GEI Consultants

Consulting
Engineers and
Scientists

January 28, 2025
Project 1801687

Mr. Matthew King
Division of Environmental Remediation
NYSDEC, Region 9
700 Delaware Avenue
Buffalo, NY 14209

RE: Groundwater Monitoring Results
Fourth Quarter 2024 Event
Hornell Former MGP Site
NYSDEC Site # 851032

Dear Mr. King:

This report has been prepared by GEI Consultants, Inc., P.C. (GEI) for National Fuel Gas Distribution Corporation (National Fuel) as an element of the post-remedial monitoring program at the Hornell Former Manufactured Gas Plant (MGP) Site in Hornell, New York (Figure 1). Quarterly groundwater monitoring is performed at the site in accordance with the Interim Site Management Plan (ISMP) that was approved by the New York State Department of Environmental Conservation (NYSDEC). This report presents the results of quarterly groundwater monitoring activities performed on November 25, 2024. In addition to the normal quarterly scope, this event included the expanded annual monitoring for prescribed natural attenuation parameters, as indicated in the ISMP.

Background

The Hornell Former MGP Site was remediated in 2020 and 2021 in accordance with the March 2018 Record of Decision. The remediation activities included removal of underground MGP appurtenances, excavation of soil, in-situ stabilization of soil, a layer of clean fill, institutional controls, and monitored natural attenuation. An Environmental Easement (EE) is also a planned component for long-term site management, but the EE has not been finalized by the NYSDEC, which also precludes finalization of the Site Management Plan (SMP). As a result, the ISMP was requested by the NYSDEC, submitted in February 2024, and approved by the NYSDEC in a letter to NFG dated June 24, 2024. The ISMP includes implementation of the quarterly groundwater monitoring for two years, along with other site management components (primarily annual site inspections). This sampling event was the second of the quarterly groundwater sampling events under the ISMP.

Monitoring Well Repair and Re-Installation

MW13 Repair and Development

As discussed in the Groundwater Monitoring Results summary for the Third Quarter 2024, MW13 was obstructed during the August 2024 groundwater sampling event. On September 9, 2024, a licensed driller inspected the well and identified the object causing the obstruction as a crumpled piece of tubing that was stuck in the well a few feet below the top of casing. The obstruction was removed, and the well was redeveloped to remove silt that had accumulated in the sump at the bottom of the well.

MW12R Replacement

As discussed in the Groundwater Monitoring Results summary for the Third Quarter 2024, monitoring well MW12R had been unintentionally installed within the in-situ stabilization (ISS) treatment area in April 2021. On October 9, 2024, NYSDEC approved the plan to abandon MW12R and install a new replacement well (MW12RR) outside of the ISS treatment area.

Nothnagle (a licensed drilling subcontractor) abandoned MW12R and installed MW12RR on November 7-8, 2024. The drilling subcontractor notified UDig NY seven days prior to commencing intrusive activities. Prior to drilling the bore hole for the well, a test boring was advanced via direct-push to confirm that the location was not in the ISS treatment area. The borehole for MW12RR was drilled using hollow stem augers in a location within a few feet of the original MW12, north of the ISS treatment area and the abandoned steel sheet piles that surrounded the deep soil remediation area. MW12RR was installed with a similar construction and screen depth as MW12; with a 13-foot long 2-inch PVC riser and 10-foot long 0.020-slot PVC screen with a 1-foot sump. The well was finished with a flush-mount concrete pad and was developed following installation. A well construction log is included in Appendix A.

MW12R was decommissioned following the installation of MW12RR. The drilling subcontractor over-drilled MW12R with hollow-stem augers to a depth of 25 feet bgs to remove the PVC and sand pack. The borehole was filled with cement grout up to 8 feet bgs to be consistent with the surrounding ISS treatment area. The remainder of the borehole was filled with bentonite grout and the ground surface was restored with topsoil and grass seed.

Consistent with the Excavation Work Plan in the Interim Site Management Plan, air monitoring was conducted downwind of the work area, between the drilling location and the hotel. Dust was monitored automatically at 1-minute intervals using the onboard data logging device, which was downloaded at the end of the event. Air monitoring data is included in Appendix B. No visible dust was observed during drilling and no dust action level exceedances were detected by the monitor.

Waste generated during the monitoring well decommissioning and installation, including soil cuttings, over-drilled well construction materials, and development water was containerized in drums in a secure location on Site. Waste transportation and disposal was subsequently arranged by National Fuel.

A NY-registered professional land surveyor provided location and elevation data for the new monitoring well (MW12RR). Tables and figures included with this summary have all been updated with the surveyed coordinates and elevation.

Quarterly Field Monitoring Activities and Results

The locations of the monitoring wells are provided on Figure 1. A summary of the Fourth Quarter 2024 monitoring activities and results is provided below.

Monitoring Well Elevation Gauging

As required by the ISMP, the seven existing monitoring wells were gauged to obtain data to assess the direction of groundwater flow. Table 1 summarizes the monitoring well designations, surveyed well elevation data, depth-to-water measurements, and groundwater elevations reflecting measurement data from November 25, 2024. Based on that data, Figure 1 depicts the inferred shallow groundwater contours. As shown, groundwater flow is inferred to be generally toward the southeast and consistent with prior site data, although a relatively higher water level was noted in MW15, suggesting a localized high groundwater elevation in the area that was not observed during prior gauging. The highest groundwater elevation measurement was in the western area of the site at

MW13 (1141.35 feet NAVD88). The lowest groundwater elevation measurement was in the eastern area of the site at MW4 (1140.65 feet NAVD88). The overall change in the elevation of the water table across the site was 0.70 feet, which represents a hydraulic gradient of approximately 0.002 ft/ft. The estimated direction of groundwater flow for this sampling event is consistent with the previous groundwater monitoring events performed prior to completion of the remedy, which have indicated groundwater flow toward the east/southeast.

NAPL Monitoring

The ISMP calls for assessment and, if present, gauging of non-aqueous phase liquids (NAPL) at each of the seven wells. The monitoring wells were gauged to assess the presence or absence of both light non-aqueous phase liquid (LNAPL), and dense non-aqueous phase liquid (DNAPL). The results are summarized in Table 1. As shown in the table, NAPL was not identified at any of these well locations.

Groundwater Sampling

Groundwater sampling was performed on November 25, 2024. This sampling event included the quarterly gauging and sampling parameters, and the annual expanded analyte list to include monitored natural attenuation (MNA) parameters described in the ISMP. The MNA parameters are analyzed once per year to assess the continued natural attenuation of MGP-related impacts in groundwater. Samples were collected from monitoring wells MW6, MW7, MW8, MW12RR, and MW13 and analyzed for the following parameters:

Group	Analyte	Method
Quarterly program	Benzene, toluene, ethylbenzene, and xylenes	8260C
	Polycyclic aromatic hydrocarbons (PAHs)	8270D
	Total Cyanide	9012B
Annual MNA Parameters	Iron and manganese (total and dissolved)	6010C
	Organic carbon (total and dissolved)	SM 5310D/C
	Nitrite and nitrate	353.2
	Sulfate	D516
	Ammonia	350.1
	Methane	RSK-175
	Alkalinity	2320B

Additional samples were collected and analyzed for Quality Assurance/Quality Control (QA/QC), including a field blank, a trip blank (BTEX only), a blind duplicate, a matrix spike sample, and a matrix spike duplicate.

The samples were submitted to Eurofins of Buffalo, New York for analysis. Eurofins is certified to perform analyses under the NYSDOH Environmental Laboratory Approval Program (ELAP). The methods used for the analyses and the quality control measures performed were consistent with the specifications provided in the NYSDEC Analytical Services Protocol (ASP). Data exceeding applicable standards are summarized on Figure 2 and the entire dataset is tabulated in Table 2. The laboratory Form 1 Report sheets for the analyses and the chain-of-custody records are included in Appendix C.

Analytical Results

All analytical data were validated per appropriate EPA guidance, consistent with New York State Analytical Services Protocol (NYSASP) Category B guidance. The Data Usability Summary Report (DUSR) is presented in Appendix D. Data and qualifiers in Table 2 and Figure 2 reflect the findings of the DUSR. All results were determined to be usable and valid with the exceptions of nitrate and nitrite where the analyses were outside of hold times due to laboratory error. Nitrate results were qualified as estimated values and nitrite results were rejected.

The groundwater analytical results were compared to the standards or guidance values provided in the document entitled "*NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) Number 1.1.1,*" (NYSDEC, 1998, with addenda through 2023) and 6 NYCRR Part 703.6 water quality standards for GA groundwater, as applicable. On Table 2, concentrations greater than method detection limits are shown with a bold font and detected concentrations greater than applicable NYSDEC Groundwater Standards or Guidance Values are shaded gray.

BTEX

The results of the Fourth Quarter 2024 VOC analyses are summarized in Table 2 and on Figure 2. As shown in the attached summaries, no VOCs were detected above the laboratory reporting limit during this event.

PAHs

The Fourth Quarter 2024 analytical results for PAHs are summarized in Table 2 and on Figure 2. No PAHs were detected above NYSDEC Standards and/or Guidance Values during this event.

Total Cyanide

Total cyanide analytical results for the Fourth Quarter 2024 sampling event are included in Table 2 and on Figure 2. Cyanide was detected marginally above the NYSDEC Ambient Water Quality Standard (AWQS) of 0.2 mg/ in MW7, with a concentration of 0.26 mg/l.

MNA Evaluation Parameters

Analytical results for MNA parameters for the Fourth Quarter 2024 sampling event are included in Table 2 and on Figure 2. These parameters included total and dissolved iron, total and dissolved manganese, methane, nitrite, nitrate, ammonia, sulfate, dissolved organic carbon, total organic carbon, and total alkalinity.

Concentrations of dissolved iron increased in downgradient well MW6 in 2024 relative to August 2020, while total iron and manganese also decreased in downgradient and source area wells relative to 2020. This increase in soluble (i.e., dissolved) iron, coupled with decreases in total iron and manganese and the continued presence of sulfate and methane in groundwater, suggest that conditions favorable for anerobic degradation are present within the source area. Microbial degradation appears to be primarily occurring through the reduction of insoluble iron (ferric iron; Fe^{3+}) to soluble (ferrous iron; Fe^{2+}) iron.[1] Natural attenuation conditions will continue to be monitored going forward.

[1]Anaerobic microbes use electron acceptors in preferential order, as follows: nitrate, manganese, ferric iron oxyhydroxides, sulfate, and carbon dioxide. In other words, nitrification occurs first (reducing ammonia to nitrites to nitrates), followed by reduction of insoluble manganese oxide (MnO_2) to soluble (i.e., dissolved) manganese ions (Mn^{-2}), then reduction of insoluble ferric iron (Fe^{3+}) to soluble ferrous iron (Fe^{2+}), then reduction of sulfates, then methanogenesis (production of methane). https://clu-in.org/techfocus/default.focus/sec/bioremediation/cat/anaerobic_bioremediation_(direct)

As discussed above, analytical results from MW12R during the August 2024 event indicate that the well had been inadvertently installed within the ISS remediation area. The groundwater pH at MW12R was also slightly elevated (8.79) relative to original MW12 and other wells outside the ISS area, likely due to the alkaline conditions in the ISS area. The groundwater pH at MW12RR was closer to neutral (7.27) and similar to the original MW12 (which had a pH of 6.48 during the pre-remediation groundwater sampling event in August 2020), and consistent with other wells measured during this event (6.72 to 7.97). This suggests that the conditions in MW12RR are more similar to those of MW12, as was intended for the replacement well.

Implementation of the Post-Remedial Monitoring Work Plan

As noted above, the groundwater monitoring program will continue on a quarterly basis for two years per the ISMP. The next groundwater monitoring event is anticipated to be conducted in February or March 2025 depending on field and weather conditions. NYSDEC will be notified at least 7 days prior to the sampling event.

If you have any questions or comments regarding the information presented in this report, please contact Jeff Holden at 607.216.8956.

Sincerely,

Jeffrey Holden, P.E.
Senior Engineer
Project Manager

Emily Dallas
Project Scientist

Attachments: Table 1 – Groundwater Elevation Summary and NAPL Gauging Results
Table 2 – Groundwater Analytical Results
Figure 1 – Well Location and Groundwater Contour Map
Figure 2 – Summary of NYS GW Exceedances 4th Quarter 2024
Appendix A – Well Construction Log (MW12RR)
Appendix B – CAMP Data for MW12RR Installation
Appendix C – Chain-of-Custody Record and Form 1 Report Sheets
Appendix D – Data Usability Summary Report

c: Ms. Kiera Thompson – NYSDEC (electronic copy)
Mr. David Pratt, P.E. – NYSDEC (electronic copy)
Mr. Brad Walker – National Fuel
Ms. Tanya Alexander – National Fuel

Tables

Table 1. Groundwater Elevation Summary and NAPL Gauging Results
4th Quarter 2024 Groundwater Monitoring Event
Hornell Former MGP Site

Well ID	PVC Riser Reference Elevation (Feet NAVD88)	Depth to Water 11/25/2024 (Feet below top of inner casing)	Groundwater Elevation November 25, 2024 (Feet NAVD88)	NAPL Gauging Results
MW4	1156.23	15.58	1140.65	Not Present
MW6	1157.86	16.90	1140.96	Not Present
MW7	1155.74	14.82	1140.92	Not Present
MW8	1158.26	17.20	1141.06	Not Present
MW12RR	1156.99	16.03	1140.96	Not Present
MW13	1156.92	15.57	1141.35	Not Present
MW15	1156.10	14.84	1141.26	Not Present

Table 2. Hornell Former MGP Site
Fourth Quarter 2024 Groundwater Analysis Results Summary Table
National Fuel Gas
Hornell, NY

			Location Name	MW-6	MW-7	MW-7	MW-8	MW-12	MW-13
			Sample Name	MW6	MW7	DUP112524	MW8	MW12RR	MW13
			Sample Date	11/25/2024	11/25/2024	11/25/2024	11/25/2024	11/25/2024	11/25/2024
			Parent Sample			MW7			
Analyte	Units	CAS No.	NYS AWQS						
BTEX	ug/L								
Benzene		71-43-2	1	1 U	1 U	1 U	1 U	1 U	1 U
Toluene		108-88-3	5	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene		100-41-4	5	1 U	1 U	1 U	1 U	1 U	1 U
Total Xylene		1330-20-7	5	2 U	2 U	2 U	2 U	2 U	2 U
Total BTEX (ND=0)			NE	ND	ND	ND	ND	ND	ND
PAH17	ug/L								
Acenaphthene		83-32-9	20*	**6.7**	5 U	5 U	5 U	10 U	5 U
Acenaphthylene		208-96-8	NE	**2.2 J**	5 U	5 U	5 U	10 U	5 U
Anthracene		120-12-7	50*	5 U	5 U	5 U	5 U	10 U	5 U
Benzo(a)anthracene		56-55-3	0.002	5 U	5 U	5 U	5 U	10 U	5 U
Benzo(b)fluoranthene		205-99-2	0.002	5 U	5 U	5 U	5 U	10 U	5 U
Benzo(k)fluoranthene		207-08-9	0.002	5 U	5 U	5 U	5 U	10 U	5 U
Benzo(g,h,i)perylene		191-24-2	NE	5 U	5 U	5 U	5 U	10 U	5 U
Benzo(a)pyrene		50-32-8	ND	5 U	5 U	5 U	5 U	10 U	5 U
Chrysene		218-01-9	0.002*	5 U	5 U	5 U	5 U	10 U	5 U
Dibenz(a,h)anthracene		53-70-3	NE	5 U	5 U	5 U	5 U	10 U	5 U
Fluoranthene		206-44-0	50*	5 U	5 U	5 U	5 U	10 U	5 U
Fluorene		86-73-7	50*	**7.1**	5 U	5 U	5 U	10 U	5 U
Indeno(1,2,3-cd)pyrene		193-39-5	0.002*	5 U	5 U	5 U	5 U	10 U	5 U
Naphthalene		91-20-3	10*	5 U	5 U	5 U	5 U	10 U	5 U
Phenanthrene		85-01-8	50*	5 U	5 U	5 U	5 U	10 U	5 U
Pyrene		129-00-0	50*	5 U	5 U	5 U	5 U	10 U	5 U
Total PAH (17) (ND=0)			NE	**16**	ND	ND	ND	ND	ND
Dissolved Metals	ug/L								
Iron		7439-89-6	300	**1500**	**100 J**	**100 J**	50 U	50 U	50 U
Manganese		7439-96-5	300	**520**	**7.6**	**8.5**	3 U	**210**	3 U
Total Metals	ug/L								
Iron		7439-89-6	300	**2200**	**140 J**	**160 J**	50 U	50 U	50 U
Manganese		7439-96-5	300	**550**	**14**	**22**	3 U	**220**	**13 J**
Cyanides	ug/L								
Total Cyanide		57-12-5	200	**31**	**260**	**270**	**36**	**17**	**7.7 J**
Other	ug/L								
Alkalinity		N/A	NE	**307000 J**	**321000 J**	**315000 J**	**261000 J**	**286000 J**	**256000 J**
Ammonia		7664-41-7	2000	**820**	**860**	**580**	**430**	**430**	**220 J**
Dissolved Organic Carbon		N/A	NE	**690 J**	**910 J**	**860 J**	1000 U	1000 U	1000 U
Methane		74-82-8	NE	**61**	4 U	4 U	4 U	4 U	4 U
Nitrate as Nitrogen		14797-55-8	10000	**340 J**	**4000 J**	**3000 J**	**4900 J**	**2400 J**	**5800 J**
Nitrite as Nitrogen		14797-65-0	1000	50 R	50 R	50 R	50 R	50 R	50 R
Nitrate and Nitrite as Nitrogen		N/A	10000	**340 J**	**4000 J**	**3000 J**	**4900 J**	**2400 J**	**5800 J**
Sulfate		14808-79-8	250000	**39700**	**29200**	**38400**	**30000**	**27700**	**26900**
Total Organic Carbon		N/A	NE	**740 J**	**950 J**	**900 J**	1000 U	1000 U	1000 U

