each laboratory maintains NYSDOH ELAP certifications.

3.2 Laboratory Quality Control

The laboratory data package (Level 2) is included in Appendix A. A Level 4 data package was also provided and was reviewed during GEI data validation and preparation of the data usability report (DUSR). Overall quality assurance and quality control (QA/QC) measures were taken to ensure the reliability of the data generated during the sampling event. These measures include the submittal of trip blanks and the collection of a blind duplicate sample. Equipment blanks were not required since dedicated sampling equipment was used.

The specific methodologies employed in obtaining the analytical results refer to the following USEPA references.

- "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), Third Edition, September 1994, USEPA Office of Solid Waste.
- 40CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act", October 26, 1984 USEPA.

The data validation was performed on the Level 4 data package based on the Standard Operating Procedure (SOP) HW-33 (Revision 3) Low/Medium Volatile Data Validation (March 2013), SOP HW-35 (Revision 2) Semivolatile Data Validation (March 2013), and SOP 2c (Revision 15), SOP for the Evaluation of Cyanide for the Contract Laboratory Program (December 2012), modified for the SW-846 methodologies utilized.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Internal Standard Results
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
- Quantitation Limits and Data Assessment
- Sample Quantitation and Compound Identification

Blind duplicate samples were collected at sampling location well MW-23 and submitted for analyses with the sample delivery group to assess laboratory precision. Laboratory accuracy was assessed through analysis of surrogate spike recoveries.

A data usability review is provided in Appendix B. The non-detect results for free cyanide in samples MW-13 and MW-17 were rejected (R) due to hold time exceedances. However, the reported results were similar to historic results. Validation action was taken to estimate (UJ), rather than reject (R), non-detect results for free cyanide in several other samples as the laboratory had initial results (associated with low level method blank contamination) which confirmed these out of hold time results. Other data appear usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers. No deviations from analytic protocol that affected the acceptability of the results were reported by the laboratories.

4. EVALUATION OF MONITORING RESULTS

The groundwater analytical results for the April 2022 sampling event are summarized in Tables 4A and 4B. Surface water sample results are summarized in Table 5. Groundwater sampling logs are included as Appendix C. Results for the monitoring event are compared to the NYSDEC Technical Operational and Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998) (herein referred to as groundwater standards or water quality comparison criteria). Sampling results are discussed below.

4.1 Groundwater Elevations and Flow

A potentiometric surface map of groundwater elevations for the upper water-bearing zone at the site is provided on Figure 3. The groundwater flow direction occurs predominantly to the north and northwest. The surface water elevation in the Class D stream at SW-02 was higher than the head in nearby well MW-11A (584.17 FASL and 583.08 FASL, respectively) indicating "losing stream conditions" where surface water is recharging groundwater infiltrating at the base grade of the stream at this location. The surface water elevation in the stream at SW-01 was slightly higher than nearby well MW-16 (582.80 FASL and 582.58 FASL, respectively) also indicating "losing stream conditions" at this location.

4.2 Constituents Detected in Groundwater

Monitoring well locations provide groundwater quality data for on-site areas near former MGP residual remediation areas and near the site perimeter at both on-site and off-site monitoring locations. Groundwater quality in each of these areas is described below.

On-Site Areas

A summary of groundwater analytical data for "On-Site" areas is provided in Table 4A. Monitoring wells MW-07, MW-10, MW-11A, and MW-19 assess on-site groundwater quality downgradient of subsurface soils impacted with hydrocarbon MGP residuals. Benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds were not detected at MW-10. BTEX compounds were detected above the NYSDEC Groundwater Standards in MW-07, MW-11A and MW-19. BTEX compound detections were similar to historical concentrations in each of these wells.

PAH compounds were detected in well MW-07 (naphthalene and acenaphthene) and well MW-19 (naphthalene) at concentrations above water quality comparison criteria. Well MW-11A includes analysis for total and free cyanide, plus analysis for TSS in support of the

assessment of past cyanide detections in surface water. Total cyanide was detected at 228 µg/L which is above the NYS groundwater standard of 200 µg/L but within the range of the last nine monitoring events. Free cyanide was detected at a concentration of 6 µg/L. The TSS concentration in well MW-11A was 26.4 mg/L indicating a low number of suspended solids in the sample.

Monitoring wells MW-12 and MW-16 assess on-site groundwater quality at locations of capped areas with known subsurface deposits of MGP purifier box residuals. Groundwater samples from these two wells were analyzed for total and free cyanide. Total cyanide concentrations were 1060 µg/L at MW-12 and 4940 µg/L at MW-16; each is above water quality comparison criteria. The concentration detected during this event at MW-12 (1060 µg/L) was higher than historic five-year average, but well within the historic range of concentrations detected in the well and similar to the August 2021 sampling result of 1070 µg/L. The concentration at MW-16 was lower than the prior sampling event but the concentration remains elevated. The monitoring well is screened in the saturated zone containing MGP residual materials below an engineered clay capped area. Free cyanide concentrations were 8.9 µg/L at MW-12 and 46.4 J µg/L at MW-16 (a NYSDEC Groundwater Standard for free cyanide does not exist). Concentrations of free cyanide in both wells were within the range of prior detections. An assessment of the data trends will be presented and discussed in the 2022 Periodic Review Report (PRR).

Site Perimeter

A summary of groundwater analytical data for "Site perimeter" areas is provided in Table 4B. Monitoring well MW-17 assesses upgradient groundwater quality and wells MW-13, MW-14, MW-20, MW-21, MW-22, and MW-23 monitor downgradient water quality with MW-20 and MW-21 monitoring cyanide concentrations at off-site locations. VOCs were not detected at any site perimeter area sampling locations. Of the wells tested, only location MW-23 exhibited a trace detection of PAHs. Benzo(b)fluoranthene (0.31 J mg/L) was detected in MW-23, while chrysene (0.36 J mg/L) was detected in the duplicate sample taken from MW-23; both were detected above Class GA Groundwater Standards.

Total cyanide was detected at a concentration of 73.9 µg/L in upgradient well MW-17 and is considered representative of background. Total cyanide was detected in downgradient wells MW-14, MW-20, MW-21 and MW-22 at concentrations above water quality comparison criteria (200 µg/L) at concentrations ranging from 343 µg/L to 754 µg/L. The total cyanide concentration detected in each of these wells was within the range of historic concentrations and no increasing trends are noted.

Free cyanide was detected in perimeter monitoring wells MW-14, MW-20, MW-21 MW-22 and MW-23. Concentrations ranged from 3.4 J µg/L to 9.1 J µg/L and were flagged as laboratory estimated concentrations during the data validation process due to each sample

being analyzed outside of the specified holding time by the laboratory. An assessment of the data trends will be discussed in the 2022 Periodic Review Report (PRR).

4.3 Constituents Detected in Surface Water

Two surface water samples (SW-01 and SW-02) were collected from the unnamed NYSDEC Class D Stream flowing along the south side of the site; analytical results are provided on Table 5. These surface water sampling locations monitor the effectiveness of the containment engineering controls of the Eastern Drainage Ditch Cap and monitor the concentrations of constituents of concern in surface water downstream of the Site. The collected samples were analyzed for BTEX and PAH compounds, as well as total and free cyanide. Samples were also collected at each surface water sampling location and analyzed for total suspended solids (TSS) to evaluate a potential correlation between suspended solids (TSS) and total/free cyanide results.

BTEX compounds were not detected in surface water samples. One PAH compound, naphthalene, was detected at upstream surface water location SW-02 at a concentration of 0.84 µg/L, well below the Class D Stream Standard of 110 µg/L. Total cyanide was detected at a concentration of 29.1 J µg/L at downstream location SW-01 and was not detected in the upstream sample. Free cyanide was detected at location SW-01 at a laboratory estimated concentration of 3 J µg/L and was not detected in the upstream sample. The detected concentrations are within the range of historic detected concentrations.

Total Suspended Solids were not detected in either the upstream or downstream sample at a laboratory detection limit of 1.6 mg/L.

4.4 DNAPL Recovery Test Well

On April 19, 2022, the Recovery System at RTW-1 was gauged using a threaded steel rod to assess whether DNAPL had accumulated since the August 2021 sampling event. No visual staining was observed on the rod bottom. Rigid tubing was lowered to the base of the well and pumped using peristaltic methods. Approximately two liters of water were evacuated. The water contained only trace DNAPL in the form of "blebs", visually estimated to be less than 1% of total volume. Based on the testing performed, passive DNAPL accumulation was not identified during the April 2022 monitoring event.

5. SUMMARY

A summary of April 2022 field testing and water quality monitoring in on-site remediated areas, perimeter areas and on-site surface water is provided below:

Groundwater:

- Groundwater elevations were generally between one and two feet higher during the April 2022 sampling event when compared to the 2021 summer sampling event and most groundwater elevations were similar this event when compared to the spring event monitored in 2021. Groundwater flow directions remained in a north and northwest direction.

On-Site Areas:

- BTEX compounds were detected above the regulatory comparison criteria at wells MW-07, MW-11A and MW-19. BTEX compound detections were consistent with historical levels.

- Low concentrations of PAHs were detected in MW-7 and MW-19 but above water quality comparison criteria. The detected concentrations were consistent with historical analytical data.

- Total cyanide concentrations at wells MW-12 and MW-16 were above water quality comparison criteria. The total cyanide concentration at MW-12 was slightly lower than the previous event and remains lower than levels in 2017 and early 2000s. Total cyanide concentrations exhibit some seasonal variability, and no significant concentration trend is identified over the past eight sampling events. At MW-16, the total cyanide concentration was lower than the previous sampling event and continues a reversal of the prior upward concentration trend. Free cyanide concentrations at each location were within the range of historic concentrations. As identified in surface water sampling results for the downstream sample location SW-1, the total and free cyanide concentrations at MW-16 do not appear to be significantly affecting surface water quality in the stream (see Section 4.3).

Perimeter Areas:

- A trace concentration of one VOC (total xylene) was detected at MW-23. No other BTEX compounds were detected in the upgradient well or perimeter wells tested. A

PAH compound (benzo(b)fluoranthene) was detected above groundwater quality standards at downgradient monitoring location MW-23.

- Total cyanide was detected at upgradient well MW-17 indicating the constituent is present in background groundwater (73.9 µg/L). The free cyanide data at this location was rejected during data validation due to analysis outside of hold time by the laboratory but the reported value is consistent with historic results.

- Total cyanide was detected in downgradient wells MW-14, MW-20, MW-21 and MW-22 at concentrations above water quality comparison criteria (200 µg/L) at concentrations ranging from 343 µg/L to 754 µg/L. The total cyanide concentration detected in each of these wells was within the range of historic concentrations and no increasing trends are noted.

- Free cyanide was detected in perimeter monitoring wells MW-14, MW-20, MW-21 MW-22 and MW-23. Concentrations ranged from 3.4 J µg/L to 9.1 J µg/L and were flagged as laboratory estimated concentrations during the data validation process due to each sample being analyzed outside of the specified holding time by the laboratory. Detected concentrations were consistent with historic results.

Surface Water:

- The surface water elevation of the Class D stream was low indicating "losing stream conditions" in April 2022.

- BTEX compounds were not detected in surface water samples. One PAH compound, naphthalene, was detected at upstream surface water location SW-02 at a concentration of 0.84 µg/L, well below the Class D Stream Standard of 110 µg/L.

- Total cyanide was detected at a concentration of 29.1 J µg/L at downstream location SW-01 and was not detected in the upstream sample. The result was consistent with historic detections.

- Total Suspended Solids were not detected in either the upstream or downstream sample at a laboratory detection limit of 1.6 mg/L.

- Free cyanide was detected at location SW-01 at a laboratory estimated concentration of 3 J µg/L and was not detected in the upstream sample. The result was consistent with historic detections.

- Testing results for this event indicate site groundwater has no significant impact on surface water quality.

DNAPL accumulation was not identified in RTW-1 during the April 2022 monitoring event.

A discussion of historical concentration trends and overall groundwater and surface water quality will be included in the 2022 PRR with August 2022 sampling data and time-series concentration plots of detected constituents. No immediate response actions appear to be warranted.

Tables

Table 1. 2022 First Semiannual Monitoring Water Sampling Summary
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

Location	Cyanide, Total USEPA SW846 9014	Cyanide, Free USEPA SW846 9016	BTEX USEPA SW846 8260C	PAHs USEPA SW846 8270D	TSS SM2540D	Specific Conductivity Field Measurement	Water Elevation	Benchmark Elevation (ft. MSL, top of PVC casing)
Upgradient Site Perimeter								
MW-17	x	x	x	x		x	x	587.28
Downgradient Site Perimeter								
MW-13	x	x	x	x		x	x	591.85
MW-14	x	x				x	x	589.53
MW-15							x	590.93
MW-20	x	x				x	x	587.06
MW-21	x	x				x	x	587.84
MW-22	x	x				x	x	592.50
MW-23	x	x	x	x		x	x	589.28
Onsite Purifier Residuals Impacted Areas								
MW-12	x	x				x	x	591.40
MW-16	x	x				x	x	588.99
Onsite Hydrocarbon Impacted Areas								
MW-07			x	x		x	x	587.01
MW-10			x	x		x	x	587.61
MW-11A	x	x	x	x	x	x	x	589.78
MW-19			x	x		x	x	589.83
Onsite Surface Water								
SW-01	x	x	x	x	x	x	x	top of headwall = 587.0
SW-02	x	x	x	x	x	x	x [2]	SG-2 "0" - 581.67
SW-03 [2,3]	x [2]	x [2]			x [2]	x [2]		
SW-04 [2,3]	x [2]	x [2]			x [2]	x [2]		
SW-05 [2,3]	x [2]	x [2]			x [2]	x [2]		
QA/QC Samples (frequency)								
Trip Blank			x					(one per shipment)
Field Duplicate	x	x	x	x				(one per event)
Equipment Blank	x	x	x	x				(one per event)
DNAPL Recovery								
RTW-1	No Sample Collection							(purge well of accumulated DNAPL)
Total	17	17	12	11	12	18	16	
Container, Preservative	250 mL plastic, NaOH	250 mL plastic amber, NaOH	40 mL VOA vial, HCl (x3)	250 mL glass amber, NP (x2)	500 mL plastic, unpreserved			

Notes:
1. Elevations are from the 2007 survey, except for MW-20, which was resurveyed in August 2009 due to a repair.
2. Supplemental sampling at this location was conducted in August 2017, April 2018, August 2018, April 2019 and August 2019.
3. Supplemental sampling at this location discontinued in 2020 and thereafter.

Table 2. Groundwater and Surface Water Elevations
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

Well ID	TOR Elevation[1]	April 17, 2018 (FIRST SEMIANNUAL 2018)		August 15, 2018 (SECOND SEMIANNUAL 2018)		April 17, 2019 (FIRST SEMIANNUAL 2019)		August 20, 2019 (SECOND SEMIANNUAL 2019)		April 15, 2020 (FIRST SEMIANNUAL 2020)	
		Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
MW-07	587.01	4.80	582.21	7.15	579.86	4.48	582.53	6.12	580.89	4.53	582.48
MW-10	587.61	6.40	581.21	7.64	579.97	6.28	581.33	7.09	580.52	5.61	582.00
MW-11A	589.78	8.15	581.63	9.02	580.76	6.43	583.35	7.67	582.11	6.80	582.98
MW-12	591.40	10.06	581.34	11.65	579.75	11.63	579.77	10.80	580.60	9.50	581.90
MW-13	591.85	10.56	581.29	13.54	578.31	11.40	580.45	13.20	578.65	11.52	580.33
MW-14	589.53	10.70	578.83	11.93	577.60	10.48	579.05	11.77	577.76	10.47	579.06
MW-15	590.93	10.40	580.53	11.60	579.33	9.37	581.56	10.79	580.14	9.60	581.33
MW-16	588.99	8.70	580.29	9.65	579.34	5.80	583.19	7.05	581.94	6.06	582.93
MW-17	587.28	3.98	583.30	6.69	580.59	3.98	583.30	5.28	582.00	4.40	582.88
MW-19	589.83	7.58	582.25	9.80	580.03	7.73	582.10	8.94	580.89	7.70	582.13
MW-20	587.06	6.38	580.68	10.16	576.90	7.14	579.92	9.70	577.36	7.23	579.83
MW-21	587.84	8.42	579.42	11.06	576.78	9.27	578.57	10.85	576.99	9.54	578.30
MW-22	592.50	10.41	582.09	12.95	579.55	11.42	581.08	12.24	580.26	10.84	581.66
MW-23	589.28	10.22	579.06	11.53	577.75	10.18	579.10	11.22	578.06	10.12	579.16
SW-01	587.0 (Top Headwall)	3.08	583.92	na[2]	na	3.28	583.72	5.10	581.90	4.25	582.75
SW-02	See note (3)	1.89	583.52	0.82	581.58	0.86	583.95	0.40	582.51	0.06	582.92
RTW-1	na	8.98	na	10.52	na	8.35	na	10.28	na	8.73	na

Notes:
[1] TOR (top of riser for monitoring wells) measured in feet; distance above sea level.
[2] location inaccessible due to debris at headwall measurement point.
[3] Former Reference Point TOR at Well 11A / Staff Gauge SG-2 installed on 7/7/20 at SW-02 location. Reference elevation is 581.67 fasl
na = not available.

Table 2. Groundwater and Surface Water Elevations
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

Well ID	TOR Elevation[1]	August 6, 2020 (SECOND SEMIANNUAL 2020)		April 13, 2021 (FIRST SEMIANNUAL 2021)		August 9, 2021 (SECOND SEMIANNUAL 2021)		April 19, 2022 (FIRST SEMIANNUAL 2022)	
		Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
MW-07	587.01	5.96	581.05	4.88	582.13	5.76	581.25	4.60	582.41
MW-10	587.61	7.00	580.61	6.08	581.53	7.05	580.56	5.85	581.76
MW-11A	589.78	8.36	581.42	7.10	582.68	8.38	581.40	6.70	583.08
MW-12	591.40	11.00	580.40	10.13	581.27	11.03	580.37	9.75	581.65
MW-13	591.85	12.93	578.92	12.16	579.69	12.97	578.88	12.02	579.83
MW-14	589.53	11.49	578.04	11.06	578.47	11.45	578.08	10.69	578.84
MW-15	590.93	10.96	579.97	10.12	580.81	10.75	580.18	9.72	581.21
MW-16	588.99	7.65	581.34	6.40	582.59	7.77	581.22	6.41	582.58
MW-17	587.28	6.00	581.28	4.75	582.53	6.18	581.10	4.70	582.58
MW-19	589.83	9.15	580.68	8.17	581.66	9.15	580.68	7.76	582.07
MW-20	587.06	9.22	577.84	7.78	579.28	9.30	577.76	7.52	579.54
MW-21	587.84	10.63	577.21	10.08	577.76	10.65	577.19	9.89	577.95
MW-22	592.50	12.29	580.21	11.47	581.03	12.31	580.19	11.05	581.45
MW-23	589.28	11.17	578.11	10.78	578.50	11.14	578.14	10.33	578.95
SW-01	587.0 (Top Headwall)	6.20	580.80	5.05	581.95	na[2]	na	4.20	582.80
SW-02	See note (3)	0.14	581.81	0.06	581.73	dry	<581.67'	2.50	584.17
RTW-1	na	8.30	na	8.59	na	8.64	na	7.75	na

Notes:
[1] TOR (top of riser for monitoring wells) measured in feet; distance above sea level.
[2] location inaccessible due to debris at headwall measurement point.
[3] Former Reference Point TOR at Well 11A / Staff Gauge SG-2 installed on 7/7/20 at SW-02 location. Reference elevation is 581.67 fasl
na = not available.

