

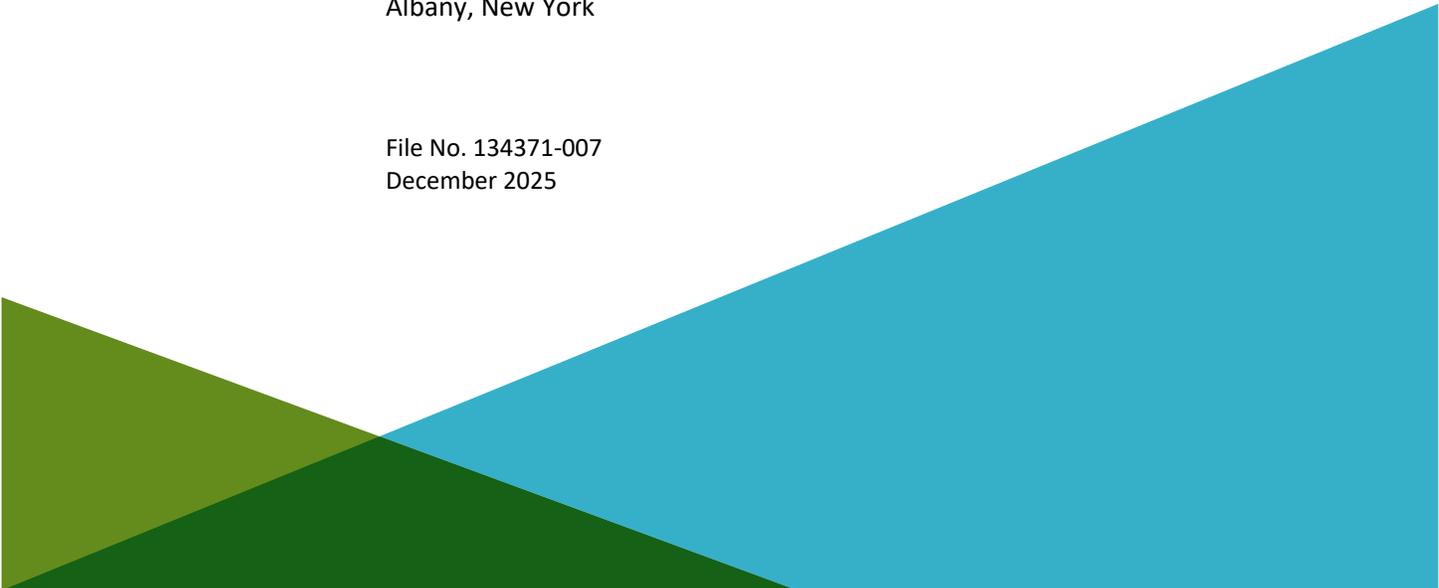
**LEVIAREPORT ON
OCTOBER 2025 GROUNDWATER MONITORING REPORT
OWEGO FORMER MGP SITE
OWEGO, NEW YORK**



by
H & A of New York Engineering and Geology, LLP
Rochester, New York

for
New York State Department of Environmental Conservation
Albany, New York

File No. 134371-007
December 2025





H & A OF NEW YORK ENGINEERING
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December 19, 2025
File No. 134371-007

New York State Department of Environmental Conservation
Division of Environmental Remediation, 12th Floor
625 Broadway
Albany, New York 12223

Attention: Gerald Pratt, P.G.
Section Chief, Remedial Bureau C, Section E

Subject: October 2025 Groundwater Monitoring Report
Owego Former MGP Site
Owego, New York

Dear Mr. Pratt:

On behalf of our client, New York State Electric & Gas Corporation (NYSEG), H & A of New York Engineering and Geology, LLP (Haley & Aldrich of New York) has prepared this Groundwater Monitoring Report to document the field activities associated with groundwater quality sampling and monitoring at NYSEG's Owego Former Manufactured Gas Plant (MGP) Site (the "Site") located in Owego, New York (Figure 1). The work was performed in accordance with the monitoring plan described in the *Work Plan for Groundwater Monitoring at the Owego Former MGP Site* prepared by Ish, Inc. and dated February 2003 (the "Work Plan"). The analyte of interest for this groundwater monitoring program includes MGP-related total cyanide.

The Site monitoring program sampling requirements were modified in a letter from the New York State Department of Environmental Conservation (NYSDEC) dated July 10, 2019, which reduced the groundwater sampling and analysis requirement to total cyanide at two locations (MW-4 and PZ-2) once every two years, and benzene at one location (PZ-8) once every four years.

Field Activities

On 13 October 2025, Haley & Aldrich of New York staff completed static water level measurements and monitoring for the presence of non-aqueous phase liquid (NAPL) at one monitoring well MW-4 and two piezometers PZ-2, and PZ-8 as shown on Figure 2. Haley & Aldrich of New York staff also collected groundwater quality samples from monitoring well MW-4 and piezometer PZ-2. The methods used for groundwater level measurements, NAPL gauging, and groundwater sample collection for this monitoring event were consistent with the methods described in the 2003 Work Plan.