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

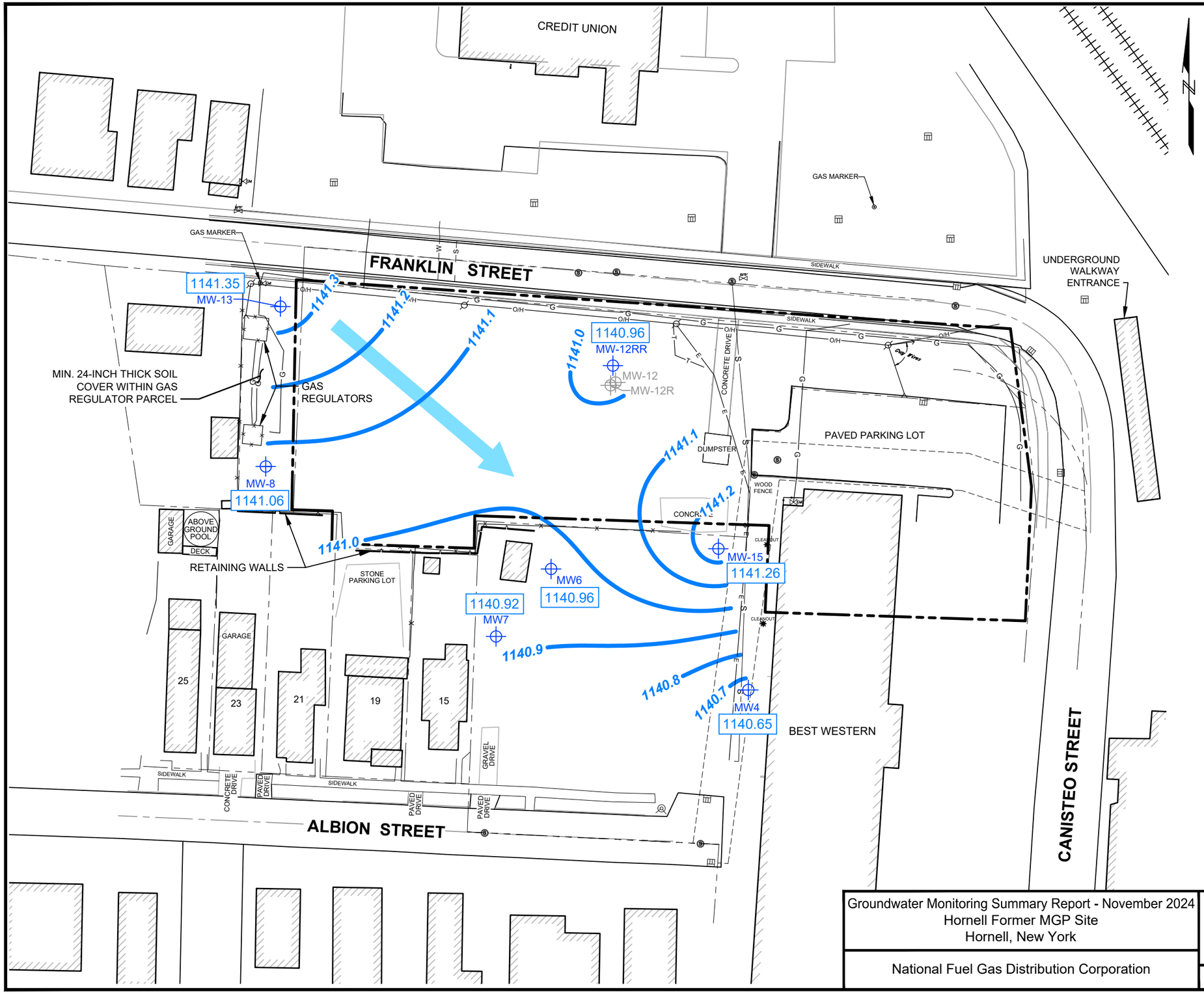
NYS AWQS = New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

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

Bolding indicates a detected result concentration
Shading and bolding indicates that the detected concentration is above the standard it was compared to

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

Figures



LEGEND

- MW1 — MONITORING WELL
- MW12 — FORMER MONITORING WELL
- 1141.0 — GROUNDWATER CONTOUR (FEET NAVD88) - NOVEMBER 2024
- 1141.06 — GROUNDWATER ELEVATION (FEET NAVD88) - NOVEMBER 2024
- INFERRED GROUNDWATER FLOW DIRECTION - NOVEMBER 2024
- APPROXIMATE SITE BOUNDARY (FROM NYSDEC)
- APPROXIMATE PROPERTY BOUNDARIES
- UTILITY EASEMENT
- CHAIN-LINK FENCE
- 15 — EXISTING STRUCTURE & HOUSE NUMBER

NOTE:

ALL UTILITY LINE LOCATIONS ARE APPROXIMATE.

SOURCES:

1. SURVEY PREPARED FOR GEI CONSULTANTS, INC. BY WILLIAM J TUCKER, II PLS #50369, CLEAR CREEK LAND SURVEYING, L.L.C., SPRINGVILLE, N.Y. DATED FEBRUARY 11, 2011.
2. CITY OF HORNELL, STEUBEN COUNTY, NY TAX MAP NO. 166.06 DATED OCT. 18, 2008.
3. *MODIFICATION TO ORDER ON CONSENT AND ADMINISTRATIVE SETTLEMENT, ATTACHMENT 1* BETWEEN NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, OFFICE OF GENERAL COUNSEL, AND NATIONAL FUEL GAS DATED OCT. 21, 2010.
4. PROPERTY BOUNDARIES OBTAINED FROM SURVEY PREPARED FOR GEI CONSULTANTS, INC. BY MATTHEW RODGERS ROBINSON PLS # 050938, ECOSTRATEGIES ENGINEERING & SURVEYING, FALCONER N.Y. DATED JULY 29, 2021.

0 50' 100'

SCALE: 1" = 50'

Groundwater Monitoring Summary Report - November 2024
Hornell Former MGP Site
Hornell, New York

National Fuel Gas Distribution Corporation

GEI Consultants

WELL LOCATION AND GROUNDWATER CONTOUR MAP - FOURTH QUARTER 2024

Project 1801687 | January 2025 | Fig. 1

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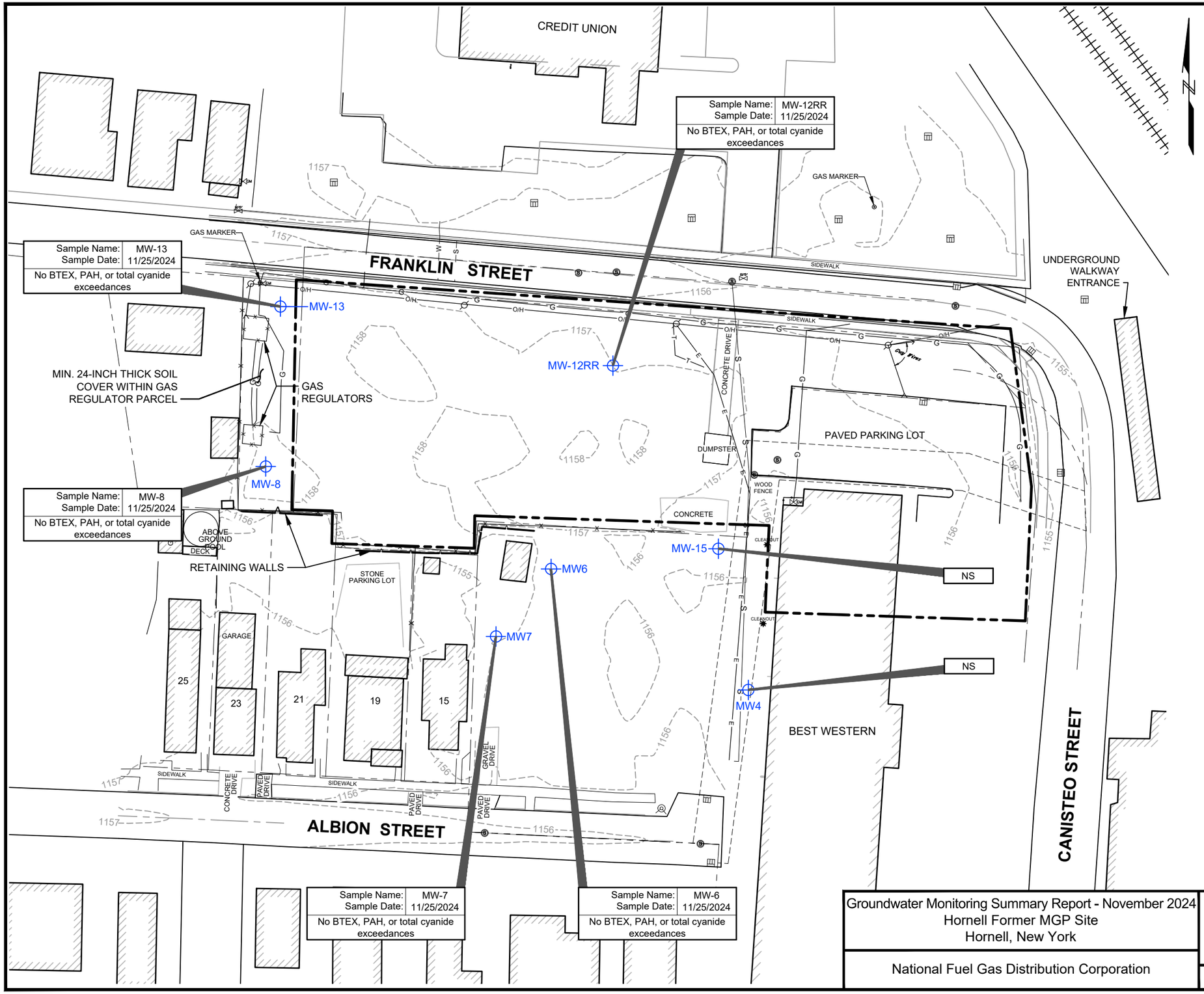

LEGEND

- APPROXIMATE SITE BOUNDARY (FROM NYSDEC)
- APPROXIMATE PROPERTY BOUNDARIES
- UTILITY EASEMENT
- CHAIN-LINK FENCE
- 15 — EXISTING STRUCTURE & HOUSE NUMBER
- MW1 — MONITORING WELL
- MW12 — FORMER MONITORING WELL
- NS — NOT SAMPLED

NOTE:

ALL UTILITY LINE LOCATIONS ARE APPROXIMATE.

SOURCES:

1. SURVEY PREPARED FOR GEI CONSULTANTS, INC. BY WILLIAM J TUCKER, II PLS #50369, CLEAR CREEK LAND SURVEYING, L.L.C., SPRINGVILLE, N.Y. DATED FEBRUARY 11, 2011.
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0 50' 100'

SCALE: 1" = 50'

Groundwater Monitoring Summary Report - November 2024
Hornell Former MGP Site
Hornell, New York

National Fuel Gas Distribution Corporation

GEI Consultants

Project 1801687

GROUNDWATER EXCEEDANCES SUMMARY MAP - FOURTH QUARTER 2024

January 2025 Fig. 2

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Appendix A

Well Construction Log – MW12RR

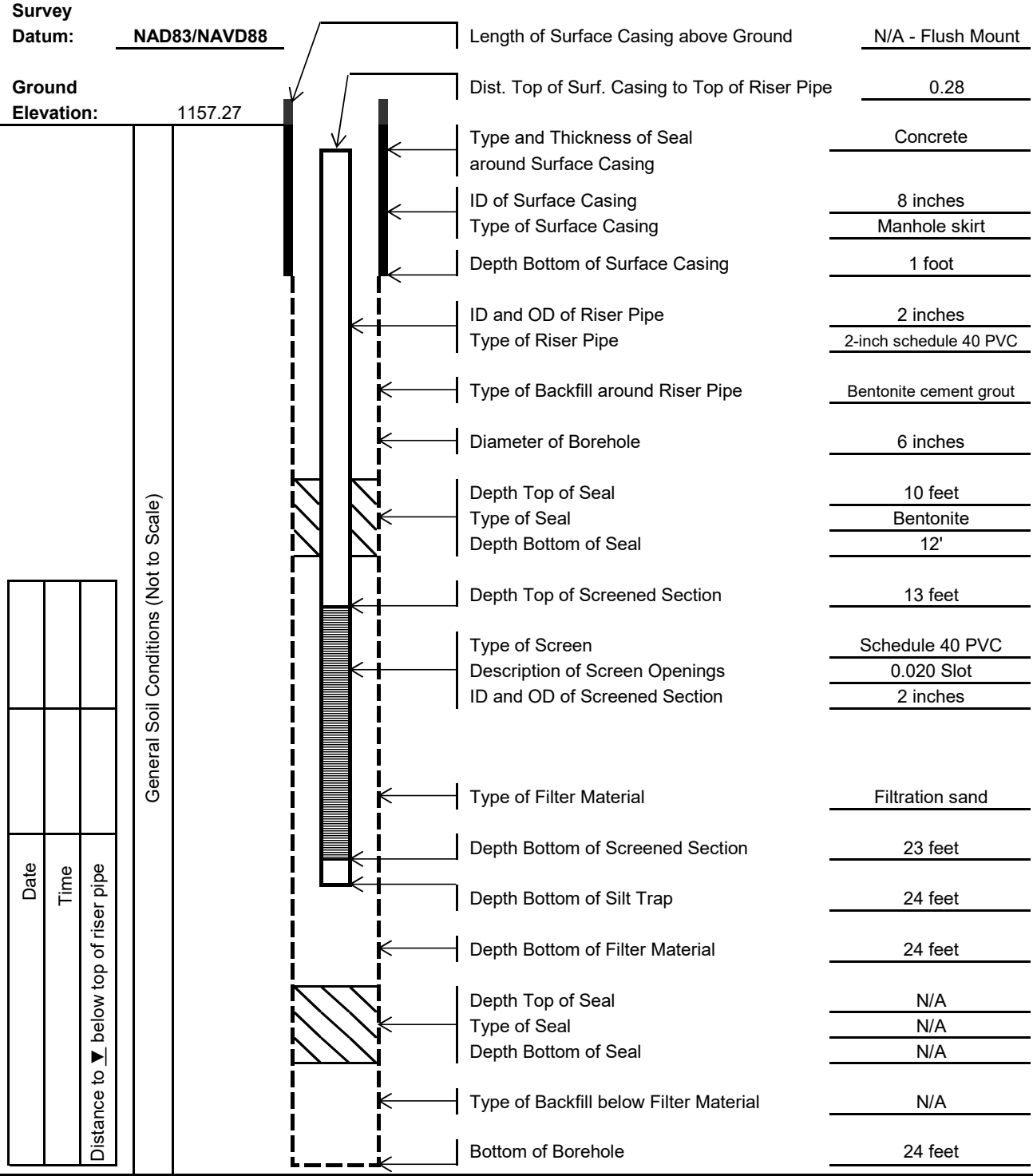
Groundwater Well Installation Log

MW12RR

Project	Hornell Former MGP	**GEI Proj. No.**	1801687
City / Town	Hornell, New York	**Location**	In grassy lawn near edge of ISS area
Client	National Fuel Gas		
Contractor	Nothnagle Drilling		
Driller	Thomas Mangefrida	**GEI Rep.** Jordan DesRosiers	**Install Date** 11/7/2024