Table 3. Field Measured Parameters
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

Well ID	Sampling Date	Sampling Time	pH (standard units)	Specific Conductance (mS/cm)	Temperature (°C)	Turbidity (ntu)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (ppm)	Comments
Groundwater Monitoring Wells									
MW-07	04/19/22	9:15	6.64	2.58	10.1	4.70	97.8	0.18	
MW-10	04/19/22	9:10	6.67	1.40	50.8	1.23	22.9	1.79	
MW-11A	04/19/22	11:15	6.76	1.09	8.7	4.80	-0.8	0.18	
MW-12	04/19/22	12:30	5.93	4.54	8.7	4.20	43.1	2.26	
MW-13	04/20/22	10:30	6.60	0.53	50.4	1.40	22.4	0.26	
MW-14	04/19/22	10:15	6.58	2.66	11.9	3.60	-31.4	0.09	
MW-16	04/20/22	11:50	4.31	3.63	52.3	3.30	62.1	0.89	
MW-17	04/20/22	11:15	6.66	2.00	45.9	0.43	14.8	0.43	
MW-19	04/19/22	10:55	6.7	0.89	48.9	0.37	-64.1	0.55	
MW-20	04/20/22	9:20	6.50	1.99	48.1	4.70	-56.3	0.24	
MW-21	04/20/22	10:00	6.41	3.29	50.7	4.97	-40.2	0.18	
MW-22	04/19/22	12:25	6.63	2.18	51.0	2.07	-61.4	0.36	
MW-23	04/19/22	9:50	6.60	4.97	51.4	4.93	77.9	3.06	Field Duplicate
Surface Water Sampling Locations*									
SW-01	04/20/22	13:30	--	1.76	--	--	--	--	downstream
SW-02	04/20/22	11:00	--	1.73	--	--	--	--	upstream

Notes:
* Surface water sampling locations are field measured for specific conductance concentrations only.
-- Information not available.

Table 4A. Groundwater Analytical Summary - Onsite Areas
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

			Location Name	MW-07	MW-10	MW-11A	MW-12	MW-16	MW-19
			Sample Name	MW-07	MW-10	MW-11A	MW-12	MW-16	MW-19
			Start Depth	5	5	3	5	8	15
			End Depth	15	15	18	15	18	25
			Depth Unit	ft	ft	ft	ft	ft	ft
			Sample Date	4/19/2022	4/19/2022	4/19/2022	4/19/2022	4/20/2022	4/19/2022
Analyte	**Units**	**CAS No.**	**NYS AWQS**						
BTEX	ug/L								
Benzene		71-43-2	1	**420**	1 U	**4.9**	--	--	**4100**
Toluene		108-88-3	5	40 U	1 U	2 U	--	--	100 U
Ethylbenzene		100-41-4	5	**910**	1 U	2 U	--	--	**470**
Total Xylene		1330-20-7	5	**410**	2 U	4 U	--	--	200 U
Total BTEX (ND=0)		TBTEX_ND0	NE	**1740**	ND	**4.9**	--	--	**4570**
PAH17	ug/L								
Acenaphthene		83-32-9	20*	**110**	0.5 U	**1.4**	--	--	100 U
Acenaphthylene		208-96-8	NE	50 U	0.5 U	**0.87**	--	--	100 U
Anthracene		120-12-7	50*	50 U	0.5 U	0.5 U	--	--	100 U
Benzo(a)anthracene		56-55-3	0.002*	50 U	0.5 U	0.5 U	--	--	100 U
Benzo(b)fluoranthene		205-99-2	0.002*	50 U	0.5 U	0.5 U	--	--	100 U
Benzo(k)fluoranthene		207-08-9	0.002*	50 U	0.5 U	0.5 U	--	--	100 U
Benzo(g,h,i)perylene		191-24-2	NE	50 U	0.5 U	0.5 U	--	--	100 U
Benzo(a)pyrene		50-32-8	ND	50 U	0.5 U	0.5 U	--	--	100 U
Chrysene		218-01-9	0.002*	50 U	0.5 U	0.5 U	--	--	100 U
Dibenz(a,h)anthracene		53-70-3	NE	50 U	0.5 U	0.5 U	--	--	100 U
Fluoranthene		206-44-0	50*	50 U	0.5 U	0.5 U	--	--	100 U
Fluorene		86-73-7	50*	50 U	0.5 U	0.5 U	--	--	100 U
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	50 U	0.5 U	0.5 U	--	--	100 U
2-Methylnaphthalene		91-57-6	NE	**190**	0.5 U	0.5 U	--	--	100 U
Naphthalene		91-20-3	10*	**2100**	**1.3**	0.5 U	--	--	**5700**
Phenanthrene		85-01-8	50*	50 U	0.5 U	0.5 U	--	--	100 U
Pyrene		129-00-0	50*	50 U	0.5 U	0.5 U	--	--	100 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	**2400**	**1.3**	**2.27**	--	--	**5700**
Cyanides	ug/L								
Free Cyanide		FREECN	NE	--	--	**6 J**	**8.9 J**	**46.4 J**	--
Total Cyanide		57-12-5	200	--	--	**228**	**1060**	**4940**	--
Other									
Total Suspended Solids	ug/L	TSS	NE	--	--	**26400**	--	--	--

Table 4B. Groundwater Analytical Summary - Perimeter Areas
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

				Location Name	MW-13	MW-14	MW-17	MW-20	MW-21	MW-22	MW-23	MW-23
				Sample Name	MW-13	MW-14	MW-17	MW-20	MW-21	MW-22	MW-23	Duplicate
				Start Depth	10	10	7	10	10	10	5	5
				End Depth	20	20	17	20	20	20	20	20
				Depth Unit	ft	ft	ft	ft	ft	ft	ft	ft
				Sample Date	4/20/2022	4/19/2022	4/20/2022	4/20/2022	4/20/2022	4/19/2022	4/19/2022	4/19/2022
				Parent Sample								MW-23
Analyte	**Units**	**CAS No.**	**NYS AWQS**									
BTEX	ug/L											
Benzene		71-43-2	1		1 U	--	2 U	--	--	--	1 U	1 U
Toluene		108-88-3	5		1 U	--	2 U	--	--	--	1 U	1 U
Ethylbenzene		100-41-4	5		1 U	--	2 U	--	--	--	1 U	1 U
Total Xylene		1330-20-7	5		2 U	--	4 U	--	--	--	2 U	2 U
Total BTEX (ND=0)		TBTEX_ND0	NE		ND	--	ND	--	--	--	ND	ND
PAH17	ug/L											
Acenaphthene		83-32-9	20*		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Acenaphthylene		208-96-8	NE		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Anthracene		120-12-7	50*		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Benzo(a)anthracene		56-55-3	0.002*		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Benzo(b)fluoranthene		205-99-2	0.002*		0.5 U	--	2.5 U	--	--	--	**0.31 J**	**0.5**
Benzo(k)fluoranthene		207-08-9	0.002*		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Benzo(g,h,i)perylene		191-24-2	NE		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Benzo(a)pyrene		50-32-8	ND		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Chrysene		218-01-9	0.002*		0.5 U	--	2.5 U	--	--	--	0.5 U	**0.36 J**
Dibenz(a,h)anthracene		53-70-3	NE		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Fluoranthene		206-44-0	50*		0.5 U	--	2.5 U	--	--	--	**0.49 J**	**0.74**
Fluorene		86-73-7	50*		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
2-Methylnaphthalene		91-57-6	NE		0.5 U	--	2.5 U	--	--	--	0.5 U	0.5 U
Naphthalene		91-20-3	10*		0.5 U	--	2.5 U	--	--	--	**0.79**	0.5 U
Phenanthrene		85-01-8	50*		0.5 U	--	2.5 U	--	--	--	0.5 U	**0.38 J**
Pyrene		129-00-0	50*		0.5 U	--	2.5 U	--	--	--	**0.39 J**	**0.63**
Total PAH (17) (ND=0)		TPAH17_ND0	NE		ND	--	ND	--	--	--	**1.98**	**2.61**
Cyanides	ug/L											
Free Cyanide		FREECN	NE		5 R	**8.3 J**	5 R	**9.1 J**	**3.4 J**	**15.3 J**	**6.4 J**	**6 J**
Total Cyanide		57-12-5	200		10 U	**568**	**73.9**	**754**	**343**	**614**	**174**	**191**

Tables 4A and 4B. Groundwater Analytical Summary - Notes
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

Notes:
Analytes in blue are not detected in any sample
ug/L = micrograms per liter or parts per billion (ppb)

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
PAH = Polycyclic Aromatic Hydrocarbon

Total BTEX and Total PAHs are calculated using detects only.
Total PAH17 is calculated using the list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, 2-Methylnaphthalene, Phenanthrene, and Pyrene

NYS AWQS = New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

CAS No. = Chemical Abstracts Service Number
MGP = Manufactured Gas Plant
ND = Not Detected
NE = Not Established
NYSDEC = New York State Department of Environmental Conservation

Bolding indicates a detected result concentration
Gray shading and bolding indicates that the detected result value exceeds the NYS AWQS

Validation Qualifiers:
J = The result is an estimated value.
R = The result is rejected.
U = The result was not detected above the reporting limit.
-- = Parameter was not analyzed for at this location.

Table 5. Surface Water Analytical Summary
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

			Location Name	SW-01	SW-02
			Sample Name	SW-01	SW-02
			Sample Date	4/19/2022	4/19/2022
Analyte	**Units**	**CAS No.**	**Class D Stream**		
BTEX	ug/L				
Benzene		71-43-2	10	1 U	1 U
Ethylbenzene		100-41-4	150*	1 U	1 U
Toluene		108-88-3	6000	1 U	1 U
Total Xylene		1330-20-7	590*	2 U	2 U
Total BTEX (ND=0)		TBTEX_ND0	NE	ND	ND
PAH17	ug/L				
Acenaphthene		83-32-9	48*	0.5 U	0.5 U
Acenaphthylene		208-96-8	NE	0.5 U	0.5 U
Anthracene		120-12-7	35*	0.5 U	0.5 U
Benzo(a)anthracene		56-55-3	0.23*	0.5 U	0.5 U
Benzo(b)fluoranthene		205-99-2	NE	0.5 U	0.5 U
Benzo(k)fluoranthene		207-08-9	NE	0.5 U	0.5 U
Benzo(g,h,i)perylene		191-24-2	NE	0.5 U	0.5 U
Benzo(a)pyrene		50-32-8	0.0012*	0.5 U	0.5 U
Chrysene		218-01-9	NE	0.5 U	0.5 U
Dibenz(a,h)anthracene		53-70-3	NE	0.5 U	0.5 U
Fluoranthene		206-44-0	NE	0.5 U	0.5 U
Fluorene		86-73-7	4.8*	0.5 U	0.5 U
Indeno(1,2,3-cd)pyrene		193-39-5	NE	0.5 U	0.5 U
2-Methylnaphthalene		91-57-6	42*	0.5 U	0.5 U
Naphthalene		91-20-3	110*	0.5 U	**0.84**
Phenanthrene		85-01-8	45*	0.5 U	0.5 U
Pyrene		129-00-0	42*	0.5 U	0.5 U
Total PAH (17) (ND=0)		TPAH17_ND0	NE	ND	**0.84**
Cyanides	ug/L				
Free Cyanide		FREECN	22	**3 J**	5 UJ
Total Cyanide		57-12-5	9000	**29.1 J**	10 U
Other					
Total Suspended Solids	ug/L	TSS	NE	1600 U	1600 U

Table 5. Surface Water Analytical Summary
Mineral Springs Road MGP Site
National Fuel Gas Distribution Corporation
West Seneca, New York

Notes:
Analytes in blue are not detected in any sample
ug/L = micrograms per liter or parts per billion (ppb)

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
PAH = Polycyclic Aromatic Hydrocarbon

Total BTEX and Total PAHs are calculated using detects only.
Total PAH16 is calculated using the EPA16 list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenz[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, Phenanthrene, and Pyrene

Total PAH17 is calculated using the EPA16 list of analytes plus 2-Methylnaphthalene

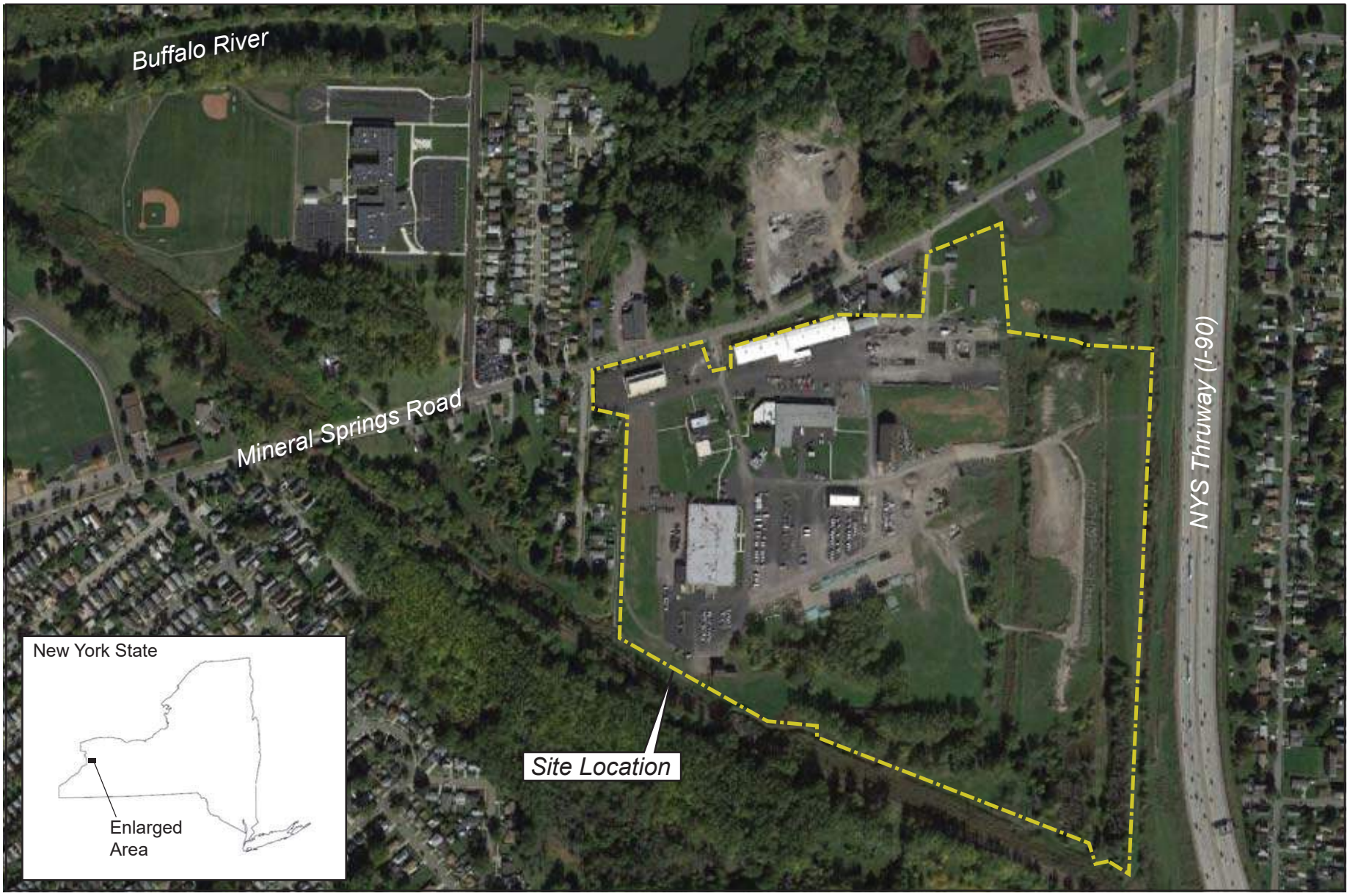
NYS AWQS = New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

CAS No. = Chemical Abstracts Service Number
MGP = Manufactured Gas Plant
ND = Not Detected
NE = Not Established

Bolding indicates a detected result concentration

Validation Qualifiers:
J = The result is an estimated value.
U = The result was not detected above the reporting limit.

Figures



Notes:
Aerial Imagery Sourced from Google Maps (http://www.maps.google.com) dated 2016.

National Fuel Gas Corporation
Mineral Springs Facility

West Seneca, New York

GEI Consultants

Project 2001597

SITE LOCATION

September 2022 Figure 1

PROPERTY LINE
PERIMETER FENCE
MW-17
SW-05
SW-04
SOIL PLACEMENT AREA
MW-18
NORTH CULVERT
EDD
SW-03
SW-02
RTW1
ETBE
MW-12
MW-11A
SOUTH CULVERT
CLASS D STREAM
ESNAC
ESHC
FORMER BLDG 11
MW-19
SETLE
MW-22
ESSAC
NTBE
CTBE
BLDG 10
B10AC
BLDG 9
SPE
WTBE
FORMER BLDG 8
PERIMETER FENCE
CC
PERIMETER FENCE
MW-13
BLDG 2
B8WAC
MW-10
MW-7
BLDG 1
APRE
MW-16
B3EAC
SW-01
MINERAL SPRINGS ROAD
DPE
BLDG 14
BLDG 5
BLDG 3
COLLAPSED/SEPARATED STORM SEWER AREA
MW-23
B3SAC
OVERHEAD TRANSMISSION TOWER
BLDG 4
SWPRE
MW-15
BURIED ELECTRIC LINE
MW-14
CM
CALAIS STREET
MW-21
MW-20
PERIMETER FENCE

Figure modified from original presented by AECOM titled "Site Figure- Mineral Springs Road Facility, National Fuel Gas:" dated 6/23/15.

