



New York State Office of People with Developmental Disabilities – Gowanda Site – VCA Site No. V-00463-9

4 Industrial Place, Gowanda, NY

GROUNDWATER CHARACTERIZATION REPORT - DECEMBER 2023 (Q4 2023)



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1.0 INTRODUCTION

Bergmann is submitting this groundwater characterization report for the fourth quarter 2023 sampling event, conducted on December 7th and 8th of 2023, on behalf of the Dormitory Authority of the State of New York (DASNY) and the New York State Office of People with Developmental Disabilities (OPWDD) for activities conducted at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, NY. The OPWDD, as the volunteer, entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) to conduct investigations and implement remedial measures in accordance with VCA Site No. V-00463-9, effective August 16, 2001.

1.1 SCOPE OF WORK

This report documents the site-wide groundwater monitoring and laboratory analytical sampling event conducted on December 7th and 8th of 2023. Field measurements, sampling procedures and laboratory analysis were conducted in accordance with the October 2006 Operations, Monitoring and Maintenance (OM&M) Manual and as modified with NYSDEC approval. During this sampling event, groundwater from twenty-one (21) of twenty-one (21) site-related groundwater monitoring wells and all seven (7) groundwater recovery wells were sampled for laboratory analysis.

The previous groundwater sampling event was conducted in September 2023 and included analysis of groundwater samples from the (21) site-related groundwater monitoring wells and the seven (7) groundwater recovery wells.

1.2 SITE BACKGROUND

The Gowanda Day Habilitation site consists of a 5.94-acre parcel located at 4 Industrial Place, Gowanda, New York. The building, previously used by several manufacturing operations, was built in stages between circa 1948 and 1987 and was renovated in 1987-1988. Manufacturing operations occurred at the site between 1956 and 1987. New York State agencies occupied the building since 1982. New York State acquired the parcel in 1989. The building was most recently operated by the OPWDD, which at that time was known as the Western New York Developmental Disabilities Services Office, as a Day Habilitation Center for mental care clients. In April 2001, on-site operations ceased. The nature and extent of contamination at the Gowanda Day Habilitation Center was detailed as part of the 2003 Site Investigation and 2004 Supplemental Site Investigation Reports. Trichloroethene (TCE) was the most commonly detected compound. TCE degradation products cis-1,2-Dichloroethene (Cis-1,2-DCE), trans-1,2-Dichloroethene (Trans-1,2-DCE) and Vinyl Chloride (VC) were also detected. The source of these CVOCs were releases that occurred during the manufacturing operations that occurred at the facility.

Following Interim Remedial Measure (IRM) system installation, the Groundwater Treatment System (GTS) and the Soil Vapor Extraction System (SVES) was operated from 2005 to 2013 recovered 2-5 gallons per minute (gpm) of groundwater. The GTS portion consisted of seven (7) groundwater recovery wells (four dual phase recovery wells and three groundwater-only recovery wells), an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to process recovered groundwater. Recovered groundwater was pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. Air discharge from the air stripper was routed to the SVE for treatment prior to discharge. Groundwater was discharged to the village of Gowanda Sewage Treatment Plant (STP). Quarterly groundwater sampling with Operation and Maintenance of the remediation system has been ongoing since 2002.



In January 2014, the condition of the SVE and GTS was discussed with the NYSDEC representative, and it was agreed that these systems would be deactivated to allow for groundwater level recovery during the preparation of an In-Situ Chemical Oxidation (ISCO) Remedial Action Plan (RAP) for the implementation of an ISCO treatment. Bergmann submitted an ISCO RAP for groundwater treatment to the NYSDEC to address the remaining contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment will remain on-site in the event that re-activation is required in the future. The SVES system was deactivated in 2013, and an ISCO treatment was implemented in May 2015 and a second round of injections in September 2015. An ISCO Report was prepared and submitted under a separate cover.



2.0 GROUNDWATER SAMPLING OVERVIEW AND METHODS

2.1 WELL MAINTENANCE ACTIVITIES

During the December 2023 site visit, all monitoring wells were accessible, and the integrity of the wells was not compromised. Repairs or maintenance to the network of groundwater monitoring wells or recovery wells were not required. All protective casings and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stick-up protective casings. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the December 2023 sampling event.

2.2 GROUNDWATER FIELD MONITORING AND SAMPLING ACTIVITIES

Groundwater measurements and sampling activities were conducted in accordance with the October 2006 OM&M Manual. The depths to groundwater in groundwater monitoring wells are measured quarterly to monitor site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Past operation of the recovery wells was intended to establish hydraulic containment of the impacted groundwater plume beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from the twenty-one (21) site-related groundwater monitoring wells for laboratory analysis on December 7 and December 8, 2023. Depth to groundwater measurements were obtained from twenty-eight (28) wells (including recovery wells).

Groundwater samples were collected from monitoring wells after each well was gauged. Sample parameters including turbidity, temperature, pH, oxygen, and conductivity were determined by analyzing a quantity of groundwater in a cup using a YSI Quatro prior to sampling. Groundwater samples were collected from recovery wells using dedicated bailers, to allow for an accurate representation of groundwater without collecting sediment from within the wells. Sampling was performed based on discussion and direction from a telephone conversation with David Szymanski (NYSDEC project manager at the time) in January 2018 in which no noticeable changes in test results were noticed comparing bailing and slow purge methods. This was first noted in Q3 2018 and is also noted in the approved PRR dated 2019. A single duplicate sample and a field blank sample were collected and submitted for laboratory analysis.

The samples were transported from the project site via a chain-of-custody protocol to ALS Environmental, a NYSELAP certified laboratory located in Rochester, New York. The samples were then tested for Volatile Organic Compounds (VOCs), using EPA Method 8260. Analytical results for each individual monitoring well have been posted in Table 3 for comparative purposes from sampling events completed 2012 – 2023.



3.0 LOCAL GROUNDWATER FLOW CHARACTERIZATION

The Site potentiometric surface pattern and groundwater flow direction was determined for December 2023 using water table elevations measured at each well. Groundwater elevations and well reference elevations were calculated using depth to water values obtained on December 7 and December 8, 2023. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements – December 2023.

The December 2023 potentiometric surface map shows a flow pattern similar to groundwater flow pattern observed historically since 2002. Groundwater at the Site is flowing generally in a northerly direction. Torrance Place is hydraulically down-gradient from the Day Habilitation Center building. It is noted that the residential properties along Torrance Place utilize municipal/public water. The December 2023 water table elevations range from 766.84 feet (ft) above mean sea level (AMSL) at MW-21, to 774.27 ft. AMSL at MW-9. The average table water elevation was 770.17 ft AMSL, which is a decrease from the average groundwater elevation of the previous sampling event in September of 2023 (768.32 ft AMSL).

The site-wide average groundwater elevation increased by approximately 1.85 ft when compared to the previous sampling event from September 2023. This increase in the elevation of groundwater appears to be seasonal.

Measured depth to water at all gauged monitoring and recovery wells is presented in Table 1 and December 2023 Groundwater Elevation Contours are presented on Figure 1 – December 2023 Groundwater Elevation Contour Map.



4.0 LABORATORY ANALYSIS

4.1 LABORATORY ANALYSIS ON GROUNDWATER SAMPLES

Laboratory analysis was completed on the groundwater samples from twenty-one (21) monitoring wells and seven (7) recovery wells collected December 7 and December 8, 2023. Samples were analyzed for VOCs via EPA Method 8260. Analysis was performed in accordance with the October 2006 OM&M Manual. The following chlorinated VOCs (CVOCS) were analyzed for:

- Trichloroethene (TCE)
- 1,1,1 Trichloroethane (TCA)
- Cis-1,2-Dichloroethene (Cis-DCE)
- Trans-1,2-Dichloroethene (Trans-1,2-DCE)
- Vinyl Chloride (VC)

CVOCS values, as present throughout this report, in the text, charts, and Tables 2, 3, and 4, are the sum of the detected concentration of TCE, Cis-DCE, TRANS-1,2-DCE, VC, and TCA. Sample results for monitoring well MW-11, recovery well DR-1, and MW-X initially were detected above laboratory instrument range, resulting in estimated values. Secondary analysis was then performed on dilutions of these samples for more accurate results. The resulting values from this secondary analysis were used in the narrative of this report.

4.2 MONITORING WELL GROUNDWATER ANALYSIS SUMMARY

The December 2023 analytical results indicate detection of three (3) chlorinated VOCs (CVOCS) in monitoring well samples: TCE, Cis-DCE, Trans-1,2-DCE, and VC. CVOCS were detected in groundwater samples from nine (9) of the twenty-one (21) monitoring wells sampled. Analytical results are summarized in Table 2 – December 2023 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical report is provided in Appendix A – Laboratory Analytical Results Report December 2023 Sampling Event. Table 3 – Historic Groundwater Analysis Results Summary includes the historical CVOCS concentrations at each well since the groundwater monitoring of the wells began in 2002.

VOCs were not detected in groundwater from twelve (12) of the sampled monitoring wells.

Groundwater samples from nine (9) monitoring wells had detectable CVOCS at concentrations above applicable Class GA Standards. The monitoring well with the highest CVOCS were detected at monitoring wells MW-1 (679.00 parts per billion (ppb)), which is in the area of historically greatest impacted groundwater.

Concentrations in three (3) of the twenty-one (21) monitoring well groundwater samples increased when compared to the September 2023 sampling event while concentrations in eight (8) of the twenty-one (21) monitoring well groundwater samples decreased. The concentrations of CVOCS in ten (10) monitoring wells remain unchanged. The current sampling analytical results indicate an average site-wide decrease in CVOCS of approximately 91.81% since the activation of the GTS in September 2005.

The area of highest concentration of CVOCS groundwater is in the area centered between monitoring wells MW-1 and MW-11, which has historically concentrations of CVOCS have been detected and is inferred as the source area of impacted groundwater.

In the source area of the plume (MW-1, MW-6, MW-7, MW-11, MW-12, MW-14, MW-15, and MW-17) the analytical results show a contaminant reduction in CVOCS concentrations by an average of approximately 82.59% since monitoring of these wells began in 2002.

- The total CVOCS concentration at monitoring well MW-1 for the December 2023 sampling event was 679 parts per billion (ppb), an increase from the September 2023 value of 660 ppb.



- The total CVOOC concentration at MW-11 for the December 2023 sampling event is 565 ppb, an increase from the September 2023 value of 220 ppb.
- The total CVOOC concentration at MW-12 for the December 2023 sampling event is 58 ppb, a decrease from the September 2023 value of 60 ppb. MW-12 is in close proximity to the center of the building.
- The CVOOC were not detected at monitoring well MW-13 for the December 2023 sampling event nor in the September 2023 sampling event.
- The total CVOOC concentration at MW-14 for the December 2023 sampling event is 25.4 ppb, a decrease from the September 2023 value of 30 ppb.
- The CVOOC were not detected at MW-15 in December 2023 sampling, a decrease from the September 2023 sampling event, which was 5.90 ppb.

Six (6) groundwater monitoring wells are located along the subject property's north perimeter, down-gradient from the area of impacted groundwater (MW-5, MW-6, MW-7, MW-16, MW-17, and MW-21). The current analytical data exhibits an overall decrease in targeted CVOOCs at the sampled monitoring wells along the north perimeter, compared to the September 2023 sampling event.

Laboratory analytical reports are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – December 2023 Distribution of Groundwater Analytical Results: Monitoring Wells.

4.3 SENTRY WELL GROUNDWATER ANALYSIS SUMMARY

Sentry groundwater monitoring wells monitor a separate occurrence of contaminated groundwater at the Gowanda Electronics Site (NYSDEC Site 905025), immediately east of Industrial Place and east of the Day Habilitation Center property. The eastern sentry wells sampled for this event were MW-19R and MW-4. The current results indicate non-detection for MW-19R and non-detection for MW-4. Results for MW-20, a well situated on the eastern side of the site north of MW-4 and south of MW-19R, were also non-detect.

The Gowanda Electronics impacted groundwater plume may be migrating to an area near Industrial Place and has intermittently impacted MW-19R. The Gowanda Electronics impacted groundwater plume does not appear to extend to the Day Habilitation Center property, based on consistent non-detect values at the eastern sentry wells. Conversely, impacted groundwater from the Day Habilitation Center does not appear to extend off-site to the east toward Industrial Place. A ISCO injection application was implemented for the Gowanda Electronics site in June 2014.

Laboratory analytical results are included in Appendix A. Sentry well locations and analytical results are shown on Figure 2.

4.4 RECOVERY WELL GROUNDWATER ANALYSIS SUMMARY

During the December 2023 sampling event, all of the seven (7) recovery wells were sampled. The recovery wells were active during GTS system operation from 2005 to 2014. The recovery wells have not been active since 2013.

The December 2023 analytical results indicate detection of chlorinated VOCs in all seven (7) recovery well samples that include: TCE, and Cis-DCE. Relative percent decrease in CVOOCs for all monitoring wells and recovery wells are shown on Table 4 – Percent Reductions in Total Groundwater CVOOCs.

- The total CVOOC concentration at DR-1 for the December 2023 sampling event is 786 ppb, an increase from the September 2023 value of 101 ppb.
- The total CVOOC concentration at DR-2 for the December 2023 sampling event is 121ppb, an increase from the May 2023 value of 110 ppb.



- The total CVOC concentration at DR-3 for the December 2023 sampling event is 40 ppb, a decrease from the May 2023 value of 70 ppb.
- The total CVOC concentration at DR-4 for the December 2023 sampling event is 25.5 ppb, an increase from the September 2023 value of 25.2 ppb.
- The total CVOC concentration at G-1 for the December 2023 sampling event is 48 ppb, a decrease from the September 2023 value of 49 ppb.
- The total CVOC concentration at G-2 for the December 2023 sampling event is 33 ppb, a decrease from the May 2023 value of 50 ppb.
- The total CVOC concentration at G-3 for the December 2023 sampling event is 6.90 ppb, a decrease from the May 2023 value of 156 ppb.

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – December 2023 Distribution of Groundwater Analytical Results: Recovery Wells.

4.5 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLES

An equipment blank was collected. The analytical results for this equipment blank were non-detect. A trip blank was supplied by the laboratory for the December 2023 sampling event and was analyzed and was also non-detect.

A field duplicate (labeled as MW-X) was taken from MW-1. The results of this field duplicate were generally consistent with the results of the sample labeled MW-1 as shown in Tables 2 and 3.

Laboratory analytical results are included in Appendix A.



5.0 FUTURE GROUNDWATER MONITORING AND ANALYSIS ACTIVITIES

The next site-wide groundwater sampling and laboratory analysis event is scheduled for Q1 2024. Future groundwater sampling events will be conducted to monitor groundwater conditions to evaluate seasonal changes in water table elevations.



APPENDICES



TABLES

Table 1 Groundwater Elevations and Field Measurements December 2023

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

	Monitoring Wells									
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
Casing Elevation*	778.23	778.08	778.38	778.43	778.61	781.10	780.94	781.33	782.61	780.02
Depth to Groundwater (btoc)	5.52	4.80	5.25	6.53	10.32	12.95	13.05	8.90	8.34	6.05
Groundwater Elevation	772.71	773.28	773.13	771.90	768.29	768.15	767.89	772.43	774.27	773.97
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	16.02	17.15	16.30	15.78	13.95	22.88	21.80	17.65	20.96	19.44
Bottom of Well Elevation	762.21	760.93	762.08	762.65	764.66	758.22	759.14	763.68	761.65	760.58
Thickness of Water Column	10.50	12.35	11.05	9.25	3.63	9.93	8.75	8.75	12.62	13.39
Minimum Purge Volume (gal)	1.71	2.01	1.80	1.51	0.59	1.62	1.4	1.43	2.06	2.2
3 Volumes	5.13	6.04	5.40	4.523	1.78	4.86	4.28	4.28	6.17	6.55
Actual volume purged	5.25	6.25	5.50	4.75	2.00	5.00	4.50	4.50	6.25	6.75
Comments	Flush = -0.29'	Flush = -0.30'	Flush = -0.23'	Flush = -0.34'	Flush = -0.24'	Stickup=2.17'	Stickup=2.17'	Stickup=2.84'	Stickup=2.05'	Stickup=2.56'

	Monitoring Wells										
	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19R	MW-20	MW-21
Casing Elevation	778.58	778.50	778.39	778.43	778.38	780.43	779.85	776.39	774.2	778.04	774.76
Depth to Groundwater (btoc)	5.70	6.15	6.45	9.90	10.20	12.75	12.80	8.85	7.31	8.60	7.92
Groundwater Elevation	772.88	772.35	771.94	768.53	768.18	767.68	767.05	767.54	766.9	769.44	766.84
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	15.48	17.38	17.40	18.15	19.80	23.26	25.18	25.0	17.67	14.75	15.82
Bottom of Well Elevation	763.10	761.12	760.99	760.28	758.58	757.17	754.67	751.39	756.53	763.29	758.94
Thickness of Water Column	9.78	11.23	10.95	8.25	9.60	10.51	12.38	16.15	10.36	6.15	7.90
Minimum Purge Volume (gal)	1.59	1.83	1.78	1.34	1.56	1.7	2.02	2.63	1.7	1.0	1.3
3 Volumes	4.78	5.49	5.35	4.03	4.69	5.14	6.05	7.90	5.07	3.01	3.86
Actual volume purged	5.00	5.50	5.50	4.25	4.75	5.25	6.25	8.00	5.25	3.25	4.00
Comments	Flush = -0.23'	Flush = -0.35'	Flush = -0.48'	Flush = -0.39'	Flush = -0.38	Stickup=2.26'	Stickup=1.18'	Flush = -0.26'	Flush = 0.36'	Flush = -0.43'	Flush = -0.71'

	Recovery Wells						
	DR-1	DR-2	DR-3	DR-4	G-1	G-2	G-3
Casing Elevation	779.66	779.93	779.78	779.64	779.83	779.72	779.42
Depth to Groundwater (btoc)	6.70	6.50	11.30	11.25	11.47	11.50	9.89
Groundwater Elevation	772.96	773.43	768.48	768.39	768.36	768.22	769.53
Well Diameter	4"	4"	4"	4"	4"	4"	4"
Product Thickness	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	18.06	18.06	20.45	19.69	22.98	20.72	18.15
Bottom of Well Elevation	761.6	761.87	759.33	759.95	756.85	759	761.27
Thickness of Water Column	11.36	11.56	9.15	8.44	11.51	9.22	8.26
Minimum Purge Volume (gal)	7.42	7.55	5.97	5.51	7.52	6.02	5.39
3 Volumes	22.254	22.65	17.92	16.53	22.55	18.062	16.18
Actual volume purged	22.50	22.75	18.0	16.75	22.75	18.25	16.25
Comments	Stickup=0.85'	Stickup=1.06'	Stickup=0.95'	Stickup=0.84'	Stickup=1.03'	Stickup=0.86'	Vaulted well

NOTES

btoc = Below top of casing (inner riser) All measurements are in feet, referenced to Mean Sea Level
 NS = Not Sampled
 ND = No floating product encountered
 Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well. 0.653 gallon per foot in a 4" diameter well.
 Monitoring well MW-19 was removed and the area restored on July 23, 2003 immediately after the well was developed, purged of 3 volumes and sampled.
 The borehole for MW-19 was backfilled with a cement-bentonite grout after the PVC screening and casing was successfully removed.
 Wells MW-19R, MW-20 and MW-21 were installed in October 2004.