Survey Datum: **NAD83/NAVD88**

Ground Elevation: 1157.27



Length of Surface Casing above Ground	N/A - Flush Mount
Dist. Top of Surf. Casing to Top of Riser Pipe	0.28
Type and Thickness of Seal around Surface Casing	Concrete
ID of Surface Casing	8 inches
Type of Surface Casing	Manhole skirt
Depth Bottom of Surface Casing	1 foot
ID and OD of Riser Pipe	2 inches
Type of Riser Pipe	2-inch schedule 40 PVC
Type of Backfill around Riser Pipe	Bentonite cement grout
Diameter of Borehole	6 inches
Depth Top of Seal	10 feet
Type of Seal	Bentonite
Depth Bottom of Seal	12'
Depth Top of Screened Section	13 feet
Type of Screen	Schedule 40 PVC
Description of Screen Openings	0.020 Slot
ID and OD of Screened Section	2 inches
Type of Filter Material	Filtration sand
Depth Bottom of Screened Section	23 feet
Depth Bottom of Silt Trap	24 feet
Depth Bottom of Filter Material	24 feet
Depth Top of Seal	N/A
Type of Seal	N/A
Depth Bottom of Seal	N/A
Type of Backfill below Filter Material	N/A
Bottom of Borehole	24 feet

Notes: Hollow Stem Augers used to install bore hole
Northing: 848328.606
Easting: 528331.796

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M:\Drafting\Office\Forms\Well Install Log Blank Form

Appendix B

CAMP Data – MW12RR Installation

CAMP Dust Monitoring Results
Hornell MGP Site
November 7, 2024 Well Installation

Instrument Name	DustTrak II
Model Number	8530
Serial Number	8530151805
Firmware Version	3.1
Calibration Date	5/21/2024
Test Name	MANUAL_001
Test Start Time	8:56:15 AM
Test Start Date	11/7/2024
Test Length [D:H:M]	0:05:39
Test Interval [M:S]	1:00
Mass Average [mg/m3]	0
Mass Minimum [mg/m3]	0
Mass Maximum [mg/m3]	0
Mass TWA [mg/m3]	0
Photometric User Cal	1
Flow User Cal	0
Errors	N/A
Number of Samples	339

Sample Time	Mass [mg/m3]
8:57 AM	0
8:58 AM	0
8:59 AM	0
9:00 AM	0
9:01 AM	0
9:02 AM	0
9:03 AM	0
9:04 AM	0
9:05 AM	0
9:06 AM	0
9:07 AM	0
9:08 AM	0
9:09 AM	0
9:10 AM	0
9:11 AM	0
9:12 AM	0
9:13 AM	0
9:14 AM	0
9:15 AM	0
9:16 AM	0
9:17 AM	0
9:18 AM	0
9:19 AM	0
9:20 AM	0
9:21 AM	0
9:22 AM	0
9:23 AM	0
9:24 AM	0
9:25 AM	0
9:26 AM	0
9:27 AM	0
9:28 AM	0
9:29 AM	0
9:30 AM	0
9:31 AM	0
9:32 AM	0
9:33 AM	0
9:34 AM	0
9:35 AM	0
9:36 AM	0
9:37 AM	0
9:38 AM	0
9:39 AM	0
9:40 AM	0
9:41 AM	0
9:42 AM	0
9:43 AM	0
9:44 AM	0
9:45 AM	0
9:46 AM	0
9:47 AM	0
9:48 AM	0
9:49 AM	0
9:50 AM	0
9:51 AM	0
9:52 AM	0
9:53 AM	0
9:54 AM	0
9:55 AM	0
9:56 AM	0
9:57 AM	0
9:58 AM	0
9:59 AM	0
10:00 AM	0
10:01 AM	0
10:02 AM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 7, 2024 Well Installation

10:03 AM	0
10:04 AM	0
10:05 AM	0
10:06 AM	0
10:07 AM	0
10:08 AM	0
10:09 AM	0
10:10 AM	0
10:11 AM	0
10:12 AM	0
10:13 AM	0
10:14 AM	0
10:15 AM	0
10:16 AM	0
10:17 AM	0
10:18 AM	0
10:19 AM	0
10:20 AM	0
10:21 AM	0
10:22 AM	0
10:23 AM	0
10:24 AM	0
10:25 AM	0
10:26 AM	0
10:27 AM	0
10:28 AM	0
10:29 AM	0
10:30 AM	0
10:31 AM	0
10:32 AM	0
10:33 AM	0
10:34 AM	0
10:35 AM	0
10:36 AM	0
10:37 AM	0
10:38 AM	0
10:39 AM	0
10:40 AM	0
10:41 AM	0
10:42 AM	0
10:43 AM	0
10:44 AM	0
10:45 AM	0

10:46 AM	0
10:47 AM	0
10:48 AM	0
10:49 AM	0
10:50 AM	0
10:51 AM	0
10:52 AM	0
10:53 AM	0
10:54 AM	0
10:55 AM	0
10:56 AM	0
10:57 AM	0
10:58 AM	0
10:59 AM	0
11:00 AM	0
11:01 AM	0
11:02 AM	0
11:03 AM	0
11:04 AM	0
11:05 AM	0
11:06 AM	0
11:07 AM	0
11:08 AM	0
11:09 AM	0
11:10 AM	0
11:11 AM	0
11:12 AM	0
11:13 AM	0
11:14 AM	0
11:15 AM	0
11:16 AM	0
11:17 AM	0
11:18 AM	0
11:19 AM	0
11:20 AM	0
11:21 AM	0
11:22 AM	0
11:23 AM	0
11:24 AM	0
11:25 AM	0
11:26 AM	0
11:27 AM	0
11:28 AM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 7, 2024 Well Installation

11:29 AM	0
11:30 AM	0
11:31 AM	0
11:32 AM	0
11:33 AM	0
11:34 AM	0
11:35 AM	0
11:36 AM	0
11:37 AM	0
11:38 AM	0
11:39 AM	0
11:40 AM	0
11:41 AM	0
11:42 AM	0
11:43 AM	0
11:44 AM	0
11:45 AM	0
11:46 AM	0
11:47 AM	0
11:48 AM	0
11:49 AM	0
11:50 AM	0
11:51 AM	0
11:52 AM	0
11:53 AM	0
11:54 AM	0
11:55 AM	0
11:56 AM	0
11:57 AM	0
11:58 AM	0
11:59 AM	0
12:00 PM	0
12:01 PM	0
12:02 PM	0
12:03 PM	0
12:04 PM	0
12:05 PM	0
12:06 PM	0
12:07 PM	0
12:08 PM	0
12:09 PM	0
12:10 PM	0
12:11 PM	0

12:12 PM	0
12:13 PM	0
12:14 PM	0
12:15 PM	0
12:16 PM	0
12:17 PM	0
12:18 PM	0
12:19 PM	0
12:20 PM	0
12:21 PM	0
12:22 PM	0
12:23 PM	0
12:24 PM	0
12:25 PM	0
12:26 PM	0
12:27 PM	0
12:28 PM	0
12:29 PM	0
12:30 PM	0
12:31 PM	0
12:32 PM	0
12:33 PM	0
12:34 PM	0
12:35 PM	0
12:36 PM	0
12:37 PM	0
12:38 PM	0
12:39 PM	0
12:40 PM	0
12:41 PM	0
12:42 PM	0
12:43 PM	0
12:44 PM	0
12:45 PM	0
12:46 PM	0
12:47 PM	0
12:48 PM	0
12:49 PM	0
12:50 PM	0
12:51 PM	0
12:52 PM	0
12:53 PM	0
12:54 PM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 7, 2024 Well Installation

12:55 PM	0
12:56 PM	0
12:57 PM	0
12:58 PM	0
12:59 PM	0
1:00 PM	0
1:01 PM	0
1:02 PM	0
1:03 PM	0
1:04 PM	0
1:05 PM	0
1:06 PM	0
1:07 PM	0
1:08 PM	0
1:09 PM	0
1:10 PM	0
1:11 PM	0
1:12 PM	0
1:13 PM	0
1:14 PM	0
1:15 PM	0
1:16 PM	0
1:17 PM	0
1:18 PM	0
1:19 PM	0
1:20 PM	0
1:21 PM	0
1:22 PM	0
1:23 PM	0
1:24 PM	0
1:25 PM	0
1:26 PM	0
1:27 PM	0
1:28 PM	0
1:29 PM	0
1:30 PM	0
1:31 PM	0
1:32 PM	0
1:33 PM	0
1:34 PM	0
1:35 PM	0
1:36 PM	0
1:37 PM	0

1:38 PM	0
1:39 PM	0
1:40 PM	0
1:41 PM	0
1:42 PM	0
1:43 PM	0
1:44 PM	0
1:45 PM	0
1:46 PM	0
1:47 PM	0
1:48 PM	0
1:49 PM	0
1:50 PM	0
1:51 PM	0
1:52 PM	0
1:53 PM	0
1:54 PM	0
1:55 PM	0
1:56 PM	0
1:57 PM	0
1:58 PM	0
1:59 PM	0
2:00 PM	0
2:01 PM	0
2:02 PM	0
2:03 PM	0
2:04 PM	0
2:05 PM	0
2:06 PM	0
2:07 PM	0
2:08 PM	0
2:09 PM	0
2:10 PM	0
2:11 PM	0
2:12 PM	0
2:13 PM	0
2:14 PM	0
2:15 PM	0
2:16 PM	0
2:17 PM	0
2:18 PM	0
2:19 PM	0
2:20 PM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 7, 2024 Well Installation

2:21 PM	0
2:22 PM	0
2:23 PM	0
2:24 PM	0
2:25 PM	0
2:26 PM	0
2:27 PM	0
2:28 PM	0
2:29 PM	0
2:30 PM	0
2:31 PM	0
2:32 PM	0
2:33 PM	0
2:34 PM	0
2:35 PM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 8, 2024 Well Installation

Instrument Name	DustTrak II
Model Number	8530
Serial Number	8530151805
Firmware Version	3.1
Calibration Date	5/21/2024
Test Name	MANUAL_002
Test Start Time	8:40:11 AM
Test Start Date	11/8/2024
Test Length [D:H:M]	0:02:46
Test Interval [M:S]	1:00
Mass Average [mg/m3]	0
Mass Minimum [mg/m3]	0
Mass Maximum [mg/m3]	0
Mass TWA [mg/m3]	0
Photometric User Cal	1
Flow User Cal	0
Errors	N/A
Number of Samples	166

Sample Time	Mass [mg/m3]
8:41 AM	0
8:42 AM	0
8:43 AM	0
8:44 AM	0
8:45 AM	0
8:46 AM	0
8:47 AM	0
8:48 AM	0
8:49 AM	0
8:50 AM	0
8:51 AM	0
8:52 AM	0
8:53 AM	0
8:54 AM	0
8:55 AM	0
8:56 AM	0
8:57 AM	0
8:58 AM	0
8:59 AM	0
9:00 AM	0
9:01 AM	0
9:02 AM	0
9:03 AM	0
9:04 AM	0
9:05 AM	0
9:06 AM	0
9:07 AM	0
9:08 AM	0
9:09 AM	0
9:10 AM	0
9:11 AM	0
9:12 AM	0
9:13 AM	0
9:14 AM	0
9:15 AM	0
9:16 AM	0
9:17 AM	0
9:18 AM	0
9:19 AM	0
9:20 AM	0
9:21 AM	0
9:22 AM	0
9:23 AM	0
9:24 AM	0
9:25 AM	0
9:26 AM	0
9:27 AM	0
9:28 AM	0
9:29 AM	0
9:30 AM	0
9:31 AM	0
9:32 AM	0
9:33 AM	0
9:34 AM	0
9:35 AM	0
9:36 AM	0
9:37 AM	0
9:38 AM	0
9:39 AM	0
9:40 AM	0
9:41 AM	0
9:42 AM	0
9:43 AM	0
9:44 AM	0
9:45 AM	0
9:46 AM	0
9:47 AM	0
9:48 AM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 8, 2024 Well Installation

9:49 AM	0
9:50 AM	0
9:51 AM	0
9:52 AM	0
9:53 AM	0
9:54 AM	0
9:55 AM	0
9:56 AM	0
9:57 AM	0
9:58 AM	0
9:59 AM	0
10:00 AM	0
10:01 AM	0
10:02 AM	0
10:03 AM	0
10:04 AM	0
10:05 AM	0
10:06 AM	0
10:07 AM	0
10:08 AM	0
10:09 AM	0
10:10 AM	0
10:11 AM	0
10:12 AM	0
10:13 AM	0
10:14 AM	0
10:15 AM	0
10:16 AM	0
10:17 AM	0
10:18 AM	0
10:19 AM	0
10:20 AM	0
10:21 AM	0
10:22 AM	0
10:23 AM	0
10:24 AM	0
10:25 AM	0
10:26 AM	0
10:27 AM	0
10:28 AM	0
10:29 AM	0
10:30 AM	0
10:31 AM	0
10:32 AM	0

10:33 AM	0
10:34 AM	0
10:35 AM	0
10:36 AM	0
10:37 AM	0
10:38 AM	0
10:39 AM	0
10:40 AM	0
10:41 AM	0
10:42 AM	0
10:43 AM	0
10:44 AM	0
10:45 AM	0
10:46 AM	0
10:47 AM	0
10:48 AM	0
10:49 AM	0
10:50 AM	0
10:51 AM	0
10:52 AM	0
10:53 AM	0
10:54 AM	0
10:55 AM	0
10:56 AM	0
10:57 AM	0
10:58 AM	0
10:59 AM	0
11:00 AM	0
11:01 AM	0
11:02 AM	0
11:03 AM	0
11:04 AM	0
11:05 AM	0
11:06 AM	0
11:07 AM	0
11:08 AM	0
11:09 AM	0
11:10 AM	0
11:11 AM	0
11:12 AM	0
11:13 AM	0
11:14 AM	0
11:15 AM	0
11:16 AM	0

CAMP Dust Monitoring Results
Hornell MGP Site
November 8, 2024 Well Installation

11:17 AM	0
11:18 AM	0
11:19 AM	0
11:20 AM	0
11:21 AM	0
11:22 AM	0
11:23 AM	0
11:24 AM	0
11:25 AM	0
11:26 AM	0

Appendix C

Chain-of-Custody Record and Form 1 Report Sheet

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Jeff Holden
GEI Consultants Inc
950 Danby Road
Suite 201-F
Ithaca, New York 14850

Generated 12/12/2024 10:45:56 AM Revision 1

JOB DESCRIPTION

Quarterly Groundwater

JOB NUMBER

480-225829-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

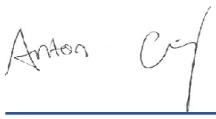
See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
12/12/2024 10:45:56 AM
Revision 1

Authorized for release by
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Table of Contents

Definitions/Glossary

Client: GEI Consultants Inc
Job ID: 480-225829-1
Project/Site: Quarterly Groundwater

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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 Narrative
480-225829-1

REVISION
The report being provided is a revision of the original report sent on 12/10/2024. The report (revision 1) is being revised to report the SVOC results of sample MW12RR (480-225829-4) at a lower dilution.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/27/2024 10:00 AM. 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 3.6°C, 4.8°C and 5.5°C.

Receipt Exceptions
The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): FB112524 (480-225829-8).

GC/MS VOA
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: The following samples were diluted due to the nature of the sample matrix: MW12RR (480-225829-4), MW12RR-MS (480-225829-4[MS]) and MW12RR-MSD (480-225829-4[MSD]). Elevated reporting limits (RLs) are provided.

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

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

Metals
Method 6010C - Dissolved: The method blank for preparation batch 480-733903 and analytical batch 480-734103 contained dissolved Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6010C - Dissolved: The method blank for preparation batch 480-733903 contained dissolved Manganese above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 6010C - Dissolved: The method blank for preparation batch 480-733903 contained dissolved Iron above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 6010C - Dissolved: The method blank for preparation batch 480-733903 contained dissolved Manganese above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 6010C - Dissolved: The method blank for preparation batch 480-733903 and analytical batch 480-734103 contained dissolved Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

General Chemistry

Method 353.2_Nitrite: The following samples were analyzed outside of analytical holding time due to analytical instrument error: MW6 (480-225829-1), MW7 (480-225829-2), MW8 (480-225829-3), MW12RR (480-225829-4), MW12RR-MS (480-225829-4[MS]), MW12RR-MSD (480-225829-4[MSD]) and MW13 (480-225829-5).

Method 353.2_Nitrite: The following samples were received outside of holding time: DUP112524 (480-225829-6) and FB112524 (480-225829-8).

Method D516: The method blank for analytical batch 480-734415 contained sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method Nitrate_Calc: The following samples were analyzed outside of analytical holding time due to instrument malfunction: MW6 (480-225829-1), MW7 (480-225829-2), MW8 (480-225829-3), MW12RR (480-225829-4) and MW13 (480-225829-5).