During the October 2025 gauging event, light NAPL (LNAPL) and dense NAPL (DNAPL) were not observed in any of the groundwater monitoring well or piezometers. The measured depths to water in monitoring wells and resulting groundwater elevations are provided in Table I. The groundwater elevations are also shown on Figure 2. The groundwater elevations varied between 793.35 feet at PZ-8 to 792.91 feet at MW-4, indicating an approximately north to south hydraulic gradient which is consistent with previous observations.

After the completion of water level gauging, groundwater samples were collected from MW-4 and PZ-2 using low-flow methodology and were analyzed for total cyanide. Field sampling sheets are included as Appendix A. All purge water was collected, stored in a Department of Transportation (DOT) approved 55-gallon drum, and properly staged at an on-Site location pending future disposal by NYSEG.

In addition to the monitoring well and piezometer groundwater samples, field duplicate, matrix spike, and matrix spike duplicate samples were collected for field quality control purposes. One blind field duplicate sample was collected from MW-4. Dedicated materials were used for each sample location, so an equipment blank was not collected. A trip blank accompanied the samples to the laboratory during the October 2025 sampling event.

Groundwater Sampling Results

The groundwater sampling results for total cyanide are presented in Table II as well as historical benzene results. The groundwater analytical data are presented with a comparison to NYSDEC Class GA groundwater quality standards.

The concentration of total cyanide exceeded the Class GA groundwater quality standard (200 µg/l) in the groundwater samples collected from the on-Site monitoring well MW-4 (770 µg/l) and on-Site piezometer PZ-2 (1,500 µg/l).

These concentrations are consistent or lower than previous monitoring results over the past five years of reporting.

Quality Assurance/Quality Control

Eurofins Laboratories of Amherst, New York (Eurofins) performed the quality analysis/quality control (QA/QC) procedures required for a NYSDEC Analytical Service Protocol (ASP) Category B deliverable package. Data usability evaluations were performed on the analytical data package, and the data were judged suitable for their intended purpose. The analytical results from Eurofins are provided in Appendix B along with the Data Usability Summary Report.

Recommendations

The next monitoring event is scheduled for 2027, with samples to be collected from MW-4 and PZ-2, for total cyanide analysis and PZ-8 for benzene analysis.

December 19, 2025

Page 3

Please do not hesitate to call Doug Allen (603.391.3320) if you have any questions or comments.

Sincerely yours,

H & A OF NEW YORK ENGINEERING AND GEOLOGY, LLP



Santa E. McKenna, P.G.
Assistant Project Manager



Douglas C. Allen, P.G.
Senior Associate

Enclosures:

Table I: Groundwater Elevations and NAPL Measurements

Table II: Summary of Groundwater Analytical Results

Figure 1: Project Locus

Figure 2: Site Plan with Groundwater Elevations

Appendix A: Low-Flow Groundwater Sampling Field Forms

Appendix B: Data Usability Summary Report and Laboratory Report

c: NYSEG; Attn: Levia Terrell

\\haleyaldrich.com\share\CF\Projects\134371\2025 Reporting\2025-1219_HANY_Owego GW Report_F.docx

TABLES

TABLE I
GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS
 NEW YORK STATE ELECTRIC & GAS
 OWEGO FORMER MGP SITE
 OWEGO, NEW YORK

Well ID	Top of Casing Elevation (ft-msl)	Date of Measurement	Depth to Water (ft)	Water Level Elevation (ft-msl)	LNAPL Thickness (ft)	DNAPL Thickness (ft)
MW-4	816.57	4/22/2003	17.41	799.16	NP	NP
		10/22/2003	21.13	795.44	NP	NP
		4/14/2004	19.59	796.98	NP	NP
		10/27/2004	19.92	796.65	NP	NP
		4/5/2005	14.39	802.18	NP	NP
		10/3/2005	23.40	793.17	NP	NP
		2/13/2006	18.97	797.60	NP	NP
		10/2/2006	20.37	796.20	NP	NP
		10/22/2007	23.96	792.61	NP	NP
		10/27/2008	24.34	792.23	NP	NP
		10/26/2009	23.22	793.35	NP	NP
		10/25/2010	22.17	794.40	NP	NP
		10/24/2011	17.52	799.05	NP	NP
		10/15/2012	23.95	792.62	NP	NP
		7/11/2014	21.07	795.50	NP	NP
		4/21/2015	20.08	796.49	NP	NP
		5/26/2016	21.80	794.77	NP	NP
		1/13/2020	20.58	795.99	NP	NP
		8/24/2021	21.16	795.41	NP	NP
		9/19/2023	21.96	794.61	NP	NP
10/13/2025	23.66	792.91	NP	NP		
PZ-2	816.58	4/22/2003	17.58	799.00	NP	NP
		10/22/2003	21.32	795.26	NP	NP
		4/14/2004	19.90	796.68	NP	NP
		10/27/2004	20.13	796.45	NP	NP
		4/5/2005	14.28	802.30	NP	NP
		10/3/2005	23.94	792.64	NP	NP
		2/13/2006	19.35	797.23	NP	NP
		10/2/2006	20.78	795.80	NP	NP
		10/22/2007	24.40	792.18	NP	NP
		10/27/2008	24.67	791.91	NP	NP
		10/26/2009	23.75	792.83	NP	NP
		10/25/2010	22.47	794.11	NP	NP
		10/24/2011	17.78	798.80	NP	NP
		10/15/2012	24.30	792.28	NP	NP
		7/11/2014	21.41	795.17	NP	NP
		4/21/2015	20.57	796.01	NP	NP
		5/26/2016	22.15	794.43	NP	NP
		1/13/2020	19.96	796.62	NP	NP
		8/24/2021	21.60	794.98	NP	NP
		9/19/2023	22.36	794.22	NP	NP
10/13/2025	23.90	792.68	NP	NP		