Table 2 December 2023 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-1

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		400.00	580.00	5.0
CIS		260.00	99.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		660.00	679.00	

Monitoring Well MW-4

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-2

Sample Date: 12/07/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-5

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-3

Sample Date: 12/07/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-6

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		34.00	35.00	5.0
TRANS		ND	ND	5.0
VC		50.00	52.00	2.0
TCA		ND	ND	5.0
Total VOCs		84.00	87.00	

ND = Non-detect

Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as parts per billion (ppb).

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2023 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-7
 Sampling Events

Sample Date: 12/08/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		44.00	6.10	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		44.00	6.10	

Monitoring Well MW-10
 Sampling Events

Sample Date: 12/08/23

Analyte	in ppb	May 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-8
 Sampling Events

Sample Date: 12/08/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-11
 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		140.00	350.00	5.0
CIS		80.00	200.00	5.0
TRANS		ND	15.00	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		220.00	565.00	

Monitoring Well MW-9
 Sampling Events

Sample Date: 12/08/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-12
 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		13.00	22.00	5.0
CIS		47.00	36.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		60.00	58.00	

ND = Non-detect

Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as parts per billion (ppb).

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2023 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Monitoring Well MW-13

Sample Date: 12/07/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-14

Sample Date: 12/07/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		13.00	18.00	5.0
CIS		17.00	7.40	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		30.00	25.40	

Monitoring Well MW-15

Sample Date: 12/07/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		5.90	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		5.90	ND	

Monitoring Well MW-16

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		14.00	11.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		14.00	11.00	

Monitoring Well MW-17

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		8.30	6.20	5.0
CIS		210.00	54.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		218.30	60.20	

Monitoring Well MW-18

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		26.00	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		26.00	ND	

ND = Non-detect

Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as parts per billion (ppb).

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2023 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-19R

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-20

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

Monitoring Well MW-21

Sample Date: 12/08/23

Sampling Events

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		23.00	16.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		23.00	16.00	

ND = Non-detect

Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as parts per billion (ppb).

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2023 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Recovery Well DR-1 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		86.00	730.00	5.0
CIS		15.00	56.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		101.00	786.00	

Recovery Well DR-4 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		17.00	18.00	5.0
CIS		8.20	7.50	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		25.20	25.50	

Recovery Well DR-2 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		15.00	22.00	5.0
CIS		95.00	99.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		110.00	121.00	

Recovery Well G-1 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		49.00	48.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		49.00	48.00	

Recovery Well DR-3 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		23.00	28.00	5.0
CIS		47.00	12.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		70.00	40.00	

Recovery Well G-2 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		50.00	33.00	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		50.00	33.00	

ND = Non-detect

Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as parts per billion (ppb).

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2023 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Recovery Well G-3
 Sampling Events

Sample Date: 12/07/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		16.00	6.90	5.0
CIS		140.00	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		156.00	6.90	

Duplicate Blank (MW-1)
 Sampling Events

Sample Date: 12/08/23

Analyte	in ppb	Dec 2023	NYS Guidance Value
TCE		570.00	5.0
CIS		100.00	5.0
TRANS		ND	5.0
VC		ND	2.0
TCA		ND	5.0
Total VOCs		670.00	

Equipment Blank
 Sampling Events

Sample Date: 12/08/23

Analyte	in ppb	Sep 2023	Dec 2023	NYS Guidance Value
TCE		ND	ND	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	ND	

ND = Non-detect
 NS = Not Sampled. No analysis performed during this sampling event.
 Results expressed as parts per billion (ppb).
 Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 3 Historic Groundwater Analysis Results Summary
 Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well Number	MONITORING WELLS																																														
	Total VOCs Dec 2023	Total VOCs Sep 2023	Total VOCs May 2023	Total VOCs Mar 2023	Total VOCs Dec 2022	Total VOCs Sep 2022	Total VOCs Jun 2022	Total VOCs Mar 2022	Total VOCs Nov 2021	Total VOCs Sep 2021	Total VOCs Mar 2021	Total VOCs Nov 2020	Total VOCs Sep 2020	Total VOCs Jun 2020	Total VOCs Feb 2020	Total VOCs Oct 2019	Total VOCs Aug 2019	Total VOCs Jun 2019	Total VOCs Nov 2018	Total VOCs Aug 2018	Total VOCs May 2018	Total VOCs Apr 2018	Total VOCs Nov 2017	Total VOCs Aug 2017	Total VOCs Jun 2016	Total VOCs Sep 2016	Total VOCs Jun 2016	Total VOCs Nov 2015	Total VOCs Aug 2015	Total VOCs Jun 2015	Total VOCs Mar 2015	Total VOCs Sep 2014	Total VOCs Jun 2014	Total VOCs Mar 2014	Total VOCs Dec 2013	Total VOCs Jul 2013	Total VOCs Apr 2013	Total VOCs Dec 2012	Total VOCs Jun 2012	Total VOCs Mar 2012							
MW-1	679.00	660.00	800.00	449.00	869.60	1,002.30	529.40	382.59	880.46	404.62	928.90	344.70	1,020.00	991.80	993.50	1,039.00	698.00	1,081.00	1,080.00	1,130.00	1,110.00	374.00	1,210.00	1,467.00	838.00	580.00	1,530.00	1,470.00	350.00	430.00	300.00	990.00	990.00	1,740.00	830.00	910.00	1,440.00	528.00	889.00								

Recovery Well Number	RECOVERY WELLS																																																
	Total VOCs Dec 2023	Total VOCs Sep 2023	Total VOCs May 2023	Total VOCs Mar 2023	Total VOCs Dec 2022	Total VOCs Sep 2022	Total VOCs Jun 2022	Total VOCs Mar 2022	Total VOCs Nov 2021	Total VOCs Sep 2021	Total VOCs Mar 2021	Total VOCs Nov 2020	Total VOCs Sep 2020	Total VOCs Jun 2020	Total VOCs Feb 2020	Total VOCs Oct 2019	Total VOCs Aug 2019	Total VOCs Jun 2019	Total VOCs Nov 2018	Total VOCs Aug 2018	Total VOCs May 2018	Total VOCs Apr 2018	Total VOCs Nov 2017	Total VOCs Aug 2017	Total VOCs Jun 2016	Total VOCs Sep 2016	Total VOCs Jun 2016	Total VOCs Nov 2015	Total VOCs Aug 2015	Total VOCs Jun 2015	Total VOCs Mar 2015	Total VOCs Sep 2014	Total VOCs Jun 2014	Total VOCs Mar 2014	Total VOCs Dec 2013	Total VOCs Jul 2013	Total VOCs Apr 2013	Total VOCs Dec 2012	Total VOCs Jun 2012	Total VOCs Mar 2012									
DR-1	786.00	101.00	370.00	670.00	940.00	225.80	341.00	663.50	598.60	38.05	465.30	117.80	909.00	122.00	1123.60	912.60	1038.00	1832.00	1310.00	1510.00	1319.00	1070.00	1540.00	1970.00	617.00	610.00	910.00	319.00	169.00	NS	21.70	63.00	55.00	75.00	132.00	87.00	73.00	82.00	43.00	29.38	673.00								

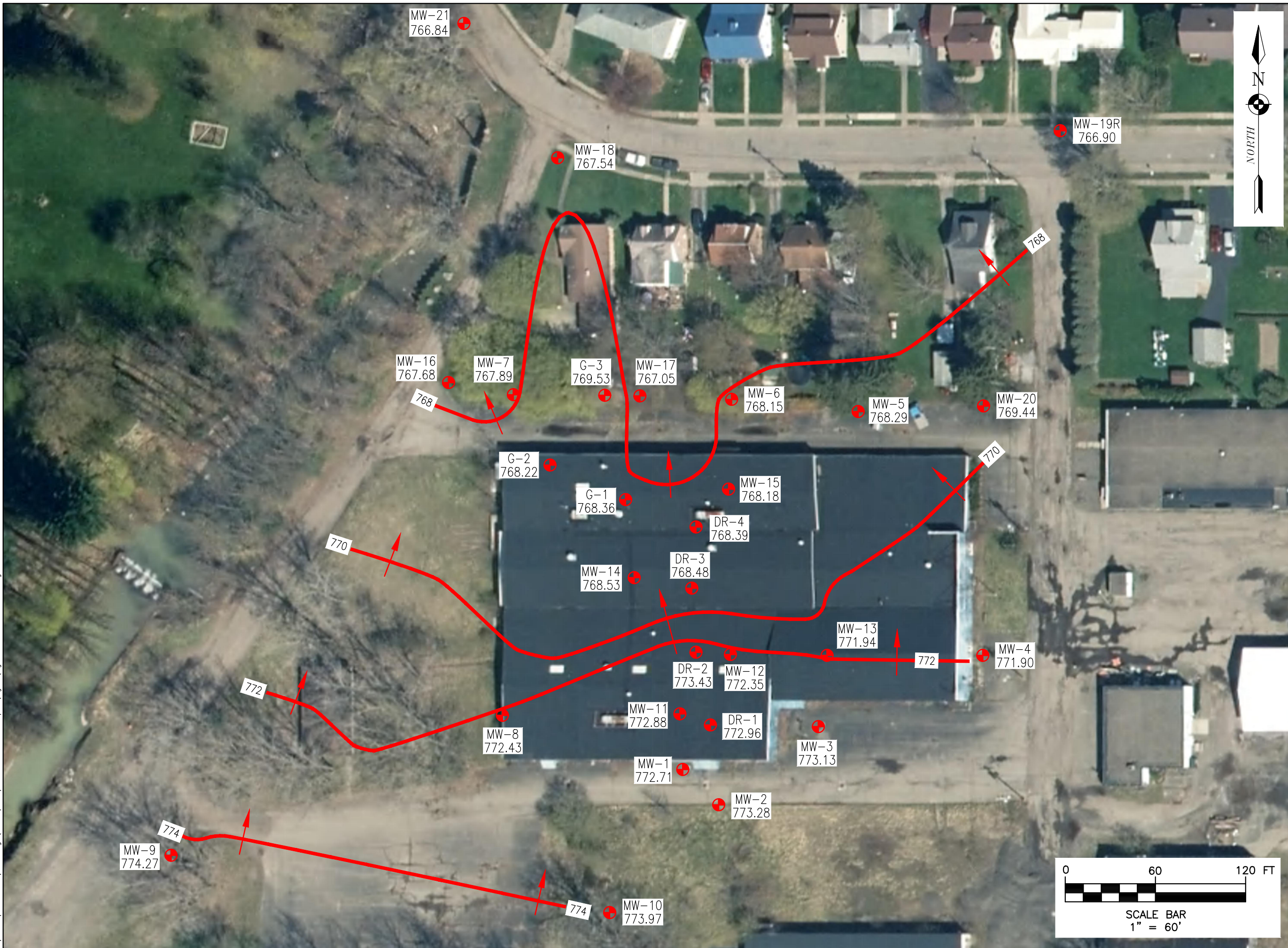
NS= This well not included in this sampling event.
 ND = Not Detected, results less than Method Detection Limit.
 Imposed north occeruv line wells: MW-5, MW-6, MW-7, MW-16, MW-17, MW-21
 All compounds are measured in parts per billion (ppb).
 VOC - Volatile Organic Compounds.
 DUP - Duplicate Sample
 EB - Equipment/Field Blank Sample
 * - Sample was broken in transit and not able to be analyzed
 RWV - Different Well Sampled than previously tested

Total VOCs values are not the total VOCs detected, but the sum of TCE, CIS, TRANS, VC, and TCA detected.



FIGURES

I:\DASNY\23006923A\3.0 Design\Gowanda 2023 04 Report\Figure\Figure 1 December 2023.dwg



DASNY
Gowanda Day Habilitation Center
 4 Industrial Place
 Gowanda, New York



Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C.
 280 East Broad Street
 Suite 200
 Rochester, NY 14604
 office: 585.232.5135
 fax: 585.232.4652
 www.bergmannpc.com

REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CKD

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Note:
 Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.

Project Manager: J. O'BRIEN	Checked By: J. O'BRIEN
Designed By: C. WOOD	Drawn By: C. WOOD
Date Issued: 02/20/2024	Scale: 1" = 60'
Project Number: 23006923A	

DECEMBER 2023
WATER LEVEL
CONTOUR MAP

Drawing Number:

FIGURE 1

DASNY

Gowanda Day Habilitation Center

4 Industrial Place
Gowanda, NY



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

Figure 2

December
2023

Distribution of Groundwater Analytical Results: Monitoring Wells

0 30 60 90 120

Feet



DASNY

**Gowanda Day
Habilitation Center**

**4 Industrial Place
Gowanda, NY**



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

Figure 3

**December
2023**

Distribution of Groundwater Analytical Results: Recovery Wells

0 25 50 75 100



Feet





CHARTS

Chart 1
Gowanda Site V00463

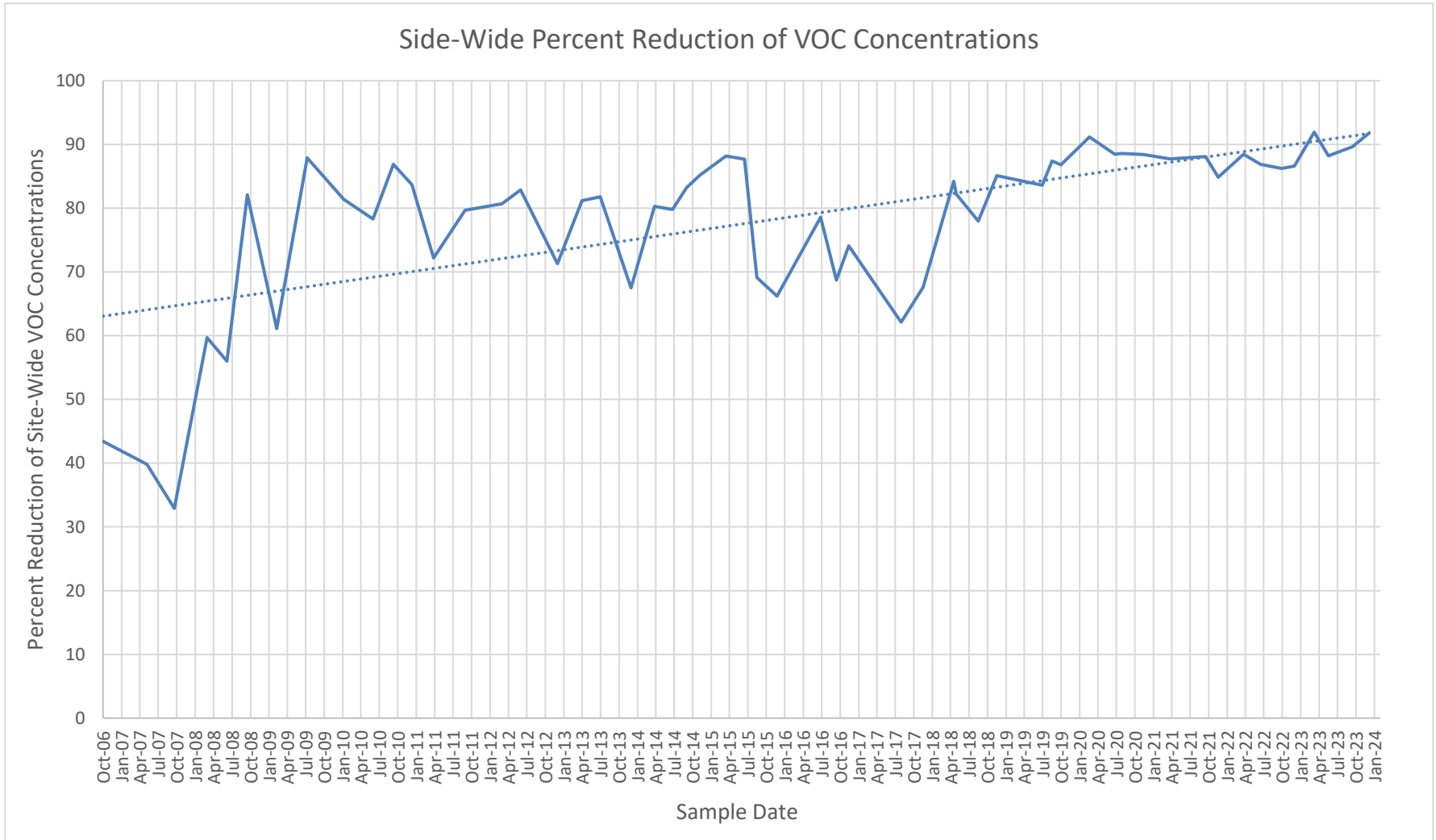
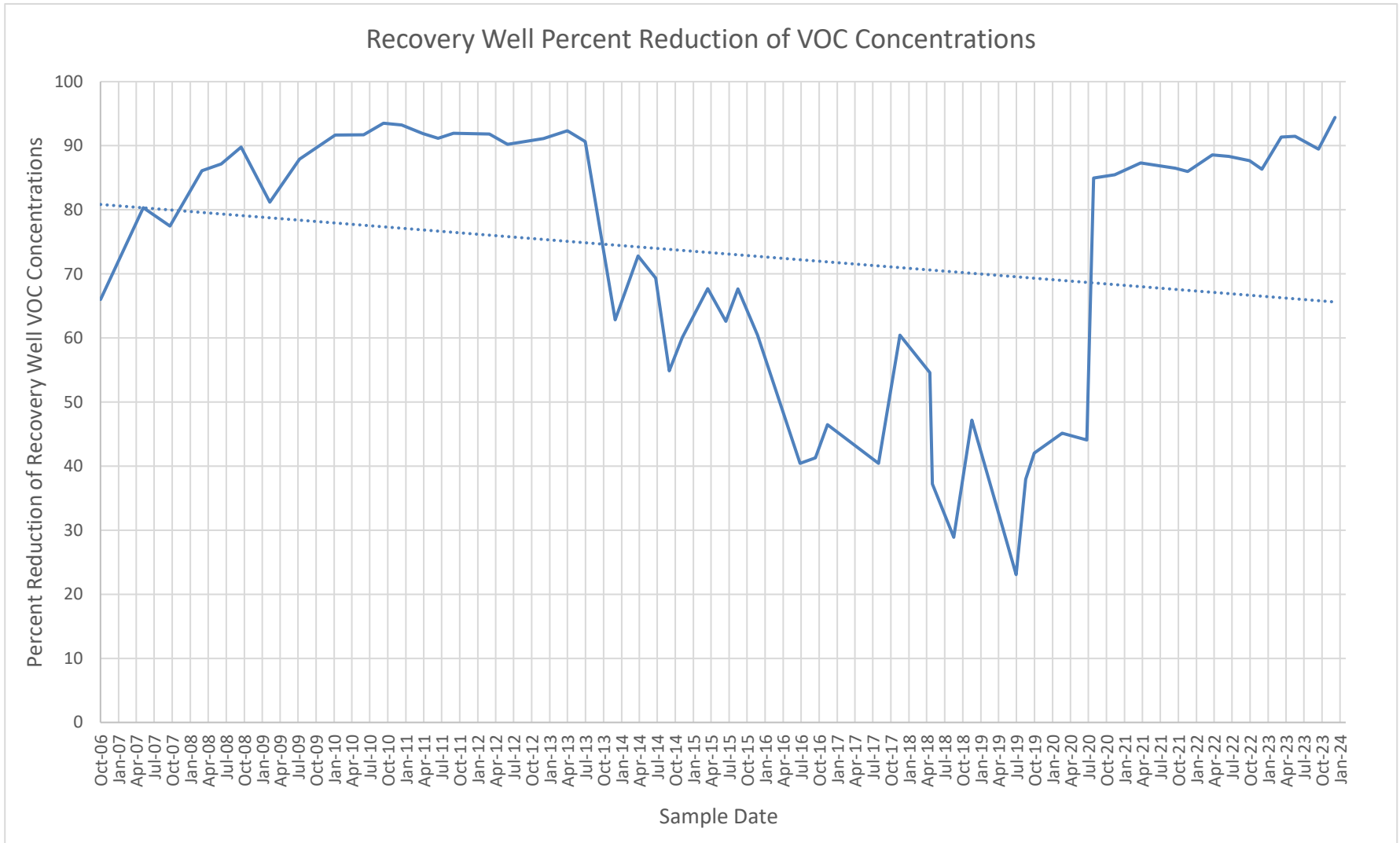