Method Nitrate_Calc: The following samples were received outside of holding time: DUP112524 (480-225829-6) and FB112524 (480-225829-8).

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

Detection Summary

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW6 — Lab Sample ID: 480-225829-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	6.7		5.0	0.41	ug/L	1		8270D	Total/NA
Acenaphthylene	2.2	J	5.0	0.38	ug/L	1		8270D	Total/NA
Fluorene	7.1		5.0	0.36	ug/L	1		8270D	Total/NA
Methane	61		4.0	1.0	ug/L	1		RSK-175	Total/NA
Iron	2.2		0.050	0.019	mg/L	1		6010C	Total/NA
Manganese	0.55	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Iron, Dissolved	1.5		0.050	0.019	mg/L	1		6010C	Dissolved
Manganese, Dissolved	0.52	B	0.0030	0.00040	mg/L	1		6010C	Dissolved
Ammonia	0.82	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Cyanide, Total	0.031		0.010	0.0041	mg/L	1		9012B	Total/NA
Sulfate	39.7		25.0	7.5	mg/L	5		D516-90, 02	Total/NA
Nitrate as N	0.34	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	0.34	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Total Alkalinity	307		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon	0.74	J	1.0	0.43	mg/L	1		SM 5310D	Total/NA
Dissolved Organic Carbon	0.69	J	1.0	0.43	mg/L	1		SM 5310C	Dissolved

Client Sample ID: MW7 — Lab Sample ID: 480-225829-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.14		0.050	0.019	mg/L	1		6010C	Total/NA
Manganese	0.014	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Iron, Dissolved	0.10		0.050	0.019	mg/L	1		6010C	Dissolved
Manganese, Dissolved	0.0076		0.0030	0.00040	mg/L	1		6010C	Dissolved
Ammonia	0.86	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrite as N	0.026	J H F1	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.26		0.010	0.0041	mg/L	1		9012B	Total/NA
Sulfate	29.2	B	5.0	1.5	mg/L	1		D516-90, 02	Total/NA
Nitrate as N	4.0	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	4.0	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Total Alkalinity	321		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon	0.95	J	1.0	0.43	mg/L	1		SM 5310D	Total/NA
Dissolved Organic Carbon	0.91	J	1.0	0.43	mg/L	1		SM 5310C	Dissolved

Client Sample ID: MW8 — Lab Sample ID: 480-225829-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.027	J	0.050	0.019	mg/L	1		6010C	Total/NA
Ammonia	0.43	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Cyanide, Total	0.036		0.010	0.0041	mg/L	1		9012B	Total/NA
Sulfate	30.0	B	5.0	1.5	mg/L	1		D516-90, 02	Total/NA
Nitrate as N	4.9	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	4.9	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Total Alkalinity	261		5.0	0.79	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW12RR — Lab Sample ID: 480-225829-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.020	J	0.050	0.019	mg/L	1		6010C	Total/NA
Manganese	0.22	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Manganese, Dissolved	0.21	B	0.0030	0.00040	mg/L	1		6010C	Dissolved
Ammonia	0.43	B	0.020	0.0090	mg/L	1		350.1	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: MW12RR (Continued) — Lab Sample ID: 480-225829-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrite as N	0.045	J H F1	0.050	0.020	mg/L	1		353.2	Total/NA
Cyanide, Total	0.017		0.010	0.0041	mg/L	1		9012B	Total/NA
Sulfate	27.7		5.0	1.5	mg/L	1		D516-90, 02	Total/NA
Nitrate as N	2.4	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	2.4	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Total Alkalinity	286	F1	5.0	0.79	mg/L	1		SM 2320B	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 480-225829-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.035	J	0.050	0.019	mg/L	1		6010C	Total/NA
Manganese	0.013	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Ammonia	0.22	F2 B	0.020	0.0090	mg/L	1		350.1	Total/NA
Cyanide, Total	0.0077	J	0.010	0.0041	mg/L	1		9012B	Total/NA
Sulfate	26.9	B	5.0	1.5	mg/L	1		D516-90, 02	Total/NA
Nitrate as N	5.8	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	5.8	H	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Total Alkalinity	256		5.0	0.79	mg/L	1		SM 2320B	Total/NA

Client Sample ID: DUP112524 — Lab Sample ID: 480-225829-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.16		0.050	0.019	mg/L	1		6010C	Total/NA
Manganese	0.022	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Iron, Dissolved	0.10		0.050	0.019	mg/L	1		6010C	Dissolved
Manganese, Dissolved	0.0085		0.0030	0.00040	mg/L	1		6010C	Dissolved
Ammonia	0.58	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Cyanide, Total	0.27		0.010	0.0041	mg/L	1		9012B	Total/NA
Sulfate	38.4		5.0	1.5	mg/L	1		D516-90, 02	Total/NA
Nitrate as N	3.0	H H3	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	3.0	H H3	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Total Alkalinity	315		5.0	0.79	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon	0.90	J	1.0	0.43	mg/L	1		SM 5310D	Total/NA
Dissolved Organic Carbon	0.86	J	1.0	0.43	mg/L	1		SM 5310C	Dissolved

Client Sample ID: Trip Blank — Lab Sample ID: 480-225829-7

No Detections.

Client Sample ID: FB112524 — Lab Sample ID: 480-225829-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	0.26	B	0.020	0.0090	mg/L	1		350.1	Total/NA
Nitrate as N	0.027	J H H3	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA
Nitrate Nitrite as N	0.027	J H H3	0.050	0.020	mg/L	1		Nitrate by calc	Total/NA

This Detection Summary does not include radiochemical test results.

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW6

Date Collected: 11/25/24 15:40
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-1

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/27/24 19:45	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/24 19:45	1
Toluene	ND		1.0	0.51	ug/L			11/27/24 19:45	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/24 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*11/27/24 19:45*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*11/27/24 19:45*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*11/27/24 19:45*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/27/24 19:45*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**6.7**		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 17:02	1
Acenaphthylene	**2.2**	**J**	5.0	0.38	ug/L		11/27/24 11:40	12/02/24 17:02	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 17:02	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 17:02	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 17:02	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 17:02	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 17:02	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 17:02	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 17:02	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 17:02	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 17:02	1
Fluorene	**7.1**		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 17:02	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 17:02	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 17:02	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 17:02	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*93*		*53 - 126*	*11/27/24 11:40*	*12/02/24 17:02*	*1*
Nitrobenzene-d5 (Surr)	*79*		*29 - 129*	*11/27/24 11:40*	*12/02/24 17:02*	*1*
p-Terphenyl-d14 (Surr)	*80*		*33 - 132*	*11/27/24 11:40*	*12/02/24 17:02*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**61**		4.0	1.0	ug/L			12/02/24 11:27	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.2**		0.050	0.019	mg/L		12/02/24 09:12	12/02/24 17:46	1
Manganese	**0.55**	**B**	0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 17:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	**1.5**		0.050	0.019	mg/L		12/06/24 08:54	12/06/24 14:50	1
Manganese, Dissolved	**0.52**	**B**	0.0030	0.00040	mg/L		12/02/24 09:09	12/02/24 19:11	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW6

Date Collected: 11/25/24 15:40
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.82	B	0.020	0.0090	mg/L			12/04/24 18:12	1
Nitrite as N (EPA 353.2)	ND	H	0.050	0.020	mg/L			11/30/24 14:15	1
Cyanide, Total (SW846 9012B)	0.031		0.010	0.0041	mg/L			12/03/24 10:08	1
Sulfate (ASTM D516-90, 02)	39.7		25.0	7.5	mg/L			12/05/24 09:31	5
Nitrate as N (SM Nitrate by calc)	0.34	H	0.050	0.020	mg/L			11/30/24 14:15	1
Nitrate Nitrite as N (SM Nitrate by calc)	0.34	H	0.050	0.020	mg/L			11/30/24 14:15	1
Total Alkalinity (SM 2320B)	307		5.0	0.79	mg/L			11/27/24 17:47	1
Total Organic Carbon (SM 5310D)	0.74	J	1.0	0.43	mg/L			12/03/24 13:53	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	0.69	J	1.0	0.43	mg/L			12/03/24 18:31	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW7

Date Collected: 11/25/24 13:10
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-2

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/27/24 20:10	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/24 20:10	1
Toluene	ND		1.0	0.51	ug/L			11/27/24 20:10	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/24 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*11/27/24 20:10*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*11/27/24 20:10*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*11/27/24 20:10*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/27/24 20:10*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 17:28	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/24 11:40	12/02/24 17:28	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 17:28	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 17:28	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 17:28	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 17:28	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 17:28	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 17:28	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 17:28	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 17:28	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 17:28	1
Fluorene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 17:28	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 17:28	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 17:28	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 17:28	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*99*		*53 - 126*	*11/27/24 11:40*	*12/02/24 17:28*	*1*
Nitrobenzene-d5 (Surr)	*86*		*29 - 129*	*11/27/24 11:40*	*12/02/24 17:28*	*1*
p-Terphenyl-d14 (Surr)	*88*		*33 - 132*	*11/27/24 11:40*	*12/02/24 17:28*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 11:45	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.14**		0.050	0.019	mg/L		12/02/24 09:12	12/02/24 17:47	1
Manganese	**0.014**	**B**	0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 17:47	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	**0.10**		0.050	0.019	mg/L		12/06/24 08:54	12/06/24 14:52	1
Manganese, Dissolved	**0.0076**		0.0030	0.00040	mg/L		12/06/24 08:54	12/06/24 14:52	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW7

Date Collected: 11/25/24 13:10
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.86	B	0.020	0.0090	mg/L			12/04/24 18:14	1
Nitrite as N (EPA 353.2)	0.026	J H F1	0.050	0.020	mg/L			11/30/24 14:17	1
Cyanide, Total (SW846 9012B)	0.26		0.010	0.0041	mg/L			12/03/24 10:11	1
Sulfate (ASTM D516-90, 02)	29.2	B	5.0	1.5	mg/L			12/05/24 09:25	1
Nitrate as N (SM Nitrate by calc)	4.0	H	0.050	0.020	mg/L			11/30/24 14:17	1
Nitrate Nitrite as N (SM Nitrate by calc)	4.0	H	0.050	0.020	mg/L			11/30/24 14:17	1
Total Alkalinity (SM 2320B)	321		5.0	0.79	mg/L			11/27/24 18:25	1
Total Organic Carbon (SM 5310D)	0.95	J	1.0	0.43	mg/L			12/03/24 14:48	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	0.91	J	1.0	0.43	mg/L			12/03/24 18:58	1

Client Sample ID: MW8

Date Collected: 11/25/24 17:30
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-3

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/27/24 20:34	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/24 20:34	1
Toluene	ND		1.0	0.51	ug/L			11/27/24 20:34	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/24 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*11/27/24 20:34*	*1*
4-Bromofluorobenzene (Surr)	*86*		*73 - 120*		*11/27/24 20:34*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*11/27/24 20:34*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/27/24 20:34*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 17:54	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/24 11:40	12/02/24 17:54	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 17:54	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 17:54	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 17:54	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 17:54	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 17:54	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 17:54	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 17:54	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 17:54	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 17:54	1
Fluorene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 17:54	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 17:54	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 17:54	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 17:54	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*86*		*53 - 126*	*11/27/24 11:40*	*12/02/24 17:54*	*1*
Nitrobenzene-d5 (Surr)	*74*		*29 - 129*	*11/27/24 11:40*	*12/02/24 17:54*	*1*
p-Terphenyl-d14 (Surr)	*85*		*33 - 132*	*11/27/24 11:40*	*12/02/24 17:54*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 12:04	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.027**	**J**	0.050	0.019	mg/L		12/02/24 09:12	12/02/24 17:49	1
Manganese	ND		0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 17:49	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.050	0.019	mg/L		12/06/24 08:54	12/06/24 14:54	1
Manganese, Dissolved	ND		0.0030	0.00040	mg/L		12/02/24 09:09	12/02/24 19:15	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW8

Date Collected: 11/25/24 17:30
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-3

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.43**	**B**	0.020	0.0090	mg/L			12/04/24 18:14	1
Nitrite as N (EPA 353.2)	ND	H	0.050	0.020	mg/L			11/30/24 14:18	1
Cyanide, Total (SW846 9012B)	**0.036**		0.010	0.0041	mg/L			12/03/24 10:14	1
Sulfate (ASTM D516-90, 02)	**30.0**	**B**	5.0	1.5	mg/L			12/05/24 09:25	1
Nitrate as N (SM Nitrate by calc)	**4.9**	**H**	0.050	0.020	mg/L			11/30/24 14:18	1
Nitrate Nitrite as N (SM Nitrate by calc)	**4.9**	**H**	0.050	0.020	mg/L			11/30/24 14:18	1
Total Alkalinity (SM 2320B)	**261**		5.0	0.79	mg/L			11/27/24 18:32	1
Total Organic Carbon (SM 5310D)	ND		1.0	0.43	mg/L			12/03/24 15:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	ND		1.0	0.43	mg/L			12/03/24 19:26	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW12RR

Date Collected: 11/25/24 12:40
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-4

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/27/24 20:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/24 20:59	1
Toluene	ND		1.0	0.51	ug/L			11/27/24 20:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/24 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*11/27/24 20:59*	*1*
4-Bromofluorobenzene (Surr)	*83*		*73 - 120*		*11/27/24 20:59*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*11/27/24 20:59*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/27/24 20:59*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		10	0.82	ug/L		11/27/24 11:40	12/10/24 22:51	2
Acenaphthylene	ND		10	0.76	ug/L		11/27/24 11:40	12/10/24 22:51	2
Anthracene	ND		10	0.56	ug/L		11/27/24 11:40	12/10/24 22:51	2
Benzo[a]anthracene	ND		10	0.72	ug/L		11/27/24 11:40	12/10/24 22:51	2
Benzo[a]pyrene	ND		10	0.94	ug/L		11/27/24 11:40	12/10/24 22:51	2
Benzo[b]fluoranthene	ND		10	0.68	ug/L		11/27/24 11:40	12/10/24 22:51	2
Benzo[g,h,i]perylene	ND		10	0.70	ug/L		11/27/24 11:40	12/10/24 22:51	2
Benzo[k]fluoranthene	ND		10	1.5	ug/L		11/27/24 11:40	12/10/24 22:51	2
Chrysene	ND	F2	10	0.66	ug/L		11/27/24 11:40	12/10/24 22:51	2
Dibenz(a,h)anthracene	ND		10	0.84	ug/L		11/27/24 11:40	12/10/24 22:51	2
Fluoranthene	ND		10	0.80	ug/L		11/27/24 11:40	12/10/24 22:51	2
Fluorene	ND		10	0.72	ug/L		11/27/24 11:40	12/10/24 22:51	2
Indeno[1,2,3-cd]pyrene	ND		10	0.94	ug/L		11/27/24 11:40	12/10/24 22:51	2
Naphthalene	ND		10	1.5	ug/L		11/27/24 11:40	12/10/24 22:51	2
Phenanthrene	ND		10	0.88	ug/L		11/27/24 11:40	12/10/24 22:51	2
Pyrene	ND		10	0.68	ug/L		11/27/24 11:40	12/10/24 22:51	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*108*		*53 - 126*	*11/27/24 11:40*	*12/10/24 22:51*	*2*
Nitrobenzene-d5 (Surr)	*92*		*29 - 129*	*11/27/24 11:40*	*12/10/24 22:51*	*2*
p-Terphenyl-d14 (Surr)	*91*		*33 - 132*	*11/27/24 11:40*	*12/10/24 22:51*	*2*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 08:56	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.020**	**J**	0.050	0.019	mg/L		12/02/24 09:12	12/02/24 17:51	1
Manganese	**0.22**	**B**	0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 17:51	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.050	0.019	mg/L		12/02/24 09:09	12/02/24 19:23	1
Manganese, Dissolved	**0.21**	**B**	0.0030	0.00040	mg/L		12/02/24 09:09	12/02/24 19:23	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW12RR

Date Collected: 11/25/24 12:40
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.43**	**B**	0.020	0.0090	mg/L			12/04/24 18:19	1
Nitrite as N (EPA 353.2)	**0.045**	**J H F1**	0.050	0.020	mg/L			11/30/24 14:26	1
Cyanide, Total (SW846 9012B)	**0.017**		0.010	0.0041	mg/L			12/03/24 10:18	1
Sulfate (ASTM D516-90, 02)	**27.7**		5.0	1.5	mg/L			12/05/24 09:32	1
Nitrate as N (SM Nitrate by calc)	**2.4**	**H**	0.050	0.020	mg/L			11/30/24 14:26	1
Nitrate Nitrite as N (SM Nitrate by calc)	**2.4**	**H**	0.050	0.020	mg/L			11/30/24 14:26	1
Total Alkalinity (SM 2320B)	**286**	**F1**	5.0	0.79	mg/L			11/27/24 16:28	1
Total Organic Carbon (SM 5310D)	ND		1.0	0.43	mg/L			12/03/24 12:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	ND		1.0	0.43	mg/L			12/03/24 17:08	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW13