TABLE I
GROUNDWATER ELEVATIONS AND NAPL MEASUREMENTS
 NEW YORK STATE ELECTRIC & GAS
 OWEGO FORMER MGP SITE
 OWEGO, NEW YORK

Well ID	Top of Casing Elevation (ft-msl)	Date of Measurement	Depth to Water (ft)	Water Level Elevation (ft-msl)	LNAPL Thickness (ft)	DNAPL Thickness (ft)
PZ-8	815.38	4/22/2003	15.83	799.55	NP	NP
		10/22/2003	NM	-	-	-
		4/14/2004	NM	-	-	-
		10/27/2004	NM	-	-	-
		4/5/2005	NM	-	-	-
		10/3/2005	NM	-	-	-
		2/13/2006	17.47	797.91	NP	NP
		10/2/2006	18.67	796.71	NP	NP
		10/22/2007	22.08	793.30	NP	NP
		10/27/2008	20.66	794.72	NP	NP
		10/26/2009	20.83	794.55	NP	NP
		10/25/2010	20.74	794.64	NP	NP
		10/24/2011	15.32	800.06	NP	NP
		10/15/2012	22.44	792.94	NP	NP
		7/11/2014	19.29	796.09	NP	NP
		4/21/2015	16.61	798.77	NP	NP
		5/26/2016	20.14	795.24	NP	NP
		1/13/2020	18.04	797.34	NP	NP
		8/24/2021	17.96	797.42	NP	NP
		9/19/2023	20.30	795.08	NP	NP
10/13/2025	22.03	793.35	NP	NP		

Notes and Abbreviations:

1. Water level measurements collected prior to July 2014 were obtained by Ish Inc.
2. ft-msl: feet above mean sea level
3. NM: Not measured
4. NP: Indicates NAPL not present

TABLE II
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
 NEW YORK STATE ELECTRIC & GAS
 OWEGO FORMER MGP SITE
 OWEGO, NEW YORK

	NYSDEC TOGS 1.1.1 Class GA Water Quality Standards	Chemical Name	Cyanide, Total	Benzene
	Units		200	1
			µg/L	µg/L
	Sample Type	Sample Name		
MW-4				
08/28/1995	N	MW-4-082895	797	< 5
10/16/1995	N	MW-4-101695	996	< 5
01/24/1996	N	MW-4-012496	797	< 5
04/15/1996	N	MW-4-041596	1190	< 5
07/25/1996	N	MW-4-072596	3900	< 5
10/15/1996	N	MW-4-101596	1380	< 5
01/20/1997	N	MW-4-012097	757	< 10
04/29/1997	N	MW-4-042997	4180	< 10
04/29/1998	N	MW-4-042998	1600	-
10/19/1998	N	MW-4-101998	998	-
04/16/1999	N	MW-4-041699	630	-
12/14/1999	N	MW-4-121499	330	-
04/26/2000	N	MW-4-042600	570	-
09/28/2000	N	MW-4-092800	620	-
01/24/2001	N	MW-4-012401	725	-
06/20/2001	N	MW-4-062001	2240	-
04/22/2003	N	MW-4-042203	-	< 0.1
04/23/2003	N	MW-4-042303	2010	-
10/22/2003	N	MW-4-102203	1150	< 0.1
04/14/2004	N	MW-4-041404	1010	< 0.1
10/29/2004	N	MW-4-102904	1690	< 0.1
04/08/2005	N	MW-4-040805	744	< 0.2
10/04/2005	N	MW-4-100405	404	270
02/14/2006	N	MW-4-021406	-	1.7
10/03/2006	N	MW-4-100306	2240	1.3
10/23/2007	N	MW-4-102307	234	< 0.2
10/28/2008	N	MW-4-102808	90.4	< 1
10/26/2009	N	MW-4-102609	145	0.64
10/26/2009	FD	MW-4-102609-DUP	211	0.45
10/26/2010	N	MW-4-102610	180	< 1
10/26/2010	FD	MW-4-102610-DUP	207	< 1
10/25/2011	N	MW-4-102511	2700	< 1
10/25/2011	FD	MW-4-102511-DUP	2900	< 1
03/12/2012	N	MW-4-031212	810	-
03/12/2012	FD	MW-4-031212-DUP	990	-
10/16/2012	N	MW-4-101612	610	0.7
10/16/2012	FD	MW-4-101612-DUP	650	0.47
07/11/2014	N	2293-071114-1355	1700	-
04/21/2015	N	MW04-042115-1135	400	-
05/26/2016	N	MW04-052616-1325	3300 J	-
08/23/2017	N	MW04-082317-1245	5700	-
01/13/2020	N	MW4-011320-1345	2000	-
01/13/2020	FD	4125-011320-0002	1800	-
08/24/2021	N	MW4-082421-1205	2400	-
08/24/2021	FD	4125-082421-0001	2700	-
09/19/2023	N	MW4-091923-1500	1700 J	-
09/19/2023	FD	044440-091923-0001	930 J	-
10/13/2025	N	MW-4-101325-1415	770 J-	-
10/13/2025	FD	020811-101325-001	860 J-	-
PZ-2				
12/15/1999	N	PZ-2-121599	241	-
06/19/2000	N	PZ-2-061900	9800	-
09/28/2000	N	PZ-2-092800	1550	-
01/24/2001	N	PZ-2-012401	1320	-
06/20/2001	N	PZ-2-062001	1540	-
06/20/2001	FD	PZ-2-062001-DUP	1650	-
04/22/2003	N	PZ-2-042203	-	< 0.1
04/23/2003	N	PZ-2-042303	3230	-
10/22/2003	N	PZ-2-102203	1860	-