LEGEND

	EXISTING STRUCTURE
	REMEDIAL CONSTRUCTION
	FORMER STRUCTURE
	EXISTING EXCAVATION LIMITS
MW-7	MONITORING WELLS
SW-01	SURFACE WATER SAMPLE LOCATION
	(ASTERISK INDICATES HISTORIC SUPPLEMENTAL UPSTREAM SUFACE WATER SAMPLING LOCATION)
APRE	ADDITIONAL PURIFIER RESIDUALS EXCAVATION
B3EAC	BUILDING 3 EAST ASPHALT CAP
B3SAC	BUILDING 3 SOUTH ASPHALT CAP
B8WAC	BUILDING 8 WEST ASPHALT CAP
B10AC	BUILDING 10 ASPHALT CAP
CC	CLAY CAP
CM	CORRECTIVE MEASURE WEST PROPERTY LINE
CTBE	CENTRAL TAR BOILS EXCAVATION
DPE	DIESEL PAD EXCAVATION
EDD	EASTERN DRAINAGE DITCH
ESHC	EASTERN SWALE HDPE CAP
ESNAC	EASTERN SWALE NORTH ASPHALT CAP
ESSAC	EASTERN SWALE SOUTH ASPHALT CAP
ETBE	EASTERN TAR BOILS EXCAVATION
NTBE	NORTHERN TAR BOILS EXCAVATION
RTW1	RECOVERY TEST WELL AND DNAPL SHED
SETLE	SOUTHEASTERN TAR LENSES EXCAVATION
SPE	SEPARATOR PITS EXCAVATION
SWPRE	SOUTHWEST RESIDUALS EXCAVATION
WTBE	WESTERN TAR BOILS EXCAVATION
	CLAY CAP
	ASPHALT CAP
	HIGH-DENSITY POLYETHYLENE (HDPE) CAP
	REMEDIAL EXCAVATION

PREVIOUSLY REMEDIATED AREAS ARE SHADED RED

150 0 300

GRAPHIC SCALE IN FEET

National Fuel Gas Corporation
Mineral Springs Facility

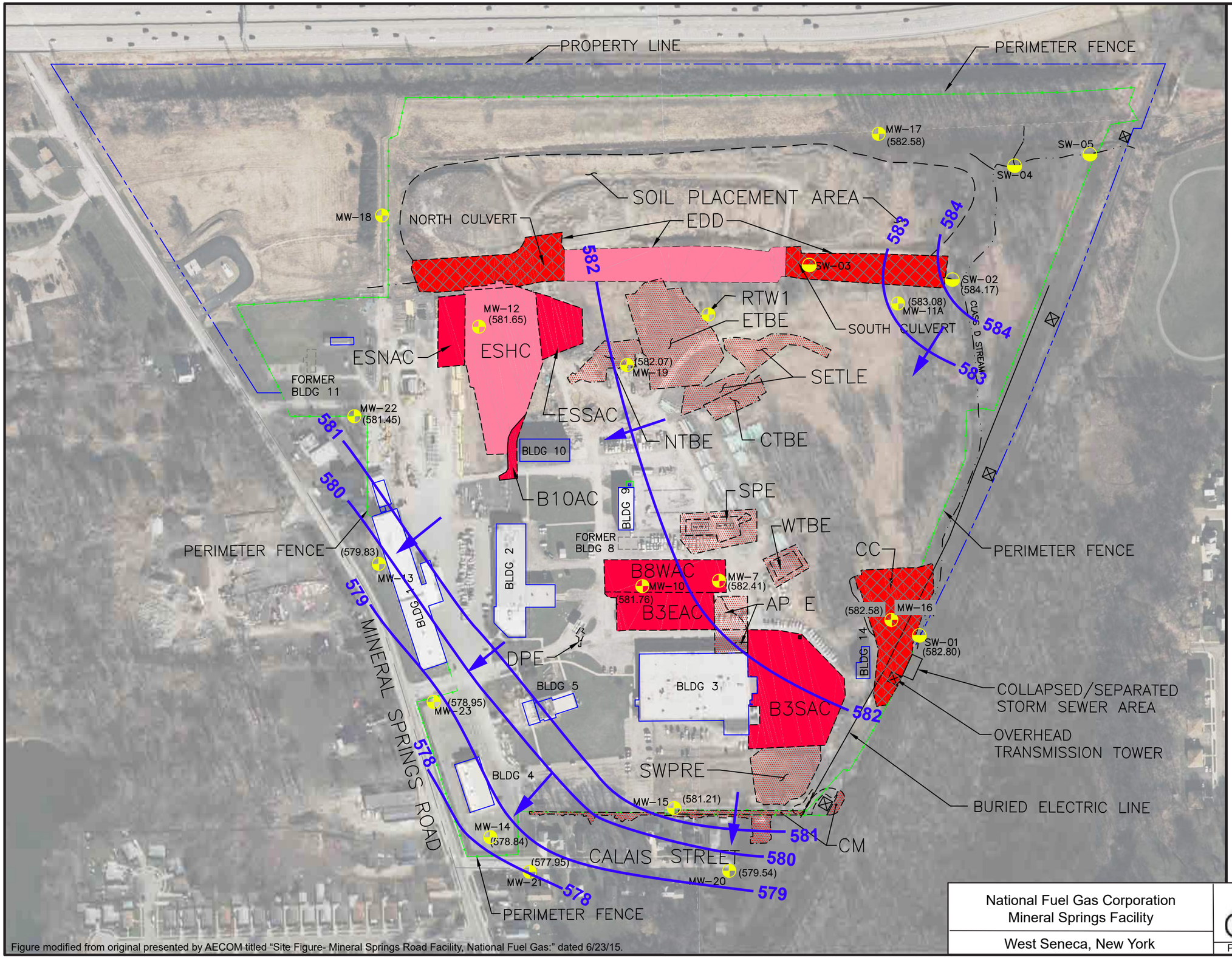
West Seneca, New York

GEI

Project 2001597

SITE LAYOUT

September 2022 Figure 2



LEGEND

	EXISTING STRUCTURE
	REMEDIAL CONSTRUCTION
	FORMER STRUCTURE
	EXISTING EXCAVATION LIMITS
MW-7	MONITORING WELLS
SW-01	SURFACE WATER SAMPLE LOCATION
	(ASTERISK INDICATES HISTORIC SUPPLEMENTAL UPSTREAM SUFACE WATER SAMPLING LOCATION)
(582.68)	GROUNDWATER ELEVATION (FASL, 4/19/2022)
(NA)	MONITORING LOCATION WAS DRY
	GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
	GROUNDWATER FLOW DIRECTION
APRE	ADDITIONAL PURIFIER RESIDUALS EXCAVATION
B3EAC	BUILDING 3 EAST ASPHALT CAP
B3SAC	BUILDING 3 SOUTH ASPHALT CAP
B8WAC	BUILDING 8 WEST ASPHALT CAP
B10AC	BUILDING 10 ASPHALT CAP
CC	CLAY CAP
CM	CORRECTIVE MEASURE WEST PROPERTY LINE
CTBE	CENTRAL TAR BOILS EXCAVATION
DPE	DIESEL PAD EXCAVATION
EDD	EASTERN DRAINAGE DITCH
ESHC	EASTERN SWALE HDPE CAP
ESNAC	EASTERN SWALE NORTH ASPHALT CAP
ESSAC	EASTERN SWALE SOUTH ASPHALT CAP
ETBE	EASTERN TAR BOILS EXCAVATION
NTBE	NORTHERN TAR BOILS EXCAVATION
RTW1	RECOVERY TEST WELL AND DNAPL SHED
SETLE	SOUTHEASTERN TAR LENSES EXCAVATION
SPE	SEPARATOR PITS EXCAVATION
SWPRE	SOUTHWEST RESIDUALS EXCAVATION
WTBE	WESTERN TAR BOILS EXCAVATION
	CLAY CAP
	ASPHALT CAP
	HIGH-DENSITY POLYETHYLENE (HDPE) CAP
	REMEDIAL EXCAVATION

PREVIOUSLY REMEDIATED AREAS ARE SHADED RED

150 0 300

GRAPHIC SCALE IN FEET

Figure modified from original presented by AECOM titled “Site Figure- Mineral Springs Road Facility, National Fuel Gas:” dated 6/23/15.

National Fuel Gas Corporation
Mineral Springs Facility
West Seneca, New York

GEI Consultants

GROUNDWATER POTENTIOMETRIC SURFACE MAP-SPRING 2022

Project 2001597 | September 2022 | Figure 3

Appendix A

Laboratory Data Package (Level 2)

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-196931-1
Laboratory Sample Delivery Group: 480-196931-1
Client Project/Site: GEI, Mineral Springs
Sampling Event: Semi Annual Sampling (April)

For:
GEI Consultants, Inc.
100 Sylvan Parkway
Suite 400
Amherst, New York 14228

Attn: Richard Frappa

Authorized for release by:
5/13/2022 10:21:21 AM
Rebecca Jones, Project Management Assistant I
Rebecca.Jones@et.eurofinsus.com

Designee for

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

LINKS

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Table of Contents

Definitions/Glossary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi 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.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
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.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

Job ID: 480-196931-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-196931-1

Comments
No additional comments.

Receipt
The samples were received on 4/19/2022 2:20 PM and 4/20/2022 12:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.7º C, 2.9º C and 3.6º C.

GC/MS VOA
Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-19 (480-196931-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-11A (480-196931-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: MW-07 (480-196931-10). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-17 (480-196985-4). 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_PAH: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-19 (480-196931-6) and MW-07 (480-196931-10). Elevated reporting limits (RLs) are provided.

Method 8270D_LL_PAH: The following samples required a dilution due to the abundance of target analytes: MW-19 (480-196931-6) and MW-07 (480-196931-10). 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_PAH: The following sample was diluted due to the abundance of non-target analytes: MW-17 (480-196985-4). 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.

General Chemistry
Method 9016: Reanalysis of the following samples were performed outside of the analytical holding time due to QC failure in initial analysis : MW-11A (480-196931-1), SW-01 (480-196931-2), SW-02 (480-196931-3), MW-12 (480-196931-4), MW-14 (480-196931-5), MW-23 (480-196931-7), Duplicate (480-196931-8), MW-22 (480-196931-9) and EQUIPMENT BLANK (480-196931-13).

Method 9016: The following samples were analyzed outside of analytical holding time due to internal tracking error: MW-20 (480-196985-1), MW-21 (480-196985-2), MW-13 (480-196985-3), MW-17 (480-196985-4) and MW-16 (480-196985-5).

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: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-11A — Lab Sample ID: 480-196931-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.9		2.0	0.82	ug/L	2		8260C	Total/NA
Acenaphthene	1.4		0.50	0.30	ug/L	1		8270D_LL_PAH	Total/NA
Acenaphthylene	0.87		0.50	0.34	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	228		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	8.6	F1 B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	6.0	H	5.0	2.3	ug/L	1		9016	Total/NA
Total Suspended Solids	26.4		1.6	1.6	mg/L	1		SM 2540D	Total/NA

Client Sample ID: SW-01 — Lab Sample ID: 480-196931-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	29.1		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	5.6	B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	3.0	J H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: SW-02 — Lab Sample ID: 480-196931-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.84		0.50	0.42	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	6.2	J	10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	5.2	B	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 480-196931-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	1060		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	15.3	B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	8.9	H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 480-196931-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	568		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	12.5	B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	8.3	H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 480-196931-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4100		100	41	ug/L	100		8260C	Total/NA
Ethylbenzene	470		100	74	ug/L	100		8260C	Total/NA
Naphthalene	5700		100	84	ug/L	200		8270D_LL_PAH	Total/NA

Client Sample ID: MW-23 — Lab Sample ID: 480-196931-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.31	J	0.50	0.30	ug/L	1		8270D_LL_PAH	Total/NA
Fluoranthene	0.49	J	0.50	0.36	ug/L	1		8270D_LL_PAH	Total/NA
Naphthalene	0.79		0.50	0.42	ug/L	1		8270D_LL_PAH	Total/NA
Pyrene	0.39	J	0.50	0.36	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	174		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	9.0	B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	6.4	H	5.0	2.3	ug/L	1		9016	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: Duplicate — Lab Sample ID: 480-196931-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.50		0.50	0.30	ug/L	1		8270D_LL_PAH	Total/NA
Chrysene	0.36	J	0.50	0.32	ug/L	1		8270D_LL_PAH	Total/NA
Fluoranthene	0.74		0.50	0.36	ug/L	1		8270D_LL_PAH	Total/NA
Phenanthrene	0.38	J	0.50	0.38	ug/L	1		8270D_LL_PAH	Total/NA
Pyrene	0.63		0.50	0.36	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	191		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	9.0	B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	6.0	H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-22 — Lab Sample ID: 480-196931-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	614		20.0	10.0	ug/L	2		9012B	Total/NA
Cyanide, Free	16.4	B	5.0	2.3	ug/L	1		9016	Total/NA
Cyanide, Free	15.3	H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-07 — Lab Sample ID: 480-196931-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	420		40	16	ug/L	40		8260C	Total/NA
Ethylbenzene	910		40	30	ug/L	40		8260C	Total/NA
Xylenes, Total	410		80	26	ug/L	40		8260C	Total/NA
2-Methylnaphthalene	190		50	38	ug/L	100		8270D_LL_PAH	Total/NA
Acenaphthene	110		50	30	ug/L	100		8270D_LL_PAH	Total/NA
Naphthalene	2100		50	42	ug/L	100		8270D_LL_PAH	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 480-196931-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	1.3		0.50	0.42	ug/L	1		8270D_LL_PAH	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-196931-12

No Detections.

Client Sample ID: EQUIPMENT BLANK — Lab Sample ID: 480-196931-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	5.6	J	10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	5.6	B	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 480-196985-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	754		20.0	10.0	ug/L	2		9012B	Total/NA
Cyanide, Free	9.1	H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 480-196985-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	343		10.0	5.0	ug/L	1		9012B	Total/NA
Cyanide, Free	3.4	J H	5.0	2.3	ug/L	1		9016	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-13 — Lab Sample ID: 480-196985-3

No Detections.

Client Sample ID: MW-17 — Lab Sample ID: 480-196985-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	73.9		10.0	5.0	ug/L	1		9012B	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 480-196985-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	4940		200	100	ug/L	20		9012B	Total/NA
Cyanide, Free	46.4	H	5.0	2.3	ug/L	1		9016	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 480-196985-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-11A

Date Collected: 04/19/22 11:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-1

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.9**		2.0	0.82	ug/L			04/20/22 14:06	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/20/22 14:06	2
Toluene	2.0	U	2.0	1.0	ug/L			04/20/22 14:06	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/20/22 14:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/20/22 14:06*	*2*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*04/20/22 14:06*	*2*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*04/20/22 14:06*	*2*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 14:06*	*2*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:15	1
Acenaphthene	**1.4**		0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:15	1
Acenaphthylene	**0.87**		0.50	0.34	ug/L		04/20/22 14:51	04/21/22 16:15	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 16:15	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 16:15	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:15	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:15	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:15	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 16:15	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 16:15	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:15	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*48 - 120*	*04/20/22 14:51*	*04/21/22 16:15*	*1*
Nitrobenzene-d5 (Surr)	*79*		*46 - 120*	*04/20/22 14:51*	*04/21/22 16:15*	*1*
p-Terphenyl-d14 (Surr)	*72*		*24 - 136*	*04/20/22 14:51*	*04/21/22 16:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**228**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:17	1
Cyanide, Free	**8.6**	**F1 B**	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**6.0**	**H**	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**26.4**		1.6	1.6	mg/L			04/22/22 14:21	1

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: SW-01

Date Collected: 04/19/22 13:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-2

Matrix: Surface Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 14:29	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 14:29	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 14:29	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 14:29*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*04/20/22 14:29*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/20/22 14:29*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/20/22 14:29*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:43	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:43	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 16:43	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 16:43	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 16:43	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:43	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:43	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:43	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 16:43	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 16:43	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:43	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*48 - 120*	*04/20/22 14:51*	*04/21/22 16:43*	*1*
Nitrobenzene-d5 (Surr)	*77*		*46 - 120*	*04/20/22 14:51*	*04/21/22 16:43*	*1*
p-Terphenyl-d14 (Surr)	*80*		*24 - 136*	*04/20/22 14:51*	*04/21/22 16:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**29.1**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:18	1
Cyanide, Free	**5.6**	**B**	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**3.0**	**J H**	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.6	U	1.6	1.6	mg/L			04/22/22 14:21	1

Client Sample ID: SW-02

Date Collected: 04/19/22 11:00
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-3

Matrix: Surface Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 14:52	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 14:52	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 14:52	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/20/22 14:52*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/20/22 14:52*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/20/22 14:52*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/20/22 14:52*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 17:10	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 17:10	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 17:10	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 17:10	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 17:10	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 17:10	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 17:10	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 17:10	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 17:10	1
Naphthalene	**0.84**		0.50	0.42	ug/L		04/20/22 14:51	04/21/22 17:10	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 17:10	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*48 - 120*	*04/20/22 14:51*	*04/21/22 17:10*	*1*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*04/20/22 14:51*	*04/21/22 17:10*	*1*
p-Terphenyl-d14 (Surr)	*81*		*24 - 136*	*04/20/22 14:51*	*04/21/22 17:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**6.2**	**J**	10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:19	1
Cyanide, Free	**5.2**	**B**	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	5.0	U H	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.6	U	1.6	1.6	mg/L			04/22/22 14:21	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-12

Date Collected: 04/19/22 12:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-4

Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1060		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:21	1
Cyanide, Free	15.3	B	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	8.9	H	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-14
Date Collected: 04/19/22 10:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-5
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	568		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:22	1
Cyanide, Free	12.5	B	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	8.3	H	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

Client Sample ID: MW-19

Date Collected: 04/19/22 10:55
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-6

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4100**		100	41	ug/L			04/20/22 15:15	100
Ethylbenzene	**470**		100	74	ug/L			04/20/22 15:15	100
Toluene	100	U	100	51	ug/L			04/20/22 15:15	100
Xylenes, Total	200	U	200	66	ug/L			04/20/22 15:15	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/20/22 15:15*	*100*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/20/22 15:15*	*100*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*04/20/22 15:15*	*100*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 15:15*	*100*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	100	U	100	76	ug/L		04/20/22 14:51	04/21/22 17:38	200
Acenaphthene	100	U	100	60	ug/L		04/20/22 14:51	04/21/22 17:38	200
Acenaphthylene	100	U	100	68	ug/L		04/20/22 14:51	04/21/22 17:38	200
Anthracene	100	U	100	78	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[a]anthracene	100	U	100	80	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[a]pyrene	100	U	100	66	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[b]fluoranthene	100	U	100	60	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[g,h,i]perylene	100	U	100	74	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[k]fluoranthene	100	U	100	17	ug/L		04/20/22 14:51	04/21/22 17:38	200
Chrysene	100	U	100	64	ug/L		04/20/22 14:51	04/21/22 17:38	200
Dibenz(a,h)anthracene	100	U	100	66	ug/L		04/20/22 14:51	04/21/22 17:38	200
Fluoranthene	100	U	100	72	ug/L		04/20/22 14:51	04/21/22 17:38	200
Fluorene	100	U	100	74	ug/L		04/20/22 14:51	04/21/22 17:38	200
Indeno[1,2,3-cd]pyrene	100	U	100	88	ug/L		04/20/22 14:51	04/21/22 17:38	200
Naphthalene	**5700**		100	84	ug/L		04/20/22 14:51	04/21/22 17:38	200
Phenanthrene	100	U	100	76	ug/L		04/20/22 14:51	04/21/22 17:38	200
Pyrene	100	U	100	72	ug/L		04/20/22 14:51	04/21/22 17:38	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*48 - 120*	*04/20/22 14:51*	*04/21/22 17:38*	*200*
Nitrobenzene-d5 (Surr)	*64*		*46 - 120*	*04/20/22 14:51*	*04/21/22 17:38*	*200*
p-Terphenyl-d14 (Surr)	*65*		*24 - 136*	*04/20/22 14:51*	*04/21/22 17:38*	*200*