Date Collected: 11/25/24 16:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-5

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/28/24 08:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/24 08:01	1
Toluene	ND		1.0	0.51	ug/L			11/28/24 08:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/28/24 08:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*11/28/24 08:01*	*1*
4-Bromofluorobenzene (Surr)	*79*		*73 - 120*		*11/28/24 08:01*	*1*
Dibromofluoromethane (Surr)	*93*		*75 - 123*		*11/28/24 08:01*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*11/28/24 08:01*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 18:20	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/24 11:40	12/02/24 18:20	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 18:20	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 18:20	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 18:20	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 18:20	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 18:20	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 18:20	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 18:20	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 18:20	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 18:20	1
Fluorene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 18:20	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 18:20	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 18:20	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 18:20	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*81*		*53 - 126*	*11/27/24 11:40*	*12/02/24 18:20*	*1*
Nitrobenzene-d5 (Surr)	*70*		*29 - 129*	*11/27/24 11:40*	*12/02/24 18:20*	*1*
p-Terphenyl-d14 (Surr)	*76*		*33 - 132*	*11/27/24 11:40*	*12/02/24 18:20*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 12:23	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.035**	**J**	0.050	0.019	mg/L		12/02/24 09:12	12/02/24 18:03	1
Manganese	**0.013**	**B**	0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 18:03	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.050	0.019	mg/L		12/02/24 09:09	12/02/24 19:25	1
Manganese, Dissolved	ND		0.0030	0.00040	mg/L		12/02/24 09:09	12/02/24 19:25	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW13

Date Collected: 11/25/24 16:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.22**	**F2 B**	0.020	0.0090	mg/L			12/05/24 12:41	1
Nitrite as N (EPA 353.2)	ND	H	0.050	0.020	mg/L			11/30/24 14:19	1
Cyanide, Total (SW846 9012B)	**0.0077**	**J**	0.010	0.0041	mg/L			12/03/24 10:28	1
Sulfate (ASTM D516-90, 02)	**26.9**	**B**	5.0	1.5	mg/L			12/05/24 09:25	1
Nitrate as N (SM Nitrate by calc)	**5.8**	**H**	0.050	0.020	mg/L			11/30/24 14:19	1
Nitrate Nitrite as N (SM Nitrate by calc)	**5.8**	**H**	0.050	0.020	mg/L			11/30/24 14:19	1
Total Alkalinity (SM 2320B)	**256**		5.0	0.79	mg/L			11/27/24 18:38	1
Total Organic Carbon (SM 5310D)	ND		1.0	0.43	mg/L			12/03/24 15:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	ND		1.0	0.43	mg/L			12/03/24 19:53	1

Client Sample ID: DUP112524

Date Collected: 11/25/24 00:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-6

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/28/24 08:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/24 08:25	1
Toluene	ND		1.0	0.51	ug/L			11/28/24 08:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/28/24 08:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*11/28/24 08:25*	*1*
4-Bromofluorobenzene (Surr)	*80*		*73 - 120*		*11/28/24 08:25*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*11/28/24 08:25*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/28/24 08:25*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 18:46	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/24 11:40	12/02/24 18:46	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 18:46	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 18:46	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 18:46	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 18:46	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 18:46	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 18:46	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 18:46	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 18:46	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 18:46	1
Fluorene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 18:46	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 18:46	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 18:46	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 18:46	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*91*		*53 - 126*	*11/27/24 11:40*	*12/02/24 18:46*	*1*
Nitrobenzene-d5 (Surr)	*77*		*29 - 129*	*11/27/24 11:40*	*12/02/24 18:46*	*1*
p-Terphenyl-d14 (Surr)	*71*		*33 - 132*	*11/27/24 11:40*	*12/02/24 18:46*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 12:42	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.16**		0.050	0.019	mg/L		12/02/24 09:12	12/02/24 18:05	1
Manganese	**0.022**	**B**	0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 18:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	**0.10**		0.050	0.019	mg/L		12/05/24 14:53	12/06/24 14:20	1
Manganese, Dissolved	**0.0085**		0.0030	0.00040	mg/L		12/05/24 14:53	12/06/24 14:20	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: DUP112524

Date Collected: 11/25/24 00:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.58	B	0.020	0.0090	mg/L			12/05/24 12:43	1
Nitrite as N (EPA 353.2)	ND	H H3	0.050	0.020	mg/L			11/30/24 14:19	1
Cyanide, Total (SW846 9012B)	0.27		0.010	0.0041	mg/L			12/03/24 10:31	1
Sulfate (ASTM D516-90, 02)	38.4		5.0	1.5	mg/L			12/05/24 09:29	1
Nitrate as N (SM Nitrate by calc)	3.0	H H3	0.050	0.020	mg/L			11/30/24 14:19	1
Nitrate Nitrite as N (SM Nitrate by calc)	3.0	H H3	0.050	0.020	mg/L			11/30/24 14:19	1
Total Alkalinity (SM 2320B)	315		5.0	0.79	mg/L			11/27/24 18:45	1
Total Organic Carbon (SM 5310D)	0.90	J	1.0	0.43	mg/L			12/03/24 23:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	0.86	J	1.0	0.43	mg/L			12/03/24 20:21	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: Trip Blank

Date Collected: 11/25/24 00:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-7

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/28/24 08:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/24 08:50	1
Toluene	ND		1.0	0.51	ug/L			11/28/24 08:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/28/24 08:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*11/28/24 08:50*	*1*
4-Bromofluorobenzene (Surr)	*75*		*73 - 120*		*11/28/24 08:50*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*11/28/24 08:50*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/28/24 08:50*	*1*

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: FB112524

Date Collected: 11/25/24 00:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-8

Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/28/24 09:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/24 09:14	1
Toluene	ND		1.0	0.51	ug/L			11/28/24 09:14	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/28/24 09:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*11/28/24 09:14*	*1*
4-Bromofluorobenzene (Surr)	*83*		*73 - 120*		*11/28/24 09:14*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*11/28/24 09:14*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*11/28/24 09:14*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 19:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/24 11:40	12/02/24 19:12	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 19:12	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 19:12	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 19:12	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 19:12	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 19:12	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 19:12	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 19:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 19:12	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 19:12	1
Fluorene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 19:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 19:12	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 19:12	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 19:12	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*94*		*53 - 126*	*11/27/24 11:40*	*12/02/24 19:12*	*1*
Nitrobenzene-d5 (Surr)	*80*		*29 - 129*	*11/27/24 11:40*	*12/02/24 19:12*	*1*
p-Terphenyl-d14 (Surr)	*95*		*33 - 132*	*11/27/24 11:40*	*12/02/24 19:12*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 13:01	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		12/02/24 09:12	12/02/24 18:07	1
Manganese	ND		0.0030	0.00040	mg/L		12/02/24 09:12	12/02/24 18:07	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.050	0.019	mg/L		12/02/24 09:09	12/02/24 19:36	1
Manganese, Dissolved	ND		0.0030	0.00040	mg/L		12/02/24 09:09	12/02/24 19:36	1

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: FB112524

Date Collected: 11/25/24 00:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-8

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.26**	**B**	0.020	0.0090	mg/L			12/05/24 12:44	1
Nitrite as N (EPA 353.2)	ND	H H3	0.050	0.020	mg/L			11/30/24 14:20	1
Cyanide, Total (SW846 9012B)	ND		0.010	0.0041	mg/L			12/03/24 10:34	1
Sulfate (ASTM D516-90, 02)	ND		5.0	1.5	mg/L			12/05/24 09:29	1
Nitrate as N (SM Nitrate by calc)	**0.027**	**J H H3**	0.050	0.020	mg/L			11/30/24 14:20	1
Nitrate Nitrite as N (SM Nitrate by calc)	**0.027**	**J H H3**	0.050	0.020	mg/L			11/30/24 14:20	1
Total Alkalinity (SM 2320B)	ND		5.0	0.79	mg/L			11/27/24 18:52	1
Total Organic Carbon (SM 5310D)	ND		1.0	0.43	mg/L			12/04/24 00:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon (SM 5310C)	ND		1.0	0.43	mg/L			12/03/24 20:49	1

Surrogate Summary

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

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)
480-225829-1	MW6	103	87	98	98
480-225829-2	MW7	104	87	100	97
480-225829-3	MW8	99	86	99	97
480-225829-4	MW12RR	102	83	98	94
480-225829-4 MS	MW12RR-MS	94	93	92	102
480-225829-4 MSD	MW12RR-MSD	94	95	93	103
480-225829-5	MW13	96	79	93	94
480-225829-6	DUP112524	98	80	95	95
480-225829-7	Trip Blank	100	75	97	92
480-225829-8	FB112524	100	83	100	92
LCS 480-733821/6	Lab Control Sample	98	96	98	107
LCS 480-733878/6	Lab Control Sample	92	93	91	100
MB 480-733821/8	Method Blank	102	90	97	105
MB 480-733878/8	Method Blank	96	82	90	95

Surrogate Legend

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

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(53-126)	(29-129)	(33-132)
480-225829-1	MW6	93	79	80
480-225829-2	MW7	99	86	88
480-225829-3	MW8	86	74	85
480-225829-4	MW12RR	108	92	91
480-225829-4 MS	MW12RR-MS	105	98	94
480-225829-4 MSD	MW12RR-MSD	99	92	80
480-225829-5	MW13	81	70	76
480-225829-6	DUP112524	91	77	71
480-225829-8	FB112524	94	80	95
LCS 480-733866/2-A	Lab Control Sample	84	81	97
MB 480-733866/1-A	Method Blank	82	71	96

Surrogate Legend

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

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

Lab Sample ID: MB 480-733821/8
Matrix: Water
Analysis Batch: 733821

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/27/24 12:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/27/24 12:42	1
Toluene	ND		1.0	0.51	ug/L			11/27/24 12:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/27/24 12:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*11/27/24 12:42*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*11/27/24 12:42*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*11/27/24 12:42*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*11/27/24 12:42*	*1*

Lab Sample ID: LCS 480-733821/6
Matrix: Water
Analysis Batch: 733821

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	25.0		ug/L		100	77 - 123
Toluene	25.0	23.1		ug/L		92	80 - 122
Xylenes, Total	50.0	52.8		ug/L		106	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 123*
Toluene-d8 (Surr)	*107*		*80 - 120*

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 733821

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		25.0	26.3		ug/L		105	71 - 124
Ethylbenzene	ND		25.0	28.9		ug/L		116	77 - 123
Toluene	ND		25.0	26.9		ug/L		108	80 - 122
Xylenes, Total	ND		50.0	60.1		ug/L		120	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*
Dibromofluoromethane (Surr)	*92*		*75 - 123*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 733821

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		25.0	26.1		ug/L		104	71 - 124	1	13
Ethylbenzene	ND		25.0	28.9		ug/L		116	77 - 123	0	15
Toluene	ND		25.0	26.9		ug/L		108	80 - 122	0	15
Xylenes, Total	ND		50.0	61.0		ug/L		122	76 - 122	1	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Dibromofluoromethane (Surr)	*93*		*75 - 123*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 480-733878/8
Matrix: Water
Analysis Batch: 733878

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/28/24 01:04	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/28/24 01:04	1
Toluene	ND		1.0	0.51	ug/L			11/28/24 01:04	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/28/24 01:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*11/28/24 01:04*	*1*
4-Bromofluorobenzene (Surr)	*82*		*73 - 120*		*11/28/24 01:04*	*1*
Dibromofluoromethane (Surr)	*90*		*75 - 123*		*11/28/24 01:04*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*11/28/24 01:04*	*1*

Lab Sample ID: LCS 480-733878/6
Matrix: Water
Analysis Batch: 733878

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	22.0		ug/L		88	71 - 124
Ethylbenzene	25.0	24.1		ug/L		97	77 - 123
Toluene	25.0	22.7		ug/L		91	80 - 122
Xylenes, Total	50.0	51.0		ug/L		102	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*
Dibromofluoromethane (Surr)	*91*		*75 - 123*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: MB 480-733866/1-A
Matrix: Water
Analysis Batch: 733985

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 733866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		5.0	0.41	ug/L		11/27/24 11:40	12/02/24 14:24	1
Acenaphthylene	ND		5.0	0.38	ug/L		11/27/24 11:40	12/02/24 14:24	1
Anthracene	ND		5.0	0.28	ug/L		11/27/24 11:40	12/02/24 14:24	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 14:24	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 14:24	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 14:24	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		11/27/24 11:40	12/02/24 14:24	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		11/27/24 11:40	12/02/24 14:24	1
Chrysene	ND		5.0	0.33	ug/L		11/27/24 11:40	12/02/24 14:24	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		11/27/24 11:40	12/02/24 14:24	1
Fluoranthene	ND		5.0	0.40	ug/L		11/27/24 11:40	12/02/24 14:24	1
Fluorene	ND		5.0	0.36	ug/L		11/27/24 11:40	12/02/24 14:24	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		11/27/24 11:40	12/02/24 14:24	1
Naphthalene	ND		5.0	0.76	ug/L		11/27/24 11:40	12/02/24 14:24	1
Phenanthrene	ND		5.0	0.44	ug/L		11/27/24 11:40	12/02/24 14:24	1
Pyrene	ND		5.0	0.34	ug/L		11/27/24 11:40	12/02/24 14:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*82*		*53 - 126*	*11/27/24 11:40*	*12/02/24 14:24*	*1*
Nitrobenzene-d5 (Surr)	*71*		*29 - 129*	*11/27/24 11:40*	*12/02/24 14:24*	*1*
p-Terphenyl-d14 (Surr)	*96*		*33 - 132*	*11/27/24 11:40*	*12/02/24 14:24*	*1*

Lab Sample ID: LCS 480-733866/2-A
Matrix: Water
Analysis Batch: 733985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 733866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	32.0	27.3		ug/L		85	60 - 120
Acenaphthylene	32.0	29.1		ug/L		91	63 - 120
Anthracene	32.0	29.5		ug/L		92	67 - 120
Benzo[a]anthracene	32.0	29.6		ug/L		93	70 - 121
Benzo[a]pyrene	32.0	30.1		ug/L		94	60 - 123
Benzo[b]fluoranthene	32.0	28.3		ug/L		89	66 - 126
Benzo[g,h,i]perylene	32.0	33.7		ug/L		105	66 - 150
Benzo[k]fluoranthene	32.0	30.6		ug/L		96	65 - 124
Chrysene	32.0	29.3		ug/L		92	69 - 120
Dibenz(a,h)anthracene	32.0	34.0		ug/L		106	65 - 135
Fluoranthene	32.0	32.1		ug/L		100	69 - 126
Fluorene	32.0	28.8		ug/L		90	66 - 120
Indeno[1,2,3-cd]pyrene	32.0	33.2		ug/L		104	69 - 146
Naphthalene	32.0	24.8		ug/L		77	57 - 120
Phenanthrene	32.0	28.2		ug/L		88	68 - 120
Pyrene	32.0	29.7		ug/L		93	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*84*		*53 - 126*
Nitrobenzene-d5 (Surr)	*81*		*29 - 129*
p-Terphenyl-d14 (Surr)	*97*		*33 - 132*

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

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734816

Client Sample ID: MW12RR-MS
Prep Type: Total/NA
Prep Batch: 733866

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		32.0	35.6		ug/L		111	48 - 120
Acenaphthylene	ND		32.0	36.0		ug/L		113	63 - 120
Anthracene	ND		32.0	37.0		ug/L		116	65 - 122
Benzo[a]anthracene	ND		32.0	37.6		ug/L		117	43 - 124
Benzo[a]pyrene	ND		32.0	34.6		ug/L		108	23 - 125
Benzo[b]fluoranthene	ND		32.0	34.9		ug/L		109	27 - 127
Benzo[g,h,i]perylene	ND		32.0	36.8		ug/L		115	16 - 147
Benzo[k]fluoranthene	ND		32.0	35.8		ug/L		112	20 - 124
Chrysene	ND	F2	32.0	37.8		ug/L		118	44 - 122
Dibenz(a,h)anthracene	ND		32.0	36.1		ug/L		113	16 - 139
Fluoranthene	ND		32.0	39.8		ug/L		124	63 - 129
Fluorene	ND		32.0	37.2		ug/L		116	62 - 120
Indeno[1,2,3-cd]pyrene	ND		32.0	36.1		ug/L		113	16 - 140
Naphthalene	ND		32.0	31.7		ug/L		99	45 - 120
Phenanthrene	ND		32.0	38.1		ug/L		119	65 - 122
Pyrene	ND		32.0	38.4		ug/L		120	58 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*105*		*53 - 126*
Nitrobenzene-d5 (Surr)	*98*		*29 - 129*
p-Terphenyl-d14 (Surr)	*94*		*33 - 132*