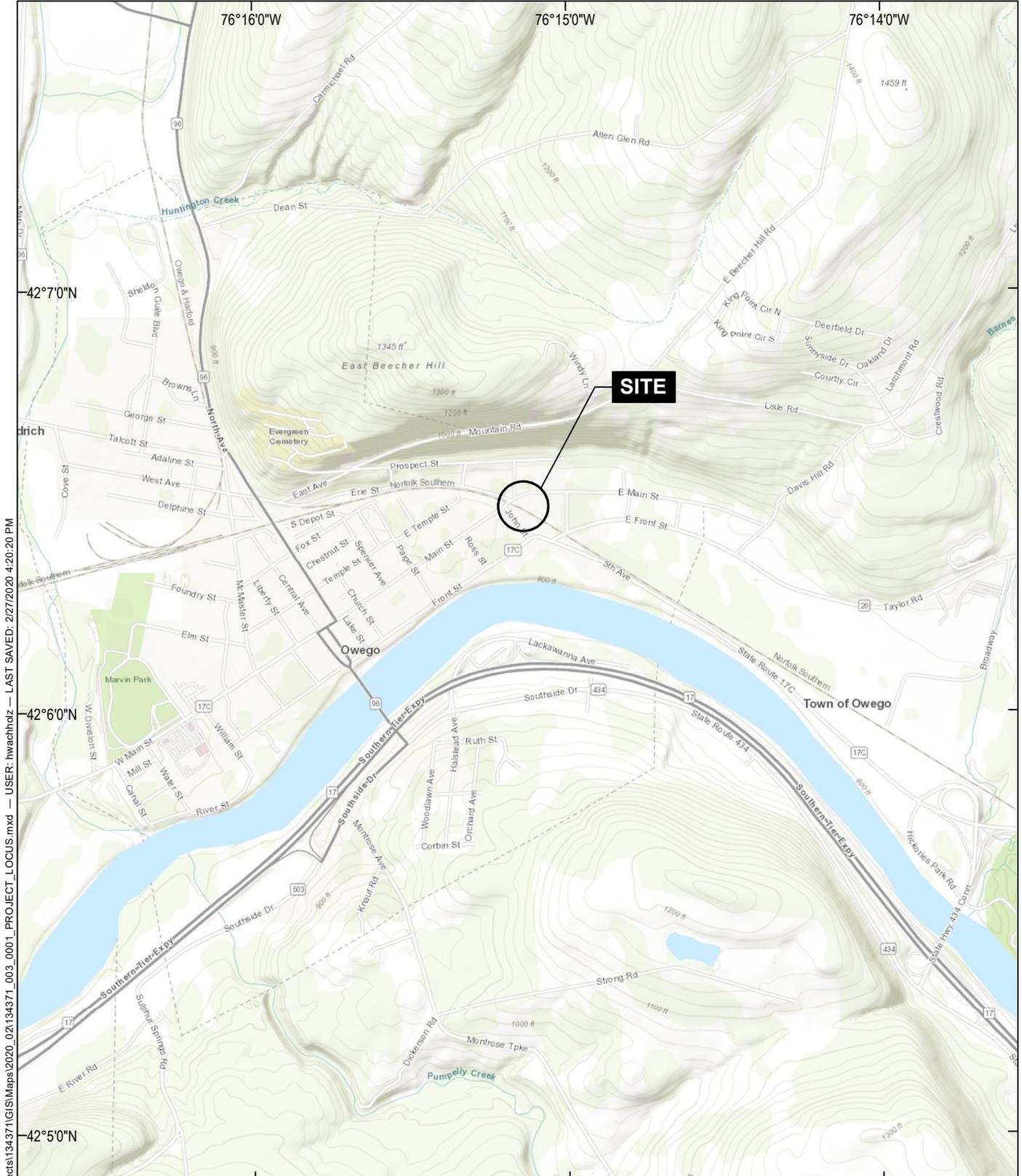
TABLE II
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
 NEW YORK STATE ELECTRIC & GAS
 OWEGO FORMER MGP SITE
 OWEGO, NEW YORK