Client Sample ID: MW-23

Date Collected: 04/19/22 09:50
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-7

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 15:45	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 15:45	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 15:45	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/20/22 15:45*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/20/22 15:45*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/20/22 15:45*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/20/22 15:45*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:05	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:05	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 18:05	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[b]fluoranthene	**0.31**	**J**	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 18:05	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 18:05	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:05	1
Fluoranthene	**0.49**	**J**	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:05	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:05	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 18:05	1
Naphthalene	**0.79**		0.50	0.42	ug/L		04/20/22 14:51	04/21/22 18:05	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:05	1
Pyrene	**0.39**	**J**	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*48 - 120*	*04/20/22 14:51*	*04/21/22 18:05*	*1*
Nitrobenzene-d5 (Surr)	*81*		*46 - 120*	*04/20/22 14:51*	*04/21/22 18:05*	*1*
p-Terphenyl-d14 (Surr)	*79*		*24 - 136*	*04/20/22 14:51*	*04/21/22 18:05*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**174**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:24	1
Cyanide, Free	**9.0**	**B**	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**6.4**	**H**	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: Duplicate

Date Collected: 04/19/22 09:55
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-8

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 16:08	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 16:08	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 16:08	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*04/20/22 16:08*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/20/22 16:08*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/20/22 16:08*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/20/22 16:08*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:33	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:33	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 18:33	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[b]fluoranthene	**0.50**		0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 18:33	1
Chrysene	**0.36**	**J**	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 18:33	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:33	1
Fluoranthene	**0.74**		0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:33	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:33	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 18:33	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 18:33	1
Phenanthrene	**0.38**	**J**	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:33	1
Pyrene	**0.63**		0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*48 - 120*	*04/20/22 14:51*	*04/21/22 18:33*	*1*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*	*04/20/22 14:51*	*04/21/22 18:33*	*1*
p-Terphenyl-d14 (Surr)	*74*		*24 - 136*	*04/20/22 14:51*	*04/21/22 18:33*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**191**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:28	1
Cyanide, Free	**9.0**	**B**	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**6.0**	**H**	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-22
Date Collected: 04/19/22 12:25
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-9
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	614		20.0	10.0	ug/L		04/27/22 10:45	04/27/22 15:07	2
Cyanide, Free	16.4	B	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	15.3	H	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

Client Sample ID: MW-07

Date Collected: 04/19/22 09:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-10

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**420**		40	16	ug/L			04/20/22 16:31	40
Ethylbenzene	**910**		40	30	ug/L			04/20/22 16:31	40
Toluene	40	U	40	20	ug/L			04/20/22 16:31	40
Xylenes, Total	**410**		80	26	ug/L			04/20/22 16:31	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 16:31*	*40*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/20/22 16:31*	*40*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*04/20/22 16:31*	*40*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/20/22 16:31*	*40*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	**190**		50	38	ug/L		04/20/22 14:51	04/21/22 19:01	100
Acenaphthene	**110**		50	30	ug/L		04/20/22 14:51	04/21/22 19:01	100
Acenaphthylene	50	U	50	34	ug/L		04/20/22 14:51	04/21/22 19:01	100
Anthracene	50	U	50	39	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[a]anthracene	50	U	50	40	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[a]pyrene	50	U	50	33	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[b]fluoranthene	50	U	50	30	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[g,h,i]perylene	50	U	50	37	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[k]fluoranthene	50	U	50	8.5	ug/L		04/20/22 14:51	04/21/22 19:01	100
Chrysene	50	U	50	32	ug/L		04/20/22 14:51	04/21/22 19:01	100
Dibenz(a,h)anthracene	50	U	50	33	ug/L		04/20/22 14:51	04/21/22 19:01	100
Fluoranthene	50	U	50	36	ug/L		04/20/22 14:51	04/21/22 19:01	100
Fluorene	50	U	50	37	ug/L		04/20/22 14:51	04/21/22 19:01	100
Indeno[1,2,3-cd]pyrene	50	U	50	44	ug/L		04/20/22 14:51	04/21/22 19:01	100
Naphthalene	**2100**		50	42	ug/L		04/20/22 14:51	04/21/22 19:01	100
Phenanthrene	50	U	50	38	ug/L		04/20/22 14:51	04/21/22 19:01	100
Pyrene	50	U	50	36	ug/L		04/20/22 14:51	04/21/22 19:01	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*48 - 120*	*04/20/22 14:51*	*04/21/22 19:01*	*100*
Nitrobenzene-d5 (Surr)	*65*		*46 - 120*	*04/20/22 14:51*	*04/21/22 19:01*	*100*
p-Terphenyl-d14 (Surr)	*53*		*24 - 136*	*04/20/22 14:51*	*04/21/22 19:01*	*100*

Client Sample ID: MW-10

Date Collected: 04/19/22 09:10
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-11

Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 16:55	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 16:55	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 16:55	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/20/22 16:55*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/20/22 16:55*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*04/20/22 16:55*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 16:55*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:29	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:29	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 19:29	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 19:29	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 19:29	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:29	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:29	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:29	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 19:29	1
Naphthalene	**1.3**		0.50	0.42	ug/L		04/20/22 14:51	04/21/22 19:29	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:29	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*48 - 120*	*04/20/22 14:51*	*04/21/22 19:29*	*1*
Nitrobenzene-d5 (Surr)	*86*		*46 - 120*	*04/20/22 14:51*	*04/21/22 19:29*	*1*
p-Terphenyl-d14 (Surr)	*84*		*24 - 136*	*04/20/22 14:51*	*04/21/22 19:29*	*1*

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: TRIP BLANK

Date Collected: 04/19/22 00:00
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 17:18	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 17:18	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 17:18	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 17:18*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*04/20/22 17:18*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 123*		*04/20/22 17:18*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/20/22 17:18*	*1*

Client Sample ID: EQUIPMENT BLANK

Date Collected: 04/19/22 10:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 17:41	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 17:41	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 17:41	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 17:41*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/20/22 17:41*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*04/20/22 17:41*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 17:41*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:57	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:57	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 19:57	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 19:57	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 19:57	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:57	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:57	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:57	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 19:57	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 19:57	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:57	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*101*		*48 - 120*	*04/20/22 14:51*	*04/21/22 19:57*	*1*
Nitrobenzene-d5 (Surr)	*85*		*46 - 120*	*04/20/22 14:51*	*04/21/22 19:57*	*1*
p-Terphenyl-d14 (Surr)	*100*		*24 - 136*	*04/20/22 14:51*	*04/21/22 19:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**5.6**	**J**	10.0	5.0	ug/L		04/27/22 10:45	04/27/22 13:59	1
Cyanide, Free	**5.6**	**B**	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	5.0	U H	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-20
Date Collected: 04/20/22 09:20
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	754		20.0	10.0	ug/L		04/27/22 10:45	04/27/22 15:08	2
Cyanide, Free	9.1	H	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-21

Date Collected: 04/20/22 10:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	343		10.0	5.0	ug/L		04/27/22 10:45	04/27/22 14:07	1
Cyanide, Free	3.4	J H	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client Sample ID: MW-13

Date Collected: 04/20/22 10:30
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/21/22 19:30	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/21/22 19:30	1
Toluene	1.0	U	1.0	0.51	ug/L			04/21/22 19:30	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/21/22 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*04/21/22 19:30*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/21/22 19:30*	*1*
Dibromofluoromethane (Surr)	*85*		*75 - 123*		*04/21/22 19:30*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/21/22 19:30*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 20:24	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 20:24	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 20:24	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 20:24	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 20:24	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 20:24	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 20:24	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 20:24	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 20:24	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 20:24	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 20:24	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*48 - 120*	*04/20/22 14:51*	*04/21/22 20:24*	*1*
Nitrobenzene-d5 (Surr)	*56*		*46 - 120*	*04/20/22 14:51*	*04/21/22 20:24*	*1*
p-Terphenyl-d14 (Surr)	*73*		*24 - 136*	*04/20/22 14:51*	*04/21/22 20:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	10.0	U	10.0	5.0	ug/L		04/27/22 10:45	04/27/22 14:08	1
Cyanide, Free	5.0	U H	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client Sample ID: MW-17

Date Collected: 04/20/22 11:15
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.0	U	2.0	0.82	ug/L			04/21/22 19:53	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/21/22 19:53	2
Toluene	2.0	U	2.0	1.0	ug/L			04/21/22 19:53	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/21/22 19:53	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/21/22 19:53*	*2*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/21/22 19:53*	*2*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*04/21/22 19:53*	*2*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/21/22 19:53*	*2*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Acenaphthene	2.5	U	2.5	1.5	ug/L		04/20/22 14:51	04/21/22 20:52	5
Acenaphthylene	2.5	U	2.5	1.7	ug/L		04/20/22 14:51	04/21/22 20:52	5
Anthracene	2.5	U	2.5	2.0	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[a]anthracene	2.5	U	2.5	2.0	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[a]pyrene	2.5	U	2.5	1.7	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[b]fluoranthene	2.5	U	2.5	1.5	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[g,h,i]perylene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[k]fluoranthene	2.5	U	2.5	0.43	ug/L		04/20/22 14:51	04/21/22 20:52	5
Chrysene	2.5	U	2.5	1.6	ug/L		04/20/22 14:51	04/21/22 20:52	5
Dibenz(a,h)anthracene	2.5	U	2.5	1.7	ug/L		04/20/22 14:51	04/21/22 20:52	5
Fluoranthene	2.5	U	2.5	1.8	ug/L		04/20/22 14:51	04/21/22 20:52	5
Fluorene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Indeno[1,2,3-cd]pyrene	2.5	U	2.5	2.2	ug/L		04/20/22 14:51	04/21/22 20:52	5
Naphthalene	2.5	U	2.5	2.1	ug/L		04/20/22 14:51	04/21/22 20:52	5
Phenanthrene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Pyrene	2.5	U	2.5	1.8	ug/L		04/20/22 14:51	04/21/22 20:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*48 - 120*	*04/20/22 14:51*	*04/21/22 20:52*	*5*
Nitrobenzene-d5 (Surr)	*49*		*46 - 120*	*04/20/22 14:51*	*04/21/22 20:52*	*5*
p-Terphenyl-d14 (Surr)	*69*		*24 - 136*	*04/20/22 14:51*	*04/21/22 20:52*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**73.9**		10.0	5.0	ug/L		04/27/22 10:45	04/27/22 14:09	1
Cyanide, Free	5.0	U H	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-16
Date Collected: 04/20/22 00:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	4940		200	100	ug/L		04/27/22 10:45	04/27/22 15:48	20
Cyanide, Free	46.4	H	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: TRIP BLANK
Date Collected: 04/20/22 00:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/21/22 20:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/21/22 20:16	1
Toluene	1.0	U	1.0	0.51	ug/L			04/21/22 20:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/21/22 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/21/22 20:16*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/21/22 20:16*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 123*		*04/21/22 20:16*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/21/22 20:16*	*1*

Surrogate Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

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

Matrix: Ground Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-196931-1	MW-11A	102	102	110	97
480-196931-6	MW-19	102	98	109	97
480-196931-7	MW-23	101	101	112	95
480-196931-8	Duplicate	100	99	111	95
480-196931-10	MW-07	106	100	109	99
480-196931-11	MW-10	107	101	113	97

Surrogate Legend

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

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

Matrix: Surface Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-196931-2	SW-01	106	102	111	99
480-196931-3	SW-02	104	99	111	96

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-196931-12	TRIP BLANK	106	102	115	98
480-196931-13	EQUIPMENT BLANK	106	100	113	97
480-196985-3	MW-13	100	101	85	96
480-196985-4	MW-17	102	95	92	95
480-196985-6	TRIP BLANK	101	98	90	95
LCS 480-622381/5	Lab Control Sample	103	98	109	100
LCS 480-622584/6	Lab Control Sample	103	98	87	94
LCSD 480-622584/7	Lab Control Sample Dup	107	98	91	95
MB 480-622381/7	Method Blank	104	101	108	98
MB 480-622584/9	Method Blank	102	98	88	100

Surrogate Legend

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

Surrogate Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Matrix: Ground Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-196931-1	MW-11A	93	79	72
480-196931-6	MW-19	92	64	65
480-196931-7	MW-23	95	81	79
480-196931-8	Duplicate	98	82	74
480-196931-10	MW-07	107	65	53
480-196931-11	MW-10	104	86	84

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Matrix: Surface Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-196931-2	SW-01	94	77	80
480-196931-3	SW-02	90	76	81

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-196931-13	EQUIPMENT BLANK	101	85	100
480-196985-3	MW-13	65	56	73
480-196985-4	MW-17	68	49	69
LCS 480-622501/2-A	Lab Control Sample	89	78	83
LCSD 480-622501/3-A	Lab Control Sample Dup	96	83	90
MB 480-622501/1-A	Method Blank	87	74	96

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

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

Lab Sample ID: MB 480-622381/7
Matrix: Water
Analysis Batch: 622381

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 11:10	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 11:10	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 11:10	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/20/22 11:10*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/20/22 11:10*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*04/20/22 11:10*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/20/22 11:10*	*1*

Lab Sample ID: LCS 480-622381/5
Matrix: Water
Analysis Batch: 622381

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	22.7		ug/L		91	71 - 124
Ethylbenzene	25.0	23.7		ug/L		95	77 - 123
Toluene	25.0	22.6		ug/L		90	80 - 122
Xylenes, Total	50.0	46.5		ug/L		93	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*109*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 480-622584/9
Matrix: Water
Analysis Batch: 622584

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/21/22 12:40	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/21/22 12:40	1
Toluene	1.0	U	1.0	0.51	ug/L			04/21/22 12:40	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/21/22 12:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/21/22 12:40*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/21/22 12:40*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 123*		*04/21/22 12:40*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/21/22 12:40*	*1*

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

Lab Sample ID: LCS 480-622584/6
Matrix: Water
Analysis Batch: 622584

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	24.6		ug/L		98	71 - 124		
Ethylbenzene			25.0	26.8		ug/L		107	77 - 123		
Toluene			25.0	25.3		ug/L		101	80 - 122		
Xylenes, Total			50.0	49.0		ug/L		98	76 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*87*		*75 - 123*
Toluene-d8 (Surr)	*94*		*80 - 120*

Lab Sample ID: LCSD 480-622584/7
Matrix: Water
Analysis Batch: 622584

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
Benzene			25.0	25.3		ug/L		101	71 - 124	3	13
Ethylbenzene			25.0	26.5		ug/L		106	77 - 123	1	15
Toluene			25.0	24.9		ug/L		100	80 - 122	2	15
Xylenes, Total			50.0	49.4		ug/L		99	76 - 122	1	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*91*		*75 - 123*
Toluene-d8 (Surr)	*95*		*80 - 120*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Lab Sample ID: MB 480-622501/1-A
Matrix: Water
Analysis Batch: 622654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 14:52	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 14:52	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 14:52	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 14:52	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 14:52	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 14:52	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 14:52	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 14:52	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 14:52	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 14:52	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 14:52	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 14:52	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 14:52	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 14:52	1

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH (Continued)

Lab Sample ID: MB 480-622501/1-A
Matrix: Water
Analysis Batch: 622654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 14:52	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 14:52	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 14:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*48 - 120*	*04/20/22 14:51*	*04/21/22 14:52*	*1*
Nitrobenzene-d5 (Surr)	*74*		*46 - 120*	*04/20/22 14:51*	*04/21/22 14:52*	*1*
p-Terphenyl-d14 (Surr)	*96*		*24 - 136*	*04/20/22 14:51*	*04/21/22 14:52*	*1*

Lab Sample ID: LCS 480-622501/2-A
Matrix: Water
Analysis Batch: 622654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	32.0	27.7		ug/L		87	48 - 120
Acenaphthene	32.0	29.8		ug/L		93	60 - 120
Acenaphthylene	32.0	29.2		ug/L		91	63 - 120
Anthracene	32.0	32.9		ug/L		103	69 - 131
Benzo[a]anthracene	32.0	30.4		ug/L		95	62 - 142
Benzo[a]pyrene	32.0	24.4		ug/L		76	46 - 156
Benzo[b]fluoranthene	32.0	26.7		ug/L		84	50 - 149
Benzo[g,h,i]perylene	32.0	25.8		ug/L		81	34 - 189
Benzo[k]fluoranthene	32.0	27.1		ug/L		85	47 - 147
Chrysene	32.0	29.0		ug/L		91	69 - 140
Dibenz(a,h)anthracene	32.0	25.7		ug/L		80	35 - 176
Fluoranthene	32.0	33.8		ug/L		106	67 - 133
Fluorene	32.0	31.0		ug/L		97	66 - 129
Indeno[1,2,3-cd]pyrene	32.0	25.8		ug/L		81	57 - 161
Naphthalene	32.0	28.7		ug/L		90	48 - 120
Phenanthrene	32.0	32.3		ug/L		101	67 - 130
Pyrene	32.0	33.0		ug/L		103	58 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*48 - 120*
Nitrobenzene-d5 (Surr)	*78*		*46 - 120*
p-Terphenyl-d14 (Surr)	*83*		*24 - 136*

Lab Sample ID: LCSD 480-622501/3-A
Matrix: Water
Analysis Batch: 622654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622501

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Methylnaphthalene	32.0	29.0		ug/L		91	48 - 120	4	21
Acenaphthene	32.0	32.0		ug/L		100	60 - 120	7	24
Acenaphthylene	32.0	31.7		ug/L		99	63 - 120	8	18
Anthracene	32.0	34.1		ug/L		107	69 - 131	4	15
Benzo[a]anthracene	32.0	31.3		ug/L		98	62 - 142	3	15
Benzo[a]pyrene	32.0	27.0		ug/L		84	46 - 156	10	15

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH (Continued)

Lab Sample ID: LCSD 480-622501/3-A
Matrix: Water
Analysis Batch: 622654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622501