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734816

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA
Prep Batch: 733866

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		32.0	33.0		ug/L		103	48 - 120	8	24
Acenaphthylene	ND		32.0	33.6		ug/L		105	63 - 120	7	18
Anthracene	ND		32.0	35.0		ug/L		109	65 - 122	5	15
Benzo[a]anthracene	ND		32.0	33.5		ug/L		105	43 - 124	12	15
Benzo[a]pyrene	ND		32.0	33.0		ug/L		103	23 - 125	5	15
Benzo[b]fluoranthene	ND		32.0	31.7		ug/L		99	27 - 127	10	15
Benzo[g,h,i]perylene	ND		32.0	34.3		ug/L		107	16 - 147	7	15
Benzo[k]fluoranthene	ND		32.0	34.7		ug/L		109	20 - 124	3	22
Chrysene	ND	F2	32.0	31.8	F2	ug/L		99	44 - 122	17	15
Dibenz(a,h)anthracene	ND		32.0	33.4		ug/L		104	16 - 139	8	15
Fluoranthene	ND		32.0	36.3		ug/L		114	63 - 129	9	15
Fluorene	ND		32.0	34.9		ug/L		109	62 - 120	6	15
Indeno[1,2,3-cd]pyrene	ND		32.0	33.9		ug/L		106	16 - 140	6	15
Naphthalene	ND		32.0	30.0		ug/L		94	45 - 120	5	29
Phenanthrene	ND		32.0	34.6		ug/L		108	65 - 122	10	15
Pyrene	ND		32.0	33.9		ug/L		106	58 - 128	12	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*99*		*53 - 126*
Nitrobenzene-d5 (Surr)	*92*		*29 - 129*
p-Terphenyl-d14 (Surr)	*80*		*33 - 132*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 480-733966/4
Matrix: Water
Analysis Batch: 733966

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		4.0	1.0	ug/L			12/02/24 08:08	1

Lab Sample ID: LCS 480-733966/5
Matrix: Water
Analysis Batch: 733966

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methane	19.5	22.9		ug/L		117	85 - 120

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 733966

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methane	ND		19.5	20.1		ug/L		103	38 - 150

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 733966

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methane	ND		19.5	20.9		ug/L		107	38 - 150	4	50

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-733897/1-A
Matrix: Water
Analysis Batch: 734099

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 733897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		12/02/24 09:12	12/02/24 17:17	1

Lab Sample ID: LCS 480-733897/2-A
Matrix: Water
Analysis Batch: 734099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 733897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	5.10	5.46		mg/L		107	80 - 120

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734099

Client Sample ID: MW12RR-MS
Prep Type: Total/NA
Prep Batch: 733897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	0.020	J	5.10	5.43		mg/L		106	75 - 125
Manganese	0.22	B	0.498	0.734		mg/L		103	75 - 125

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

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734099

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA
Prep Batch: 733897

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	0.020	J	5.10	5.43		mg/L		106	75 - 125	0	20
Manganese	0.22	B	0.498	0.752		mg/L		107	75 - 125	2	20

Lab Sample ID: MB 480-733903/1-A
Matrix: Water
Analysis Batch: 734228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 733903

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	0.289		0.050	0.019	mg/L		12/02/24 09:09	12/03/24 20:46	1
Manganese, Dissolved	0.00192	J	0.0030	0.00040	mg/L		12/02/24 09:09	12/03/24 20:46	1

Lab Sample ID: MB 480-734428/1-A
Matrix: Water
Analysis Batch: 734608

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 734428

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.050	0.019	mg/L		12/06/24 08:54	12/06/24 14:47	1
Manganese, Dissolved	ND		0.0030	0.00040	mg/L		12/06/24 08:54	12/06/24 14:47	1

Lab Sample ID: LCS 480-734428/2-A
Matrix: Water
Analysis Batch: 734608

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 734428

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	5.10	5.64		mg/L		111	80 - 120
Manganese, Dissolved	0.498	0.491		mg/L		99	80 - 120

Lab Sample ID: MB 480-734440/1-A
Matrix: Water
Analysis Batch: 734592

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 734440

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron, Dissolved	ND		0.050	0.019	mg/L		12/05/24 14:53	12/06/24 14:16	1
Manganese, Dissolved	ND		0.0030	0.00040	mg/L		12/05/24 14:53	12/06/24 14:16	1

Lab Sample ID: LCS 480-734440/2-A
Matrix: Water
Analysis Batch: 734592

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 734440

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	5.10	5.57		mg/L		109	80 - 120
Manganese, Dissolved	0.498	0.486		mg/L		98	80 - 120

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734103

Client Sample ID: MW12RR-MS
Prep Type: Dissolved
Prep Batch: 733903

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	ND		5.10	5.63		mg/L		110	75 - 125
Manganese, Dissolved	0.21	B	0.498	0.715		mg/L		101	75 - 125

Method: 6010C - Metals (ICP)

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734103

Client Sample ID: MW12RR-MSD
Prep Type: Dissolved
Prep Batch: 733903

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Dissolved	ND		5.10	5.53		mg/L		109	75 - 125	2	20
Manganese, Dissolved	0.21	B	0.498	0.705		mg/L		99	75 - 125	2	20

Lab Sample ID: 480-225829-6 MS
Matrix: Water
Analysis Batch: 734592

Client Sample ID: DUP112524
Prep Type: Dissolved
Prep Batch: 734440

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron, Dissolved	0.10		5.10	5.57		mg/L		107	75 - 125
Manganese, Dissolved	0.0085		0.498	0.482		mg/L		95	75 - 125

Lab Sample ID: 480-225829-6 MSD
Matrix: Water
Analysis Batch: 734592

Client Sample ID: DUP112524
Prep Type: Dissolved
Prep Batch: 734440

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron, Dissolved	0.10		5.10	5.57		mg/L		107	75 - 125	0	20
Manganese, Dissolved	0.0085		0.498	0.479		mg/L		94	75 - 125	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-734461/64
Matrix: Water
Analysis Batch: 734461

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0110	J	0.020	0.0090	mg/L			12/04/24 17:37	1

Lab Sample ID: MB 480-734461/83
Matrix: Water
Analysis Batch: 734461

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0120	J	0.020	0.0090	mg/L			12/04/24 18:17	1

Lab Sample ID: LCS 480-734461/65
Matrix: Water
Analysis Batch: 734461

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.953		mg/L		95	90 - 110

Lab Sample ID: LCS 480-734461/84
Matrix: Water
Analysis Batch: 734461

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.943		mg/L		94	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734461

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.43	B	0.0400	0.200	4	mg/L		-583	90 - 110		

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734461

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.43	B	0.0400	0.192	4	mg/L		-603	90 - 110	4	20

Lab Sample ID: MB 480-734462/65
Matrix: Water
Analysis Batch: 734462

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.0120	J	0.020	0.0090	mg/L			12/05/24 12:07	1

Lab Sample ID: LCS 480-734462/66
Matrix: Water
Analysis Batch: 734462

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	1.00	0.940		mg/L		94	90 - 110		

Lab Sample ID: 480-225829-5 MS
Matrix: Water
Analysis Batch: 734462

Client Sample ID: MW13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia	0.22	F2 B	0.0400	0.234	4	mg/L		43	90 - 110		

Lab Sample ID: 480-225829-5 MSD
Matrix: Water
Analysis Batch: 734462

Client Sample ID: MW13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	0.22	F2 B	0.0400	0.292	4 F2	mg/L		188	90 - 110	22	20

Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 480-733962/26
Matrix: Water
Analysis Batch: 733962

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			11/30/24 14:16	1

Method: 353.2 - Nitrogen, Nitrite (Continued)

Lab Sample ID: MB 480-733962/47
Matrix: Water
Analysis Batch: 733962

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			11/30/24 14:25	1

Lab Sample ID: MB 480-733962/5
Matrix: Water
Analysis Batch: 733962

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.050	0.020	mg/L			11/27/24 21:45	1

Lab Sample ID: LCS 480-733962/27
Matrix: Water
Analysis Batch: 733962

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	1.50	1.42		mg/L		94	90 - 110

Lab Sample ID: LCS 480-733962/48
Matrix: Water
Analysis Batch: 733962

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	1.50	1.47		mg/L		98	90 - 110

Lab Sample ID: LCS 480-733962/6
Matrix: Water
Analysis Batch: 733962

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	1.50	1.64		mg/L		109	90 - 110

Lab Sample ID: 480-225829-2 MS
Matrix: Water
Analysis Batch: 733962

Client Sample ID: MW7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	0.026	J H F1	0.998	0.728	F1	mg/L		70	90 - 110

Lab Sample ID: 480-225829-2 MSD
Matrix: Water
Analysis Batch: 733962

Client Sample ID: MW7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrite as N	0.026	J H F1	0.998	0.750	F1	mg/L		73	90 - 110	3	20

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 733962

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	0.045	J H F1	0.998	0.750	H F1	mg/L		71	90 - 110

Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 733962

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrite as N	0.045	J H F1	0.998	0.747	H F1	mg/L		70	90 - 110	0	20

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

Lab Sample ID: MB 480-734120/47
Matrix: Water
Analysis Batch: 734120

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			12/03/24 09:19	1

Lab Sample ID: MB 480-734120/75
Matrix: Water
Analysis Batch: 734120

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0041	mg/L			12/03/24 10:52	1

Lab Sample ID: HLCS 480-734120/22
Matrix: Water
Analysis Batch: 734120

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

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.400	0.401		mg/L		100	90 - 110

Lab Sample ID: LCS 480-734120/48
Matrix: Water
Analysis Batch: 734120

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.245		mg/L		98	90 - 110

Lab Sample ID: LCS 480-734120/76
Matrix: Water
Analysis Batch: 734120

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.250	0.252		mg/L		101	90 - 110

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734120

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.017		0.100	0.110		mg/L		94	90 - 110

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

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734120

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.017		0.100	0.115		mg/L		99	90 - 110	4	15

Method: D516-90, 02 - Sulfate

Lab Sample ID: MB 480-734415/33
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.51	J	5.0	1.5	mg/L			12/05/24 09:19	1

Lab Sample ID: MB 480-734415/41
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.72	J	5.0	1.5	mg/L			12/05/24 09:24	1

Lab Sample ID: MB 480-734415/49
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.5	mg/L			12/05/24 09:27	1

Lab Sample ID: MB 480-734415/57
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.5	mg/L			12/05/24 09:30	1

Lab Sample ID: MB 480-734415/71
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.5	mg/L			12/05/24 09:35	1

Lab Sample ID: MB 480-734415/79
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.5	mg/L			12/05/24 09:38	1

Method: D516-90, 02 - Sulfate (Continued)

Lab Sample ID: MB 480-734415/86
Matrix: Water
Analysis Batch: 734415

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.5	mg/L			12/05/24 09:40	1

Lab Sample ID: LCS 480-734415/40
Matrix: Water
Analysis Batch: 734415

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	30.20		mg/L		101	90 - 110

Lab Sample ID: LCS 480-734415/48
Matrix: Water
Analysis Batch: 734415

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	30.35		mg/L		101	90 - 110

Lab Sample ID: LCS 480-734415/56
Matrix: Water
Analysis Batch: 734415

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	30.42		mg/L		101	90 - 110

Lab Sample ID: LCS 480-734415/78
Matrix: Water
Analysis Batch: 734415

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	30.48		mg/L		102	90 - 110

Lab Sample ID: LCS 480-734415/85
Matrix: Water
Analysis Batch: 734415

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	30.0	30.52		mg/L		102	90 - 110

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734415

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	27.7		20.0	42.75		mg/L		75	60 - 128

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734415

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	27.7		20.0	41.94		mg/L		71	60 - 128	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-733959/28
Matrix: Water
Analysis Batch: 733959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	0.79	mg/L			11/27/24 19:35	1

Lab Sample ID: MB 480-733959/4
Matrix: Water
Analysis Batch: 733959

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	0.79	mg/L			11/27/24 16:12	1

Lab Sample ID: LCS 480-733959/29
Matrix: Water
Analysis Batch: 733959

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			92.3	89.68		mg/L		97	90 - 110		

Lab Sample ID: LCS 480-733959/5
Matrix: Water
Analysis Batch: 733959

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			92.3	92.08		mg/L		100	90 - 110		

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 733959

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity	286	F1	148	348.1	F1	mg/L		42	60 - 140		

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 733959

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity	286	F1	148	348.7	F1	mg/L		42	60 - 140	0	20

Method: SM 5310C - Organic Carbon, Dissolved (DOC)

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734297

Client Sample ID: MW12RR-MS
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	ND		23.3	24.46		mg/L		105	54 - 131		

Method: SM 5310C - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734297

Client Sample ID: MW12RR-MSD
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	ND		23.3	24.53		mg/L		105	54 - 131	0	20

Method: SM 5310D - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-734296/28
Matrix: Water
Analysis Batch: 734296

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.43	mg/L			12/03/24 22:43	1

Lab Sample ID: MB 480-734296/4
Matrix: Water
Analysis Batch: 734296

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.43	mg/L			12/03/24 11:33	1

Lab Sample ID: LCS 480-734296/29
Matrix: Water
Analysis Batch: 734296

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	60.96		mg/L		102	90 - 110

Lab Sample ID: LCS 480-734296/5
Matrix: Water
Analysis Batch: 734296

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	60.0	61.71		mg/L		103	90 - 110

Lab Sample ID: 480-225829-4 MS
Matrix: Water
Analysis Batch: 734296

Client Sample ID: MW12RR-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon	ND		23.3	25.02		mg/L		108	54 - 131

Lab Sample ID: 480-225829-4 MSD
Matrix: Water
Analysis Batch: 734296

Client Sample ID: MW12RR-MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon	ND		23.3	24.70		mg/L		106	54 - 131	1	20

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Method: SM 5310D - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 480-225829-6 MS
Matrix: Water
Analysis Batch: 734296

Client Sample ID: DUP112524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Organic Carbon	0.90	J	23.3	24.53		mg/L		102	54 - 131		

Lab Sample ID: 480-225829-8 DU
Matrix: Water
Analysis Batch: 734296

Client Sample ID: FB112524
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	ND			ND		mg/L				NC	20

QC Association Summary

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

GC/MS VOA

Analysis Batch: 733821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	8260C	
480-225829-2	MW7	Total/NA	Water	8260C	
480-225829-3	MW8	Total/NA	Water	8260C	
480-225829-4	MW12RR	Total/NA	Water	8260C	
MB 480-733821/8	Method Blank	Total/NA	Water	8260C	
LCS 480-733821/6	Lab Control Sample	Total/NA	Water	8260C	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	8260C	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	8260C	

Analysis Batch: 733878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-5	MW13	Total/NA	Water	8260C	
480-225829-6	DUP112524	Total/NA	Water	8260C	
480-225829-7	Trip Blank	Total/NA	Water	8260C	
480-225829-8	FB112524	Total/NA	Water	8260C	
MB 480-733878/8	Method Blank	Total/NA	Water	8260C	
LCS 480-733878/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 733866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	3510C	
480-225829-2	MW7	Total/NA	Water	3510C	
480-225829-3	MW8	Total/NA	Water	3510C	
480-225829-4	MW12RR	Total/NA	Water	3510C	
480-225829-5	MW13	Total/NA	Water	3510C	
480-225829-6	DUP112524	Total/NA	Water	3510C	
480-225829-8	FB112524	Total/NA	Water	3510C	
MB 480-733866/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-733866/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	3510C	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	3510C	

Analysis Batch: 733985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	8270D	733866
480-225829-2	MW7	Total/NA	Water	8270D	733866
480-225829-3	MW8	Total/NA	Water	8270D	733866
480-225829-5	MW13	Total/NA	Water	8270D	733866
480-225829-6	DUP112524	Total/NA	Water	8270D	733866
480-225829-8	FB112524	Total/NA	Water	8270D	733866
MB 480-733866/1-A	Method Blank	Total/NA	Water	8270D	733866
LCS 480-733866/2-A	Lab Control Sample	Total/NA	Water	8270D	733866

Analysis Batch: 734816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-4	MW12RR	Total/NA	Water	8270D	733866
480-225829-4 MS	MW12RR-MS	Total/NA	Water	8270D	733866
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	8270D	733866