	NYSDEC TOGS 1.1.1 Class GA Water Quality Standards		Chemical Name	Cyanide, Total	Benzene
	Sample Type	Sample Name	Units	200 µg/L	1 µg/L
PZ-2 (Continued)					
04/14/2004	N	PZ-2-041404		1470	-
08/03/2004	N	PZ-2-080304		804	-
10/29/2004	N	PZ-2-102904		1410	-
04/08/2005	N	PZ-2-040805		1020	-
10/04/2005	N	PZ-2-100405		535	-
10/03/2006	N	PZ-2-100306		989	-
10/23/2007	N	PZ-2-102307		352	-
10/28/2008	N	PZ-2-102808		242	-
10/26/2009	N	PZ-2-102609		< 10	-
10/26/2010	N	PZ-2-102610		262	-
10/25/2011	N	PZ-2-102511		270	-
03/12/2012	N	PZ-2-031212		730	-
10/16/2012	N	PZ-2-101612		460	-
07/11/2014	N	3159-071114-1520		2900 J	-
04/21/2015	N	PZ02-042115-1155		580	-
05/26/2016	N	PZ02-052616-1635		2700 J	-
08/23/2017	N	PZ02-082317-1430		3600	-
01/13/2020	N	PZ2-011320-1810		1900	-
08/24/2021	N	PZ2-082421-1110		2500	-
09/19/2023	N	PZ2-091923-1325		1600 J	-
10/13/2025	N	PZ2-101325-1505		1500 J-	-
PZ-8					
12/15/1999	N	PZ-8-121599		296	-
12/15/1999	FD	PZ-8-121599-DUP		296	-
06/19/2000	N	PZ-8-061900		94	-
09/28/2000	N	PZ-8-092800		300	-
01/24/2001	N	PZ-8-012401		358	-
04/22/2003	N	PZ-8-042203		-	1200
02/14/2006	N	PZ-8-021406		-	580
10/03/2006	N	PZ-8-100306		-	500
10/23/2007	N	PZ-8-102307		-	670
10/28/2008	N	PZ-8-102808		-	590
10/26/2009	N	PZ-8-102609		-	1100
10/26/2010	N	PZ-8-102610		-	770
10/25/2011	N	PZ-8-102511		-	150
10/16/2012	N	PZ-8-101612		-	530
07/11/2014	N	3159-071114-1640		-	810
04/21/2015	N	PZ08-042115-1315		-	140
05/26/2016	N	PZ08-052616-1515		-	65 J
05/26/2016	FD	4527-052616-0001		-	57 J
08/23/2017	N	PZ08-082317-1300		-	380
08/23/2017	FD	1234-082317-0002		-	380
01/13/2020	N	PZ08-011320-1710		-	150
09/19/2023	N	PZ8-091923-1610		-	240 J

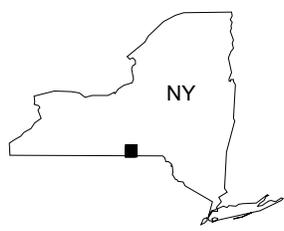
Notes and Abbreviations:

- Results were compared to TOGS Water Quality Standards, Table 1, Class GA (June 1998). Exceedances are shaded.
- <: Result is not detected above the indicated reporting limit.
 J: Estimated result.
 J-: Estimated result, may be biased low.
 R: Rejected during validation.
- Results in **bold** are detected.
- Sample type codes: N - Normal, FD - Field Duplicate.
- Samples collected prior to July 2014 were obtained from Ish Inc.
- µg/L = micrograms per liter

FIGURES



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MAP SOURCE: ESRI
 SITE COORDINATES: 42°06'29"N, 76°15'09"W

**HALEY
 ALDRICH**

OWEGO FORMER MGP SITE
 NEW YORK STATE ELECTRIC & GAS
 OWEGO, NEW YORK

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN= 2000 FT
 DECEMBER 2025

FIGURE 1

DRAFT

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\134371\GIS\Maps\2025_111134371_007_0002_SITE_PLAN_WITH_GW_ELEVATIONS.mxd — USER: jday — LAST SAVED: 10/6/2023 1:06:25 PM



LEGEND

-  MONITORING WELL WITH GROUNDWATER ELEVATIONS INDICATED IN FEET
-  PIEZOMETER

NOTES

1. ALL LOCATIONS ARE APPROXIMATE.
2. GROUNDWATER ELEVATIONS WERE MEASURED ON 13 OCTOBER 2025.
3. AERIAL IMAGERY SOURCE: ESRI



**HALEY
ALDRICH**

OWEGO FORMER MGP SITE
NEW YORK STATE ELECTRIC & GAS
OWEGO, NEW YORK

**SITE PLAN WITH
GROUNDWATER ELEVATIONS**

DECEMBER 2025

FIGURE 2

APPENDIX A
Low-Flow Groundwater Sampling Field Forms

APPENDIX B
Data Usability Summary Report and Laboratory Report

Data Usability Summary Report

Project Name: Owego Former MGP

Project Description: Groundwater Samples

Sample Date(s): October 13, 2025

Analytical Laboratory: Eurofins Buffalo – Amherst, NY

Validation Performed by: Kristina Ilna

Validation Reviewed by: Katherine Miller

Validation Date: November 21, 2025

Haley & Aldrich, Inc. prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group (SDG) listed. This DUSR is organized into the following sections:

- 1. Sample Delivery Group Number 480-233601-1**
 - 2. Explanations**
 - 3. Glossary**
 - 4. Abbreviations**
 - 5. Qualifiers**
- References**

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Inorganic Data Review.