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[b]fluoranthene			32.0	30.5		ug/L		95	50 - 149	13	15
Benzo[g,h,i]perylene			32.0	28.3		ug/L		89	34 - 189	9	15
Benzo[k]fluoranthene			32.0	28.0		ug/L		88	47 - 147	3	22
Chrysene			32.0	30.6		ug/L		96	69 - 140	5	15
Dibenz(a,h)anthracene			32.0	28.1		ug/L		88	35 - 176	9	15
Fluoranthene			32.0	34.7		ug/L		108	67 - 133	2	15
Fluorene			32.0	33.1		ug/L		103	66 - 129	7	15
Indeno[1,2,3-cd]pyrene			32.0	28.0		ug/L		87	57 - 161	8	15
Naphthalene			32.0	30.1		ug/L		94	48 - 120	5	29
Phenanthrene			32.0	33.4		ug/L		105	67 - 130	4	15
Pyrene			32.0	34.3		ug/L		107	58 - 136	4	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*48 - 120*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*
p-Terphenyl-d14 (Surr)	*90*		*24 - 136*

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-623320/1-A
Matrix: Water
Analysis Batch: 623390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623320

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	10.0	U	10.0	5.0	ug/L		04/26/22 16:30	04/27/22 08:53	1

Lab Sample ID: LCS 480-623320/2-A
Matrix: Water
Analysis Batch: 623390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623320

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			400	440.0		ug/L		110	90 - 110		

Lab Sample ID: LCS 480-623320/3-A
Matrix: Water
Analysis Batch: 623390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623320

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			250	261.0		ug/L		104	90 - 110		

Lab Sample ID: 480-196931-8 MS
Matrix: Ground Water
Analysis Batch: 623390

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 623320

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	191		100	287.0		ug/L		96	90 - 110		

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: MB 480-623399/1-A
Matrix: Water
Analysis Batch: 623466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 623399

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	10.0	U	10.0	5.0	ug/L		04/27/22 10:45	04/27/22 13:39	1

Lab Sample ID: LCS 480-623399/2-A
Matrix: Water
Analysis Batch: 623466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 623399

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	250	236.0		ug/L		94	90 - 110

Lab Sample ID: 480-196985-5 MS
Matrix: Water
Analysis Batch: 623492

Client Sample ID: MW-16
Prep Type: Total/NA
Prep Batch: 623399

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	4940		100	5740	4	ug/L		800	90 - 110

Method: 9016 - Cyanide, Free

Lab Sample ID: MB 460-842013/1-A
Matrix: Water
Analysis Batch: 842266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 842013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	4.03	J	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1

Lab Sample ID: LCS 460-842013/2-A
Matrix: Water
Analysis Batch: 842266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 842013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Free	50.0	52.31		ug/L		105	56 - 120

Lab Sample ID: 480-196931-1 MS
Matrix: Ground Water
Analysis Batch: 842266

Client Sample ID: MW-11A
Prep Type: Total/NA
Prep Batch: 842013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Free	8.6	F1 B	50.0	34.97	F1	ug/L		53	56 - 120

Lab Sample ID: 480-196931-1 MSD
Matrix: Ground Water
Analysis Batch: 842266

Client Sample ID: MW-11A
Prep Type: Total/NA
Prep Batch: 842013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Free	8.6	F1 B	50.0	39.70		ug/L		62	56 - 120	13	30

Method: 9016 - Cyanide, Free (Continued)

Lab Sample ID: DLCK 460-842266/10
Matrix: Water
Analysis Batch: 842266

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

Analyte			Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Free			2.00	5.0	U	ug/L		78	36 - 171		

Lab Sample ID: MB 460-843239/1-A
Matrix: Water
Analysis Batch: 843370

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 843239

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	5.0	U	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Lab Sample ID: LCS 460-843239/2-A
Matrix: Water
Analysis Batch: 843370

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 843239

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Free			50.0	47.36		ug/L		95	56 - 120		

Lab Sample ID: DLCK 460-843370/10
Matrix: Water
Analysis Batch: 843370

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

Analyte			Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Free			2.00	2.83	J	ug/L		141	36 - 171		

Lab Sample ID: MB 460-843999/1-A
Matrix: Water
Analysis Batch: 844077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 843999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	5.0	U	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Lab Sample ID: LCS 460-843999/2-A
Matrix: Water
Analysis Batch: 844077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 843999

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Free			50.0	40.35		ug/L		81	56 - 120		

Lab Sample ID: 480-196985-1 MS
Matrix: Water
Analysis Batch: 844077

Client Sample ID: MW-20
Prep Type: Total/NA
Prep Batch: 843999

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Free	9.1	H	50.0	43.10		ug/L		68	56 - 120		

Lab Sample ID: 480-196985-1 MSD
Matrix: Water
Analysis Batch: 844077

Client Sample ID: MW-20
Prep Type: Total/NA
Prep Batch: 843999

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Free	9.1	H	50.0	49.13		ug/L		80	56 - 120	13	30

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Method: 9016 - Cyanide, Free

Lab Sample ID: DLCK 460-844077/10
Matrix: Water
Analysis Batch: 844077

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

Analyte			Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Free			2.00	5.0	U	ug/L		97	36 - 171		

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-622879/1
Matrix: Water
Analysis Batch: 622879

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	0.40	U	0.40	0.40	mg/L			04/22/22 14:21	1

Lab Sample ID: LCS 480-622879/2
Matrix: Water
Analysis Batch: 622879

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			341	322.8		mg/L		95	88 - 110		

Lab Sample ID: 480-196931-3 DU
Matrix: Surface Water
Analysis Batch: 622879

Client Sample ID: SW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	1.6	U		1.6	U	mg/L				NC	10

GC/MS VOA

Analysis Batch: 622381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	8260C	
480-196931-2	SW-01	Total/NA	Surface Water	8260C	
480-196931-3	SW-02	Total/NA	Surface Water	8260C	
480-196931-6	MW-19	Total/NA	Ground Water	8260C	
480-196931-7	MW-23	Total/NA	Ground Water	8260C	
480-196931-8	Duplicate	Total/NA	Ground Water	8260C	
480-196931-10	MW-07	Total/NA	Ground Water	8260C	
480-196931-11	MW-10	Total/NA	Ground Water	8260C	
480-196931-12	TRIP BLANK	Total/NA	Water	8260C	
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	8260C	
MB 480-622381/7	Method Blank	Total/NA	Water	8260C	
LCS 480-622381/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 622584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196985-3	MW-13	Total/NA	Water	8260C	
480-196985-4	MW-17	Total/NA	Water	8260C	
480-196985-6	TRIP BLANK	Total/NA	Water	8260C	
MB 480-622584/9	Method Blank	Total/NA	Water	8260C	
LCS 480-622584/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-622584/7	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 622501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	3510C	
480-196931-2	SW-01	Total/NA	Surface Water	3510C	
480-196931-3	SW-02	Total/NA	Surface Water	3510C	
480-196931-6	MW-19	Total/NA	Ground Water	3510C	
480-196931-7	MW-23	Total/NA	Ground Water	3510C	
480-196931-8	Duplicate	Total/NA	Ground Water	3510C	
480-196931-10	MW-07	Total/NA	Ground Water	3510C	
480-196931-11	MW-10	Total/NA	Ground Water	3510C	
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	3510C	
480-196985-3	MW-13	Total/NA	Water	3510C	
480-196985-4	MW-17	Total/NA	Water	3510C	
MB 480-622501/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-622501/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-622501/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 622654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	8270D_LL_PAH	622501
480-196931-2	SW-01	Total/NA	Surface Water	8270D_LL_PAH	622501
480-196931-3	SW-02	Total/NA	Surface Water	8270D_LL_PAH	622501
480-196931-6	MW-19	Total/NA	Ground Water	8270D_LL_PAH	622501
480-196931-7	MW-23	Total/NA	Ground Water	8270D_LL_PAH	622501
480-196931-8	Duplicate	Total/NA	Ground Water	8270D_LL_PAH	622501
480-196931-10	MW-07	Total/NA	Ground Water	8270D_LL_PAH	622501
480-196931-11	MW-10	Total/NA	Ground Water	8270D_LL_PAH	622501

GC/MS Semi VOA (Continued)

Analysis Batch: 622654 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	8270D_LL_PAH	622501
480-196985-3	MW-13	Total/NA	Water	8270D_LL_PAH	622501
480-196985-4	MW-17	Total/NA	Water	8270D_LL_PAH	622501
MB 480-622501/1-A	Method Blank	Total/NA	Water	8270D_LL_PAH	622501
LCS 480-622501/2-A	Lab Control Sample	Total/NA	Water	8270D_LL_PAH	622501
LCSD 480-622501/3-A	Lab Control Sample Dup	Total/NA	Water	8270D_LL_PAH	622501

General Chemistry

Analysis Batch: 622879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	SM 2540D	
480-196931-2	SW-01	Total/NA	Surface Water	SM 2540D	
480-196931-3	SW-02	Total/NA	Surface Water	SM 2540D	
MB 480-622879/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-622879/2	Lab Control Sample	Total/NA	Water	SM 2540D	
480-196931-3 DU	SW-02	Total/NA	Surface Water	SM 2540D	

Prep Batch: 623320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	9012B	
480-196931-2	SW-01	Total/NA	Surface Water	9012B	
480-196931-3	SW-02	Total/NA	Surface Water	9012B	
480-196931-4	MW-12	Total/NA	Ground Water	9012B	
480-196931-5	MW-14	Total/NA	Ground Water	9012B	
480-196931-7	MW-23	Total/NA	Ground Water	9012B	
480-196931-8	Duplicate	Total/NA	Ground Water	9012B	
MB 480-623320/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-623320/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-623320/3-A	Lab Control Sample	Total/NA	Water	9012B	
480-196931-8 MS	Duplicate	Total/NA	Ground Water	9012B	

Analysis Batch: 623390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	9012B	623320
480-196931-2	SW-01	Total/NA	Surface Water	9012B	623320
480-196931-3	SW-02	Total/NA	Surface Water	9012B	623320
480-196931-4	MW-12	Total/NA	Ground Water	9012B	623320
480-196931-5	MW-14	Total/NA	Ground Water	9012B	623320
480-196931-7	MW-23	Total/NA	Ground Water	9012B	623320
480-196931-8	Duplicate	Total/NA	Ground Water	9012B	623320
MB 480-623320/1-A	Method Blank	Total/NA	Water	9012B	623320
LCS 480-623320/2-A	Lab Control Sample	Total/NA	Water	9012B	623320
LCS 480-623320/3-A	Lab Control Sample	Total/NA	Water	9012B	623320
480-196931-8 MS	Duplicate	Total/NA	Ground Water	9012B	623320

Prep Batch: 623399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-9	MW-22	Total/NA	Ground Water	9012B	
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	9012B	
480-196985-1	MW-20	Total/NA	Water	9012B	

General Chemistry (Continued)

Prep Batch: 623399 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196985-2	MW-21	Total/NA	Water	9012B	
480-196985-3	MW-13	Total/NA	Water	9012B	
480-196985-4	MW-17	Total/NA	Water	9012B	
480-196985-5	MW-16	Total/NA	Water	9012B	
MB 480-623399/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-623399/2-A	Lab Control Sample	Total/NA	Water	9012B	
480-196985-5 MS	MW-16	Total/NA	Water	9012B	

Analysis Batch: 623466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	9012B	623399
480-196985-2	MW-21	Total/NA	Water	9012B	623399
480-196985-3	MW-13	Total/NA	Water	9012B	623399
480-196985-4	MW-17	Total/NA	Water	9012B	623399
MB 480-623399/1-A	Method Blank	Total/NA	Water	9012B	623399
LCS 480-623399/2-A	Lab Control Sample	Total/NA	Water	9012B	623399

Analysis Batch: 623488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-9	MW-22	Total/NA	Ground Water	9012B	623399
480-196985-1	MW-20	Total/NA	Water	9012B	623399

Analysis Batch: 623492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196985-5	MW-16	Total/NA	Water	9012B	623399
480-196985-5 MS	MW-16	Total/NA	Water	9012B	623399

Prep Batch: 842013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	9016	
480-196931-2	SW-01	Total/NA	Surface Water	9016	
480-196931-3	SW-02	Total/NA	Surface Water	9016	
480-196931-4	MW-12	Total/NA	Ground Water	9016	
480-196931-5	MW-14	Total/NA	Ground Water	9016	
480-196931-7	MW-23	Total/NA	Ground Water	9016	
480-196931-8	Duplicate	Total/NA	Ground Water	9016	
480-196931-9	MW-22	Total/NA	Ground Water	9016	
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	9016	
MB 460-842013/1-A	Method Blank	Total/NA	Water	9016	
LCS 460-842013/2-A	Lab Control Sample	Total/NA	Water	9016	
480-196931-1 MS	MW-11A	Total/NA	Ground Water	9016	
480-196931-1 MSD	MW-11A	Total/NA	Ground Water	9016	

Analysis Batch: 842266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	9016	842013
480-196931-2	SW-01	Total/NA	Surface Water	9016	842013
480-196931-3	SW-02	Total/NA	Surface Water	9016	842013
480-196931-4	MW-12	Total/NA	Ground Water	9016	842013
480-196931-5	MW-14	Total/NA	Ground Water	9016	842013
480-196931-7	MW-23	Total/NA	Ground Water	9016	842013

General Chemistry (Continued)

Analysis Batch: 842266 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-8	Duplicate	Total/NA	Ground Water	9016	842013
480-196931-9	MW-22	Total/NA	Ground Water	9016	842013
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	9016	842013
MB 460-842013/1-A	Method Blank	Total/NA	Water	9016	842013
DLCK 460-842266/10	Lab Control Sample	Total/NA	Water	9016	
LCS 460-842013/2-A	Lab Control Sample	Total/NA	Water	9016	842013
480-196931-1 MS	MW-11A	Total/NA	Ground Water	9016	842013
480-196931-1 MSD	MW-11A	Total/NA	Ground Water	9016	842013

Prep Batch: 843239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	9016	
480-196931-2	SW-01	Total/NA	Surface Water	9016	
480-196931-3	SW-02	Total/NA	Surface Water	9016	
480-196931-4	MW-12	Total/NA	Ground Water	9016	
480-196931-5	MW-14	Total/NA	Ground Water	9016	
480-196931-7	MW-23	Total/NA	Ground Water	9016	
480-196931-8	Duplicate	Total/NA	Ground Water	9016	
480-196931-9	MW-22	Total/NA	Ground Water	9016	
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	9016	
MB 460-843239/1-A	Method Blank	Total/NA	Water	9016	
LCS 460-843239/2-A	Lab Control Sample	Total/NA	Water	9016	

Analysis Batch: 843370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196931-1	MW-11A	Total/NA	Ground Water	9016	843239
480-196931-2	SW-01	Total/NA	Surface Water	9016	843239
480-196931-3	SW-02	Total/NA	Surface Water	9016	843239
480-196931-4	MW-12	Total/NA	Ground Water	9016	843239
480-196931-5	MW-14	Total/NA	Ground Water	9016	843239
480-196931-7	MW-23	Total/NA	Ground Water	9016	843239
480-196931-8	Duplicate	Total/NA	Ground Water	9016	843239
480-196931-9	MW-22	Total/NA	Ground Water	9016	843239
480-196931-13	EQUIPMENT BLANK	Total/NA	Water	9016	843239
MB 460-843239/1-A	Method Blank	Total/NA	Water	9016	843239
DLCK 460-843370/10	Lab Control Sample	Total/NA	Water	9016	
LCS 460-843239/2-A	Lab Control Sample	Total/NA	Water	9016	843239

Prep Batch: 843999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196985-1	MW-20	Total/NA	Water	9016	
480-196985-2	MW-21	Total/NA	Water	9016	
480-196985-3	MW-13	Total/NA	Water	9016	
480-196985-4	MW-17	Total/NA	Water	9016	
480-196985-5	MW-16	Total/NA	Water	9016	
MB 460-843999/1-A	Method Blank	Total/NA	Water	9016	
LCS 460-843999/2-A	Lab Control Sample	Total/NA	Water	9016	
480-196985-1 MS	MW-20	Total/NA	Water	9016	
480-196985-1 MSD	MW-20	Total/NA	Water	9016	

QC Association Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

General Chemistry

Analysis Batch: 844077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-196985-1	MW-20	Total/NA	Water	9016	843999
480-196985-2	MW-21	Total/NA	Water	9016	843999
480-196985-3	MW-13	Total/NA	Water	9016	843999
480-196985-4	MW-17	Total/NA	Water	9016	843999
480-196985-5	MW-16	Total/NA	Water	9016	843999
MB 460-843999/1-A	Method Blank	Total/NA	Water	9016	843999
DLCK 460-844077/10	Lab Control Sample	Total/NA	Water	9016	
LCS 460-843999/2-A	Lab Control Sample	Total/NA	Water	9016	843999
480-196985-1 MS	MW-20	Total/NA	Water	9016	843999
480-196985-1 MSD	MW-20	Total/NA	Water	9016	843999

Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-11A
Date Collected: 04/19/22 11:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	622381	04/20/22 14:06	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 16:15	PJQ	TAL BUF
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:17	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 19:55	VBG	TAL EDI
Total/NA	Analysis	SM 2540D		1	622879	04/22/22 14:21	SAK	TAL BUF

Client Sample ID: SW-01
Date Collected: 04/19/22 13:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-2
Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 14:29	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 16:43	PJQ	TAL BUF
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:18	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 19:55	VBG	TAL EDI
Total/NA	Analysis	SM 2540D		1	622879	04/22/22 14:21	SAK	TAL BUF

Client Sample ID: SW-02
Date Collected: 04/19/22 11:00
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-3
Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 14:52	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 17:10	PJQ	TAL BUF
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:19	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 19:55	VBG	TAL EDI
Total/NA	Analysis	SM 2540D		1	622879	04/22/22 14:21	SAK	TAL BUF

Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-12
Date Collected: 04/19/22 12:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:21	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 19:55	VBG	TAL EDI

Client Sample ID: MW-14
Date Collected: 04/19/22 10:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:22	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 20:15	VBG	TAL EDI

Client Sample ID: MW-19
Date Collected: 04/19/22 10:55
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-6
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	622381	04/20/22 15:15	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		200	622654	04/21/22 17:38	PJQ	TAL BUF

Client Sample ID: MW-23
Date Collected: 04/19/22 09:50
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 15:45	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 18:05	PJQ	TAL BUF
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:24	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 20:15	VBG	TAL EDI

Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: Duplicate

Date Collected: 04/19/22 09:55
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-8

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 16:08	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 18:33	PJQ	TAL BUF
Total/NA	Prep	9012B			623320	04/26/22 16:30	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623390	04/27/22 09:28	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 20:15	VBG	TAL EDI

Client Sample ID: MW-22

Date Collected: 04/19/22 12:25
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-9

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		2	623488	04/27/22 15:07	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 20:15	VBG	TAL EDI

Client Sample ID: MW-07

Date Collected: 04/19/22 09:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-10

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	622381	04/20/22 16:31	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		100	622654	04/21/22 19:01	PJQ	TAL BUF