Chart 2
Gowanda Site V00463





BERGMANN
ARCHITECTS ENGINEERS PLANNERS

LABORATORY ANALYTICAL RESULTS



December 18, 2023

Service Request No:R2311417

Ariadna Cheremeteff
Colliers Engineering & Design
280 East Broad Street
Suite 200
Rochester, NY 14604

Laboratory Results for: Gowanda

Dear Ariadna,

Enclosed are the results of the sample(s) submitted to our laboratory December 08, 2023
For your reference, these analyses have been assigned our service request number **R2311417**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7476. You may also contact me via email at Chris.Leavy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Christopher Leavy
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda
Sample Matrix: Water

Service Request: R2311417
Date Received: 12/08/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 12/08/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

Method 8260C, R2311417-011: Analysis was performed on a sample with headspace. Headspace-free sample was not available.

A handwritten signature in black ink, appearing to be "WZ", written over a horizontal line.

Approved by _____

Date 12/18/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-1	Lab ID: R2311417-001					
------------------------	-----------------------------	--	--	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	99			25	ug/L	8260C
Trichloroethene (TCE)	580			25	ug/L	8260C

CLIENT ID: MW-6	Lab ID: R2311417-006					
------------------------	-----------------------------	--	--	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	35			5.0	ug/L	8260C
Vinyl Chloride	52			5.0	ug/L	8260C

CLIENT ID: MW-7	Lab ID: R2311417-007					
------------------------	-----------------------------	--	--	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	6.1			5.0	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request:R2311417

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2311417-001	MW-1	12/8/2023	0740
R2311417-002	MW-2	12/7/2023	1605
R2311417-003	MW-3	12/7/2023	1540
R2311417-004	MW-4	12/8/2023	0710
R2311417-005	MW-5	12/8/2023	
R2311417-006	MW-6	12/8/2023	1005
R2311417-007	MW-7	12/8/2023	0830
R2311417-008	MW-8	12/8/2023	0620
R2311417-009	MW-9	12/8/2023	0648
R2311417-010	MW-10	12/8/2023	0810
R2311417-011	Trip Blank	12/8/2023	




Chain of Custody / Analytical Request Form

75664

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

SR#:

Page 1 of 2

Report To:		ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER																				
Company: Colliers Engineering + Design		Project Name: Gowanda 04 2023					Preservative															
Contact: Justin L. Olsen		Project Number: 23006924A																				
Email: JUSTIN@COLLIERS-ENGINEERING.COM		ALS Quote #: 23110013						Matrix	Number of Containers	MS/MSD?	GC/MS VOA - 8260 • 624 • 524 • TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter					
Phone: 607-743-1412		Sampler's Signature: <i>[Signature]</i>																				
Address: 280 E Bond St #1200 Rochester NY 14604		Email CC:																				
		State Samples Collected (Circle or Write): (NY) MA, PA, CT, Other:																				
Lab ID (ALS)	Sample Collection Information:																					
	Sample ID:	Date	Time																			
	MW-1	12/8/23	0740					3	✓													
	MW-2	12/7/23	1605					3	✓													
	MW-3	12/7/23	1540					3	✓													
	MW-4	12/8/23	0710					3	✓													
	MW-5	12/8/23						3	✓													
	MW-6	12/8/23	1005					3	✓													
	MW-7	12/8/23	0830					3	✓													
	MW-8	12/8/23	0620					3	✓													
	MW-9	12/8/23	0648					3	✓													
	MW-10	12/8/23	0810					3	✓													
Special Instructions / Comments:						Turnaround Requirements			Report Requirements				Metals: RCRA 8 • PP 13 • TAL 23 • TCLP • Other (List)									
						<input type="checkbox"/> Rush (Surcharges Apply) <input type="checkbox"/> Subject to Availability* <input type="checkbox"/> Please Check with your PM* <input checked="" type="checkbox"/> Standard (10 Business Days)			<input type="checkbox"/> Tier II/Cat A - Results/QC <input type="checkbox"/> Tier IV/Cat B - Data Validation Report w/. Data				VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars • THM • Other: _____									
						Date Required:			EDD: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No EDD Type:				Invoice To: <input type="checkbox"/> Same as Report To									
						Relinquished By: _____			Received By: _____				Contact: _____									
Signature		Printed Name		Company		Date/Time		Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____ Relinquished By: _____ Received By: _____														
						12/8/23 1438		12/8/23 1438		R2311417 5 Colliers Engineering & Design Gowanda												
						Page 7 of 48			 © 2012 by ALS Group													



Cooler Receipt and Preservation

R2311417 **5**
 Collers Engineering & Design
 Gowanda

Project/Client _____ Folder Number _____

Cooler received on 12/18/23 by RR COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <input checked="" type="radio"/> N <input type="radio"/>	5a	Perchlorate samples have required headspace?	Y N <input checked="" type="radio"/> NA
2	Custody papers properly completed (ink, signed)?	Y <input checked="" type="radio"/> N <input type="radio"/>	5b	Did <u>VOA</u> vials, Alk, or Sulfide have sig* bubbles?	Y <input checked="" type="radio"/> N <input type="radio"/> NA
3	Did all bottles arrive in good condition (unbroken)?	Y <input checked="" type="radio"/> N <input type="radio"/>	6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	Y <input checked="" type="radio"/> N <input type="radio"/>	7	Soil VOA received as: Bulk Encore 5035set	<input checked="" type="radio"/> NA

8. Temperature Readings Date: 12/18/23 Time: 1455 ID: IR#12 IR#11 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>13.0</u>						
Within 0-6°C?	Y <input checked="" type="radio"/> N <input type="radio"/>	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
 & Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by RR on 12/18 at 1457
 5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 12/12/23 Time: 0916 by: RR

- 9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- 10. Did all bottle labels and tags agree with custody papers? YES NO
- 11. Were correct containers used for the tests indicated? YES NO
- 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- 13. Were dissolved metals filtered in the field? YES NO N/A
- 14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
>12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>2400661</u>	<u>4/26</u>				

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 103023 - 34XH
 Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: RR
 PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to <https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx>.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311417

Sample Name: MW-1
Lab Code: R2311417-001
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-2
Lab Code: R2311417-002
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-3
Lab Code: R2311417-003
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-4
Lab Code: R2311417-004
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-5
Lab Code: R2311417-005
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311417

Sample Name: MW-6
Lab Code: R2311417-006
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-7
Lab Code: R2311417-007
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-8
Lab Code: R2311417-008
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-9
Lab Code: R2311417-009
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-10
Lab Code: R2311417-010
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311417

Sample Name: Trip Blank
Lab Code: R2311417-011
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com



Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-1
Lab Code: R2311417-001

Service Request: R2311417
Date Collected: 12/08/23 07:40
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	25	5	12/14/23 19:46	
1,1,2,2-Tetrachloroethane	25 U	25	5	12/14/23 19:46	
1,1,2-Trichloroethane	25 U	25	5	12/14/23 19:46	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	25	5	12/14/23 19:46	
1,1-Dichloroethane (1,1-DCA)	25 U	25	5	12/14/23 19:46	
1,1-Dichloroethene (1,1-DCE)	25 U	25	5	12/14/23 19:46	
1,2,3-Trichlorobenzene	25 U	25	5	12/14/23 19:46	
1,2,4-Trichlorobenzene	25 U	25	5	12/14/23 19:46	
1,2-Dibromo-3-chloropropane (DBCP)	25 U	25	5	12/14/23 19:46	
1,2-Dibromoethane	25 U	25	5	12/14/23 19:46	
1,2-Dichlorobenzene	25 U	25	5	12/14/23 19:46	
1,2-Dichloroethane	25 U	25	5	12/14/23 19:46	
1,2-Dichloropropane	25 U	25	5	12/14/23 19:46	
1,3-Dichlorobenzene	25 U	25	5	12/14/23 19:46	
1,4-Dichlorobenzene	25 U	25	5	12/14/23 19:46	
1,4-Dioxane	500 U	500	5	12/14/23 19:46	
2-Butanone (MEK)	50 U	50	5	12/14/23 19:46	
2-Hexanone	50 U	50	5	12/14/23 19:46	
4-Methyl-2-pentanone	50 U	50	5	12/14/23 19:46	
Acetone	50 U	50	5	12/14/23 19:46	
Benzene	25 U	25	5	12/14/23 19:46	
Bromochloromethane	25 U	25	5	12/14/23 19:46	
Bromodichloromethane	25 U	25	5	12/14/23 19:46	
Bromoform	25 U	25	5	12/14/23 19:46	
Bromomethane	25 U	25	5	12/14/23 19:46	
Carbon Disulfide	50 U	50	5	12/14/23 19:46	
Carbon Tetrachloride	25 U	25	5	12/14/23 19:46	
Chlorobenzene	25 U	25	5	12/14/23 19:46	
Chloroethane	25 U	25	5	12/14/23 19:46	
Chloroform	25 U	25	5	12/14/23 19:46	
Chloromethane	25 U	25	5	12/14/23 19:46	
Cyclohexane	50 U	50	5	12/14/23 19:46	
Dibromochloromethane	25 U	25	5	12/14/23 19:46	
Dichlorodifluoromethane (CFC 12)	25 U	25	5	12/14/23 19:46	
Dichloromethane	25 U	25	5	12/14/23 19:46	
Ethylbenzene	25 U	25	5	12/14/23 19:46	
Isopropylbenzene (Cumene)	25 U	25	5	12/14/23 19:46	
Methyl Acetate	50 U	50	5	12/14/23 19:46	
Methyl tert-Butyl Ether	25 U	25	5	12/14/23 19:46	
Methylcyclohexane	50 U	50	5	12/14/23 19:46	
Styrene	25 U	25	5	12/14/23 19:46	
Tetrachloroethene (PCE)	25 U	25	5	12/14/23 19:46	
Toluene	25 U	25	5	12/14/23 19:46	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-1
Lab Code: R2311417-001

Service Request: R2311417
Date Collected: 12/08/23 07:40
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	580	25	5	12/14/23 19:46	
Trichlorofluoromethane (CFC 11)	25 U	25	5	12/14/23 19:46	
Vinyl Chloride	25 U	25	5	12/14/23 19:46	
cis-1,2-Dichloroethene	99	25	5	12/14/23 19:46	
cis-1,3-Dichloropropene	25 U	25	5	12/14/23 19:46	
m,p-Xylenes	25 U	25	5	12/14/23 19:46	
o-Xylene	25 U	25	5	12/14/23 19:46	
trans-1,2-Dichloroethene	25 U	25	5	12/14/23 19:46	
trans-1,3-Dichloropropene	25 U	25	5	12/14/23 19:46	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	12/14/23 19:46	
Dibromofluoromethane	98	80 - 116	12/14/23 19:46	
Toluene-d8	101	87 - 121	12/14/23 19:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-2
Lab Code: R2311417-002

Service Request: R2311417
Date Collected: 12/07/23 16:05
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 16:22	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 16:22	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 16:22	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 16:22	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 16:22	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 16:22	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 16:22	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 16:22	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 16:22	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 16:22	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:22	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 16:22	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 16:22	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:22	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:22	
1,4-Dioxane	100 U	100	1	12/14/23 16:22	
2-Butanone (MEK)	10 U	10	1	12/14/23 16:22	
2-Hexanone	10 U	10	1	12/14/23 16:22	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 16:22	
Acetone	10 U	10	1	12/14/23 16:22	
Benzene	5.0 U	5.0	1	12/14/23 16:22	
Bromochloromethane	5.0 U	5.0	1	12/14/23 16:22	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 16:22	
Bromoform	5.0 U	5.0	1	12/14/23 16:22	
Bromomethane	5.0 U	5.0	1	12/14/23 16:22	
Carbon Disulfide	10 U	10	1	12/14/23 16:22	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 16:22	
Chlorobenzene	5.0 U	5.0	1	12/14/23 16:22	
Chloroethane	5.0 U	5.0	1	12/14/23 16:22	
Chloroform	5.0 U	5.0	1	12/14/23 16:22	
Chloromethane	5.0 U	5.0	1	12/14/23 16:22	
Cyclohexane	10 U	10	1	12/14/23 16:22	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 16:22	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 16:22	
Dichloromethane	5.0 U	5.0	1	12/14/23 16:22	
Ethylbenzene	5.0 U	5.0	1	12/14/23 16:22	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 16:22	
Methyl Acetate	10 U	10	1	12/14/23 16:22	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 16:22	
Methylcyclohexane	10 U	10	1	12/14/23 16:22	
Styrene	5.0 U	5.0	1	12/14/23 16:22	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 16:22	
Toluene	5.0 U	5.0	1	12/14/23 16:22	

ALS Group USA, Corp.
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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-2
Lab Code: R2311417-002

Service Request: R2311417
Date Collected: 12/07/23 16:05
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 16:22	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 16:22	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 16:22	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 16:22	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 16:22	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 16:22	
o-Xylene	5.0 U	5.0	1	12/14/23 16:22	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 16:22	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 16:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	12/14/23 16:22	
Dibromofluoromethane	101	80 - 116	12/14/23 16:22	
Toluene-d8	103	87 - 121	12/14/23 16:22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-3
Lab Code: R2311417-003

Service Request: R2311417
Date Collected: 12/07/23 15:40
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 16:44	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 16:44	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 16:44	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 16:44	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 16:44	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 16:44	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 16:44	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 16:44	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 16:44	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 16:44	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:44	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 16:44	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 16:44	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:44	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:44	
1,4-Dioxane	100 U	100	1	12/14/23 16:44	
2-Butanone (MEK)	10 U	10	1	12/14/23 16:44	
2-Hexanone	10 U	10	1	12/14/23 16:44	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 16:44	
Acetone	10 U	10	1	12/14/23 16:44	
Benzene	5.0 U	5.0	1	12/14/23 16:44	
Bromochloromethane	5.0 U	5.0	1	12/14/23 16:44	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 16:44	
Bromoform	5.0 U	5.0	1	12/14/23 16:44	
Bromomethane	5.0 U	5.0	1	12/14/23 16:44	
Carbon Disulfide	10 U	10	1	12/14/23 16:44	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 16:44	
Chlorobenzene	5.0 U	5.0	1	12/14/23 16:44	
Chloroethane	5.0 U	5.0	1	12/14/23 16:44	
Chloroform	5.0 U	5.0	1	12/14/23 16:44	
Chloromethane	5.0 U	5.0	1	12/14/23 16:44	
Cyclohexane	10 U	10	1	12/14/23 16:44	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 16:44	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 16:44	
Dichloromethane	5.0 U	5.0	1	12/14/23 16:44	
Ethylbenzene	5.0 U	5.0	1	12/14/23 16:44	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 16:44	
Methyl Acetate	10 U	10	1	12/14/23 16:44	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 16:44	
Methylcyclohexane	10 U	10	1	12/14/23 16:44	
Styrene	5.0 U	5.0	1	12/14/23 16:44	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 16:44	
Toluene	5.0 U	5.0	1	12/14/23 16:44	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-3
Lab Code: R2311417-003