Data reported in this sampling event were reported to the laboratory reporting limit (RL).

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOPs). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQOs) for the project and therefore usable; any exceptions are noted in the following pages.

All results are usable. A subset of data was qualified as estimated due to low MS %Recovery. All results are usable. A summary of qualifications is provided in Section 1.9.

1. Sample Delivery Group Number 480-233601-1

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number 480-233601-1, dated October 24, 2025.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocols. Samples were also received appropriately, identified correctly, and analyzed according to the COC. Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Method	Holding Time
MW4-101325-1415	N	480-233601-1	10/13/25	Water	Cyanide, Total by SW9012B	14 days for liquid unpreserved
PZ2-101325-1505	N	480-233601-2	10/13/25	Water		
020811-101325-0001	FD	480-233601-3	10/13/25	Water		

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

All sample dilutions were reviewed and found to be justified. Only detected analytes were reported from a sample dilution analysis.

1.4 LABORATORY CONTROL SAMPLES

[Refer to Section E 1.3.](#) Compounds associated with the laboratory control samples/laboratory control sample duplicate (LCS/LCSD) analyses associated with client samples exhibited recoveries within the specified limits.

1.5 MATRIX SPIKE SAMPLES

[Refer to Section E 1.4.](#) The sample(s) below were used for matrix spike/matrix spike duplicate (MS/MSD):

Lab Sample Number	Matrix Spike/Matrix Spike Duplicate Sample Client ID	Method(s)
480-233601-1	MW4-101325-1415	SW9012B

The MS/MSD recoveries and the relative percent difference (RPD) between the MS and MSD results were within the specified limits, with the following exceptions:

Sample Type	Method	Parent Sample	Analyte	%R/RPD	Qualifier	Affected Samples
MS	SW9012B	MW4-101325-1415	Cyanide, Total	55%	J-	All samples

1.6 BLANK SAMPLE ANALYSIS

[Refer to Section E 1.5.](#) Method blank samples had no detections, indicating that no contamination from laboratory activities occurred.

1.7 DUPLICATE SAMPLE ANALYSIS

[Refer to Section E 1.6.](#) The laboratory did not analyze any laboratory duplicates as per the method or laboratory SOP.

The following sample(s) were used for field duplicate analysis. RPDs were all below 35 percent for water (or the absolute difference rule was satisfied if detects were less than 5 times the RL).

Primary Sample ID	Duplicate Sample ID	Method(s)
MW4-101325-1415	020811-101325-0001	SW9012B

1.8 PRECISION AND ACCURACY

[Refer to Section E 1.7.](#) Some measurement of analytical accuracy and precision was reported for each method with the site samples.

1.9 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable as no data was rejected. The qualifiers applied to this dataset are summarized in the table below.

Sample ID	Analyte	Reported Result	Validated Result	Reason for Qualifier
MW4-101325-1415	Cyanide	770	770 J-	MS %R low
PZ2-101325-1505		1500	1500 J-	
020811-101325-0001		860	860 J-	

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.3 Laboratory Control Samples
 - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
 - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
 - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post-digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
 - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
- E 1.6 Laboratory Duplicate Sample Analysis
 - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
 - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the relative percent difference (RPD) found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
 - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

3. Glossary

*Analyte names may be abbreviated for simplicity. Please refer to the laboratory report for the full analyte name.

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
 - EB Equipment Blank Sample
 - FB Field Blank Sample
 - FD Field Duplicate Sample
 - N Primary Sample
 - TB Trip Blank Sample
- Units:
 - ng/kg nanograms per kilogram
 - µg/L micrograms per liter
 - µg/m³ micrograms per cubic meter
 - mg/kg milligrams per kilogram
 - mg/L milligrams per liter
 - ppbv/v parts per billion volume/volume
 - pCi/L picocuries per liter
 - pg/g picograms per gram
 - pg/L picograms per liter
- Matrices:
 - AA Ambient Air
 - GS Soil Gas
 - GW/WG Groundwater
 - IA Indoor Air
 - SE Sediment
 - SO Soil
 - SSV Sub-slab Vapor
 - ST Solid Waste
 - WM Stormwater
 - WQ Water Quality control matrix
 - WS Surface Water
 - WW Waste Water
- Table Footnotes:
 - NA Not applicable
 - ND Non-detect
 - NR Not reported
- Common Symbols:
 - % percent
 - < less than
 - ≤ less than or equal to
 - > greater than
 - ≥ greater than or equal to
 - = equal
 - °C degrees Celsius
 - ± plus or minus
 - ~ approximately
 - x times (multiplier)
- Fractions:
 - N Normal (method cannot be filtered)
 - D Dissolved (filtered)
 - T Total (unfiltered)