Client Sample ID: MW-10

Date Collected: 04/19/22 09:10
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-11

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 16:55	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 19:29	PJQ	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-196931-12
Date Collected: 04/19/22 00:00
Matrix: Water
Date Received: 04/19/22 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 17:18	CRL	TAL BUF

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: 480-196931-13
Date Collected: 04/19/22 10:30
Matrix: Water
Date Received: 04/19/22 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622381	04/20/22 17:41	CRL	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 19:57	PJQ	TAL BUF
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623466	04/27/22 13:59	JGO	TAL BUF
Total/NA	Prep	9016			842013	04/29/22 11:23	IAA	TAL EDI
Total/NA	Analysis	9016		1	842266	04/29/22 20:00	VBG	TAL EDI
Total/NA	Prep	9016			843239	05/06/22 13:52	IAA	TAL EDI
Total/NA	Analysis	9016		1	843370	05/06/22 20:15	VBG	TAL EDI

Client Sample ID: MW-20
Lab Sample ID: 480-196985-1
Date Collected: 04/20/22 09:20
Matrix: Water
Date Received: 04/20/22 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		2	623488	04/27/22 15:08	JGO	TAL BUF
Total/NA	Prep	9016			843999	05/11/22 14:49	IAA	TAL EDI
Total/NA	Analysis	9016		1	844077	05/11/22 21:15	VBG	TAL EDI

Client Sample ID: MW-21
Lab Sample ID: 480-196985-2
Date Collected: 04/20/22 10:00
Matrix: Water
Date Received: 04/20/22 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623466	04/27/22 14:07	JGO	TAL BUF
Total/NA	Prep	9016			843999	05/11/22 14:49	IAA	TAL EDI
Total/NA	Analysis	9016		1	844077	05/11/22 21:15	VBG	TAL EDI

Client Sample ID: MW-13
Lab Sample ID: 480-196985-3
Date Collected: 04/20/22 10:30
Matrix: Water
Date Received: 04/20/22 12:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622584	04/21/22 19:30	CR	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	622654	04/21/22 20:24	PJQ	TAL BUF

Lab Chronicle

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-13
Date Collected: 04/20/22 10:30
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623466	04/27/22 14:08	JGO	TAL BUF
Total/NA	Prep	9016			843999	05/11/22 14:49	IAA	TAL EDI
Total/NA	Analysis	9016		1	844077	05/11/22 21:15	VBG	TAL EDI

Client Sample ID: MW-17
Date Collected: 04/20/22 11:15
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	622584	04/21/22 19:53	CR	TAL BUF
Total/NA	Prep	3510C			622501	04/20/22 14:51	CMC	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		5	622654	04/21/22 20:52	PJQ	TAL BUF
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		1	623466	04/27/22 14:09	JGO	TAL BUF
Total/NA	Prep	9016			843999	05/11/22 14:49	IAA	TAL EDI
Total/NA	Analysis	9016		1	844077	05/11/22 21:15	VBG	TAL EDI

Client Sample ID: MW-16
Date Collected: 04/20/22 00:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			623399	04/27/22 10:45	RJM	TAL BUF
Total/NA	Analysis	9012B		20	623492	04/27/22 15:48	JGO	TAL BUF
Total/NA	Prep	9016			843999	05/11/22 14:49	IAA	TAL EDI
Total/NA	Analysis	9016		1	844077	05/11/22 21:15	VBG	TAL EDI

Client Sample ID: TRIP BLANK
Date Collected: 04/20/22 00:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	622584	04/21/22 20:16	CR	TAL BUF

Laboratory References:

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

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

Accreditation/Certification Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

Laboratory: Eurofins 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	09-30-22
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-23
Georgia	State	12028 (NJ)	06-30-22
Massachusetts	State	M-NJ312	06-30-22
New Jersey	NELAP	12028	06-30-22
New York	NELAP	11452	04-01-23
Pennsylvania	NELAP	68-00522	02-28-23
Rhode Island	State	LAO00376	12-31-22
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D_LL_PAH	Semivolatile Organic Compounds (GC/MS) Low level PAH	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
9016	Cyanide, Free	SW846	TAL EDI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL BUF
9016	Cyanide, Preparation	SW846	TAL EDI

Protocol References:

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 Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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

Sample Summary

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-196931-1	MW-11A	Ground Water	04/19/22 11:15	04/19/22 14:20
480-196931-2	SW-01	Surface Water	04/19/22 13:30	04/19/22 14:20
480-196931-3	SW-02	Surface Water	04/19/22 11:00	04/19/22 14:20
480-196931-4	MW-12	Ground Water	04/19/22 12:30	04/19/22 14:20
480-196931-5	MW-14	Ground Water	04/19/22 10:15	04/19/22 14:20
480-196931-6	MW-19	Ground Water	04/19/22 10:55	04/19/22 14:20
480-196931-7	MW-23	Ground Water	04/19/22 09:50	04/19/22 14:20
480-196931-8	Duplicate	Ground Water	04/19/22 09:55	04/19/22 14:20
480-196931-9	MW-22	Ground Water	04/19/22 12:25	04/19/22 14:20
480-196931-10	MW-07	Ground Water	04/19/22 09:15	04/19/22 14:20
480-196931-11	MW-10	Ground Water	04/19/22 09:10	04/19/22 14:20
480-196931-12	TRIP BLANK	Water	04/19/22 00:00	04/19/22 14:20
480-196931-13	EQUIPMENT BLANK	Water	04/19/22 10:30	04/19/22 14:20
480-196985-1	MW-20	Water	04/20/22 09:20	04/20/22 12:45
480-196985-2	MW-21	Water	04/20/22 10:00	04/20/22 12:45
480-196985-3	MW-13	Water	04/20/22 10:30	04/20/22 12:45
480-196985-4	MW-17	Water	04/20/22 11:15	04/20/22 12:45
480-196985-5	MW-16	Water	04/20/22 00:00	04/20/22 12:45
480-196985-6	TRIP BLANK	Water	04/20/22 00:00	04/20/22 12:45

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: M. Cummings	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-172790-32131.1
Client Contact: Brad Walker	Phone: 716-572-4362	E-Mail: John.Schove@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: National Fuel Gas Supply Corporation	PWSID:			Job #:
Address: 6363 Main Street	Due Date Requested:			
City: Williamsville	TAT Requested (days): 5TD			
State, Zip: NY, 14221-5887	Compliance Project: Δ Yes Δ No			
Phone: 716-857-7247(Tel)	PO #: Purchase Order not required			
Email: walkerb@natfuel.com	WO #:			
Project Name: GEI, Mineral Springs/ Event Desc: Semi Annual Sampling (April)	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	8270D_LL_PAH - PAH - 8270	8260C - BTEX - 8260	2540D - Total Suspended Solids	9012B - Cyanide, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	B		
MW-11A	4/19/22	1115	G	Water			X	X	X	X	X	8	
SW-01		1330		Water			X	X	X	X	X	8	
SW-02		1100		Water			X	X	X	X	X	8	
MW-12		1230		Water			X				X	1	
MW-14		1015		Water			X				X		
~~MW-16~~ MW-19		1055		Water				X	X				
~~MW-20~~ MW-23		950		Water			X	X	X		X		
~~MW-24~~ DUPLICATE		955		Water			X	X	X		X		
MW-22		1225		Water			X				X		
MW-07		915		Water				X	X			8	
MW-10		910		Water				X	X			5	
												3	

480-196931 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 1420 4/19	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4/19/22 1420	Company JAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.7 2.9 TCF

Ver: 06/08/2021

5/13/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: M. Cummings	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-172790-32131.2
Client Contact: Brad Walker	Phone: 716-572-4302	E-Mail: John.Schove@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: National Fuel Gas Supply Corporation	PWSID:			Job #:
Address: 6363 Main Street	Due Date Requested:			
City: Williamsville	TAT Requested (days): STD			
State, Zip: NY, 14221-5887	Compliance Project: Δ Yes Δ No			
Phone: 716-857-7247(Tel)	PO #: Purchase Order not required			
Email: walkerb@natfuel.com	WO #:			
Project Name: GEI, Mineral Springs/ Event Desc: Semi Annual Sampling (April)	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	8270D_LL_PAH - PAH - 8270	8260C - BTEX - 8260	2540D - Total Suspended Solids	9012B - Cyanide, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	B		
~~MW-19~~ TRIP BLANK	4/19/22	—	G	Water					X			1	
~~FB~~ EQUIPMENT BLANK		1020	G	Water			X	X	X		X	7	
~~MW-18~~				Water									
~~MW-17~~				Water									
~~MW-23~~				Water									
~~Duplicate~~				Water									
~~EB~~				Water									
				Water									
				Water									

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		4/19 1420				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	4/19/22 1420	JAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

[redacted]

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler: M. Cummings	Lab PM: JOHN SCHOVE	Carrier Tracking No(s):	COC No:
Client Contact: BRAD WALKER	Phone: 716-572-4307	E-Mail:	State of Origin:	Page:
Company: NAT FUEL GAS		Accreditations Required (See note):		Job #:
Address: ~~66~~ 6363 MAIN ST.	Due Date Requested:			
City: Williamsville,	TAT Requested (days): STD			
State, Zip: NY	PO #:			
Phone:	WO #:			
Email:	Project #:			
Project Name: GEL-MINERAL SPRINGS	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TOTAL CN	FREE CN	BTEX 8260	8270 SVOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-20	4/20/22	920	6	W			X	X				
MW-21		1000					X	X				
MW-13		1030					X	X	X	X		
MW-17		1105					X	X	X	X		
MW-16							X	X				
TRIP BLANK									X			

480-196985 Chain of Custody

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/tests/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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 4/20/22	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4/20/22 1245	Company TAIS	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.6 #1 ICE

Ver: 06/08/2021

5/13/2022

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-71403.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Schove@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-196931-1
Address: 777 New Durham Road, ,	Due Date Requested: 5/2/2022			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817	PO #:			
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	WO #:			
Email:	Project #: 48008324			
Project Name: GEI, Mineral Springs	SSOW#:			
Site: AECOM, Mineral Springs				

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016/9016_Prep Cyanide, Free	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-11A (480-196931-1)	4/19/22	11:15 Eastern		Water			X	1	
SW-01 (480-196931-2)	4/19/22	13:30 Eastern		Water			X	1	
SW-02 (480-196931-3)	4/19/22	11:00 Eastern		Water			X	1	
MW-12 (480-196931-4)	4/19/22	12:30 Eastern		Water			X	1	
MW-14 (480-196931-5)	4/19/22	10:15 Eastern		Water			X	1	
MW-23 (480-196931-7)	4/19/22	09:50 Eastern		Water			X	1	
Duplicate (480-196931-8)	4/19/22	09:55 Eastern		Water			X	1	
MW-22 (480-196931-9)	4/19/22	12:25 Eastern		Water			X	1	
EB (480-196931-13)	4/19/22	10:30 Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 4/20/22 1800	Company: TAB	Received by: via fedex	Date/Time: 4/21/22 1030	Company: ER	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1784669	Cooler Temperature(s) °C and Other Remarks: #D#9- 1.9 =1.8

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-71405.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Schove@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP - New York		Job #: 480-196985-1
Address: 777 New Durham Road, ,	Due Date Requested: 5/3/2022			
City: Edison	TAT Requested (days):			
State, Zip: NJ, 08817	PO #:			
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	WO #:			
Email:	Project #: 48008324			
Project Name: GEI, Mineral Springs	SSOW#:			
Site: AECOM, Mineral Springs				

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016/9016_Prep Cyanide, Free	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-20 (480-196985-1)	4/20/22	09:20 Eastern		Water			X	1	
MW-21 (480-196985-2)	4/20/22	10:00 Eastern		Water			X	1	
MW-13 (480-196985-3)	4/20/22	10:30 Eastern		Water			X	1	
MW-17 (480-196985-4)	4/20/22	11:15 Eastern		Water			X	1	
MW-16 (480-196985-5)	4/20/22	Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing Northeast, LLC.

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 4/20/22 1800	Company: JAB	Received by: Via Fedex	Date/Time: 4/21/22 10:30	Company: ER	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1784669		Cooler Temperature(s) °C and Other Remarks: ED#9-1.6 = 1.8			

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 480-196931-1
SDG Number: 480-196931-1

Login Number: 196931
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

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	NATIONAL FUEL GAS SUPPLY
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: GEI Consultants, Inc.

Job Number: 480-196931-1
SDG Number: 480-196931-1

Login Number: 196931
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 04/21/22 11:42 AM

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	1784669
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	1.8°C IR9
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	

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 480-196931-1
SDG Number: 480-196931-1

Login Number: 196985
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins Buffalo

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	NFG
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: GEI Consultants, Inc.

Job Number: 480-196931-1
SDG Number: 480-196931-1

Login Number: 196985
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 04/21/22 11:42 AM

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	1784669
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	1.8°C IR9
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 B

Data Usability Review

Site: Mineral Springs MGP
Laboratory: Eurofins, Amherst, NY
Report Numbers: 480-196931 and 480-196985
Reviewer: Lorie MacKinnon/GEI Consultants
Date: May 31, 2022

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
MW-11A	480-196931-01	BTEX, PAH, Total/Free Cyanide, TSS
SW-01	480-196931-02	BTEX, PAH, Total/Free Cyanide, TSS
SW-02	480-196931-03	BTEX, PAH, Total/Free Cyanide, TSS
MW-12	480-196931-04	Total/Free Cyanide
MW-14	480-196931-05	Total/Free Cyanide
MW-19	480-196931-06	BTEX, PAH
MW-23	480-196931-07	BTEX, PAH, Total/Free Cyanide
Duplicate	480-196931-08	BTEX, PAH, Total/Free Cyanide
MW-22	480-196931-09	Total/Free Cyanide
MW-07	480-196931-10	BTEX, PAH
MW-10	480-196931-11	BTEX, PAH
TRIP BLANK	480-196931-12	BTEX
EQUIPMENT BLANK	480-196931-13	BTEX, PAH, Total/Free Cyanide
MW-20	480-196985-01	Total/Free Cyanide
MW-21	480-196985-02	Total/Free Cyanide
MW-13	480-196985-03	BTEX, PAH, Total/Free Cyanide
MW-17	480-196985-04	BTEX, PAH, Total/Free Cyanide
MW-16	480-196985-05	Total/Free Cyanide
TRIP BLANK	480-196985-06	BTEX

Associated QC Samples:
Equipment blank/Trip blanks: EQUIPMENT BLANK, TRIP BLANK (4/19), TRIP BLANK (4/20)
Field duplicate pair: MW-23/Duplicate

The above-listed aqueous samples, equipment blank, and trip blank samples were collected on April 19 and 20, 2022 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260C, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270D, total cyanide by SW-846 method 9012B, free cyanide by SW-846 method 9016, and total suspended solids (TSS) by Standard Methods SM2540D. The data validation was performed based on the following USEPA Region 2 Documents: Standard Operating Procedure (SOP) HW-35A (Revision 1) *Semivolatile Data Validation* (September 2016), SOP HW-33A (Revision 1) *Low/Medium Volatile Data Validation* (September 2016), and SOP 3c (Revision 1), *SOP for the Evaluation of Cyanide for the Contract Laboratory Program* (September 2016), as well as by the methods referenced by the data package and professional and technical judgment.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Initial and Continuing Calibrations
- Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Internal Standard Results
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
- Quantitation Limits
- Sample Quantitation and Compound Identification

The following issue was noted which may have a significant impact on the data usability:

- The nondetect results for free cyanide in samples MW-13 and MW-17 were rejected (R) due to hold time exceedances. These results should not be used for decision-making purposes.

In general, all other data appear usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers. Select results were qualified due to hold time exceedances, low level laboratory and field blank contamination, matrix spike recovery outliers, and low level uncertainty for levels below the reporting limit. These results were considered valid; even though some were qualified as discussed below.

The validation findings were based on the following information.

Data Completeness

The data package was complete as received by the laboratory.

Holding Times and Sample Preservation

All preservative criteria were met. All hold time criteria were met except where noted below.

Sample	Analysis	Hold Time Exceedance (Days)	Criteria (Days)	Validation Actions
MW-20	Free cyanide	7	14	Estimate (J) the positive results for free cyanide in samples MW-20 and MW-21; Low bias.
MW-21	Free cyanide	7	14	

Sample	Analysis	Hold Time Exceedance (Days)	Criteria (Days)	Validation Actions
MW-13	Free cyanide	7	14	Reject (R) the nondetect result for free cyanide in sample MW-13.
MW-17	Free cyanide	7	14	Reject (R) the nondetect result for free cyanide in sample MW-17.
MW-16	Free cyanide	7	14	Estimate (J) the positive result for free cyanide in sample MW-16; Low bias.
MW-11A	Free Cyanide	3	14	Estimate (J/UJ) the positive and nondetect results for free cyanide in these samples; Low bias. Validation action was taken to estimate (UJ), rather than reject (R), nondetect results as the laboratory had initial results (associated with low level method blank contamination) which confirmed these out of hold time results.
SW-01		3	14	
SW-02		3	14	
MW-12		3	14	
MW-14		3	14	
MW-23		3	14	
Duplicate		3	14	
MW-22		3	14	
EQUIPMENT BLANK		3	14	

Initial and Continuing Calibrations

All initial and continuing calibration criteria were met.

Blanks

Contamination was not detected in the associated method and instrument blank samples and equipment and trip blank samples except where noted below. Action levels were elevated for sample specific dilution factors.

Analyte	Blank ID	Maximum Concentration	2X Action Level	10X Action Level	Validation Actions
Free Cyanide	Method MB 460-842013	4.0 ug/L	8.0 ug/L	40 ug/L	These samples were re-prepped and analyzed and results from the reanalysis were used for reporting purposes. The validation action on the original results was as follows: Qualify the results for free cyanide as nondetect (U) in samples SW-01, SW-02, and EQUIPMENT BLANK. Estimate (J) the positive result for free cyanide in samples MW-11A, MW-12, MW-14, MW-23, Duplicate, and MW-22 as estimated (J); High bias.
Associated samples: Initial preparation/analysis of samples MW-11A, SW-01, SW-02, MW-12, MW-14, MW-23, Duplicate, MW-22, EQUIPMENT BLANK					

Analyte	Blank ID	Maximum Concentration	2X Action Level	10X Action Level	Validation Actions
Total Cyanide	Equipment blank	5.6 ug/L	11.2 ug/L	56 ug/L	Qualify the result for total cyanide as nondetect (U) in sample SW-02. Estimate (J) the positive result for total cyanide in sample SW-01 as estimated (J); High bias.
Associated samples: MW-11A, SW-01, SW-02, MW-12, MW-14, MW-23, Duplicate, MW-22, MW-20, MW-21, MW-13, MW-17, MW-16					

Blank Actions: If the sample result is < RL; report the result as nondetect (U) at the reporting limit (RL).
If the sample result is > RL and 2x Blank contamination; professional judgement was taken to report the result as nondetect (U) at the reported value.
If the sample result is ≥ RL and < 10x Action Level; professional judgment was taken to report the sample result as estimated (J); biased high.
If the sample result is nondetect or > 10x Action Level; validation action is not required.