Service Request: R2311417
Date Collected: 12/07/23 15:40
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 16:44	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 16:44	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 16:44	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 16:44	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 16:44	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 16:44	
o-Xylene	5.0 U	5.0	1	12/14/23 16:44	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 16:44	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 16:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	12/14/23 16:44	
Dibromofluoromethane	94	80 - 116	12/14/23 16:44	
Toluene-d8	98	87 - 121	12/14/23 16:44	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-4
Lab Code: R2311417-004

Service Request: R2311417
Date Collected: 12/08/23 07:10
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 17:07	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 17:07	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 17:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 17:07	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 17:07	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 17:07	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:07	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:07	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 17:07	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 17:07	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:07	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 17:07	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 17:07	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:07	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:07	
1,4-Dioxane	100 U	100	1	12/14/23 17:07	
2-Butanone (MEK)	10 U	10	1	12/14/23 17:07	
2-Hexanone	10 U	10	1	12/14/23 17:07	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 17:07	
Acetone	10 U	10	1	12/14/23 17:07	
Benzene	5.0 U	5.0	1	12/14/23 17:07	
Bromochloromethane	5.0 U	5.0	1	12/14/23 17:07	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 17:07	
Bromoform	5.0 U	5.0	1	12/14/23 17:07	
Bromomethane	5.0 U	5.0	1	12/14/23 17:07	
Carbon Disulfide	10 U	10	1	12/14/23 17:07	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 17:07	
Chlorobenzene	5.0 U	5.0	1	12/14/23 17:07	
Chloroethane	5.0 U	5.0	1	12/14/23 17:07	
Chloroform	5.0 U	5.0	1	12/14/23 17:07	
Chloromethane	5.0 U	5.0	1	12/14/23 17:07	
Cyclohexane	10 U	10	1	12/14/23 17:07	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 17:07	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 17:07	
Dichloromethane	5.0 U	5.0	1	12/14/23 17:07	
Ethylbenzene	5.0 U	5.0	1	12/14/23 17:07	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 17:07	
Methyl Acetate	10 U	10	1	12/14/23 17:07	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 17:07	
Methylcyclohexane	10 U	10	1	12/14/23 17:07	
Styrene	5.0 U	5.0	1	12/14/23 17:07	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 17:07	
Toluene	5.0 U	5.0	1	12/14/23 17:07	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-4
Lab Code: R2311417-004

Service Request: R2311417
Date Collected: 12/08/23 07:10
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 17:07	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 17:07	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 17:07	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:07	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:07	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 17:07	
o-Xylene	5.0 U	5.0	1	12/14/23 17:07	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:07	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	12/14/23 17:07	
Dibromofluoromethane	97	80 - 116	12/14/23 17:07	
Toluene-d8	103	87 - 121	12/14/23 17:07	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Collected: 12/08/23
Date Received: 12/08/23 14:38

Sample Name: MW-5
Lab Code: R2311417-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 17:30	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 17:30	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 17:30	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 17:30	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 17:30	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 17:30	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:30	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:30	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 17:30	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 17:30	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:30	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 17:30	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 17:30	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:30	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:30	
1,4-Dioxane	100 U	100	1	12/14/23 17:30	
2-Butanone (MEK)	10 U	10	1	12/14/23 17:30	
2-Hexanone	10 U	10	1	12/14/23 17:30	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 17:30	
Acetone	10 U	10	1	12/14/23 17:30	
Benzene	5.0 U	5.0	1	12/14/23 17:30	
Bromochloromethane	5.0 U	5.0	1	12/14/23 17:30	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 17:30	
Bromoform	5.0 U	5.0	1	12/14/23 17:30	
Bromomethane	5.0 U	5.0	1	12/14/23 17:30	
Carbon Disulfide	10 U	10	1	12/14/23 17:30	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 17:30	
Chlorobenzene	5.0 U	5.0	1	12/14/23 17:30	
Chloroethane	5.0 U	5.0	1	12/14/23 17:30	
Chloroform	5.0 U	5.0	1	12/14/23 17:30	
Chloromethane	5.0 U	5.0	1	12/14/23 17:30	
Cyclohexane	10 U	10	1	12/14/23 17:30	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 17:30	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 17:30	
Dichloromethane	5.0 U	5.0	1	12/14/23 17:30	
Ethylbenzene	5.0 U	5.0	1	12/14/23 17:30	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 17:30	
Methyl Acetate	10 U	10	1	12/14/23 17:30	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 17:30	
Methylcyclohexane	10 U	10	1	12/14/23 17:30	
Styrene	5.0 U	5.0	1	12/14/23 17:30	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 17:30	
Toluene	5.0 U	5.0	1	12/14/23 17:30	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-5
Lab Code: R2311417-005

Service Request: R2311417
Date Collected: 12/08/23
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 17:30	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 17:30	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 17:30	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:30	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:30	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 17:30	
o-Xylene	5.0 U	5.0	1	12/14/23 17:30	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:30	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	12/14/23 17:30	
Dibromofluoromethane	95	80 - 116	12/14/23 17:30	
Toluene-d8	100	87 - 121	12/14/23 17:30	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-6
Lab Code: R2311417-006

Service Request: R2311417
Date Collected: 12/08/23 10:05
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 17:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 17:52	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 17:52	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 17:52	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 17:52	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 17:52	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:52	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:52	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 17:52	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 17:52	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:52	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 17:52	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 17:52	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:52	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:52	
1,4-Dioxane	100 U	100	1	12/14/23 17:52	
2-Butanone (MEK)	10 U	10	1	12/14/23 17:52	
2-Hexanone	10 U	10	1	12/14/23 17:52	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 17:52	
Acetone	10 U	10	1	12/14/23 17:52	
Benzene	5.0 U	5.0	1	12/14/23 17:52	
Bromochloromethane	5.0 U	5.0	1	12/14/23 17:52	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 17:52	
Bromoform	5.0 U	5.0	1	12/14/23 17:52	
Bromomethane	5.0 U	5.0	1	12/14/23 17:52	
Carbon Disulfide	10 U	10	1	12/14/23 17:52	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 17:52	
Chlorobenzene	5.0 U	5.0	1	12/14/23 17:52	
Chloroethane	5.0 U	5.0	1	12/14/23 17:52	
Chloroform	5.0 U	5.0	1	12/14/23 17:52	
Chloromethane	5.0 U	5.0	1	12/14/23 17:52	
Cyclohexane	10 U	10	1	12/14/23 17:52	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 17:52	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 17:52	
Dichloromethane	5.0 U	5.0	1	12/14/23 17:52	
Ethylbenzene	5.0 U	5.0	1	12/14/23 17:52	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 17:52	
Methyl Acetate	10 U	10	1	12/14/23 17:52	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 17:52	
Methylcyclohexane	10 U	10	1	12/14/23 17:52	
Styrene	5.0 U	5.0	1	12/14/23 17:52	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 17:52	
Toluene	5.0 U	5.0	1	12/14/23 17:52	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-6
Lab Code: R2311417-006

Service Request: R2311417
Date Collected: 12/08/23 10:05
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 17:52	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 17:52	
Vinyl Chloride	52	5.0	1	12/14/23 17:52	
cis-1,2-Dichloroethene	35	5.0	1	12/14/23 17:52	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:52	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 17:52	
o-Xylene	5.0 U	5.0	1	12/14/23 17:52	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:52	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/14/23 17:52	
Dibromofluoromethane	98	80 - 116	12/14/23 17:52	
Toluene-d8	100	87 - 121	12/14/23 17:52	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Collected: 12/08/23 08:30
Date Received: 12/08/23 14:38

Sample Name: MW-7
Lab Code: R2311417-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 18:15	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 18:15	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 18:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 18:15	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 18:15	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 18:15	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:15	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:15	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 18:15	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 18:15	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:15	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 18:15	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 18:15	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:15	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:15	
1,4-Dioxane	100 U	100	1	12/14/23 18:15	
2-Butanone (MEK)	10 U	10	1	12/14/23 18:15	
2-Hexanone	10 U	10	1	12/14/23 18:15	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 18:15	
Acetone	10 U	10	1	12/14/23 18:15	
Benzene	5.0 U	5.0	1	12/14/23 18:15	
Bromochloromethane	5.0 U	5.0	1	12/14/23 18:15	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 18:15	
Bromoform	5.0 U	5.0	1	12/14/23 18:15	
Bromomethane	5.0 U	5.0	1	12/14/23 18:15	
Carbon Disulfide	10 U	10	1	12/14/23 18:15	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 18:15	
Chlorobenzene	5.0 U	5.0	1	12/14/23 18:15	
Chloroethane	5.0 U	5.0	1	12/14/23 18:15	
Chloroform	5.0 U	5.0	1	12/14/23 18:15	
Chloromethane	5.0 U	5.0	1	12/14/23 18:15	
Cyclohexane	10 U	10	1	12/14/23 18:15	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 18:15	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 18:15	
Dichloromethane	5.0 U	5.0	1	12/14/23 18:15	
Ethylbenzene	5.0 U	5.0	1	12/14/23 18:15	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 18:15	
Methyl Acetate	10 U	10	1	12/14/23 18:15	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 18:15	
Methylcyclohexane	10 U	10	1	12/14/23 18:15	
Styrene	5.0 U	5.0	1	12/14/23 18:15	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 18:15	
Toluene	5.0 U	5.0	1	12/14/23 18:15	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-7
Lab Code: R2311417-007

Service Request: R2311417
Date Collected: 12/08/23 08:30
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 18:15	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 18:15	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 18:15	
cis-1,2-Dichloroethene	6.1	5.0	1	12/14/23 18:15	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:15	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 18:15	
o-Xylene	5.0 U	5.0	1	12/14/23 18:15	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:15	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85 - 122	12/14/23 18:15	
Dibromofluoromethane	102	80 - 116	12/14/23 18:15	
Toluene-d8	101	87 - 121	12/14/23 18:15	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-8
Lab Code: R2311417-008

Service Request: R2311417
Date Collected: 12/08/23 06:20
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 18:38	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 18:38	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 18:38	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 18:38	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 18:38	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 18:38	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:38	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:38	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 18:38	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 18:38	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:38	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 18:38	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 18:38	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:38	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:38	
1,4-Dioxane	100 U	100	1	12/14/23 18:38	
2-Butanone (MEK)	10 U	10	1	12/14/23 18:38	
2-Hexanone	10 U	10	1	12/14/23 18:38	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 18:38	
Acetone	10 U	10	1	12/14/23 18:38	
Benzene	5.0 U	5.0	1	12/14/23 18:38	
Bromochloromethane	5.0 U	5.0	1	12/14/23 18:38	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 18:38	
Bromoform	5.0 U	5.0	1	12/14/23 18:38	
Bromomethane	5.0 U	5.0	1	12/14/23 18:38	
Carbon Disulfide	10 U	10	1	12/14/23 18:38	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 18:38	
Chlorobenzene	5.0 U	5.0	1	12/14/23 18:38	
Chloroethane	5.0 U	5.0	1	12/14/23 18:38	
Chloroform	5.0 U	5.0	1	12/14/23 18:38	
Chloromethane	5.0 U	5.0	1	12/14/23 18:38	
Cyclohexane	10 U	10	1	12/14/23 18:38	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 18:38	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 18:38	
Dichloromethane	5.0 U	5.0	1	12/14/23 18:38	
Ethylbenzene	5.0 U	5.0	1	12/14/23 18:38	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 18:38	
Methyl Acetate	10 U	10	1	12/14/23 18:38	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 18:38	
Methylcyclohexane	10 U	10	1	12/14/23 18:38	
Styrene	5.0 U	5.0	1	12/14/23 18:38	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 18:38	
Toluene	5.0 U	5.0	1	12/14/23 18:38	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-8
Lab Code: R2311417-008

Service Request: R2311417
Date Collected: 12/08/23 06:20
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 18:38	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 18:38	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 18:38	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:38	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:38	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 18:38	
o-Xylene	5.0 U	5.0	1	12/14/23 18:38	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:38	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	12/14/23 18:38	
Dibromofluoromethane	99	80 - 116	12/14/23 18:38	
Toluene-d8	103	87 - 121	12/14/23 18:38	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-9
Lab Code: R2311417-009

Service Request: R2311417
Date Collected: 12/08/23 06:48
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 19:00	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 19:00	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 19:00	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 19:00	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 19:00	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 19:00	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:00	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:00	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 19:00	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 19:00	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:00	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 19:00	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 19:00	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:00	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:00	
1,4-Dioxane	100 U	100	1	12/14/23 19:00	
2-Butanone (MEK)	10 U	10	1	12/14/23 19:00	
2-Hexanone	10 U	10	1	12/14/23 19:00	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 19:00	
Acetone	10 U	10	1	12/14/23 19:00	
Benzene	5.0 U	5.0	1	12/14/23 19:00	
Bromochloromethane	5.0 U	5.0	1	12/14/23 19:00	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 19:00	
Bromoform	5.0 U	5.0	1	12/14/23 19:00	
Bromomethane	5.0 U	5.0	1	12/14/23 19:00	
Carbon Disulfide	10 U	10	1	12/14/23 19:00	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 19:00	
Chlorobenzene	5.0 U	5.0	1	12/14/23 19:00	
Chloroethane	5.0 U	5.0	1	12/14/23 19:00	
Chloroform	5.0 U	5.0	1	12/14/23 19:00	
Chloromethane	5.0 U	5.0	1	12/14/23 19:00	
Cyclohexane	10 U	10	1	12/14/23 19:00	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 19:00	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 19:00	
Dichloromethane	5.0 U	5.0	1	12/14/23 19:00	
Ethylbenzene	5.0 U	5.0	1	12/14/23 19:00	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 19:00	
Methyl Acetate	10 U	10	1	12/14/23 19:00	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 19:00	
Methylcyclohexane	10 U	10	1	12/14/23 19:00	
Styrene	5.0 U	5.0	1	12/14/23 19:00	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 19:00	
Toluene	5.0 U	5.0	1	12/14/23 19:00	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-9
Lab Code: R2311417-009

Service Request: R2311417
Date Collected: 12/08/23 06:48
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 19:00	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 19:00	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 19:00	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:00	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:00	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 19:00	
o-Xylene	5.0 U	5.0	1	12/14/23 19:00	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:00	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	12/14/23 19:00	
Dibromofluoromethane	103	80 - 116	12/14/23 19:00	
Toluene-d8	104	87 - 121	12/14/23 19:00	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Collected: 12/08/23 08:10
Date Received: 12/08/23 14:38

Sample Name: MW-10
Lab Code: R2311417-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 19:23	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 19:23	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 19:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 19:23	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 19:23	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 19:23	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:23	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 19:23	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 19:23	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:23	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 19:23	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 19:23	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:23	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:23	
1,4-Dioxane	100 U	100	1	12/14/23 19:23	
2-Butanone (MEK)	10 U	10	1	12/14/23 19:23	
2-Hexanone	10 U	10	1	12/14/23 19:23	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 19:23	
Acetone	10 U	10	1	12/14/23 19:23	
Benzene	5.0 U	5.0	1	12/14/23 19:23	
Bromochloromethane	5.0 U	5.0	1	12/14/23 19:23	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 19:23	
Bromoform	5.0 U	5.0	1	12/14/23 19:23	
Bromomethane	5.0 U	5.0	1	12/14/23 19:23	
Carbon Disulfide	10 U	10	1	12/14/23 19:23	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 19:23	
Chlorobenzene	5.0 U	5.0	1	12/14/23 19:23	
Chloroethane	5.0 U	5.0	1	12/14/23 19:23	
Chloroform	5.0 U	5.0	1	12/14/23 19:23	
Chloromethane	5.0 U	5.0	1	12/14/23 19:23	
Cyclohexane	10 U	10	1	12/14/23 19:23	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 19:23	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 19:23	
Dichloromethane	5.0 U	5.0	1	12/14/23 19:23	
Ethylbenzene	5.0 U	5.0	1	12/14/23 19:23	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 19:23	
Methyl Acetate	10 U	10	1	12/14/23 19:23	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 19:23	
Methylcyclohexane	10 U	10	1	12/14/23 19:23	
Styrene	5.0 U	5.0	1	12/14/23 19:23	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 19:23	
Toluene	5.0 U	5.0	1	12/14/23 19:23	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-10
Lab Code: R2311417-010

Service Request: R2311417
Date Collected: 12/08/23 08:10
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 19:23	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 19:23	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 19:23	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:23	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:23	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 19:23	
o-Xylene	5.0 U	5.0	1	12/14/23 19:23	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:23	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	12/14/23 19:23	
Dibromofluoromethane	96	80 - 116	12/14/23 19:23	
Toluene-d8	101	87 - 121	12/14/23 19:23	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Trip Blank
Lab Code: R2311417-011