QC Association Summary

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

GC VOA

Analysis Batch: 733966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	RSK-175	
480-225829-2	MW7	Total/NA	Water	RSK-175	
480-225829-3	MW8	Total/NA	Water	RSK-175	
480-225829-4	MW12RR	Total/NA	Water	RSK-175	
480-225829-5	MW13	Total/NA	Water	RSK-175	
480-225829-6	DUP112524	Total/NA	Water	RSK-175	
480-225829-8	FB112524	Total/NA	Water	RSK-175	
MB 480-733966/4	Method Blank	Total/NA	Water	RSK-175	
LCS 480-733966/5	Lab Control Sample	Total/NA	Water	RSK-175	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	RSK-175	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	RSK-175	

Metals

Prep Batch: 733897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	3005A	
480-225829-2	MW7	Total/NA	Water	3005A	
480-225829-3	MW8	Total/NA	Water	3005A	
480-225829-4	MW12RR	Total/NA	Water	3005A	
480-225829-5	MW13	Total/NA	Water	3005A	
480-225829-6	DUP112524	Total/NA	Water	3005A	
480-225829-8	FB112524	Total/NA	Water	3005A	
MB 480-733897/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-733897/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	3005A	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	3005A	

Prep Batch: 733903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Dissolved	Water	3005A	
480-225829-3	MW8	Dissolved	Water	3005A	
480-225829-4	MW12RR	Dissolved	Water	3005A	
480-225829-5	MW13	Dissolved	Water	3005A	
480-225829-8	FB112524	Dissolved	Water	3005A	
MB 480-733903/1-A	Method Blank	Total Recoverable	Water	3005A	
480-225829-4 MS	MW12RR-MS	Dissolved	Water	3005A	
480-225829-4 MSD	MW12RR-MSD	Dissolved	Water	3005A	

Analysis Batch: 734099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	6010C	733897
480-225829-2	MW7	Total/NA	Water	6010C	733897
480-225829-3	MW8	Total/NA	Water	6010C	733897
480-225829-4	MW12RR	Total/NA	Water	6010C	733897
480-225829-5	MW13	Total/NA	Water	6010C	733897
480-225829-6	DUP112524	Total/NA	Water	6010C	733897
480-225829-8	FB112524	Total/NA	Water	6010C	733897
MB 480-733897/1-A	Method Blank	Total/NA	Water	6010C	733897
LCS 480-733897/2-A	Lab Control Sample	Total/NA	Water	6010C	733897
480-225829-4 MS	MW12RR-MS	Total/NA	Water	6010C	733897

Metals (Continued)

Analysis Batch: 734099 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	6010C	733897

Analysis Batch: 734103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Dissolved	Water	6010C	733903
480-225829-3	MW8	Dissolved	Water	6010C	733903
480-225829-4	MW12RR	Dissolved	Water	6010C	733903
480-225829-5	MW13	Dissolved	Water	6010C	733903
480-225829-8	FB112524	Dissolved	Water	6010C	733903
480-225829-4 MS	MW12RR-MS	Dissolved	Water	6010C	733903
480-225829-4 MSD	MW12RR-MSD	Dissolved	Water	6010C	733903

Analysis Batch: 734228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-733903/1-A	Method Blank	Total Recoverable	Water	6010C	733903

Prep Batch: 734428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Dissolved	Water	3005A	
480-225829-2	MW7	Dissolved	Water	3005A	
480-225829-3	MW8	Dissolved	Water	3005A	
MB 480-734428/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-734428/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 734440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-6	DUP112524	Dissolved	Water	3005A	
MB 480-734440/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-734440/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
480-225829-6 MS	DUP112524	Dissolved	Water	3005A	
480-225829-6 MSD	DUP112524	Dissolved	Water	3005A	

Analysis Batch: 734592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-6	DUP112524	Dissolved	Water	6010C	734440
MB 480-734440/1-A	Method Blank	Total Recoverable	Water	6010C	734440
LCS 480-734440/2-A	Lab Control Sample	Total Recoverable	Water	6010C	734440
480-225829-6 MS	DUP112524	Dissolved	Water	6010C	734440
480-225829-6 MSD	DUP112524	Dissolved	Water	6010C	734440

Analysis Batch: 734608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Dissolved	Water	6010C	734428
480-225829-2	MW7	Dissolved	Water	6010C	734428
480-225829-3	MW8	Dissolved	Water	6010C	734428
MB 480-734428/1-A	Method Blank	Total Recoverable	Water	6010C	734428
LCS 480-734428/2-A	Lab Control Sample	Total Recoverable	Water	6010C	734428

General Chemistry

Analysis Batch: 733959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	SM 2320B	
480-225829-2	MW7	Total/NA	Water	SM 2320B	
480-225829-3	MW8	Total/NA	Water	SM 2320B	
480-225829-4	MW12RR	Total/NA	Water	SM 2320B	
480-225829-5	MW13	Total/NA	Water	SM 2320B	
480-225829-6	DUP112524	Total/NA	Water	SM 2320B	
480-225829-8	FB112524	Total/NA	Water	SM 2320B	
MB 480-733959/28	Method Blank	Total/NA	Water	SM 2320B	
MB 480-733959/4	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-733959/29	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-733959/5	Lab Control Sample	Total/NA	Water	SM 2320B	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	SM 2320B	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	SM 2320B	

Analysis Batch: 733962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	353.2	
480-225829-2	MW7	Total/NA	Water	353.2	
480-225829-3	MW8	Total/NA	Water	353.2	
480-225829-4	MW12RR	Total/NA	Water	353.2	
480-225829-5	MW13	Total/NA	Water	353.2	
480-225829-6	DUP112524	Total/NA	Water	353.2	
480-225829-8	FB112524	Total/NA	Water	353.2	
MB 480-733962/26	Method Blank	Total/NA	Water	353.2	
MB 480-733962/47	Method Blank	Total/NA	Water	353.2	
MB 480-733962/5	Method Blank	Total/NA	Water	353.2	
LCS 480-733962/27	Lab Control Sample	Total/NA	Water	353.2	
LCS 480-733962/48	Lab Control Sample	Total/NA	Water	353.2	
LCS 480-733962/6	Lab Control Sample	Total/NA	Water	353.2	
480-225829-2 MS	MW7	Total/NA	Water	353.2	
480-225829-2 MSD	MW7	Total/NA	Water	353.2	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	353.2	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	353.2	

Analysis Batch: 733965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	Nitrate by calc	
480-225829-2	MW7	Total/NA	Water	Nitrate by calc	
480-225829-3	MW8	Total/NA	Water	Nitrate by calc	
480-225829-4	MW12RR	Total/NA	Water	Nitrate by calc	
480-225829-5	MW13	Total/NA	Water	Nitrate by calc	
480-225829-6	DUP112524	Total/NA	Water	Nitrate by calc	
480-225829-8	FB112524	Total/NA	Water	Nitrate by calc	

Analysis Batch: 734120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	9012B	
480-225829-2	MW7	Total/NA	Water	9012B	
480-225829-3	MW8	Total/NA	Water	9012B	
480-225829-4	MW12RR	Total/NA	Water	9012B	
480-225829-5	MW13	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 734120 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-6	DUP112524	Total/NA	Water	9012B	
480-225829-8	FB112524	Total/NA	Water	9012B	
MB 480-734120/47	Method Blank	Total/NA	Water	9012B	
MB 480-734120/75	Method Blank	Total/NA	Water	9012B	
HLCS 480-734120/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-734120/48	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-734120/76	Lab Control Sample	Total/NA	Water	9012B	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	9012B	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	9012B	

Analysis Batch: 734296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	SM 5310D	
480-225829-2	MW7	Total/NA	Water	SM 5310D	
480-225829-3	MW8	Total/NA	Water	SM 5310D	
480-225829-4	MW12RR	Total/NA	Water	SM 5310D	
480-225829-5	MW13	Total/NA	Water	SM 5310D	
480-225829-6	DUP112524	Total/NA	Water	SM 5310D	
480-225829-8	FB112524	Total/NA	Water	SM 5310D	
MB 480-734296/28	Method Blank	Total/NA	Water	SM 5310D	
MB 480-734296/4	Method Blank	Total/NA	Water	SM 5310D	
LCS 480-734296/29	Lab Control Sample	Total/NA	Water	SM 5310D	
LCS 480-734296/5	Lab Control Sample	Total/NA	Water	SM 5310D	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	SM 5310D	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	SM 5310D	
480-225829-6 MS	DUP112524	Total/NA	Water	SM 5310D	
480-225829-8 DU	FB112524	Total/NA	Water	SM 5310D	

Analysis Batch: 734297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Dissolved	Water	SM 5310C	
480-225829-2	MW7	Dissolved	Water	SM 5310C	
480-225829-3	MW8	Dissolved	Water	SM 5310C	
480-225829-4	MW12RR	Dissolved	Water	SM 5310C	
480-225829-5	MW13	Dissolved	Water	SM 5310C	
480-225829-6	DUP112524	Dissolved	Water	SM 5310C	
480-225829-8	FB112524	Dissolved	Water	SM 5310C	
MB 480-734297/4	Method Blank	Total/NA	Water	SM 5310D	
LCS 480-734297/5	Lab Control Sample	Total/NA	Water	SM 5310D	
480-225829-4 MS	MW12RR-MS	Dissolved	Water	SM 5310C	
480-225829-4 MSD	MW12RR-MSD	Dissolved	Water	SM 5310C	

Analysis Batch: 734415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	D516-90, 02	
480-225829-2	MW7	Total/NA	Water	D516-90, 02	
480-225829-3	MW8	Total/NA	Water	D516-90, 02	
480-225829-4	MW12RR	Total/NA	Water	D516-90, 02	
480-225829-5	MW13	Total/NA	Water	D516-90, 02	
480-225829-6	DUP112524	Total/NA	Water	D516-90, 02	
480-225829-8	FB112524	Total/NA	Water	D516-90, 02	

General Chemistry (Continued)

Analysis Batch: 734415 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-734415/33	Method Blank	Total/NA	Water	D516-90, 02	
MB 480-734415/41	Method Blank	Total/NA	Water	D516-90, 02	
MB 480-734415/49	Method Blank	Total/NA	Water	D516-90, 02	
MB 480-734415/57	Method Blank	Total/NA	Water	D516-90, 02	
MB 480-734415/71	Method Blank	Total/NA	Water	D516-90, 02	
MB 480-734415/79	Method Blank	Total/NA	Water	D516-90, 02	
MB 480-734415/86	Method Blank	Total/NA	Water	D516-90, 02	
LCS 480-734415/40	Lab Control Sample	Total/NA	Water	D516-90, 02	
LCS 480-734415/48	Lab Control Sample	Total/NA	Water	D516-90, 02	
LCS 480-734415/56	Lab Control Sample	Total/NA	Water	D516-90, 02	
LCS 480-734415/78	Lab Control Sample	Total/NA	Water	D516-90, 02	
LCS 480-734415/85	Lab Control Sample	Total/NA	Water	D516-90, 02	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	D516-90, 02	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	D516-90, 02	

Analysis Batch: 734461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-1	MW6	Total/NA	Water	350.1	
480-225829-2	MW7	Total/NA	Water	350.1	
480-225829-3	MW8	Total/NA	Water	350.1	
480-225829-4	MW12RR	Total/NA	Water	350.1	
MB 480-734461/64	Method Blank	Total/NA	Water	350.1	
MB 480-734461/83	Method Blank	Total/NA	Water	350.1	
LCS 480-734461/65	Lab Control Sample	Total/NA	Water	350.1	
LCS 480-734461/84	Lab Control Sample	Total/NA	Water	350.1	
480-225829-4 MS	MW12RR-MS	Total/NA	Water	350.1	
480-225829-4 MSD	MW12RR-MSD	Total/NA	Water	350.1	

Analysis Batch: 734462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-225829-5	MW13	Total/NA	Water	350.1	
480-225829-6	DUP112524	Total/NA	Water	350.1	
480-225829-8	FB112524	Total/NA	Water	350.1	
MB 480-734462/65	Method Blank	Total/NA	Water	350.1	
LCS 480-734462/66	Lab Control Sample	Total/NA	Water	350.1	
480-225829-5 MS	MW13	Total/NA	Water	350.1	
480-225829-5 MSD	MW13	Total/NA	Water	350.1	

Lab Chronicle

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW6

Date Collected: 11/25/24 15:40
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733821	AD	EET BUF	11/27/24 19:45
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		1	733985	JMM	EET BUF	12/02/24 17:02
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 11:27
Dissolved	Prep	3005A			733903	TC	EET BUF	12/02/24 09:09
Dissolved	Analysis	6010C		1	734103	BMB	EET BUF	12/02/24 19:11
Dissolved	Prep	3005A			734428	ET	EET BUF	12/06/24 08:54
Dissolved	Analysis	6010C		1	734608	BMB	EET BUF	12/06/24 14:50
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 17:46
Total/NA	Analysis	350.1		1	734461	AM	EET BUF	12/04/24 18:12
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:15
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:08
Total/NA	Analysis	D516-90, 02		5	734415	CG	EET BUF	12/05/24 09:31
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:15
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 17:47
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 18:31
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/03/24 13:53

Client Sample ID: MW7

Date Collected: 11/25/24 13:10
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733821	AD	EET BUF	11/27/24 20:10
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		1	733985	JMM	EET BUF	12/02/24 17:28
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 11:45
Dissolved	Prep	3005A			734428	ET	EET BUF	12/06/24 08:54
Dissolved	Analysis	6010C		1	734608	BMB	EET BUF	12/06/24 14:52
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 17:47
Total/NA	Analysis	350.1		1	734461	AM	EET BUF	12/04/24 18:14
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:17
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:11
Total/NA	Analysis	D516-90, 02		1	734415	CG	EET BUF	12/05/24 09:25
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:17
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 18:25
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 18:58
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/03/24 14:48

Lab Chronicle

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW8

Lab Sample ID: 480-225829-3

Date Collected: 11/25/24 17:30

Matrix: Water

Date Received: 11/27/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733821	AD	EET BUF	11/27/24 20:34
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		1	733985	JMM	EET BUF	12/02/24 17:54
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 12:04
Dissolved	Prep	3005A			733903	TC	EET BUF	12/02/24 09:09
Dissolved	Analysis	6010C		1	734103	BMB	EET BUF	12/02/24 19:15
Dissolved	Prep	3005A			734428	ET	EET BUF	12/06/24 08:54
Dissolved	Analysis	6010C		1	734608	BMB	EET BUF	12/06/24 14:54
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 17:49
Total/NA	Analysis	350.1		1	734461	AM	EET BUF	12/04/24 18:14
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:18
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:14
Total/NA	Analysis	D516-90, 02		1	734415	CG	EET BUF	12/05/24 09:25
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:18
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 18:32
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 19:26
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/03/24 15:15

Client Sample ID: MW12RR

Lab Sample ID: 480-225829-4

Date Collected: 11/25/24 12:40

Matrix: Water

Date Received: 11/27/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733821	AD	EET BUF	11/27/24 20:59
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		2	734816	JMM	EET BUF	12/10/24 22:51
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 08:56
Dissolved	Prep	3005A			733903	TC	EET BUF	12/02/24 09:09
Dissolved	Analysis	6010C		1	734103	BMB	EET BUF	12/02/24 19:23
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 17:51
Total/NA	Analysis	350.1		1	734461	AM	EET BUF	12/04/24 18:19
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:26
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:18
Total/NA	Analysis	D516-90, 02		1	734415	CG	EET BUF	12/05/24 09:32
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:26
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 16:28
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 17:08
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/03/24 12:30

Lab Chronicle

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: MW13

Date Collected: 11/25/24 16:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733878	AD	EET BUF	11/28/24 08:01
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		1	733985	JMM	EET BUF	12/02/24 18:20
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 12:23
Dissolved	Prep	3005A			733903	TC	EET BUF	12/02/24 09:09
Dissolved	Analysis	6010C		1	734103	BMB	EET BUF	12/02/24 19:25
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 18:03
Total/NA	Analysis	350.1		1	734462	AM	EET BUF	12/05/24 12:41
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:19
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:28
Total/NA	Analysis	D516-90, 02		1	734415	CG	EET BUF	12/05/24 09:25
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:19
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 18:38
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 19:53
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/03/24 15:43

Client Sample ID: DUP112524

Date Collected: 11/25/24 00:00
Date Received: 11/27/24 10:00

Lab Sample ID: 480-225829-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733878	AD	EET BUF	11/28/24 08:25
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		1	733985	JMM	EET BUF	12/02/24 18:46
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 12:42
Dissolved	Prep	3005A			734440	EMO	EET BUF	12/05/24 14:53
Dissolved	Analysis	6010C		1	734592	BMB	EET BUF	12/06/24 14:20
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 18:05
Total/NA	Analysis	350.1		1	734462	AM	EET BUF	12/05/24 12:43
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:19
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:31
Total/NA	Analysis	D516-90, 02		1	734415	CG	EET BUF	12/05/24 09:29
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:19
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 18:45
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 20:21
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/03/24 23:39