Surrogate Recoveries

All surrogate recovery criteria were met for samples analyzed at dilutions less than 10.

MS/MSD Results

MS/MSD analyses were performed on samples Duplicate and MW-16 for total cyanide and samples MW-11A and MW-16 for free cyanide. All criteria were met except where noted below.

MS Sample MW-11A					
Analyte	**MS %R (%)**	**MSD %R (%)**	**RPD (%)**	**QC Limits (%)**	**Validation Actions**
Free Cyanide	53	Criteria met	Criteria met	56-120	Estimate (J/UJ) the positive nondetect results for free cyanide in the associated samples; Low bias.
Associated samples: MW-11A, SW-01, SW-02, MW-12, MW-14, MW-23, Duplicate, MW-22					

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample SW-02 for total suspended solids. Criteria were met.

Internal Standard Results

All criteria were met.

LCS/LCSD Results

All recovery and precision criteria were met.

Field Duplicate Results

Samples MW-23 and Duplicate were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the detected analytes in the field duplicate pair, which were within the acceptance criteria.

Analyte	MW-23 (ug/L)	Duplicate (ug/L)	RPD (%)
Benzo(k)fluoranthene	0.31 J	0.50	46.9, Within 2xRL
Chrysene	0.50 U	0.36 J	NC, Within 2xRL
Fluoranthene	0.49 J	0.74	40.7, Within 2xRL
Naphthalene	0.79	0.50 U	NC, Within 2xRL
Phenanthrene	0.50 U	0.38 J	NC, Within 2xRL
Pyrene	0.39 J	0.63	47.1, Within 2xRL
Total Cyanide	174	191	9.3
Free Cyanide	6.4	6.0	6.5
NC – Not calculable Criteria: When both results are ≥5x the RL, RPDs must be <30%. When results are < 5x the RL, professional judgement was taken to estimate results if the absolute difference between the original and field duplicate > 2xRL.			

Quantitation Limits

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL). These results were qualified as estimated (J) by the laboratory.

The following table lists the sample dilutions and analyses which were performed and reported.

Sample	VOC Analysis Reported	SVOC Analysis Reported	Cyanide Analysis Reported
MW-11A, SW-01, SW-02, MW-12, MW-14, MW-23, Duplicate, MW-22, EQUIPMENT BLANK	-	-	Due to method blank contamination in the initial analysis, samples were re-prepped. Re-analysis results were chosen for reporting purposes.
MW-11A	A 2-fold dilution was performed due to sample foaming when purged.	NR	NR
MW-19	A 100-fold dilution was performed due to high sample levels. RLs are elevated in this sample.	A 200-fold dilution was performed due to sample matrix. RLs are elevated in this sample.	NR
MW-07	A 40-fold dilution was performed due to non-target compound levels. RLs are elevated in this sample.	A 100-fold dilution was performed due to high sample levels. RLs are elevated in this sample.	NR

Sample	VOC Analysis Reported	SVOC Analysis Reported	Cyanide Analysis Reported
MW-17	A 2-fold dilution was performed due to sample foaming when purged.	A 5-fold dilution was performed due to non-target compound levels. RLs are elevated in this sample.	NR
MW-22	NR	NR	A 2-fold dilution was performed for total cyanide.
MW-20	NR	NR	A 2-fold dilution was performed for total cyanide.
MW-16	NR	NR	A 20-fold dilution was performed for total cyanide.
NR – Dilution was not required.			

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted. A comparison of total and free cyanide results was performed. All sample total cyanide results exceeded those of the free cyanide.

DATA VALIDATION QUALIFIERS

U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.

J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The 'J' data may be biased high or low or the direction of the bias may be indeterminable.

UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified "UJ" data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The 'UJ' data may be biased low.

NJ - The analysis indicates the presence of a compound that has been "tentatively identified" (N) and the associated numerical value represents its approximate (J) concentration.

R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-11A
Date Collected: 04/19/22 11:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-1
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.9**		2.0	0.82	ug/L			04/20/22 14:06	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/20/22 14:06	2
Toluene	2.0	U	2.0	1.0	ug/L			04/20/22 14:06	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/20/22 14:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/20/22 14:06*	*2*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*04/20/22 14:06*	*2*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*04/20/22 14:06*	*2*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 14:06*	*2*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:15	1
Acenaphthene	**1.4**		0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:15	1
Acenaphthylene	**0.87**		0.50	0.34	ug/L		04/20/22 14:51	04/21/22 16:15	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:15	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 16:15	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 16:15	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:15	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:15	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:15	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 16:15	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 16:15	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:15	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*48 - 120*	*04/20/22 14:51*	*04/21/22 16:15*	*1*
Nitrobenzene-d5 (Surr)	*79*		*46 - 120*	*04/20/22 14:51*	*04/21/22 16:15*	*1*
p-Terphenyl-d14 (Surr)	*72*		*24 - 136*	*04/20/22 14:51*	*04/21/22 16:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**228**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:17	1
do not report **Cyanide, Free**	**8.6** ~~F1 B~~ J		5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**6.0** ~~H~~ J.		5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	**26.4**		1.6	1.6	mg/L			04/22/22 14:21	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: SW-01
Date Collected: 04/19/22 13:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-2
Matrix: Surface Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 14:29	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 14:29	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 14:29	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 14:29*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*04/20/22 14:29*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/20/22 14:29*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/20/22 14:29*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:43	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:43	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 16:43	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:43	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 16:43	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 16:43	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 16:43	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:43	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 16:43	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 16:43	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 16:43	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 16:43	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*48 - 120*	*04/20/22 14:51*	*04/21/22 16:43*	*1*
Nitrobenzene-d5 (Surr)	*77*		*46 - 120*	*04/20/22 14:51*	*04/21/22 16:43*	*1*
p-Terphenyl-d14 (Surr)	*80*		*24 - 136*	*04/20/22 14:51*	*04/21/22 16:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**29.1**	J	10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:18	1
~~**Cyanide, Free**~~	~~**5.6**~~	~~**B U**~~	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**3.0**	J H	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.6	U	1.6	1.6	mg/L			04/22/22 14:21	1

do not report

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: SW-02

Date Collected: 04/19/22 11:00
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-3

Matrix: Surface Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 14:52	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 14:52	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 14:52	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*04/20/22 14:52*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/20/22 14:52*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/20/22 14:52*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/20/22 14:52*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 17:10	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 17:10	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 17:10	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 17:10	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 17:10	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 17:10	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 17:10	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 17:10	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 17:10	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 17:10	1
Naphthalene	**0.84**		0.50	0.42	ug/L		04/20/22 14:51	04/21/22 17:10	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 17:10	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*48 - 120*	*04/20/22 14:51*	*04/21/22 17:10*	*1*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*04/20/22 14:51*	*04/21/22 17:10*	*1*
p-Terphenyl-d14 (Surr)	*81*		*24 - 136*	*04/20/22 14:51*	*04/21/22 17:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	~~6.2~~	~~J~~ 10U.	10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:19	1
~~**Cyanide, Free**~~	~~5.2~~	~~B~~ U	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	5.0	~~U+~~ UJ.	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

(donot report)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.6	U	1.6	1.6	mg/L			04/22/22 14:21	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-12
Date Collected: 04/19/22 12:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-4
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1060		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:21	1
~~Cyanide, Free~~	~~15.3~~	~~B~~ J	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	8.9	~~H~~ J.	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 19:55	1

do not report

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-14
Date Collected: 04/19/22 10:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-5
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	568		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:22	1
~~Cyanide, Free~~	~~12.5~~	~~B~~ J	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	8.3	~~H~~ J.	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

do not report

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-19
Date Collected: 04/19/22 10:55
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-6
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4100**		100	41	ug/L			04/20/22 15:15	100
Ethylbenzene	**470**		100	74	ug/L			04/20/22 15:15	100
Toluene	100	U	100	51	ug/L			04/20/22 15:15	100
Xylenes, Total	200	U	200	66	ug/L			04/20/22 15:15	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/20/22 15:15*	*100*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/20/22 15:15*	*100*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*04/20/22 15:15*	*100*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 15:15*	*100*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	100	U	100	76	ug/L		04/20/22 14:51	04/21/22 17:38	200
Acenaphthene	100	U	100	60	ug/L		04/20/22 14:51	04/21/22 17:38	200
Acenaphthylene	100	U	100	68	ug/L		04/20/22 14:51	04/21/22 17:38	200
Anthracene	100	U	100	78	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[a]anthracene	100	U	100	80	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[a]pyrene	100	U	100	66	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[b]fluoranthene	100	U	100	60	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[g,h,i]perylene	100	U	100	74	ug/L		04/20/22 14:51	04/21/22 17:38	200
Benzo[k]fluoranthene	100	U	100	17	ug/L		04/20/22 14:51	04/21/22 17:38	200
Chrysene	100	U	100	64	ug/L		04/20/22 14:51	04/21/22 17:38	200
Dibenz(a,h)anthracene	100	U	100	66	ug/L		04/20/22 14:51	04/21/22 17:38	200
Fluoranthene	100	U	100	72	ug/L		04/20/22 14:51	04/21/22 17:38	200
Fluorene	100	U	100	74	ug/L		04/20/22 14:51	04/21/22 17:38	200
Indeno[1,2,3-cd]pyrene	100	U	100	88	ug/L		04/20/22 14:51	04/21/22 17:38	200
Naphthalene	**5700**		100	84	ug/L		04/20/22 14:51	04/21/22 17:38	200
Phenanthrene	100	U	100	76	ug/L		04/20/22 14:51	04/21/22 17:38	200
Pyrene	100	U	100	72	ug/L		04/20/22 14:51	04/21/22 17:38	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*48 - 120*	*04/20/22 14:51*	*04/21/22 17:38*	*200*
Nitrobenzene-d5 (Surr)	*64*		*46 - 120*	*04/20/22 14:51*	*04/21/22 17:38*	*200*
p-Terphenyl-d14 (Surr)	*65*		*24 - 136*	*04/20/22 14:51*	*04/21/22 17:38*	*200*

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-23
Date Collected: 04/19/22 09:50
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-7
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 15:45	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 15:45	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 15:45	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/20/22 15:45*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/20/22 15:45*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*04/20/22 15:45*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/20/22 15:45*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:05	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:05	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 18:05	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[b]fluoranthene	**0.31**	**J**	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:05	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 18:05	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 18:05	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:05	1
Fluoranthene	**0.49**	**J**	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:05	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:05	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 18:05	1
Naphthalene	**0.79**		0.50	0.42	ug/L		04/20/22 14:51	04/21/22 18:05	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:05	1
Pyrene	**0.39**	**J**	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*48 - 120*	*04/20/22 14:51*	*04/21/22 18:05*	*1*
Nitrobenzene-d5 (Surr)	*81*		*46 - 120*	*04/20/22 14:51*	*04/21/22 18:05*	*1*
p-Terphenyl-d14 (Surr)	*79*		*24 - 136*	*04/20/22 14:51*	*04/21/22 18:05*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**174**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:24	1
~~**Cyanide, Free**~~	~~**9.0**~~	~~**B**~~ J	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**6.4**	~~**H**~~ J.	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

done repeat

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: Duplicate
Date Collected: 04/19/22 09:55
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-8
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 16:08	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 16:08	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 16:08	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*04/20/22 16:08*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*04/20/22 16:08*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*04/20/22 16:08*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/20/22 16:08*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:33	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:33	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 18:33	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[b]fluoranthene	**0.50**		0.50	0.30	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:33	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 18:33	1
Chrysene	**0.36**	**J**	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 18:33	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 18:33	1
Fluoranthene	**0.74**		0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:33	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 18:33	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 18:33	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 18:33	1
Phenanthrene	**0.38**	**J**	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 18:33	1
Pyrene	**0.63**		0.50	0.36	ug/L		04/20/22 14:51	04/21/22 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*48 - 120*	*04/20/22 14:51*	*04/21/22 18:33*	*1*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*	*04/20/22 14:51*	*04/21/22 18:33*	*1*
p-Terphenyl-d14 (Surr)	*74*		*24 - 136*	*04/20/22 14:51*	*04/21/22 18:33*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**191**		10.0	5.0	ug/L		04/26/22 16:30	04/27/22 09:28	1
~~**Cyanide, Free**~~	~~**9.0**~~	~~**B**~~ J	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	**6.0**	H J	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

do not report

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-22
Date Collected: 04/19/22 12:25
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-9
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	614		20.0	10.0	ug/L		04/27/22 10:45	04/27/22 15:07	2
~~Cyanide, Free~~	~~16.4~~	~~B~~	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	15.3	~~H~~ J	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

do not report

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-07
Date Collected: 04/19/22 09:15
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-10
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**420**		40	16	ug/L			04/20/22 16:31	40
Ethylbenzene	**910**		40	30	ug/L			04/20/22 16:31	40
Toluene	40	U	40	20	ug/L			04/20/22 16:31	40
Xylenes, Total	**410**		80	26	ug/L			04/20/22 16:31	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 16:31*	*40*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/20/22 16:31*	*40*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*04/20/22 16:31*	*40*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/20/22 16:31*	*40*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	**190**		50	38	ug/L		04/20/22 14:51	04/21/22 19:01	100
Acenaphthene	**110**		50	30	ug/L		04/20/22 14:51	04/21/22 19:01	100
Acenaphthylene	50	U	50	34	ug/L		04/20/22 14:51	04/21/22 19:01	100
Anthracene	50	U	50	39	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[a]anthracene	50	U	50	40	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[a]pyrene	50	U	50	33	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[b]fluoranthene	50	U	50	30	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[g,h,i]perylene	50	U	50	37	ug/L		04/20/22 14:51	04/21/22 19:01	100
Benzo[k]fluoranthene	50	U	50	8.5	ug/L		04/20/22 14:51	04/21/22 19:01	100
Chrysene	50	U	50	32	ug/L		04/20/22 14:51	04/21/22 19:01	100
Dibenz(a,h)anthracene	50	U	50	33	ug/L		04/20/22 14:51	04/21/22 19:01	100
Fluoranthene	50	U	50	36	ug/L		04/20/22 14:51	04/21/22 19:01	100
Fluorene	50	U	50	37	ug/L		04/20/22 14:51	04/21/22 19:01	100
Indeno[1,2,3-cd]pyrene	50	U	50	44	ug/L		04/20/22 14:51	04/21/22 19:01	100
Naphthalene	**2100**		50	42	ug/L		04/20/22 14:51	04/21/22 19:01	100
Phenanthrene	50	U	50	38	ug/L		04/20/22 14:51	04/21/22 19:01	100
Pyrene	50	U	50	36	ug/L		04/20/22 14:51	04/21/22 19:01	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*48 - 120*	*04/20/22 14:51*	*04/21/22 19:01*	*100*
Nitrobenzene-d5 (Surr)	*65*		*46 - 120*	*04/20/22 14:51*	*04/21/22 19:01*	*100*
p-Terphenyl-d14 (Surr)	*53*		*24 - 136*	*04/20/22 14:51*	*04/21/22 19:01*	*100*

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-10
Date Collected: 04/19/22 09:10
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-11
Matrix: Ground Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 16:55	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 16:55	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 16:55	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*		*04/20/22 16:55*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/20/22 16:55*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*04/20/22 16:55*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 16:55*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:29	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:29	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 19:29	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:29	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 19:29	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 19:29	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:29	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:29	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:29	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 19:29	1
Naphthalene	**1.3**		0.50	0.42	ug/L		04/20/22 14:51	04/21/22 19:29	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:29	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*48 - 120*	*04/20/22 14:51*	*04/21/22 19:29*	*1*
Nitrobenzene-d5 (Surr)	*86*		*46 - 120*	*04/20/22 14:51*	*04/21/22 19:29*	*1*
p-Terphenyl-d14 (Surr)	*84*		*24 - 136*	*04/20/22 14:51*	*04/21/22 19:29*	*1*

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: TRIP BLANK
Date Collected: 04/19/22 00:00
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 17:18	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 17:18	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 17:18	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 17:18*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*04/20/22 17:18*	*1*
Dibromofluoromethane (Surr)	*115*		*75 - 123*		*04/20/22 17:18*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/20/22 17:18*	*1*

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: EQUIPMENT BLANK
Date Collected: 04/19/22 10:30
Date Received: 04/19/22 14:20