Service Request: R2311417
Date Collected: 12/08/23
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 15:59	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 15:59	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 15:59	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 15:59	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 15:59	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 15:59	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 15:59	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 15:59	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 15:59	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 15:59	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 15:59	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 15:59	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 15:59	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 15:59	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 15:59	
1,4-Dioxane	100 U	100	1	12/14/23 15:59	
2-Butanone (MEK)	10 U	10	1	12/14/23 15:59	
2-Hexanone	10 U	10	1	12/14/23 15:59	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 15:59	
Acetone	10 U	10	1	12/14/23 15:59	
Benzene	5.0 U	5.0	1	12/14/23 15:59	
Bromochloromethane	5.0 U	5.0	1	12/14/23 15:59	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 15:59	
Bromoform	5.0 U	5.0	1	12/14/23 15:59	
Bromomethane	5.0 U	5.0	1	12/14/23 15:59	
Carbon Disulfide	10 U	10	1	12/14/23 15:59	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 15:59	
Chlorobenzene	5.0 U	5.0	1	12/14/23 15:59	
Chloroethane	5.0 U	5.0	1	12/14/23 15:59	
Chloroform	5.0 U	5.0	1	12/14/23 15:59	
Chloromethane	5.0 U	5.0	1	12/14/23 15:59	
Cyclohexane	10 U	10	1	12/14/23 15:59	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 15:59	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 15:59	
Dichloromethane	5.0 U	5.0	1	12/14/23 15:59	
Ethylbenzene	5.0 U	5.0	1	12/14/23 15:59	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 15:59	
Methyl Acetate	10 U	10	1	12/14/23 15:59	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 15:59	
Methylcyclohexane	10 U	10	1	12/14/23 15:59	
Styrene	5.0 U	5.0	1	12/14/23 15:59	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 15:59	
Toluene	5.0 U	5.0	1	12/14/23 15:59	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Trip Blank
Lab Code: R2311417-011

Service Request: R2311417
Date Collected: 12/08/23
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 15:59	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 15:59	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 15:59	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 15:59	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 15:59	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 15:59	
o-Xylene	5.0 U	5.0	1	12/14/23 15:59	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 15:59	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 15:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	12/14/23 15:59	
Dibromofluoromethane	99	80 - 116	12/14/23 15:59	
Toluene-d8	101	87 - 121	12/14/23 15:59	



QC Summary Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85 - 122	80 - 116	87 - 121
MW-1	R2311417-001	96	98	101
MW-2	R2311417-002	103	101	103
MW-3	R2311417-003	98	94	98
MW-4	R2311417-004	98	97	103
MW-5	R2311417-005	100	95	100
MW-6	R2311417-006	99	98	100
MW-7	R2311417-007	101	102	101
MW-8	R2311417-008	97	99	103
MW-9	R2311417-009	103	103	104
MW-10	R2311417-010	100	96	101
Trip Blank	R2311417-011	97	99	101
Lab Control Sample	RQ2316422-04	102	102	102
Lab Control Sample	RQ2316422-05	98	97	100
Method Blank	RQ2316422-06	98	98	99

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2316422-06

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 12:57	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 12:57	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 12:57	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 12:57	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 12:57	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 12:57	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 12:57	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 12:57	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 12:57	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 12:57	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 12:57	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 12:57	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 12:57	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 12:57	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 12:57	
1,4-Dioxane	100 U	100	1	12/14/23 12:57	
2-Butanone (MEK)	10 U	10	1	12/14/23 12:57	
2-Hexanone	10 U	10	1	12/14/23 12:57	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 12:57	
Acetone	10 U	10	1	12/14/23 12:57	
Benzene	5.0 U	5.0	1	12/14/23 12:57	
Bromochloromethane	5.0 U	5.0	1	12/14/23 12:57	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 12:57	
Bromoform	5.0 U	5.0	1	12/14/23 12:57	
Bromomethane	5.0 U	5.0	1	12/14/23 12:57	
Carbon Disulfide	10 U	10	1	12/14/23 12:57	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 12:57	
Chlorobenzene	5.0 U	5.0	1	12/14/23 12:57	
Chloroethane	5.0 U	5.0	1	12/14/23 12:57	
Chloroform	5.0 U	5.0	1	12/14/23 12:57	
Chloromethane	5.0 U	5.0	1	12/14/23 12:57	
Cyclohexane	10 U	10	1	12/14/23 12:57	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 12:57	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 12:57	
Dichloromethane	5.0 U	5.0	1	12/14/23 12:57	
Ethylbenzene	5.0 U	5.0	1	12/14/23 12:57	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 12:57	
Methyl Acetate	10 U	10	1	12/14/23 12:57	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 12:57	
Methylcyclohexane	10 U	10	1	12/14/23 12:57	
Styrene	5.0 U	5.0	1	12/14/23 12:57	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 12:57	
Toluene	5.0 U	5.0	1	12/14/23 12:57	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2316422-06

Service Request: R2311417
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 12:57	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 12:57	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 12:57	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 12:57	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 12:57	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 12:57	
o-Xylene	5.0 U	5.0	1	12/14/23 12:57	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 12:57	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 12:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	12/14/23 12:57	
Dibromofluoromethane	98	80 - 116	12/14/23 12:57	
Toluene-d8	99	87 - 121	12/14/23 12:57	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Analyzed: 12/14/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316422-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.4	20.0	102	75-125
1,1,2,2-Tetrachloroethane	8260C	18.4	20.0	92	78-126
1,1,2-Trichloroethane	8260C	19.0	20.0	95	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.6	20.0	93	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.6	20.0	103	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	18.4	20.0	92	69-142
1,2,3-Trichlorobenzene	8260C	19.7	20.0	98	67-136
1,2,4-Trichlorobenzene	8260C	19.1	20.0	95	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	17.8	20.0	89	55-136
1,2-Dibromoethane	8260C	19.5	20.0	97	82-127
1,2-Dichlorobenzene	8260C	20.6	20.0	103	80-119
1,2-Dichloroethane	8260C	20.9	20.0	104	71-127
1,2-Dichloropropane	8260C	20.1	20.0	100	80-119
1,3-Dichlorobenzene	8260C	20.2	20.0	101	83-121
1,4-Dichlorobenzene	8260C	19.4	20.0	97	79-119
1,4-Dioxane	8260C	360	400	90	44-154
2-Butanone (MEK)	8260C	15.0	20.0	75	61-137
2-Hexanone	8260C	18.0	20.0	90	63-124
4-Methyl-2-pentanone	8260C	18.9	20.0	95	66-124
Acetone	8260C	14.2	20.0	71	40-161
Benzene	8260C	20.5	20.0	103	79-119
Bromochloromethane	8260C	20.1	20.0	101	81-126
Bromodichloromethane	8260C	20.7	20.0	103	81-123
Bromoform	8260C	20.7	20.0	104	65-146
Bromomethane	8260C	20.6	20.0	103	42-166
Carbon Disulfide	8260C	17.4	20.0	87	66-128
Carbon Tetrachloride	8260C	20.6	20.0	103	70-127
Chlorobenzene	8260C	20.5	20.0	103	80-121
Chloroethane	8260C	15.6	20.0	78	62-131
Chloroform	8260C	20.9	20.0	104	79-120
Chloromethane	8260C	19.8	20.0	99	72-179
Cyclohexane	8260C	22.2	20.0	111	69-120
Dibromochloromethane	8260C	20.1	20.0	101	72-128

ALS Group USA, Corp.
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QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Analyzed: 12/14/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316422-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	19.6	20.0	98	59-155
Dichloromethane	8260C	19.7	20.0	99	73-122
Ethylbenzene	8260C	21.1	20.0	106	76-120
Isopropylbenzene (Cumene)	8260C	20.6	20.0	103	77-128
Methyl Acetate	8260C	13.2	20.0	66	61-133
Methyl tert-Butyl Ether	8260C	19.6	20.0	98	75-118
Methylcyclohexane	8260C	21.5	20.0	107	51-129
Styrene	8260C	21.6	20.0	108	80-124
Tetrachloroethene (PCE)	8260C	22.1	20.0	111	72-125
Toluene	8260C	20.7	20.0	103	79-119
Trichloroethene (TCE)	8260C	19.0	20.0	95	74-122
Trichlorofluoromethane (CFC 11)	8260C	22.0	20.0	110	71-136
Vinyl Chloride	8260C	18.9	20.0	95	74-159
cis-1,2-Dichloroethene	8260C	18.7	20.0	94	80-121
cis-1,3-Dichloropropene	8260C	20.5	20.0	103	77-122
m,p-Xylenes	8260C	41.9	40.0	105	80-126
o-Xylene	8260C	20.0	20.0	100	79-123
trans-1,2-Dichloroethene	8260C	19.2	20.0	96	73-118
trans-1,3-Dichloropropene	8260C	20.9	20.0	104	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Analyzed: 12/14/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316422-05

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	5.0 U			75-125
1,1,2,2-Tetrachloroethane	8260C	5.0 U			78-126
1,1,2-Trichloroethane	8260C	5.0 U			82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	5.0 U			67-124
1,1-Dichloroethane (1,1-DCA)	8260C	5.0 U			80-124
1,1-Dichloroethene (1,1-DCE)	8260C	5.0 U			69-142
1,2,3-Trichlorobenzene	8260C	5.0 U			67-136
1,2,4-Trichlorobenzene	8260C	5.0 U			75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	5.0 U			55-136
1,2-Dibromoethane	8260C	5.0 U			82-127
1,2-Dichlorobenzene	8260C	5.0 U			80-119
1,2-Dichloroethane	8260C	5.0 U			71-127
1,2-Dichloropropane	8260C	5.0 U			80-119
1,3-Dichlorobenzene	8260C	5.0 U			83-121
1,4-Dichlorobenzene	8260C	5.0 U			79-119
1,4-Dioxane	8260C	100 U			44-154
2-Butanone (MEK)	8260C	10 U			61-137
2-Hexanone	8260C	10 U			63-124
4-Methyl-2-pentanone	8260C	10 U			66-124
Acetone	8260C	10 U			40-161
Benzene	8260C	5.0 U			79-119
Bromochloromethane	8260C	5.0 U			81-126
Bromodichloromethane	8260C	5.0 U			81-123
Bromoform	8260C	5.0 U			65-146
Bromomethane	8260C	5.0 U			42-166
Carbon Disulfide	8260C	10 U			66-128
Carbon Tetrachloride	8260C	5.0 U			70-127
Chlorobenzene	8260C	5.0 U			80-121
Chloroethane	8260C	5.0 U			62-131
Chloroform	8260C	5.0 U			79-120
Chloromethane	8260C	5.0 U			72-179
Cyclohexane	8260C	10 U			69-120
Dibromochloromethane	8260C	5.0 U			72-128

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311417
Date Analyzed: 12/14/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316422-05

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	5.0 U			59-155
Dichloromethane	8260C	5.0 U			73-122
Ethylbenzene	8260C	5.0 U			76-120
Isopropylbenzene (Cumene)	8260C	5.0 U			77-128
Methyl Acetate	8260C	10 U			61-133
Methyl tert-Butyl Ether	8260C	5.0 U			75-118
Methylcyclohexane	8260C	10 U			51-129
Styrene	8260C	5.0 U			80-124
Tetrachloroethene (PCE)	8260C	5.0 U			72-125
Toluene	8260C	5.0 U			79-119
Trichloroethene (TCE)	8260C	5.0 U			74-122
Trichlorofluoromethane (CFC 11)	8260C	5.0 U			71-136
Vinyl Chloride	8260C	5.0 U			74-159
cis-1,2-Dichloroethene	8260C	5.0 U			80-121
cis-1,3-Dichloropropene	8260C	5.0 U			77-122
m,p-Xylenes	8260C	5.0 U			80-126
o-Xylene	8260C	5.0 U			79-123
trans-1,2-Dichloroethene	8260C	5.0 U			73-118
trans-1,3-Dichloropropene	8260C	5.0 U			71-133



December 18, 2023

Service Request No:R2311418

Ariadna Cheremeteff
Colliers Engineering & Design
280 East Broad Street
Suite 200
Rochester, NY 14604

Laboratory Results for: Gowanda

Dear Ariadna,

Enclosed are the results of the sample(s) submitted to our laboratory December 08, 2023
For your reference, these analyses have been assigned our service request number **R2311418**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7476. You may also contact me via email at Chris.Leavy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Christopher Leavy
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com



Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda
Sample Matrix: Water

Service Request: R2311418
Date Received: 12/08/2023

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty water samples were received for analysis at ALS Environmental on 12/08/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

WZ 

Approved by _____

Date 12/18/2023



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-11	Lab ID: R2311418-001
-------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	200			5.0	ug/L	8260C
cis-1,2-Dichloroethene	170	D		25	ug/L	8260C
trans-1,2-Dichloroethene	15			5.0	ug/L	8260C
Trichloroethene (TCE)	350	E		5.0	ug/L	8260C
Trichloroethene (TCE)	240	D		25	ug/L	8260C

CLIENT ID: MW-12	Lab ID: R2311418-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	36			5.0	ug/L	8260C
Trichloroethene (TCE)	22			5.0	ug/L	8260C

CLIENT ID: MW-14	Lab ID: R2311418-004
-------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	7.4			5.0	ug/L	8260C
Trichloroethene (TCE)	18			5.0	ug/L	8260C

CLIENT ID: MW-16	Lab ID: R2311418-006
-------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	11			5.0	ug/L	8260C

CLIENT ID: MW-17	Lab ID: R2311418-007
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Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	54			5.0	ug/L	8260C
Trichloroethene (TCE)	6.2			5.0	ug/L	8260C

CLIENT ID: MW-21	Lab ID: R2311418-011
-------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	16			5.0	ug/L	8260C

CLIENT ID: DR-1	Lab ID: R2311418-012
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Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	55			5.0	ug/L	8260C
cis-1,2-Dichloroethene	56	D		50	ug/L	8260C
trans-1,2-Dichloroethene	16			5.0	ug/L	8260C
Trichloroethene (TCE)	830	E		5.0	ug/L	8260C
Trichloroethene (TCE)	730	D		50	ug/L	8260C

CLIENT ID: DR-2	Lab ID: R2311418-013
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	99			5.0	ug/L	8260C
Trichloroethene (TCE)	22			5.0	ug/L	8260C



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: DR-3	Lab ID: R2311418-014
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	12			5.0	ug/L	8260C
Trichloroethene (TCE)	28			5.0	ug/L	8260C

CLIENT ID: DR-4	Lab ID: R2311418-015
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	7.5			5.0	ug/L	8260C
Trichloroethene (TCE)	18			5.0	ug/L	8260C

CLIENT ID: G-1	Lab ID: R2311418-016
-----------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	48			5.0	ug/L	8260C

CLIENT ID: G-2	Lab ID: R2311418-017
-----------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	33			5.0	ug/L	8260C

CLIENT ID: MW-X	Lab ID: R2311418-019
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	100			13	ug/L	8260C
cis-1,2-Dichloroethene	100	D		25	ug/L	8260C
Trichloroethene (TCE)	580	E		13	ug/L	8260C
Trichloroethene (TCE)	570	D		25	ug/L	8260C

CLIENT ID: G-3	Lab ID: R2311418-018
-----------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Trichloroethene (TCE)	6.9			5.0	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request:R2311418

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2311418-001	MW-11	12/7/2023	1524
R2311418-002	MW-12	12/7/2023	1437
R2311418-003	MW-13	12/7/2023	1449
R2311418-004	MW-14	12/7/2023	1331
R2311418-005	MW-15	12/7/2023	1256
R2311418-006	MW-16	12/8/2023	0852
R2311418-007	MW-17	12/8/2023	0945
R2311418-008	MW-18	12/8/2023	1130
R2311418-009	MW-19R	12/8/2023	1057
R2311418-010	MW-20	12/8/2023	1020
R2311418-011	MW-21	12/8/2023	1158
R2311418-012	DR-1	12/7/2023	1513
R2311418-013	DR-2	12/7/2023	1421
R2311418-014	DR-3	12/7/2023	1356
R2311418-015	DR-4	12/7/2023	1320
R2311418-016	G-1	12/7/2023	1240
R2311418-017	G-2	12/7/2023	1215
R2311418-018	G-3	12/7/2023	0923
R2311418-019	MW-X	12/8/2023	
R2311418-020	EB	12/8/2023	



Chain of Custody / Analytical Request Form

75665

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SR#: Page 1 of 2

Report To: ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER
Company: Colliers Engineering & Design
Contact: Justin L. O'Brien
Email: Justin O'Brien@collierseng.com
Phone: 585-743-1412
Address: 280 E Bond St #600 Rochester, NY 14604
Project Name: 60009024 1003
Project Number: 23006924A
ALS Quote #: 23111003
SAMPLER'S SIGNATURE: [Signature]
State Samples Collected: (NY) MA, PA, CT, Other:
Matrix: GW, WW, SW, DW, S, L, NA
Number of Containers: [Blank]
MS/MSD?: [Blank]
GC/MS VOA: 8260 • 624 • 524 • TCLP
GC/MS SVOA: 8270 • 625 • TCLP
Pesticides: 8081 • 608 • TCLP
PCBs: 8082 • 608
Herbicides: 8151 • TCLP
Metals, Total - Select Below
Metals, Dissolved - Field / In-Lab Filter

- 0. None
1. HCl
2. HNO3
3. H2SO4
4. NaOH
5. Zn Acet.
6. MeOH
7. NaHSO4
8. Other
Notes:

Table with columns: Lab ID (ALS), Sample ID, Date, Time. Contains handwritten entries for MW-11 through MW-21 and DR-1 through DR-4.

Table with columns: Matrix, Number of Containers, MS/MSD?, GC/MS VOA, GC/MS SVOA, Pesticides, PCBs, Herbicides, Metals, Total - Select Below, Metals, Dissolved - Field / In-Lab Filter. Contains handwritten checkmarks and data.

Special Instructions / Comments: [Blank]

Turnaround Requirements
Rush (Surcharges Apply)
Subject to Availability*
Please Check with your PM*
Standard (10 Business Days)
Date Required:

Report Requirements
Tier II/Cat A - Results/QC
Tier IV/Cat B - Data
Validation Report w/ Data
Invoice To: (Same as Report To)
PO #:
Company:

Table for Relinquished/Received signatures and dates. Columns: Relinquished By, Received By, Relinquished By, Received By, Relinquished By, Received By.