Lab Chronicle

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-225829-7

Date Collected: 11/25/24 00:00
Matrix: Water
Date Received: 11/27/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733878	AD	EET BUF	11/28/24 08:50

Client Sample ID: FB112524

Lab Sample ID: 480-225829-8

Date Collected: 11/25/24 00:00
Matrix: Water
Date Received: 11/27/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	733878	AD	EET BUF	11/28/24 09:14
Total/NA	Prep	3510C			733866	DP	EET BUF	11/27/24 11:40
Total/NA	Analysis	8270D		1	733985	JMM	EET BUF	12/02/24 19:12
Total/NA	Analysis	RSK-175		1	733966	MAN	EET BUF	12/02/24 13:01
Dissolved	Prep	3005A			733903	TC	EET BUF	12/02/24 09:09
Dissolved	Analysis	6010C		1	734103	BMB	EET BUF	12/02/24 19:36
Total/NA	Prep	3005A			733897	ET	EET BUF	12/02/24 09:12
Total/NA	Analysis	6010C		1	734099	BMB	EET BUF	12/02/24 18:07
Total/NA	Analysis	350.1		1	734462	AM	EET BUF	12/05/24 12:44
Total/NA	Analysis	353.2		1	733962	KB	EET BUF	11/30/24 14:20
Total/NA	Analysis	9012B		1	734120	CLT	EET BUF	12/03/24 10:34
Total/NA	Analysis	D516-90, 02		1	734415	CG	EET BUF	12/05/24 09:29
Total/NA	Analysis	Nitrate by calc		1	733965	KB	EET BUF	11/30/24 14:20
Total/NA	Analysis	SM 2320B		1	733959	KB	EET BUF	11/27/24 18:52
Dissolved	Analysis	SM 5310C		1	734297	AF	EET BUF	12/03/24 20:49
Total/NA	Analysis	SM 5310D		1	734296	AF	EET BUF	12/04/24 00:35

Laboratory References:

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

Accreditation/Certification Summary

Client: GEI Consultants Inc
Job ID: 480-225829-1
Project/Site: Quarterly Groundwater

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

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

Analysis Method	Prep Method	Matrix	Analyte
SM 5310D		Water	Total Organic Carbon

Method Summary

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
RSK-175	Dissolved Gases (GC)	RSK	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
350.1	Nitrogen, Ammonia	EPA	EET BUF
353.2	Nitrogen, Nitrite	EPA	EET BUF
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF
D516-90, 02	Sulfate	ASTM	EET BUF
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	EET BUF
SM 2320B	Alkalinity	SM	EET BUF
SM 5310C	Organic Carbon, Dissolved (DOC)	SM	EET BUF
SM 5310D	Organic Carbon, Total (TOC)	SM	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

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

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

Laboratory References:

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

Sample Summary

Client: GEI Consultants Inc
Project/Site: Quarterly Groundwater

Job ID: 480-225829-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-225829-1	MW6	Water	11/25/24 15:40	11/27/24 10:00
480-225829-2	MW7	Water	11/25/24 13:10	11/27/24 10:00
480-225829-3	MW8	Water	11/25/24 17:30	11/27/24 10:00
480-225829-4	MW12RR	Water	11/25/24 12:40	11/27/24 10:00
480-225829-5	MW13	Water	11/25/24 16:00	11/27/24 10:00
480-225829-6	DUP112524	Water	11/25/24 00:00	11/27/24 10:00
480-225829-7	Trip Blank	Water	11/25/24 00:00	11/27/24 10:00
480-225829-8	FB112524	Water	11/25/24 00:00	11/27/24 10:00

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

Chain of Custody Record

eurofins | Environment Testing

Syracuse #225

Client Information	Sampler: J. DeRosiers / A. Zock	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-200965-41065.1
Client Contact: Ms. Emily Dallas	Phone: (607) 216-8993 / (607) 216-8985	E-Mail: John.Schove@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: GEI Consultants Inc	PWSID:			Job #:
Address: 950 Danby Road Suite 201-F	Due Date Requested:			
City: Ithaca	TAT Requested (days): Standard TAT			
State, Zip: NY, 14850	Compliance Project: Δ Yes Δ No			
Phone: 607-216-8956(Tel)	PO #: 1801687.1.8			
Email: edallas@geiconsultants.com	WO #:			
Project Name: Hornell, NY - MGP Site - Quarterly	Project #: 48027937			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
B - NaOH
N - None
D - HNO3
A - HCL
S - H2SO4

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)	9012B_NP - Cyanide	8270D - PAH	6010C - T. Fe/Mn	6010C - D. Fe/Mn	RSK_175 - Methane	8260C - BTEX	SM5310D - TOC	SM5310_DOC_C - DOC	350.1 - Ammonia	353.2, 353.2_Nitrite, D516, Nitrate_Calc	2320B - Alkalinity	Volatile Organic Compounds	Total Number of containers	Special Instructions/Note:
Preservation Code:							B	N	D	D	A	A	S	S	S	N	N			
MW6	11/25/24	1540		Water			X	X	X	X	X	X	X	X	X	X	X		21	
MW7		1310		Water																
MW8		1730		Water																
MW12RR		1240		Water																
MW12RR-MS		1240		Water		X														
MW12RR-MSD		1240		Water		X														
MW13		1600		Water																
DUP112524		0000		Water																
Trip Blank				Water								X								
				Water																

480-225829 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: Fedex
Relinquished by:	Date/Time: 11/26/24 9:00	Company: GEI	Received by:	Date/Time: 11-27-24 1000	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 6.5 lb #Ice 5.5, 3.6, 4.8

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: GEI Consultants Inc

Job Number: 480-225829-1

Login Number: 225829
List Number: 1
Creator: Stapleton, Kaitlyn

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	5.5, 3.6, 4.8 IR#SC ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	1 sample point not listed, volume recieved.
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	GEI Consultants
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Appendix D

Data Usability Summary Report

Site: Hornell, NY Groundwater Sampling
Laboratory: Eurofins, Amherst, NY
Report Number: 480-225829
Reviewer: Bethany Russell/GEI Consultants
Date: December 18, 2024

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	Level 2 Review
MW6	480-225829-1	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity
MW7	480-225829-2	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity
MW8	480-225829-3	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity
MW12RR	480-225829-4	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity
MW13	480-225829-5	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity
DUP112524	480-225829-6	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity
Trip Blank	480-225829-7	BTEX
FB112524	480-225829-8	BTEX, PAH, Cyanide, total and dissolved Metals, Methane, TOC, DOC, Ammonia, Nitrate and Nitrite, and Alkalinity

Associated QC Samples:
Trip/Field Blanks: Trip Blank, FB112524
Field Duplicate Pair: DUP112524/MW7

The above-listed aqueous samples were collected on November 25, 2024 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, select total and dissolved metals by SW-846 method 6010C, methane by method RSK-175, ammonia by EPA method 350.1, nitrite by EPA method 353.2, sulfate by ASTM method D516-90,02, nitrate by SM method Nitrate by calc, Alkalinity by SM method 2320B, dissolved organic carbon (DOC) by SM method 5310C, and total organic carbon (TOC) by SM method 5310D. The data validation was performed in accordance with 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 *USEPA Region 2 Standard Operating Procedures (SOPs) for the Evaluation of Cyanide for the Contract Laboratory Program* (September 2016), *USEPA Region 2 Standard Operating Procedures (SOPs) for the Evaluation of Metals 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
- Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks

- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Field Duplicate Results
- Laboratory Control Sample (LCS) Results
- Internal Standards
- Serial Dilution 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 nitrite in samples MW6, MW7, MW8, MW12RR, MW13, DUP112524 and FB112524 were rejected (R) due to hold time nonconformance. These results should not be used for decision-making purposes.

All other results appear usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers. Select results were qualified as estimated due to blank contamination, hold time exceedances, MS/MSD recovery exceedances, ICSA standard analysis nonconformance, and 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 criteria were met except where noted below.

Sample	Analysis	Hold Time	Exceedance	Validation Action
MW6	Nitrate as N	48 hours	3 days	Estimate (J) the detect result for nitrate.
	Nitrite as N		8 days	Reject (R) the nondetect result for nitrite.
MW7	Nitrate as N		3 days	Estimate (J) the detect result for nitrate.
	Nitrite as N		8 days	Reject (R) the blank corrected nondetect result for nitrite.
MW8	Nitrate as N		3 days	Estimate (J) the detect result for nitrate.
	Nitrite as N		8 days	Reject (R) the nondetect result for nitrite.
MW12RR	Nitrate as N		3 days	Estimate (J) the detect result for nitrate.
	Nitrite as N		8 days	Reject (R) the blank corrected nondetect result for nitrite.
MW13	Nitrate as N		3 days	Estimate (J) the detect result for nitrate.
	Nitrite as N		8 days	Reject (R) the nondetect result for nitrite.
DUP112524	Nitrate as N		3 days	Estimate (J) the detect result for nitrate.
	Nitrite as N		8 days	Reject (R) the nondetect result for nitrite.
FB112524	Nitrate as N		3 days	Estimate (J) the detect result for nitrate.

	Nitrite as N		8 days	Reject (R) the nondetect result for nitrite.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All initial and continuing calibration criteria were met except where noted below.

Instrument/ Calibration Standard	Compound	Calibration Exceedance	Validation Qualifier
Metals			
ICP metals ICSA standard Analysis	Manganese	Detected >MDL	No validation action required. Interferent levels are not similar to ICSA sample.
Associated samples: MW6, MW7, MW8, MW12RR, MW13, DUP112524, FB112524			

Reporting limit standard Criteria of 70-130 %R not met: estimate (J/UJ) results <10xRL dependent on recovery.
ICSA Detections >MDL; Evaluation required if sample interferent levels are similar to ICSA sample.

Blanks

Contamination was not detected in the laboratory instrument and method blank samples, and field blank and trip blank samples. except where noted below.

Analyte	Blank ID/ Associated Samples	Blank Concentration	2X Action Level	10X Action Level	Validation Actions
Dissolved Iron	MB 480-733903/ MW13, FB112524	0.0289 mg/L	0.0578 mg/L	0.289 mg/L	Report the result for dissolved iron in sample MW13 as nondetect (U) at the RL.
Dissolved Manganese		0.00192 mg/L	0.00384 mg/L	0.0192 mg/L	Estimate (J) the result for dissolved manganese in sample MW13.
Ammonia	MB 480-734461/ MW6, MW7, MW8, MW12RR	0.012 mg/L	0.024 mg/L	0.12 mg/L	Validation action not required as associated samples are greater than the 10X AL.
Ammonia	MB 480-734462/ MW13, DUP112524, FB112524	0.012 mg/L	0.024 mg/L	0.12 mg/L	Validation action not required as associated samples are greater than the 10X AL.
Sulfate	MB 480-734415/ MW6, MW7, MW8, MW12RR, MW13, DUP112524, FB112524	1.72 mg/L	3.44 mg/L	17.2 mg/L	Validation action not required as associated samples are greater than the 10X AL.

Analyte	Blank ID/ Associated Samples	Blank Concentration	2X Action Level	10X Action Level	Validation Actions
Total Iron	CCB 480-734099/74/ MW6, MW7, MW8, MW12RR, MW13, DUP112524, FB112524	0.0291 mg/L	0.0582 mg/L	0.291 mg/L	Estimate (J) the detect results for total iron in samples MW7 and DUP112524. Report the results for total iron in samples MW8, MW12RR, and MW13 as nondetect (U) at the RL.
Dissolved Iron	CCB 480-734592/33/ MW6, MW7, MW8, MW12RR, MW13, DUP112524, FB112524	0.0224 mg/L	0.0448 mg/L	0.224 mg/L	Estimate (J) the detect results for dissolved iron in samples MW7 and DUP112524.
Nitrite	CCB 25/ MW6, MW7, MW8, MW12RR, MW13, DUP112524, FB112524	0.025 mg/L	0.05 mg/L	0.25 mg/L	Report the results for nitrite in samples MW7 and MW12RR as nondetect (U) at the RL.
Sulfate	CCB 30/ MW6, MW7, MW8, MW12RR, MW13, DUP112524, FB112524	1.54 mg/L	3.08 mg/L	15.4 mg/L	Validation action not required as associated samples are greater than the 10X AL.
Ammonia	CCB 74/ / MW6, MW7, MW8, MW12RR	0.014 mg/L	0.028 mg/L	0.14 mg/L	Validation action not required as associated samples are greater than the 10X AL.
Ammonia	CCB 64/ MW13, DUP112524, FB112524	0.013 mg/L	0.026 mg/L	0.13 mg/L	Validation action not required as associated samples are greater than the 10X AL.
Ammonia	FB112524/ MW6, MW7, MW8, MW12RR, MW13, DUP112524	0.26 mg/L	0.52 mg/L	2.6 mg/L	Estimate (J) the detect result for ammonia in sample MW13.
Nitrate and Nitrite as N		0.027 mg/L	0.054 mg/L	0.27 mg/L	Validation action not required as associated samples are greater than the 10X AL.
Nitrate		0.027 mg/L	0.054 mg/L	0.27 mg/L	Validation action not required as associated samples are greater than the 10X AL.

Blank Actions:
If the sample result is < RL (<2xRL for common contaminants); report the result as nondetect (U) at the reporting limit (RL) or reported value.
If the sample result is ≥ RL and <blank contamination detected; 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 criteria were met.

MS/MSD Results

MS/MSD analysis were performed on sample MW12RR for BTEX, PAH, methane, total metals, dissolved metals, ammonia, nitrite, cyanide3, DOC, and TOC sample DUP112524 for dissolved metals and TOC, sample MW13 for ammonia, and sample MW7 for nitrite. All recovery and precision criteria were met for levels less than four times the spike amount except where noted below.

MS/MSD Sample MW12RR					
Analyte	**MS (%)**	**MSD (%)**	**RPD (%)**	**Control Limits**	**Validation Action/Bias**
Nitrite	71	70	-	90-110	Estimate (J) the detect results for nitrite in samples MW7 and MW12RR.
Alkalinity	42	42	-	60-140	Estimate (J/UJ) the detect and nondetect results for alkalinity in samples MW6, MW7, MW8, MW12RR, MW13, DUP112524, and FB112524.
- Criteria met					

MS/MSD Sample MW7					
Analyte	**MS (%)**	**MSD (%)**	**RPD (%)**	**Control Limits**	**Validation Action/Bias**
Nitrite	70	73	-	90-110	Estimate (J) the detect results for nitrite in samples MW7 and MW12RR.
- Criteria met					

Laboratory Duplicate Results

Laboratory duplicate analysis was performed on sample FB112524 for TOC. All precision criteria were met.

Field Duplicate Results

Samples MW7 and DUP112524 were identified as the field duplicate pair. The following table summarizes the RPDs of the detected analytes in the field duplicate pair, which were within the acceptance criteria.

Analyte	**MW7 (mg/L)**	**DUP112524 (mg/L)**	**RPD (%)**
Alkalinity	321	315	1.9
Ammonia	0.86	0.58	38.8, within 2x RL
DOC	0.91 J	0.86 J	Within 2x RL

Analyte	MW7 (mg/L)	DUP112524 (mg/L)	RPD (%)
Dissolved Iron	0.10	0.10	0
Total Iron	0.14	0.16	13.3
Dissolved Manganese	0.0076	0.0085	11.2
Total Manganese	0.014	0.022	44.4, within 2x RL
Nitrate and Nitrite as Nitrogen	4.0	3.0	28.5
Nitrate as Nitrogen	4.0	3.0	28.5
Sulfate	29.2	38.4	27.2
Total Cyanide	0.26	0.27	3.8
TOC	0.95 J	0.90 J	Within 2x RL
NC – Not calculable Criteria: When both results are ≥5x the RL, RPDs must be <30%. When results are < 5x the RL, the absolute difference between the original and field duplicate must be < 2xRL			

LCS Results

All criteria were met.

Internal Standards

All criteria were met.

Quantitation Limits

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL). If detected, these results were qualified as estimated (J) by the laboratory. The direction of the bias is indeterminate for these results.

The following table lists the sample dilutions which were performed to bring results within the instrument calibration range.

Sample	Analysis	Dilution Performed
MW6	Sulfate	The sample was analyzed at a 5-fold dilution due to high analyte level.
MW12RR	PAH	The sample was analyzed at a 2-fold dilution. Reporting limits are elevated in this sample.

Serial Dilution Results

A serial dilution analysis was performed on sample DUP112524 for dissolved metals. Precision criteria were met.

Sample Quantitation and Compound Identification

Compound identification criteria were met. Calculations were spot-checked; no discrepancies were noted.

A comparison of total and dissolved metals results was performed. All sample total metals results exceeded those of the dissolved metals.

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.

JN - 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.