Lab Sample ID: 480-196931-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/20/22 17:41	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/20/22 17:41	1
Toluene	1.0	U	1.0	0.51	ug/L			04/20/22 17:41	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/20/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*04/20/22 17:41*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*04/20/22 17:41*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*04/20/22 17:41*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/20/22 17:41*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:57	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:57	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 19:57	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:57	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 19:57	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 19:57	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 19:57	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:57	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 19:57	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 19:57	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 19:57	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 19:57	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*101*		*48 - 120*	*04/20/22 14:51*	*04/21/22 19:57*	*1*
Nitrobenzene-d5 (Surr)	*85*		*46 - 120*	*04/20/22 14:51*	*04/21/22 19:57*	*1*
p-Terphenyl-d14 (Surr)	*100*		*24 - 136*	*04/20/22 14:51*	*04/21/22 19:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**5.6**	**J**	10.0	5.0	ug/L		04/27/22 10:45	04/27/22 13:59	1
~~Cyanide, Free~~	~~5.6~~	~~B~~ U	5.0	2.3	ug/L		04/29/22 11:23	04/29/22 20:00	1
Cyanide, Free	5.0	~~UH~~ UJ	5.0	2.3	ug/L		05/06/22 13:52	05/06/22 20:15	1

do per rpts

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-20
Date Collected: 04/20/22 09:20
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	754		20.0	10.0	ug/L		04/27/22 10:45	04/27/22 15:08	2
Cyanide, Free	9.1	~~H~~ J.	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-21
Date Collected: 04/20/22 10:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	343		10.0	5.0	ug/L		04/27/22 10:45	04/27/22 14:07	1
Cyanide, Free	3.4	J H	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-13
Date Collected: 04/20/22 10:30
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/21/22 19:30	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/21/22 19:30	1
Toluene	1.0	U	1.0	0.51	ug/L			04/21/22 19:30	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/21/22 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*04/21/22 19:30*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*04/21/22 19:30*	*1*
Dibromofluoromethane (Surr)	*85*		*75 - 123*		*04/21/22 19:30*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*04/21/22 19:30*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 20:24	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 20:24	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		04/20/22 14:51	04/21/22 20:24	1
Anthracene	0.50	U	0.50	0.39	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[a]anthracene	0.50	U	0.50	0.40	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[a]pyrene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[b]fluoranthene	0.50	U	0.50	0.30	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[g,h,i]perylene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 20:24	1
Benzo[k]fluoranthene	0.50	U	0.50	0.085	ug/L		04/20/22 14:51	04/21/22 20:24	1
Chrysene	0.50	U	0.50	0.32	ug/L		04/20/22 14:51	04/21/22 20:24	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		04/20/22 14:51	04/21/22 20:24	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 20:24	1
Fluorene	0.50	U	0.50	0.37	ug/L		04/20/22 14:51	04/21/22 20:24	1
Indeno[1,2,3-cd]pyrene	0.50	U	0.50	0.44	ug/L		04/20/22 14:51	04/21/22 20:24	1
Naphthalene	0.50	U	0.50	0.42	ug/L		04/20/22 14:51	04/21/22 20:24	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		04/20/22 14:51	04/21/22 20:24	1
Pyrene	0.50	U	0.50	0.36	ug/L		04/20/22 14:51	04/21/22 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*48 - 120*	*04/20/22 14:51*	*04/21/22 20:24*	*1*
Nitrobenzene-d5 (Surr)	*56*		*46 - 120*	*04/20/22 14:51*	*04/21/22 20:24*	*1*
p-Terphenyl-d14 (Surr)	*73*		*24 - 136*	*04/20/22 14:51*	*04/21/22 20:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	10.0	U	10.0	5.0	ug/L		04/27/22 10:45	04/27/22 14:08	1
Cyanide, Free	~~5.0~~ ~~U H~~ R		5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-17
Date Collected: 04/20/22 11:15
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.0	U	2.0	0.82	ug/L			04/21/22 19:53	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/21/22 19:53	2
Toluene	2.0	U	2.0	1.0	ug/L			04/21/22 19:53	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/21/22 19:53	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*04/21/22 19:53*	*2*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*04/21/22 19:53*	*2*
Dibromofluoromethane (Surr)	*92*		*75 - 123*		*04/21/22 19:53*	*2*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/21/22 19:53*	*2*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Acenaphthene	2.5	U	2.5	1.5	ug/L		04/20/22 14:51	04/21/22 20:52	5
Acenaphthylene	2.5	U	2.5	1.7	ug/L		04/20/22 14:51	04/21/22 20:52	5
Anthracene	2.5	U	2.5	2.0	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[a]anthracene	2.5	U	2.5	2.0	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[a]pyrene	2.5	U	2.5	1.7	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[b]fluoranthene	2.5	U	2.5	1.5	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[g,h,i]perylene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Benzo[k]fluoranthene	2.5	U	2.5	0.43	ug/L		04/20/22 14:51	04/21/22 20:52	5
Chrysene	2.5	U	2.5	1.6	ug/L		04/20/22 14:51	04/21/22 20:52	5
Dibenz(a,h)anthracene	2.5	U	2.5	1.7	ug/L		04/20/22 14:51	04/21/22 20:52	5
Fluoranthene	2.5	U	2.5	1.8	ug/L		04/20/22 14:51	04/21/22 20:52	5
Fluorene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Indeno[1,2,3-cd]pyrene	2.5	U	2.5	2.2	ug/L		04/20/22 14:51	04/21/22 20:52	5
Naphthalene	2.5	U	2.5	2.1	ug/L		04/20/22 14:51	04/21/22 20:52	5
Phenanthrene	2.5	U	2.5	1.9	ug/L		04/20/22 14:51	04/21/22 20:52	5
Pyrene	2.5	U	2.5	1.8	ug/L		04/20/22 14:51	04/21/22 20:52	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*48 - 120*	*04/20/22 14:51*	*04/21/22 20:52*	*5*
Nitrobenzene-d5 (Surr)	*49*		*46 - 120*	*04/20/22 14:51*	*04/21/22 20:52*	*5*
p-Terphenyl-d14 (Surr)	*69*		*24 - 136*	*04/20/22 14:51*	*04/21/22 20:52*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**73.9**		10.0	5.0	ug/L		04/27/22 10:45	04/27/22 14:09	1
Cyanide, Free	~~5.0~~ ~~U H~~ R		5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client Sample Results

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: MW-16
Date Collected: 04/20/22 00:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	4940		200	100	ug/L		04/27/22 10:45	04/27/22 15:48	20
Cyanide, Free	46.4	~~H~~ J	5.0	2.3	ug/L		05/11/22 14:49	05/11/22 21:15	1

Client: GEI Consultants, Inc.
Project/Site: GEI, Mineral Springs

Job ID: 480-196931-1
SDG: 480-196931-1

Client Sample ID: TRIP BLANK
Date Collected: 04/20/22 00:00
Date Received: 04/20/22 12:45

Lab Sample ID: 480-196985-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/21/22 20:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/21/22 20:16	1
Toluene	1.0	U	1.0	0.51	ug/L			04/21/22 20:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/21/22 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*04/21/22 20:16*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*04/21/22 20:16*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 123*		*04/21/22 20:16*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*04/21/22 20:16*	*1*

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: M. Cummings	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-172790-32131.1
Client Contact: Brad Walker	Phone: 716-572-4362	E-Mail: John.Schove@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: National Fuel Gas Supply Corporation	PWSID:			Job #:
Address: 6363 Main Street	Due Date Requested:			
City: Williamsville	TAT Requested (days): STD			
State, Zip: NY, 14221-5887	Compliance Project: Δ Yes Δ No			
Phone: 716-857-7247(Tel)	PO #: Purchase Order not required			
Email: walkerb@natfuel.com	WO #:			
Project Name: GEI, Mineral Springs/ Event Desc: Semi Annual Sampling (April)	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Oil, Tissue, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	8270D_LL_PAH - PAH - 8270	8260C - BTEX - 8260	2540D - Total Suspended Solids	9012B - Cyanide, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	B		
MW-11A	4/19/22	1115	G	Water			X	X	X	X	X	5	
SW-01		1330		Water			X	X	X	X	X	5	
SW-02		1100		Water			X	X	X	X	X	5	
MW-12		1230		Water			X				X	2	
MW-14		1015		Water			X				X	2	
~~MW-16~~ MW-19		1055		Water				X	X			3	
~~MW-20~~ MW-23		950		Water			X	X	X		X	4	
~~MW-06~~ DUPLICATE		955		Water			X	X	X		X	4	
MW-22		1235		Water			X				X	2	
MW-07		915		Water			X				X	2	
MW-10		910		Water				X	X			3	

480-196931 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 1420 4/19	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4/19/22 1420	Company: JAB

Custody Seals Intact: Δ Yes Δ No | Custody Seal No:

Cooler Temperature(s) °C and Other Remarks: 2.7 2.9 TCE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: M. Cummings	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-172790-32131.2
Client Contact: Brad Walker	Phone: 716-572-4302	E-Mail: John.Schove@et.eurofinsus.com	State of Origin:	Page: Page 2 of 2
Company: National Fuel Gas Supply Corporation	PWSID:			Job #:
Address: 6363 Main Street	Due Date Requested:			
City: Williamsville	TAT Requested (days): STD			
State, Zip: NY, 14221-5857	Compliance Project: Δ Yes Δ No			
Phone: 716-857-7247(Tel)	PO #: Purchase Order not required			
Email: walkerb@natfuel.com	WO #:			
Project Name: GEI, Mineral Springs/ Event Desc: Semi Annual Sampling (April)	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Wastewater, Sediment, Solid, Oil/waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	8270D_LL_PAH - PAH - 8270	8260C - BTEX - 8260	2540D - Total Suspended Solids	9012B - Cyanide, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:				B	N	A	N	B		
TRIP BLANK	4/19/22	—	G	Water					X			1	
EQUIPMENT BLANK		1030	G	Water			X	X	X		X	4	
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	1420 4/19				
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time 4/19/22 1420	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

[redacted]

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler: M. Cummings	Lab PM: JOHN SCRAVE	Carrier Tracking No(s):	COC No:
Client Contact: BRAD WALKER	Phone: 716-572-4305	E-Mail:	State of Origin:	Page:
Company: NIAGARA FUELS		Accreditations Required (See note):		Job #:
Address: 6363 MAIN ST.	Due Date Requested:			
City: Williamsville,	TAT Requested (days): STD	Analysis Requested		Preservation Codes:
State, Zip: NY	PO #:			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Phone:	WO #:			
Email:	Project #:			Other:
Project Name: GEL-MINERAL SPRINGS	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TOTAL CN	FREE CN	BTEX 8260	8270 SVOCs	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-20	4/20/22	920	G	W			X	X				
MW-21		1000					X	X				
MW-13		1030					X	X	X	X		
MW-17		1145					X	X	X	X		
MW-16							X	X				
TRIP BLANK										X		

480-196985 Chain of Custody

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 or Origin listed above for analysis/tests/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) — Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Relinquished by:	Date/Time: 4/20/22	Company	Received by:	Date/Time	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 4/20/22 1245	Company: NIAG

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 3.6 #1 ICE

Ver: 06/08/2021

Appendix C

Groundwater Monitoring Logs

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs

Well ID: MW-7

Date 4/19/22

Field Personnel MAE/AKC

Method of Purging/ Sampling Low Flow Peri. Pump

Well Depth (ft btoc)

Depth to Water (ft btoc) 4.60

Casing type/dia. 2"

Well Volume (g)

Time	Total Volume (g)	Temp (°C)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
8:30	initial	9.7	6.43	3.99	170.9	0.85	15.7	clear
8:40	0.5	9.9	6.55	3.47	130.7	0.34	8.6	" light sheen
8:50	1.0	10.0	6.63	2.66	102.2	0.23	5.4	" "
9:00	1.5	10.0	6.63	2.62	101.6	0.19	5.2	" "
9:10	2.0	10.1	6.64	2.58	97.8	0.18	4.7	" "
			sample collected @ 915					

0910

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs	Well ID: MW-10
Date 4/19/22	Well Depth (ft btoc)
Field Personnel A. Chukshank	Depth to Water (ft btoc) 5.85'
Method of Purging/ Sampling peristaltic	Casing type/dia. 2" Ø
	Well Volume (g)

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
0840		Start pump.						
0840		50.4	6.71	1435	192.6	3.99	3.94	DTW 6.70
0845		50.5	6.71	1470	193.0	4.25	4.95	6.73
0850		50.3	6.69	1451	92.1	~~3.07~~ 3.10	3.07	6.71
0855		50.6	6.68	1415	22.1	2.03	2.53	6.75
0900		50.7	6.68	1407	23.7	1.88	1.45	
0905	-1.5	50.8	6.67	1398	22.9	1.79	1.23	
	Sample @ 0910							

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs	Well ID: MW-11A
Date: 4/19/22	Well Depth (ft btoc): 6.70'
Field Personnel: MR/AKE	Depth to Water (ft btoc): d
Method of Purging/ Sampling: low flow peri. pump	Casing type/dia.: 2" PVC
	Well Volume (g):

Time	Total Volume (g)	Temp (°F)	pH	Cond (mg/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
10:40	initial	7.4	6.96	1.21	-11.1	1.16	60.2	little iron floc.
10:45	0.5	8.6	6.82	1.15	1.3	0.35	13.1	clear
10:50	1.0	8.7	6.77	1.17	-1.0	0.26	7.4	clear
11:00	1.5	8.7	6.75	1.05	-1.7	0.15	5.7	"
11:05	2.0	8.7	6.76	1.09	-0.8	0.18	4.8	"
								SW ELEVATION
			sample	collected	@ 11:15			@ SW-02: 2.5'
SW ELEVATION								
@ SW-01: 4.20'								SP COND: 1,750
SP COND: 1760				DTW	@ MW-15: 9.72'			SW-02 collected
								@ 11:00

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name:	Well ID:
Livermore Springs	MW-12

Date: 4/19/22

Field Personnel: mre/skc

Method of Purging/ Sampling: Low Flow peristaltic

Well Depth (ft btoc): —

Depth to Water (ft btoc): 9.75'

Casing type/dia.: .2" PVC

Well Volume (g):

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
12:00	initial	8.4	5.94	4.52	50.5	2.80	28.7	clear
12:10	0.5	8.7	5.92	4.52	47.8	2.68	15.7	↓
12:20	1.0	8.7	5.92	4.54	48.2	2.54	8.6	↓
12:30	1.5	8.7	5.93	4.54	43.1	2.26	4.2	↓
			sample collected at			12:30		

1030

Monitoring Well Development / Sampling Log

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GEI Consultants

Site Name: Mineral Springs	Well ID: MW-13
Date 7/20/22	Well Depth (ft btoc)
Field Personnel A. Crinkshank	Depth to Water (ft btoc) 12.02'
Method of Purging/ Sampling Peristaltic	Casing type/dia. 2" Ø
	Well Volume (g)

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
1005		49.5	6.70	598.9	-5.6	0.88	12.4	
1010		49.6	6.63	566.3	-3.3	0.55	6.32	
1015		50.4	6.64	539.2	13.0	0.41	2.27	
1020		50.8	6.60	538.4	18.0	0.31	1.89	
1025	~1.5	50.4	6.60	535.3	22.4	0.26	1.40	
		Sample @ 1030						

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs	Well ID: MW-14
Date: 4/19/22	Well Depth (ft btoc): 10.69'
Field Personnel: MR	Depth to Water (ft btoc):
Method of Purging/ Sampling: peristaltic pump	Casing type/dia.: 2" P
	Well Volume (g):

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
9:30	0.5	10.4	6.59	2.65	16.5	0.41	OR	RED IRON FLOC.
9:40	1.0	11.1	6.58	2.64	-3.4	0.19	158	slightly turbid,
9:45	1.5	11.4	6.58	2.65	-16.5	0.11	58.6	clear
9:55	2.0	11.8	6.58	2.64	-20.2	0.11	18.7	clear
10:05	2.5	11.9	6.58	2.66	-31.4	0.09	8.6	"
				sample collected at 10:05				

EQUIP. BLANK COLLECTED @ 10:30

1150

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs

Well ID: MW-16

Date: 4/20/22

Field Personnel: A. Chukshank

Method of Purging/ Sampling: peristaltic

Well Depth (ft btoc):

Depth to Water (ft btoc): 6.41'

Casing type/dia.: 2"

Well Volume (g):

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
1125		52.0	4.27	3633	107.8	2.47	—	air in sampling
1130		52.7	4.25	3612	84.4	2.32	29.2	line
1135		52.1	4.26	3601	70.2	0.83	56.4	|
1140		52.2	4.29	3617	65.8	0.99	17.1	|
1145	~1.5	52.3	4.31	3625	62.1	0.89	~~3~~3.2	↓
		Sample @ 1150					~~3~~3.3	

1115

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs	Well ID: MW-17
Date 4/20/22	Well Depth (ft btoc)
Field Personnel A. Chulcshank	Depth to Water (ft btoc) 4.70'
Method of Purging/ Sampling Peristaltic	Casing type/dia. 2" Ø
	Well Volume (g)

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
1050		45.8	6.64	2133	39.2	1.15	3.01	
1055		45.4	6.66	2144	31.8	0.61	1.76	
1100		45.8	6.65	2125	25.8	0.43	1.38	
1105		46.0	6.65	2065	19.0	0.26	0.57	
1110	~1.5	45.9	6.66	2001	14.8	0.22	0.43	
		Sample @ 1115						

1055

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs | Well ID: MW-19

Date: 4/19/22

Field Personnel: A. Cruikshank

Method of Purging/ Sampling: peristaltic

Well Depth (ft btoc):

Depth to Water (ft btoc): 7.76'

Casing type/dia.: 2" Ø

Well Volume (g):

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
1030		Start						
1030		48.6	6.79	911	-59.2	30.0	4.11	DTW 7.76
1035		48.8	6.72	893	-64.4	1.08	1.79	7.76
1040		49.0	6.70	892	-70.1	0.60	0.90	7.76
1045		49.0	6.70	897	-68.3	0.58	0.76	
1050	~1.5	48.9	6.70	895	-64.1	0.55	0.37	
		Sample @ 1055						

0920

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral springs	Well ID: MW-20
Date 4/20/22	Well Depth (ft btoc)
Field Personnel A. Cruikshank	Depth to Water (ft btoc) 7.52'
Method of Purging/ Sampling peristaltic	Casing type/dia. 2" Ø
	Well Volume (g)

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
0855		47.3	6.57	1960	-31.1	1.83	30.1	
0900		47.4	6.53	2035	-48.5	1.27	73.8	
0905		48.1	6.53	1979	-51.0	0.31	42.8	
0910		48.3	6.51	1990	-53.8	0.26	20.5	
0915	~2	48.1	6.50	1990	-56.3	0.24	4.7	
	0920	sample						

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1000

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs	Well ID: MW-21
Date 4/20/22	Well Depth (ft btoc)
Field Personnel A. Chukshank	Depth to Water (ft btoc) 9.89'
Method of Purging/ Sampling peristaltic	Casing type/dia. 2"Φ
	Well Volume (g)

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
0935		50.8	6.47	3254	-21.1	1.81	—	Iron floc
0940		50.9	6.46	3282	-36.6	0.46	96.8	
0945		50.3	6.48	3287	-34.9	0.56	66.1	
0950		50.9	6.49	3277	-38.1	0.22	13.0	
0955	~2	50.7	6.41	3285	-40.2	0.18	4.97	
1000		Sample						

1225

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name:	4/19/22 Mineral Springs	Well ID:	MW-22
Date	4/19/22	Well Depth (ft btoc)	
Field Personnel	A. Cruikshank	Depth to Water (ft btoc)	11.05'
Method of Purging/ Sampling	peristaltic	Casing type/dia.	2" ϕ
		Well Volume (g)	

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
1155		Start						
1155		48.9	6.64	1290	39.0	1.77	15.6	DTW 11.15
1200		50.6	6.63	2099	-31.9	0.64	13.0	11.15
1205		50.9	6.63	2158	-58.3	0.59	4.92	11.15
1210		50.8	6.64	2179	-54.6	0.39	2.45	
1215		50.9	6.68	2171	-58.8	0.38	3.78	
1220	~2	51.0	6.63	2178	-61.4	0.36	2.07	
		sample @ 1225						

0950/0955

Monitoring Well Development / Sampling Log

GEI Consultants

Site Name: Mineral Springs	Well ID: MW-23/Duplicate
Date 4/19/22	Well Depth (ft btoc)
Field Personnel A. Cruikshank	Depth to Water (ft btoc) 10.33'
Method of Purging/ Sampling Peristaltic	Casing type/dia. 2" Ø
	Well Volume (g)

Time	Total Volume (g)	Temp (°F)	pH	Cond (us/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	Comments
0925		Start						
0925		49.0	6.63	4280	49.3	3.90	77.5	DTW 10.33
0930		51.1	6.61	4916	57.8	3.41	63.8	DTW 10.33
0935		51.5	6.56	5110	66.5	3.33	35.4	DTW 10.33
0940		51.4	6.63	5001	70.8	3.20	27.1	10.33
0945	~1.5	51.4	6.60	4956	77.9	3.06	4.93	10.33
		MW-23 @ 0950						
		Duplicate @ 0955						