Barcode and company information: R2311418 5 Colliers Engineering & Design Gowanda



Cooler Receipt and Preservation

R2311418 **5**
 Colliers Engineering & Design
 Gowanda

Project/Client _____ Folder Number _____

Cooler received on 12/8/23 by: RR COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <input checked="" type="radio"/> N <input type="radio"/>	5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
2	Custody papers properly completed (ink, signed)?	Y <input checked="" type="radio"/> N <input type="radio"/>	5b	Did <u>VOA vials</u> , Alk, or Sulfide have sig* bubbles?	Y <input checked="" type="radio"/> NA
3	Did all bottles arrive in good condition (unbroken)?	Y <input checked="" type="radio"/> N <input type="radio"/>	6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	Y <input checked="" type="radio"/> N <input type="radio"/>	7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 12/8/23 Time: 1455 ID: IR#12 IR#11 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>13.0</u>						
Within 0-6°C?	Y <input checked="" type="radio"/> N <input type="radio"/>	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by RR on 12/8 at 1457
 5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 12/2/23 Time: 0923 by: RR

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- Were dissolved metals filtered in the field? YES NO N/A
- Air Samples: Cassettes / Tubes Intact Y/N with MS Y/N Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>24001661</u>	<u>4/26</u>				

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 103023-3AXH
 Explain all Discrepancies/ Other Comments: _____

Labels secondary reviewed by: RR
 PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541



Miscellaneous Forms

ALS Environmental—Rochester Laboratory
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www.alsglobal.com



REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the “Notes” column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an “immediate” hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory’s NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to <https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx>.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311418

Sample Name: MW-11
Lab Code: R2311418-001
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-11
Lab Code: R2311418-001.R01
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-12
Lab Code: R2311418-002
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-13
Lab Code: R2311418-003
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-14
Lab Code: R2311418-004
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311418

Sample Name: MW-15
Lab Code: R2311418-005
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-16
Lab Code: R2311418-006
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-17
Lab Code: R2311418-007
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-18
Lab Code: R2311418-008
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-19R
Lab Code: R2311418-009
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311418

Sample Name: MW-20
Lab Code: R2311418-010
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-21
Lab Code: R2311418-011
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: DR-1
Lab Code: R2311418-012
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: DR-1
Lab Code: R2311418-012.R01
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: DR-2
Lab Code: R2311418-013
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311418

Sample Name: DR-3
Lab Code: R2311418-014
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: DR-4
Lab Code: R2311418-015
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: G-1
Lab Code: R2311418-016
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: G-2
Lab Code: R2311418-017
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: G-3
Lab Code: R2311418-018
Sample Matrix: Water

Date Collected: 12/7/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96

Service Request: R2311418

Sample Name: MW-X
Lab Code: R2311418-019
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: MW-X
Lab Code: R2311418-019.R01
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: EB
Lab Code: R2311418-020
Sample Matrix: Water

Date Collected: 12/8/23
Date Received: 12/8/23

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-11
Lab Code: R2311418-001

Service Request: R2311418
Date Collected: 12/07/23 15:24
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 17:44	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 17:44	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 17:44	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 17:44	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 17:44	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 17:44	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:44	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:44	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 17:44	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 17:44	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:44	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 17:44	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 17:44	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:44	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:44	
1,4-Dioxane	100 U	100	1	12/14/23 17:44	
2-Butanone (MEK)	10 U	10	1	12/14/23 17:44	
2-Hexanone	10 U	10	1	12/14/23 17:44	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 17:44	
Acetone	10 U	10	1	12/14/23 17:44	
Benzene	5.0 U	5.0	1	12/14/23 17:44	
Bromochloromethane	5.0 U	5.0	1	12/14/23 17:44	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 17:44	
Bromoform	5.0 U	5.0	1	12/14/23 17:44	
Bromomethane	5.0 U	5.0	1	12/14/23 17:44	
Carbon Disulfide	10 U	10	1	12/14/23 17:44	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 17:44	
Chlorobenzene	5.0 U	5.0	1	12/14/23 17:44	
Chloroethane	5.0 U	5.0	1	12/14/23 17:44	
Chloroform	5.0 U	5.0	1	12/14/23 17:44	
Chloromethane	5.0 U	5.0	1	12/14/23 17:44	
Cyclohexane	10 U	10	1	12/14/23 17:44	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 17:44	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 17:44	
Dichloromethane	5.0 U	5.0	1	12/14/23 17:44	
Ethylbenzene	5.0 U	5.0	1	12/14/23 17:44	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 17:44	
Methyl Acetate	10 U	10	1	12/14/23 17:44	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 17:44	
Methylcyclohexane	10 U	10	1	12/14/23 17:44	
Styrene	5.0 U	5.0	1	12/14/23 17:44	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 17:44	
Toluene	5.0 U	5.0	1	12/14/23 17:44	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-11
Lab Code: R2311418-001

Service Request: R2311418
Date Collected: 12/07/23 15:24
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	350 E	5.0	1	12/14/23 17:44	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 17:44	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 17:44	
cis-1,2-Dichloroethene	200	5.0	1	12/14/23 17:44	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:44	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 17:44	
o-Xylene	5.0 U	5.0	1	12/14/23 17:44	
trans-1,2-Dichloroethene	15	5.0	1	12/14/23 17:44	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	12/14/23 17:44	
Dibromofluoromethane	91	80 - 116	12/14/23 17:44	
Toluene-d8	94	87 - 121	12/14/23 17:44	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 15:24
Date Received: 12/08/23 14:38

Sample Name: MW-11
Lab Code: R2311418-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	25	5	12/15/23 16:48	
1,1,2,2-Tetrachloroethane	25 U	25	5	12/15/23 16:48	
1,1,2-Trichloroethane	25 U	25	5	12/15/23 16:48	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	25	5	12/15/23 16:48	
1,1-Dichloroethane (1,1-DCA)	25 U	25	5	12/15/23 16:48	
1,1-Dichloroethene (1,1-DCE)	25 U	25	5	12/15/23 16:48	
1,2,3-Trichlorobenzene	25 U	25	5	12/15/23 16:48	
1,2,4-Trichlorobenzene	25 U	25	5	12/15/23 16:48	
1,2-Dibromo-3-chloropropane (DBCP)	25 U	25	5	12/15/23 16:48	
1,2-Dibromoethane	25 U	25	5	12/15/23 16:48	
1,2-Dichlorobenzene	25 U	25	5	12/15/23 16:48	
1,2-Dichloroethane	25 U	25	5	12/15/23 16:48	
1,2-Dichloropropane	25 U	25	5	12/15/23 16:48	
1,3-Dichlorobenzene	25 U	25	5	12/15/23 16:48	
1,4-Dichlorobenzene	25 U	25	5	12/15/23 16:48	
1,4-Dioxane	500 U	500	5	12/15/23 16:48	
2-Butanone (MEK)	50 U	50	5	12/15/23 16:48	
2-Hexanone	50 U	50	5	12/15/23 16:48	
4-Methyl-2-pentanone	50 U	50	5	12/15/23 16:48	
Acetone	50 U	50	5	12/15/23 16:48	
Benzene	25 U	25	5	12/15/23 16:48	
Bromochloromethane	25 U	25	5	12/15/23 16:48	
Bromodichloromethane	25 U	25	5	12/15/23 16:48	
Bromoform	25 U	25	5	12/15/23 16:48	
Bromomethane	25 U	25	5	12/15/23 16:48	
Carbon Disulfide	50 U	50	5	12/15/23 16:48	
Carbon Tetrachloride	25 U	25	5	12/15/23 16:48	
Chlorobenzene	25 U	25	5	12/15/23 16:48	
Chloroethane	25 U	25	5	12/15/23 16:48	
Chloroform	25 U	25	5	12/15/23 16:48	
Chloromethane	25 U	25	5	12/15/23 16:48	
Cyclohexane	50 U	50	5	12/15/23 16:48	
Dibromochloromethane	25 U	25	5	12/15/23 16:48	
Dichlorodifluoromethane (CFC 12)	25 U	25	5	12/15/23 16:48	
Dichloromethane	25 U	25	5	12/15/23 16:48	
Ethylbenzene	25 U	25	5	12/15/23 16:48	
Isopropylbenzene (Cumene)	25 U	25	5	12/15/23 16:48	
Methyl Acetate	50 U	50	5	12/15/23 16:48	
Methyl tert-Butyl Ether	25 U	25	5	12/15/23 16:48	
Methylcyclohexane	50 U	50	5	12/15/23 16:48	
Styrene	25 U	25	5	12/15/23 16:48	
Tetrachloroethene (PCE)	25 U	25	5	12/15/23 16:48	
Toluene	25 U	25	5	12/15/23 16:48	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-11
Lab Code: R2311418-001

Service Request: R2311418
Date Collected: 12/07/23 15:24
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	240 D	25	5	12/15/23 16:48	
Trichlorofluoromethane (CFC 11)	25 U	25	5	12/15/23 16:48	
Vinyl Chloride	25 U	25	5	12/15/23 16:48	
cis-1,2-Dichloroethene	170 D	25	5	12/15/23 16:48	
cis-1,3-Dichloropropene	25 U	25	5	12/15/23 16:48	
m,p-Xylenes	25 U	25	5	12/15/23 16:48	
o-Xylene	25 U	25	5	12/15/23 16:48	
trans-1,2-Dichloroethene	25 U	25	5	12/15/23 16:48	
trans-1,3-Dichloropropene	25 U	25	5	12/15/23 16:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	12/15/23 16:48	
Dibromofluoromethane	93	80 - 116	12/15/23 16:48	
Toluene-d8	97	87 - 121	12/15/23 16:48	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-12
Lab Code: R2311418-002

Service Request: R2311418
Date Collected: 12/07/23 14:37
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 18:06	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 18:06	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 18:06	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 18:06	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 18:06	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 18:06	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:06	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:06	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 18:06	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 18:06	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:06	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 18:06	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 18:06	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:06	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:06	
1,4-Dioxane	100 U	100	1	12/14/23 18:06	
2-Butanone (MEK)	10 U	10	1	12/14/23 18:06	
2-Hexanone	10 U	10	1	12/14/23 18:06	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 18:06	
Acetone	10 U	10	1	12/14/23 18:06	
Benzene	5.0 U	5.0	1	12/14/23 18:06	
Bromochloromethane	5.0 U	5.0	1	12/14/23 18:06	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 18:06	
Bromoform	5.0 U	5.0	1	12/14/23 18:06	
Bromomethane	5.0 U	5.0	1	12/14/23 18:06	
Carbon Disulfide	10 U	10	1	12/14/23 18:06	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 18:06	
Chlorobenzene	5.0 U	5.0	1	12/14/23 18:06	
Chloroethane	5.0 U	5.0	1	12/14/23 18:06	
Chloroform	5.0 U	5.0	1	12/14/23 18:06	
Chloromethane	5.0 U	5.0	1	12/14/23 18:06	
Cyclohexane	10 U	10	1	12/14/23 18:06	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 18:06	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 18:06	
Dichloromethane	5.0 U	5.0	1	12/14/23 18:06	
Ethylbenzene	5.0 U	5.0	1	12/14/23 18:06	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 18:06	
Methyl Acetate	10 U	10	1	12/14/23 18:06	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 18:06	
Methylcyclohexane	10 U	10	1	12/14/23 18:06	
Styrene	5.0 U	5.0	1	12/14/23 18:06	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 18:06	
Toluene	5.0 U	5.0	1	12/14/23 18:06	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-12
Lab Code: R2311418-002

Service Request: R2311418
Date Collected: 12/07/23 14:37
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	22	5.0	1	12/14/23 18:06	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 18:06	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 18:06	
cis-1,2-Dichloroethene	36	5.0	1	12/14/23 18:06	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:06	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 18:06	
o-Xylene	5.0 U	5.0	1	12/14/23 18:06	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:06	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 18:06	
Dibromofluoromethane	92	80 - 116	12/14/23 18:06	
Toluene-d8	94	87 - 121	12/14/23 18:06	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-13
Lab Code: R2311418-003

Service Request: R2311418
Date Collected: 12/07/23 14:49
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 18:28	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 18:28	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 18:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 18:28	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 18:28	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 18:28	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:28	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:28	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 18:28	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 18:28	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:28	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 18:28	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 18:28	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:28	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:28	
1,4-Dioxane	100 U	100	1	12/14/23 18:28	
2-Butanone (MEK)	10 U	10	1	12/14/23 18:28	
2-Hexanone	10 U	10	1	12/14/23 18:28	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 18:28	
Acetone	10 U	10	1	12/14/23 18:28	
Benzene	5.0 U	5.0	1	12/14/23 18:28	
Bromochloromethane	5.0 U	5.0	1	12/14/23 18:28	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 18:28	
Bromoform	5.0 U	5.0	1	12/14/23 18:28	
Bromomethane	5.0 U	5.0	1	12/14/23 18:28	
Carbon Disulfide	10 U	10	1	12/14/23 18:28	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 18:28	
Chlorobenzene	5.0 U	5.0	1	12/14/23 18:28	
Chloroethane	5.0 U	5.0	1	12/14/23 18:28	
Chloroform	5.0 U	5.0	1	12/14/23 18:28	
Chloromethane	5.0 U	5.0	1	12/14/23 18:28	
Cyclohexane	10 U	10	1	12/14/23 18:28	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 18:28	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 18:28	
Dichloromethane	5.0 U	5.0	1	12/14/23 18:28	
Ethylbenzene	5.0 U	5.0	1	12/14/23 18:28	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 18:28	
Methyl Acetate	10 U	10	1	12/14/23 18:28	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 18:28	
Methylcyclohexane	10 U	10	1	12/14/23 18:28	
Styrene	5.0 U	5.0	1	12/14/23 18:28	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 18:28	
Toluene	5.0 U	5.0	1	12/14/23 18:28	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-13
Lab Code: R2311418-003

Service Request: R2311418
Date Collected: 12/07/23 14:49
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 18:28	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 18:28	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 18:28	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:28	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:28	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 18:28	
o-Xylene	5.0 U	5.0	1	12/14/23 18:28	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:28	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	12/14/23 18:28	
Dibromofluoromethane	88	80 - 116	12/14/23 18:28	
Toluene-d8	92	87 - 121	12/14/23 18:28	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 13:31
Date Received: 12/08/23 14:38

Sample Name: MW-14
Lab Code: R2311418-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 18:51	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 18:51	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 18:51	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 18:51	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 18:51	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 18:51	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:51	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 18:51	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 18:51	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 18:51	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:51	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 18:51	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 18:51	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:51	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 18:51	
1,4-Dioxane	100 U	100	1	12/14/23 18:51	
2-Butanone (MEK)	10 U	10	1	12/14/23 18:51	
2-Hexanone	10 U	10	1	12/14/23 18:51	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 18:51	
Acetone	10 U	10	1	12/14/23 18:51	
Benzene	5.0 U	5.0	1	12/14/23 18:51	
Bromochloromethane	5.0 U	5.0	1	12/14/23 18:51	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 18:51	
Bromoform	5.0 U	5.0	1	12/14/23 18:51	
Bromomethane	5.0 U	5.0	1	12/14/23 18:51	
Carbon Disulfide	10 U	10	1	12/14/23 18:51	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 18:51	
Chlorobenzene	5.0 U	5.0	1	12/14/23 18:51	
Chloroethane	5.0 U	5.0	1	12/14/23 18:51	
Chloroform	5.0 U	5.0	1	12/14/23 18:51	
Chloromethane	5.0 U	5.0	1	12/14/23 18:51	
Cyclohexane	10 U	10	1	12/14/23 18:51	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 18:51	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 18:51	
Dichloromethane	5.0 U	5.0	1	12/14/23 18:51	
Ethylbenzene	5.0 U	5.0	1	12/14/23 18:51	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 18:51	
Methyl Acetate	10 U	10	1	12/14/23 18:51	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 18:51	
Methylcyclohexane	10 U	10	1	12/14/23 18:51	
Styrene	5.0 U	5.0	1	12/14/23 18:51	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 18:51	
Toluene	5.0 U	5.0	1	12/14/23 18:51	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-14
Lab Code: R2311418-004

Service Request: R2311418
Date Collected: 12/07/23 13:31
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	18	5.0	1	12/14/23 18:51	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 18:51	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 18:51	
cis-1,2-Dichloroethene	7.4	5.0	1	12/14/23 18:51	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:51	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 18:51	
o-Xylene	5.0 U	5.0	1	12/14/23 18:51	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 18:51	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 18:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 18:51	
Dibromofluoromethane	92	80 - 116	12/14/23 18:51	
Toluene-d8	95	87 - 121	12/14/23 18:51	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-15
Lab Code: R2311418-005

Service Request: R2311418
Date Collected: 12/07/23 12:56
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 19:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 19:13	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 19:13	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 19:13	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 19:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 19:13	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:13	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:13	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 19:13	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 19:13	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:13	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 19:13	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 19:13	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:13	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:13	
1,4-Dioxane	100 U	100	1	12/14/23 19:13	
2-Butanone (MEK)	10 U	10	1	12/14/23 19:13	
2-Hexanone	10 U	10	1	12/14/23 19:13	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 19:13	
Acetone	10 U	10	1	12/14/23 19:13	
Benzene	5.0 U	5.0	1	12/14/23 19:13	
Bromochloromethane	5.0 U	5.0	1	12/14/23 19:13	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 19:13	
Bromoform	5.0 U	5.0	1	12/14/23 19:13	
Bromomethane	5.0 U	5.0	1	12/14/23 19:13	
Carbon Disulfide	10 U	10	1	12/14/23 19:13	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 19:13	
Chlorobenzene	5.0 U	5.0	1	12/14/23 19:13	
Chloroethane	5.0 U	5.0	1	12/14/23 19:13	
Chloroform	5.0 U	5.0	1	12/14/23 19:13	
Chloromethane	5.0 U	5.0	1	12/14/23 19:13	
Cyclohexane	10 U	10	1	12/14/23 19:13	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 19:13	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 19:13	
Dichloromethane	5.0 U	5.0	1	12/14/23 19:13	
Ethylbenzene	5.0 U	5.0	1	12/14/23 19:13	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 19:13	
Methyl Acetate	10 U	10	1	12/14/23 19:13	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 19:13	
Methylcyclohexane	10 U	10	1	12/14/23 19:13	
Styrene	5.0 U	5.0	1	12/14/23 19:13	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 19:13	
Toluene	5.0 U	5.0	1	12/14/23 19:13	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-15
Lab Code: R2311418-005

Service Request: R2311418
Date Collected: 12/07/23 12:56
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 19:13	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 19:13	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 19:13	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:13	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:13	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 19:13	
o-Xylene	5.0 U	5.0	1	12/14/23 19:13	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:13	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	12/14/23 19:13	
Dibromofluoromethane	91	80 - 116	12/14/23 19:13	
Toluene-d8	95	87 - 121	12/14/23 19:13	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-16
Lab Code: R2311418-006