4. Abbreviations

%D	Percent Difference	MDL	Laboratory Method Detection Limit
%R	Percent Recovery	MS/MSD	Matrix Spike/Matrix Spike Duplicate
%RSD	Percent Relative Standard Deviation	NA	not applicable
%v/v	Percent volume by volume	ND	Non-Detect
2s	2 sigma	NFG	National Functional Guidelines
4,4-DDT	4 4-dichlorodiphenyltrichloroethane	NH ₃	Ammonia
Abs Diff	Absolute Difference	NYSDEC	New York State Department of Environmental Conservation
amu	atomic mass unit		
BPJ	Best Professional Judgement	PAH	Polycyclic Aromatic Hydrocarbon
BS	Blank Spike	PCB	Polychlorinated Biphenyl
CCB	Continuing Calibration Blank	PDS	Post-Digestion Spike
CCV	Continuing Calibration Verification	PEM	Performance Evaluation Mixture
CCVL	Continuing Calibration Verification Low	PFAS	Per- and Polyfluoroalkyl Substances
		PFBA	Perfluorobutanoic Acid
COC	Chain of Custody	PFD	Perfluorodecalin
COM	Combined Isotope Calculation	PFOA	Perfluorooctanoic Acid
Cr (VI)	Hexavalent Chromium	PFOS	Perfluorooctane sulfonate
CRI	Collision Reaction Interface	PFPeA	Perfluoropentanoic Acid
DoD	Department of Defense	QAPP	Quality Assurance Project Plan
DQO	data quality objective	QC	Quality Control
DUSR	Data Usability Summary Report	QSM	Quality Systems Manual
EIS	Extraction Internal Standard	R ²	R-squared value
EMPC	Estimated Maximum Possible Concentration	Ra-226	Radium-226
		Ra-228	Radium-228
FBK	Field Blank Contamination	RESC	Resolution Check Measure
FDP	Field Duplicate	RL	Laboratory Reporting Limit
GC	Gas Chromatograph	RPD	Relative Percent Difference
GC/MS	Gas Chromatography/Mass Spectrometry	RRF	Relative Response Factor
		RT	Retention Time
GPC	Gel Permeation Chromatography	SAP	Sampling Analysis Plan
H ₂	Hydrogen gas	SDG	Sample Delivery Group
HCl	Hydrochloric Acid	SIM	Selected ion monitoring
ICAL	Initial Calibration	SOP	Standard Operating Procedure
ICB	Initial Calibration Blank	SPE	Solid-Phase Extraction
ICP/MS	Inductively Coupled Plasma/Mass Spectrometry	SVOC	Semi-Volatile Organic Compound
		TCLP	Toxicity Characteristic Leaching Procedure
ICV	Initial Calibration Verification		
ICVL	Initial Calibration Verification Low	TIC	Tentatively Identified Compound
IPA	Isopropyl Alcohol	TKN	Total Kjeldahl Nitrogen
LC	Laboratory Control	TPH	Total Petroleum Hydrocarbon
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate	TPU	Total Propagated Uncertainty
		USEPA	U.S. Environmental Protection Agency
MBK	Method Blank Contamination	VOC	Volatile Organic Compound
MDC	Minimum Detectable Concentration	WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:
 - U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or “ND”.
 - B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers:
 - E The compound was quantitated above the calibration range.
 - D The concentration is based on a diluted sample analysis.
- Validation Qualifiers:
 - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 - J+ The result is an estimated quantity, but the result may be biased high.
 - J- The result is an estimated quantity, but the result may be biased low.
 - J/UJ as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.
 - UJ The compound was not detected. The reported sample quantitation limit is approximate.
 - NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.
 - R The sample results were rejected as unusable; the compound may or may not be present in the sample.
 - S Result is suspect. See DUSR for details.

References

1. United States Environmental Protection Agency, 2020a. National Functional Guidelines for Inorganic Superfund Methods Data Review. EPA-542-R-20-006. November 2020.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Douglas C. Allen
Haley & Aldrich, Inc.
3 Bedford Farms Drive
Bedford, New Hampshire 03110

Generated 10/24/2025 3:43:08 PM

JOB DESCRIPTION

Owego Former MGP Site

JOB NUMBER

480-233601-1

Eurofins Buffalo

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



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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Qualifiers

General Chemistry

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

Glossary

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

Case Narrative

Client: Haley & Aldrich, Inc.
Project: Owego Former MGP Site

Job ID: 480-233601-1

Job ID: 480-233601-1

Eurofins Buffalo

Job Narrative 480-233601-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

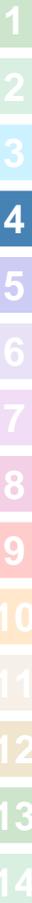
Receipt

The samples were received on 10/15/2025 12:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.5°C.