Service Request: R2311418
Date Collected: 12/08/23 08:52
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 19:35	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 19:35	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 19:35	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 19:35	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 19:35	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 19:35	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:35	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:35	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 19:35	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 19:35	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:35	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 19:35	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 19:35	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:35	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:35	
1,4-Dioxane	100 U	100	1	12/14/23 19:35	
2-Butanone (MEK)	10 U	10	1	12/14/23 19:35	
2-Hexanone	10 U	10	1	12/14/23 19:35	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 19:35	
Acetone	10 U	10	1	12/14/23 19:35	
Benzene	5.0 U	5.0	1	12/14/23 19:35	
Bromochloromethane	5.0 U	5.0	1	12/14/23 19:35	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 19:35	
Bromoform	5.0 U	5.0	1	12/14/23 19:35	
Bromomethane	5.0 U	5.0	1	12/14/23 19:35	
Carbon Disulfide	10 U	10	1	12/14/23 19:35	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 19:35	
Chlorobenzene	5.0 U	5.0	1	12/14/23 19:35	
Chloroethane	5.0 U	5.0	1	12/14/23 19:35	
Chloroform	5.0 U	5.0	1	12/14/23 19:35	
Chloromethane	5.0 U	5.0	1	12/14/23 19:35	
Cyclohexane	10 U	10	1	12/14/23 19:35	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 19:35	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 19:35	
Dichloromethane	5.0 U	5.0	1	12/14/23 19:35	
Ethylbenzene	5.0 U	5.0	1	12/14/23 19:35	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 19:35	
Methyl Acetate	10 U	10	1	12/14/23 19:35	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 19:35	
Methylcyclohexane	10 U	10	1	12/14/23 19:35	
Styrene	5.0 U	5.0	1	12/14/23 19:35	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 19:35	
Toluene	5.0 U	5.0	1	12/14/23 19:35	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-16
Lab Code: R2311418-006

Service Request: R2311418
Date Collected: 12/08/23 08:52
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 19:35	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 19:35	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 19:35	
cis-1,2-Dichloroethene	11	5.0	1	12/14/23 19:35	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:35	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 19:35	
o-Xylene	5.0 U	5.0	1	12/14/23 19:35	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:35	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	12/14/23 19:35	
Dibromofluoromethane	93	80 - 116	12/14/23 19:35	
Toluene-d8	96	87 - 121	12/14/23 19:35	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-17
Lab Code: R2311418-007

Service Request: R2311418
Date Collected: 12/08/23 09:45
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/15/23 16:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/15/23 16:25	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/15/23 16:25	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/15/23 16:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/15/23 16:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/15/23 16:25	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/15/23 16:25	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/15/23 16:25	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/15/23 16:25	
1,2-Dibromoethane	5.0 U	5.0	1	12/15/23 16:25	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/15/23 16:25	
1,2-Dichloroethane	5.0 U	5.0	1	12/15/23 16:25	
1,2-Dichloropropane	5.0 U	5.0	1	12/15/23 16:25	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/15/23 16:25	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/15/23 16:25	
1,4-Dioxane	100 U	100	1	12/15/23 16:25	
2-Butanone (MEK)	10 U	10	1	12/15/23 16:25	
2-Hexanone	10 U	10	1	12/15/23 16:25	
4-Methyl-2-pentanone	10 U	10	1	12/15/23 16:25	
Acetone	10 U	10	1	12/15/23 16:25	
Benzene	5.0 U	5.0	1	12/15/23 16:25	
Bromochloromethane	5.0 U	5.0	1	12/15/23 16:25	
Bromodichloromethane	5.0 U	5.0	1	12/15/23 16:25	
Bromoform	5.0 U	5.0	1	12/15/23 16:25	
Bromomethane	5.0 U	5.0	1	12/15/23 16:25	
Carbon Disulfide	10 U	10	1	12/15/23 16:25	
Carbon Tetrachloride	5.0 U	5.0	1	12/15/23 16:25	
Chlorobenzene	5.0 U	5.0	1	12/15/23 16:25	
Chloroethane	5.0 U	5.0	1	12/15/23 16:25	
Chloroform	5.0 U	5.0	1	12/15/23 16:25	
Chloromethane	5.0 U	5.0	1	12/15/23 16:25	
Cyclohexane	10 U	10	1	12/15/23 16:25	
Dibromochloromethane	5.0 U	5.0	1	12/15/23 16:25	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/15/23 16:25	
Dichloromethane	5.0 U	5.0	1	12/15/23 16:25	
Ethylbenzene	5.0 U	5.0	1	12/15/23 16:25	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/15/23 16:25	
Methyl Acetate	10 U	10	1	12/15/23 16:25	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/15/23 16:25	
Methylcyclohexane	10 U	10	1	12/15/23 16:25	
Styrene	5.0 U	5.0	1	12/15/23 16:25	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/15/23 16:25	
Toluene	5.0 U	5.0	1	12/15/23 16:25	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-17
Lab Code: R2311418-007

Service Request: R2311418
Date Collected: 12/08/23 09:45
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	6.2	5.0	1	12/15/23 16:25	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/15/23 16:25	
Vinyl Chloride	5.0 U	5.0	1	12/15/23 16:25	
cis-1,2-Dichloroethene	54	5.0	1	12/15/23 16:25	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/15/23 16:25	
m,p-Xylenes	5.0 U	5.0	1	12/15/23 16:25	
o-Xylene	5.0 U	5.0	1	12/15/23 16:25	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/15/23 16:25	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/15/23 16:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/15/23 16:25	
Dibromofluoromethane	96	80 - 116	12/15/23 16:25	
Toluene-d8	98	87 - 121	12/15/23 16:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/08/23 11:30
Date Received: 12/08/23 14:38

Sample Name: MW-18
Lab Code: R2311418-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 19:57	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 19:57	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 19:57	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 19:57	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 19:57	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 19:57	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:57	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 19:57	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 19:57	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 19:57	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:57	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 19:57	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 19:57	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:57	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 19:57	
1,4-Dioxane	100 U	100	1	12/14/23 19:57	
2-Butanone (MEK)	10 U	10	1	12/14/23 19:57	
2-Hexanone	10 U	10	1	12/14/23 19:57	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 19:57	
Acetone	10 U	10	1	12/14/23 19:57	
Benzene	5.0 U	5.0	1	12/14/23 19:57	
Bromochloromethane	5.0 U	5.0	1	12/14/23 19:57	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 19:57	
Bromoform	5.0 U	5.0	1	12/14/23 19:57	
Bromomethane	5.0 U	5.0	1	12/14/23 19:57	
Carbon Disulfide	10 U	10	1	12/14/23 19:57	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 19:57	
Chlorobenzene	5.0 U	5.0	1	12/14/23 19:57	
Chloroethane	5.0 U	5.0	1	12/14/23 19:57	
Chloroform	5.0 U	5.0	1	12/14/23 19:57	
Chloromethane	5.0 U	5.0	1	12/14/23 19:57	
Cyclohexane	10 U	10	1	12/14/23 19:57	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 19:57	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 19:57	
Dichloromethane	5.0 U	5.0	1	12/14/23 19:57	
Ethylbenzene	5.0 U	5.0	1	12/14/23 19:57	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 19:57	
Methyl Acetate	10 U	10	1	12/14/23 19:57	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 19:57	
Methylcyclohexane	10 U	10	1	12/14/23 19:57	
Styrene	5.0 U	5.0	1	12/14/23 19:57	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 19:57	
Toluene	5.0 U	5.0	1	12/14/23 19:57	

ALS Group USA, Corp.
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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-18
Lab Code: R2311418-008

Service Request: R2311418
Date Collected: 12/08/23 11:30
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 19:57	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 19:57	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 19:57	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:57	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:57	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 19:57	
o-Xylene	5.0 U	5.0	1	12/14/23 19:57	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 19:57	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 19:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	12/14/23 19:57	
Dibromofluoromethane	89	80 - 116	12/14/23 19:57	
Toluene-d8	92	87 - 121	12/14/23 19:57	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-19R
Lab Code: R2311418-009

Service Request: R2311418
Date Collected: 12/08/23 10:57
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 20:20	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 20:20	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 20:20	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 20:20	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 20:20	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 20:20	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 20:20	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 20:20	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 20:20	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 20:20	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 20:20	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 20:20	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 20:20	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 20:20	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 20:20	
1,4-Dioxane	100 U	100	1	12/14/23 20:20	
2-Butanone (MEK)	10 U	10	1	12/14/23 20:20	
2-Hexanone	10 U	10	1	12/14/23 20:20	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 20:20	
Acetone	10 U	10	1	12/14/23 20:20	
Benzene	5.0 U	5.0	1	12/14/23 20:20	
Bromochloromethane	5.0 U	5.0	1	12/14/23 20:20	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 20:20	
Bromoform	5.0 U	5.0	1	12/14/23 20:20	
Bromomethane	5.0 U	5.0	1	12/14/23 20:20	
Carbon Disulfide	10 U	10	1	12/14/23 20:20	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 20:20	
Chlorobenzene	5.0 U	5.0	1	12/14/23 20:20	
Chloroethane	5.0 U	5.0	1	12/14/23 20:20	
Chloroform	5.0 U	5.0	1	12/14/23 20:20	
Chloromethane	5.0 U	5.0	1	12/14/23 20:20	
Cyclohexane	10 U	10	1	12/14/23 20:20	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 20:20	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 20:20	
Dichloromethane	5.0 U	5.0	1	12/14/23 20:20	
Ethylbenzene	5.0 U	5.0	1	12/14/23 20:20	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 20:20	
Methyl Acetate	10 U	10	1	12/14/23 20:20	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 20:20	
Methylcyclohexane	10 U	10	1	12/14/23 20:20	
Styrene	5.0 U	5.0	1	12/14/23 20:20	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 20:20	
Toluene	5.0 U	5.0	1	12/14/23 20:20	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-19R
Lab Code: R2311418-009

Service Request: R2311418
Date Collected: 12/08/23 10:57
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 20:20	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 20:20	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 20:20	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 20:20	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 20:20	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 20:20	
o-Xylene	5.0 U	5.0	1	12/14/23 20:20	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 20:20	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 20:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 20:20	
Dibromofluoromethane	92	80 - 116	12/14/23 20:20	
Toluene-d8	94	87 - 121	12/14/23 20:20	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-20
Lab Code: R2311418-010

Service Request: R2311418
Date Collected: 12/08/23 10:20
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 20:42	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 20:42	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 20:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 20:42	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 20:42	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 20:42	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 20:42	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 20:42	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 20:42	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 20:42	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 20:42	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 20:42	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 20:42	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 20:42	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 20:42	
1,4-Dioxane	100 U	100	1	12/14/23 20:42	
2-Butanone (MEK)	10 U	10	1	12/14/23 20:42	
2-Hexanone	10 U	10	1	12/14/23 20:42	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 20:42	
Acetone	10 U	10	1	12/14/23 20:42	
Benzene	5.0 U	5.0	1	12/14/23 20:42	
Bromochloromethane	5.0 U	5.0	1	12/14/23 20:42	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 20:42	
Bromoform	5.0 U	5.0	1	12/14/23 20:42	
Bromomethane	5.0 U	5.0	1	12/14/23 20:42	
Carbon Disulfide	10 U	10	1	12/14/23 20:42	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 20:42	
Chlorobenzene	5.0 U	5.0	1	12/14/23 20:42	
Chloroethane	5.0 U	5.0	1	12/14/23 20:42	
Chloroform	5.0 U	5.0	1	12/14/23 20:42	
Chloromethane	5.0 U	5.0	1	12/14/23 20:42	
Cyclohexane	10 U	10	1	12/14/23 20:42	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 20:42	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 20:42	
Dichloromethane	5.0 U	5.0	1	12/14/23 20:42	
Ethylbenzene	5.0 U	5.0	1	12/14/23 20:42	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 20:42	
Methyl Acetate	10 U	10	1	12/14/23 20:42	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 20:42	
Methylcyclohexane	10 U	10	1	12/14/23 20:42	
Styrene	5.0 U	5.0	1	12/14/23 20:42	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 20:42	
Toluene	5.0 U	5.0	1	12/14/23 20:42	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-20
Lab Code: R2311418-010

Service Request: R2311418
Date Collected: 12/08/23 10:20
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 20:42	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 20:42	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 20:42	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 20:42	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 20:42	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 20:42	
o-Xylene	5.0 U	5.0	1	12/14/23 20:42	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 20:42	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 20:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	12/14/23 20:42	
Dibromofluoromethane	92	80 - 116	12/14/23 20:42	
Toluene-d8	96	87 - 121	12/14/23 20:42	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-21
Lab Code: R2311418-011

Service Request: R2311418
Date Collected: 12/08/23 11:58
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 21:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 21:04	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 21:04	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 21:04	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 21:04	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 21:04	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 21:04	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 21:04	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 21:04	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 21:04	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:04	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 21:04	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 21:04	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:04	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:04	
1,4-Dioxane	100 U	100	1	12/14/23 21:04	
2-Butanone (MEK)	10 U	10	1	12/14/23 21:04	
2-Hexanone	10 U	10	1	12/14/23 21:04	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 21:04	
Acetone	10 U	10	1	12/14/23 21:04	
Benzene	5.0 U	5.0	1	12/14/23 21:04	
Bromochloromethane	5.0 U	5.0	1	12/14/23 21:04	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 21:04	
Bromoform	5.0 U	5.0	1	12/14/23 21:04	
Bromomethane	5.0 U	5.0	1	12/14/23 21:04	
Carbon Disulfide	10 U	10	1	12/14/23 21:04	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 21:04	
Chlorobenzene	5.0 U	5.0	1	12/14/23 21:04	
Chloroethane	5.0 U	5.0	1	12/14/23 21:04	
Chloroform	5.0 U	5.0	1	12/14/23 21:04	
Chloromethane	5.0 U	5.0	1	12/14/23 21:04	
Cyclohexane	10 U	10	1	12/14/23 21:04	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 21:04	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 21:04	
Dichloromethane	5.0 U	5.0	1	12/14/23 21:04	
Ethylbenzene	5.0 U	5.0	1	12/14/23 21:04	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 21:04	
Methyl Acetate	10 U	10	1	12/14/23 21:04	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 21:04	
Methylcyclohexane	10 U	10	1	12/14/23 21:04	
Styrene	5.0 U	5.0	1	12/14/23 21:04	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 21:04	
Toluene	5.0 U	5.0	1	12/14/23 21:04	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-21
Lab Code: R2311418-011

Service Request: R2311418
Date Collected: 12/08/23 11:58
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 21:04	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 21:04	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 21:04	
cis-1,2-Dichloroethene	16	5.0	1	12/14/23 21:04	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 21:04	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 21:04	
o-Xylene	5.0 U	5.0	1	12/14/23 21:04	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 21:04	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 21:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	12/14/23 21:04	
Dibromofluoromethane	93	80 - 116	12/14/23 21:04	
Toluene-d8	95	87 - 121	12/14/23 21:04	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 15:13
Date Received: 12/08/23 14:38

Sample Name: DR-1
Lab Code: R2311418-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 21:27	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 21:27	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 21:27	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 21:27	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 21:27	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 21:27	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 21:27	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 21:27	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 21:27	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 21:27	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:27	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 21:27	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 21:27	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:27	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:27	
1,4-Dioxane	100 U	100	1	12/14/23 21:27	
2-Butanone (MEK)	10 U	10	1	12/14/23 21:27	
2-Hexanone	10 U	10	1	12/14/23 21:27	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 21:27	
Acetone	10 U	10	1	12/14/23 21:27	
Benzene	5.0 U	5.0	1	12/14/23 21:27	
Bromochloromethane	5.0 U	5.0	1	12/14/23 21:27	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 21:27	
Bromoform	5.0 U	5.0	1	12/14/23 21:27	
Bromomethane	5.0 U	5.0	1	12/14/23 21:27	
Carbon Disulfide	10 U	10	1	12/14/23 21:27	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 21:27	
Chlorobenzene	5.0 U	5.0	1	12/14/23 21:27	
Chloroethane	5.0 U	5.0	1	12/14/23 21:27	
Chloroform	5.0 U	5.0	1	12/14/23 21:27	
Chloromethane	5.0 U	5.0	1	12/14/23 21:27	
Cyclohexane	10 U	10	1	12/14/23 21:27	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 21:27	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 21:27	
Dichloromethane	5.0 U	5.0	1	12/14/23 21:27	
Ethylbenzene	5.0 U	5.0	1	12/14/23 21:27	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 21:27	
Methyl Acetate	10 U	10	1	12/14/23 21:27	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 21:27	
Methylcyclohexane	10 U	10	1	12/14/23 21:27	
Styrene	5.0 U	5.0	1	12/14/23 21:27	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 21:27	
Toluene	5.0 U	5.0	1	12/14/23 21:27	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-1
Lab Code: R2311418-012

Service Request: R2311418
Date Collected: 12/07/23 15:13
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	830 E	5.0	1	12/14/23 21:27	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 21:27	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 21:27	
cis-1,2-Dichloroethene	55	5.0	1	12/14/23 21:27	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 21:27	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 21:27	
o-Xylene	5.0 U	5.0	1	12/14/23 21:27	
trans-1,2-Dichloroethene	16	5.0	1	12/14/23 21:27	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 21:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 21:27	
Dibromofluoromethane	92	80 - 116	12/14/23 21:27	
Toluene-d8	94	87 - 121	12/14/23 21:27	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 15:13
Date Received: 12/08/23 14:38