General Chemistry

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

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Detection Summary

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Client Sample ID: MW4-101325-1415

Lab Sample ID: 480-233601-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.77	F1	0.040	0.016	mg/L	4		9012B	Total/NA

Client Sample ID: PZ2-101325-1505

Lab Sample ID: 480-233601-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	1.5		0.050	0.021	mg/L	5		9012B	Total/NA

Client Sample ID: 020811-101325-0001

Lab Sample ID: 480-233601-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.86		0.040	0.016	mg/L	4		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Client Sample ID: MW4-101325-1415

Lab Sample ID: 480-233601-1

Date Collected: 10/13/25 14:15

Matrix: Water

Date Received: 10/15/25 12:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.77	F1	0.040	0.016	mg/L			10/23/25 18:02	4

Client Sample ID: PZ2-101325-1505

Lab Sample ID: 480-233601-2

Date Collected: 10/13/25 15:05

Matrix: Water

Date Received: 10/15/25 12:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	1.5		0.050	0.021	mg/L			10/23/25 18:12	5

Client Sample ID: 020811-101325-0001

Lab Sample ID: 480-233601-3

Date Collected: 10/13/25 00:00

Matrix: Water

Date Received: 10/15/25 12:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	0.86		0.040	0.016	mg/L			10/23/25 18:10	4

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

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

Lab Sample ID: MB 480-760626/21
Matrix: Water
Analysis Batch: 760626

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0041	mg/L			10/23/25 17:30	1

Lab Sample ID: MB 480-760626/75
Matrix: Water
Analysis Batch: 760626

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0041	mg/L			10/23/25 19:54	1

Lab Sample ID: HLCS 480-760626/22
Matrix: Water
Analysis Batch: 760626

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	0.397		mg/L		99	90 - 110

Lab Sample ID: LCS 480-760626/23
Matrix: Water
Analysis Batch: 760626

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	0.248		mg/L		99	90 - 110

Lab Sample ID: LCS 480-760626/76
Matrix: Water
Analysis Batch: 760626

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	0.232		mg/L		93	90 - 110

Lab Sample ID: LLCS 480-760626/24
Matrix: Water
Analysis Batch: 760626

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.0100	0.00990	J	mg/L		99	50 - 150

Lab Sample ID: 480-233601-1 MS
Matrix: Water
Analysis Batch: 760626

Client Sample ID: MW4-101325-1415
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.77	F1	0.400	0.995	F1	mg/L		55	90 - 110

Lab Sample ID: 480-233601-1 MSD
Matrix: Water
Analysis Batch: 760626

Client Sample ID: MW4-101325-1415
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	0.77	F1	0.400	1.15		mg/L		95	90 - 110	15	15

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QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

General Chemistry

Analysis Batch: 760626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-233601-1	MW4-101325-1415	Total/NA	Water	9012B	
480-233601-2	PZ2-101325-1505	Total/NA	Water	9012B	
480-233601-3	020811-101325-0001	Total/NA	Water	9012B	
MB 480-760626/21	Method Blank	Total/NA	Water	9012B	
MB 480-760626/75	Method Blank	Total/NA	Water	9012B	
HLCS 480-760626/22	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-760626/23	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-760626/76	Lab Control Sample	Total/NA	Water	9012B	
LLCS 480-760626/24	Lab Control Sample	Total/NA	Water	9012B	
480-233601-1 MS	MW4-101325-1415	Total/NA	Water	9012B	
480-233601-1 MSD	MW4-101325-1415	Total/NA	Water	9012B	

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Client Sample ID: MW4-101325-1415

Lab Sample ID: 480-233601-1

Date Collected: 10/13/25 14:15

Matrix: Water

Date Received: 10/15/25 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9012B		4	760626	GW	EET BUF	10/23/25 18:02

Client Sample ID: PZ2-101325-1505

Lab Sample ID: 480-233601-2

Date Collected: 10/13/25 15:05

Matrix: Water

Date Received: 10/15/25 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9012B		5	760626	GW	EET BUF	10/23/25 18:12

Client Sample ID: 020811-101325-0001

Lab Sample ID: 480-233601-3

Date Collected: 10/13/25 00:00

Matrix: Water

Date Received: 10/15/25 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9012B		4	760626	GW	EET BUF	10/23/25 18:10

Laboratory References:

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

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	10-23-25

- 1
- 2
- 3
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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Method	Method Description	Protocol	Laboratory
9012B	Cyanide, Total and/or Amenable	SW846	EET BUF

Protocol References:

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: Haley & Aldrich, Inc.
Project/Site: Owego Former MGP Site

Job ID: 480-233601-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
480-233601-1	MW4-101325-1415	Water	10/13/25 14:15	10/15/25 12:00	New York
480-233601-2	PZ2-101325-1505	Water	10/13/25 15:05	10/15/25 12:00	New York
480-233601-3	020811-101325-0001	Water	10/13/25 00:00	10/15/25 12:00	New York

- 1
- 2
- 3
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- 6
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- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 480-233601-1

Login Number: 233601

List Number: 1

Creator: Stapleton, Kaitlyn

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5 IR#SC ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	