Sample Name: DR-1
Lab Code: R2311418-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	50 U	50	10	12/15/23 17:10	
1,1,2,2-Tetrachloroethane	50 U	50	10	12/15/23 17:10	
1,1,2-Trichloroethane	50 U	50	10	12/15/23 17:10	
1,1,2-Trichloro-1,2,2-trifluoroethane	50 U	50	10	12/15/23 17:10	
1,1-Dichloroethane (1,1-DCA)	50 U	50	10	12/15/23 17:10	
1,1-Dichloroethene (1,1-DCE)	50 U	50	10	12/15/23 17:10	
1,2,3-Trichlorobenzene	50 U	50	10	12/15/23 17:10	
1,2,4-Trichlorobenzene	50 U	50	10	12/15/23 17:10	
1,2-Dibromo-3-chloropropane (DBCP)	50 U	50	10	12/15/23 17:10	
1,2-Dibromoethane	50 U	50	10	12/15/23 17:10	
1,2-Dichlorobenzene	50 U	50	10	12/15/23 17:10	
1,2-Dichloroethane	50 U	50	10	12/15/23 17:10	
1,2-Dichloropropane	50 U	50	10	12/15/23 17:10	
1,3-Dichlorobenzene	50 U	50	10	12/15/23 17:10	
1,4-Dichlorobenzene	50 U	50	10	12/15/23 17:10	
1,4-Dioxane	1000 U	1000	10	12/15/23 17:10	
2-Butanone (MEK)	100 U	100	10	12/15/23 17:10	
2-Hexanone	100 U	100	10	12/15/23 17:10	
4-Methyl-2-pentanone	100 U	100	10	12/15/23 17:10	
Acetone	100 U	100	10	12/15/23 17:10	
Benzene	50 U	50	10	12/15/23 17:10	
Bromochloromethane	50 U	50	10	12/15/23 17:10	
Bromodichloromethane	50 U	50	10	12/15/23 17:10	
Bromoform	50 U	50	10	12/15/23 17:10	
Bromomethane	50 U	50	10	12/15/23 17:10	
Carbon Disulfide	100 U	100	10	12/15/23 17:10	
Carbon Tetrachloride	50 U	50	10	12/15/23 17:10	
Chlorobenzene	50 U	50	10	12/15/23 17:10	
Chloroethane	50 U	50	10	12/15/23 17:10	
Chloroform	50 U	50	10	12/15/23 17:10	
Chloromethane	50 U	50	10	12/15/23 17:10	
Cyclohexane	100 U	100	10	12/15/23 17:10	
Dibromochloromethane	50 U	50	10	12/15/23 17:10	
Dichlorodifluoromethane (CFC 12)	50 U	50	10	12/15/23 17:10	
Dichloromethane	50 U	50	10	12/15/23 17:10	
Ethylbenzene	50 U	50	10	12/15/23 17:10	
Isopropylbenzene (Cumene)	50 U	50	10	12/15/23 17:10	
Methyl Acetate	100 U	100	10	12/15/23 17:10	
Methyl tert-Butyl Ether	50 U	50	10	12/15/23 17:10	
Methylcyclohexane	100 U	100	10	12/15/23 17:10	
Styrene	50 U	50	10	12/15/23 17:10	
Tetrachloroethene (PCE)	50 U	50	10	12/15/23 17:10	
Toluene	50 U	50	10	12/15/23 17:10	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-1
Lab Code: R2311418-012

Service Request: R2311418
Date Collected: 12/07/23 15:13
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	730 D	50	10	12/15/23 17:10	
Trichlorofluoromethane (CFC 11)	50 U	50	10	12/15/23 17:10	
Vinyl Chloride	50 U	50	10	12/15/23 17:10	
cis-1,2-Dichloroethene	56 D	50	10	12/15/23 17:10	
cis-1,3-Dichloropropene	50 U	50	10	12/15/23 17:10	
m,p-Xylenes	50 U	50	10	12/15/23 17:10	
o-Xylene	50 U	50	10	12/15/23 17:10	
trans-1,2-Dichloroethene	50 U	50	10	12/15/23 17:10	
trans-1,3-Dichloropropene	50 U	50	10	12/15/23 17:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85 - 122	12/15/23 17:10	
Dibromofluoromethane	100	80 - 116	12/15/23 17:10	
Toluene-d8	103	87 - 121	12/15/23 17:10	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 14:21
Date Received: 12/08/23 14:38

Sample Name: DR-2
Lab Code: R2311418-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 21:49	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 21:49	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 21:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 21:49	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 21:49	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 21:49	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 21:49	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 21:49	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 21:49	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 21:49	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:49	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 21:49	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 21:49	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:49	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 21:49	
1,4-Dioxane	100 U	100	1	12/14/23 21:49	
2-Butanone (MEK)	10 U	10	1	12/14/23 21:49	
2-Hexanone	10 U	10	1	12/14/23 21:49	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 21:49	
Acetone	10 U	10	1	12/14/23 21:49	
Benzene	5.0 U	5.0	1	12/14/23 21:49	
Bromochloromethane	5.0 U	5.0	1	12/14/23 21:49	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 21:49	
Bromoform	5.0 U	5.0	1	12/14/23 21:49	
Bromomethane	5.0 U	5.0	1	12/14/23 21:49	
Carbon Disulfide	10 U	10	1	12/14/23 21:49	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 21:49	
Chlorobenzene	5.0 U	5.0	1	12/14/23 21:49	
Chloroethane	5.0 U	5.0	1	12/14/23 21:49	
Chloroform	5.0 U	5.0	1	12/14/23 21:49	
Chloromethane	5.0 U	5.0	1	12/14/23 21:49	
Cyclohexane	10 U	10	1	12/14/23 21:49	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 21:49	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 21:49	
Dichloromethane	5.0 U	5.0	1	12/14/23 21:49	
Ethylbenzene	5.0 U	5.0	1	12/14/23 21:49	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 21:49	
Methyl Acetate	10 U	10	1	12/14/23 21:49	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 21:49	
Methylcyclohexane	10 U	10	1	12/14/23 21:49	
Styrene	5.0 U	5.0	1	12/14/23 21:49	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 21:49	
Toluene	5.0 U	5.0	1	12/14/23 21:49	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-2
Lab Code: R2311418-013

Service Request: R2311418
Date Collected: 12/07/23 14:21
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	22	5.0	1	12/14/23 21:49	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 21:49	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 21:49	
cis-1,2-Dichloroethene	99	5.0	1	12/14/23 21:49	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 21:49	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 21:49	
o-Xylene	5.0 U	5.0	1	12/14/23 21:49	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 21:49	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 21:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	12/14/23 21:49	
Dibromofluoromethane	94	80 - 116	12/14/23 21:49	
Toluene-d8	95	87 - 121	12/14/23 21:49	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-3
Lab Code: R2311418-014

Service Request: R2311418
Date Collected: 12/07/23 13:56
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 22:11	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 22:11	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 22:11	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 22:11	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 22:11	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 22:11	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 22:11	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 22:11	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 22:11	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 22:11	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:11	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 22:11	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 22:11	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:11	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:11	
1,4-Dioxane	100 U	100	1	12/14/23 22:11	
2-Butanone (MEK)	10 U	10	1	12/14/23 22:11	
2-Hexanone	10 U	10	1	12/14/23 22:11	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 22:11	
Acetone	10 U	10	1	12/14/23 22:11	
Benzene	5.0 U	5.0	1	12/14/23 22:11	
Bromochloromethane	5.0 U	5.0	1	12/14/23 22:11	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 22:11	
Bromoform	5.0 U	5.0	1	12/14/23 22:11	
Bromomethane	5.0 U	5.0	1	12/14/23 22:11	
Carbon Disulfide	10 U	10	1	12/14/23 22:11	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 22:11	
Chlorobenzene	5.0 U	5.0	1	12/14/23 22:11	
Chloroethane	5.0 U	5.0	1	12/14/23 22:11	
Chloroform	5.0 U	5.0	1	12/14/23 22:11	
Chloromethane	5.0 U	5.0	1	12/14/23 22:11	
Cyclohexane	10 U	10	1	12/14/23 22:11	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 22:11	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 22:11	
Dichloromethane	5.0 U	5.0	1	12/14/23 22:11	
Ethylbenzene	5.0 U	5.0	1	12/14/23 22:11	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 22:11	
Methyl Acetate	10 U	10	1	12/14/23 22:11	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 22:11	
Methylcyclohexane	10 U	10	1	12/14/23 22:11	
Styrene	5.0 U	5.0	1	12/14/23 22:11	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 22:11	
Toluene	5.0 U	5.0	1	12/14/23 22:11	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-3
Lab Code: R2311418-014

Service Request: R2311418
Date Collected: 12/07/23 13:56
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	28	5.0	1	12/14/23 22:11	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 22:11	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 22:11	
cis-1,2-Dichloroethene	12	5.0	1	12/14/23 22:11	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 22:11	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 22:11	
o-Xylene	5.0 U	5.0	1	12/14/23 22:11	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 22:11	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 22:11	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 22:11	
Dibromofluoromethane	92	80 - 116	12/14/23 22:11	
Toluene-d8	94	87 - 121	12/14/23 22:11	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-4
Lab Code: R2311418-015

Service Request: R2311418
Date Collected: 12/07/23 13:20
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 22:34	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 22:34	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 22:34	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 22:34	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 22:34	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 22:34	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 22:34	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 22:34	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 22:34	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 22:34	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:34	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 22:34	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 22:34	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:34	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:34	
1,4-Dioxane	100 U	100	1	12/14/23 22:34	
2-Butanone (MEK)	10 U	10	1	12/14/23 22:34	
2-Hexanone	10 U	10	1	12/14/23 22:34	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 22:34	
Acetone	10 U	10	1	12/14/23 22:34	
Benzene	5.0 U	5.0	1	12/14/23 22:34	
Bromochloromethane	5.0 U	5.0	1	12/14/23 22:34	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 22:34	
Bromoform	5.0 U	5.0	1	12/14/23 22:34	
Bromomethane	5.0 U	5.0	1	12/14/23 22:34	
Carbon Disulfide	10 U	10	1	12/14/23 22:34	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 22:34	
Chlorobenzene	5.0 U	5.0	1	12/14/23 22:34	
Chloroethane	5.0 U	5.0	1	12/14/23 22:34	
Chloroform	5.0 U	5.0	1	12/14/23 22:34	
Chloromethane	5.0 U	5.0	1	12/14/23 22:34	
Cyclohexane	10 U	10	1	12/14/23 22:34	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 22:34	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 22:34	
Dichloromethane	5.0 U	5.0	1	12/14/23 22:34	
Ethylbenzene	5.0 U	5.0	1	12/14/23 22:34	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 22:34	
Methyl Acetate	10 U	10	1	12/14/23 22:34	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 22:34	
Methylcyclohexane	10 U	10	1	12/14/23 22:34	
Styrene	5.0 U	5.0	1	12/14/23 22:34	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 22:34	
Toluene	5.0 U	5.0	1	12/14/23 22:34	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: DR-4
Lab Code: R2311418-015

Service Request: R2311418
Date Collected: 12/07/23 13:20
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	18	5.0	1	12/14/23 22:34	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 22:34	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 22:34	
cis-1,2-Dichloroethene	7.5	5.0	1	12/14/23 22:34	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 22:34	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 22:34	
o-Xylene	5.0 U	5.0	1	12/14/23 22:34	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 22:34	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 22:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	12/14/23 22:34	
Dibromofluoromethane	91	80 - 116	12/14/23 22:34	
Toluene-d8	93	87 - 121	12/14/23 22:34	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 12:40
Date Received: 12/08/23 14:38

Sample Name: G-1
Lab Code: R2311418-016

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 22:56	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 22:56	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 22:56	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 22:56	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 22:56	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 22:56	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 22:56	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 22:56	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 22:56	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 22:56	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:56	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 22:56	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 22:56	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:56	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 22:56	
1,4-Dioxane	100 U	100	1	12/14/23 22:56	
2-Butanone (MEK)	10 U	10	1	12/14/23 22:56	
2-Hexanone	10 U	10	1	12/14/23 22:56	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 22:56	
Acetone	10 U	10	1	12/14/23 22:56	
Benzene	5.0 U	5.0	1	12/14/23 22:56	
Bromochloromethane	5.0 U	5.0	1	12/14/23 22:56	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 22:56	
Bromoform	5.0 U	5.0	1	12/14/23 22:56	
Bromomethane	5.0 U	5.0	1	12/14/23 22:56	
Carbon Disulfide	10 U	10	1	12/14/23 22:56	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 22:56	
Chlorobenzene	5.0 U	5.0	1	12/14/23 22:56	
Chloroethane	5.0 U	5.0	1	12/14/23 22:56	
Chloroform	5.0 U	5.0	1	12/14/23 22:56	
Chloromethane	5.0 U	5.0	1	12/14/23 22:56	
Cyclohexane	10 U	10	1	12/14/23 22:56	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 22:56	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 22:56	
Dichloromethane	5.0 U	5.0	1	12/14/23 22:56	
Ethylbenzene	5.0 U	5.0	1	12/14/23 22:56	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 22:56	
Methyl Acetate	10 U	10	1	12/14/23 22:56	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 22:56	
Methylcyclohexane	10 U	10	1	12/14/23 22:56	
Styrene	5.0 U	5.0	1	12/14/23 22:56	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 22:56	
Toluene	5.0 U	5.0	1	12/14/23 22:56	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: G-1
Lab Code: R2311418-016

Service Request: R2311418
Date Collected: 12/07/23 12:40
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 22:56	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 22:56	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 22:56	
cis-1,2-Dichloroethene	48	5.0	1	12/14/23 22:56	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 22:56	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 22:56	
o-Xylene	5.0 U	5.0	1	12/14/23 22:56	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 22:56	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 22:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	12/14/23 22:56	
Dibromofluoromethane	93	80 - 116	12/14/23 22:56	
Toluene-d8	95	87 - 121	12/14/23 22:56	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 12:15
Date Received: 12/08/23 14:38

Sample Name: G-2
Lab Code: R2311418-017

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 23:18	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 23:18	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 23:18	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 23:18	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 23:18	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 23:18	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 23:18	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 23:18	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 23:18	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 23:18	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 23:18	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 23:18	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 23:18	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 23:18	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 23:18	
1,4-Dioxane	100 U	100	1	12/14/23 23:18	
2-Butanone (MEK)	10 U	10	1	12/14/23 23:18	
2-Hexanone	10 U	10	1	12/14/23 23:18	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 23:18	
Acetone	10 U	10	1	12/14/23 23:18	
Benzene	5.0 U	5.0	1	12/14/23 23:18	
Bromochloromethane	5.0 U	5.0	1	12/14/23 23:18	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 23:18	
Bromoform	5.0 U	5.0	1	12/14/23 23:18	
Bromomethane	5.0 U	5.0	1	12/14/23 23:18	
Carbon Disulfide	10 U	10	1	12/14/23 23:18	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 23:18	
Chlorobenzene	5.0 U	5.0	1	12/14/23 23:18	
Chloroethane	5.0 U	5.0	1	12/14/23 23:18	
Chloroform	5.0 U	5.0	1	12/14/23 23:18	
Chloromethane	5.0 U	5.0	1	12/14/23 23:18	
Cyclohexane	10 U	10	1	12/14/23 23:18	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 23:18	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 23:18	
Dichloromethane	5.0 U	5.0	1	12/14/23 23:18	
Ethylbenzene	5.0 U	5.0	1	12/14/23 23:18	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 23:18	
Methyl Acetate	10 U	10	1	12/14/23 23:18	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 23:18	
Methylcyclohexane	10 U	10	1	12/14/23 23:18	
Styrene	5.0 U	5.0	1	12/14/23 23:18	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 23:18	
Toluene	5.0 U	5.0	1	12/14/23 23:18	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: G-2
Lab Code: R2311418-017

Service Request: R2311418
Date Collected: 12/07/23 12:15
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 23:18	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 23:18	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 23:18	
cis-1,2-Dichloroethene	33	5.0	1	12/14/23 23:18	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 23:18	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 23:18	
o-Xylene	5.0 U	5.0	1	12/14/23 23:18	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 23:18	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 23:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	12/14/23 23:18	
Dibromofluoromethane	91	80 - 116	12/14/23 23:18	
Toluene-d8	94	87 - 121	12/14/23 23:18	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/07/23 09:23
Date Received: 12/08/23 14:38

Sample Name: G-3
Lab Code: R2311418-018

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 23:41	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 23:41	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 23:41	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 23:41	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 23:41	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 23:41	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 23:41	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 23:41	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 23:41	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 23:41	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 23:41	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 23:41	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 23:41	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 23:41	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 23:41	
1,4-Dioxane	100 U	100	1	12/14/23 23:41	
2-Butanone (MEK)	10 U	10	1	12/14/23 23:41	
2-Hexanone	10 U	10	1	12/14/23 23:41	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 23:41	
Acetone	10 U	10	1	12/14/23 23:41	
Benzene	5.0 U	5.0	1	12/14/23 23:41	
Bromochloromethane	5.0 U	5.0	1	12/14/23 23:41	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 23:41	
Bromoform	5.0 U	5.0	1	12/14/23 23:41	
Bromomethane	5.0 U	5.0	1	12/14/23 23:41	
Carbon Disulfide	10 U	10	1	12/14/23 23:41	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 23:41	
Chlorobenzene	5.0 U	5.0	1	12/14/23 23:41	
Chloroethane	5.0 U	5.0	1	12/14/23 23:41	
Chloroform	5.0 U	5.0	1	12/14/23 23:41	
Chloromethane	5.0 U	5.0	1	12/14/23 23:41	
Cyclohexane	10 U	10	1	12/14/23 23:41	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 23:41	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 23:41	
Dichloromethane	5.0 U	5.0	1	12/14/23 23:41	
Ethylbenzene	5.0 U	5.0	1	12/14/23 23:41	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 23:41	
Methyl Acetate	10 U	10	1	12/14/23 23:41	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 23:41	
Methylcyclohexane	10 U	10	1	12/14/23 23:41	
Styrene	5.0 U	5.0	1	12/14/23 23:41	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 23:41	
Toluene	5.0 U	5.0	1	12/14/23 23:41	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: G-3
Lab Code: R2311418-018

Service Request: R2311418
Date Collected: 12/07/23 09:23
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	6.9	5.0	1	12/14/23 23:41	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 23:41	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 23:41	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 23:41	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 23:41	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 23:41	
o-Xylene	5.0 U	5.0	1	12/14/23 23:41	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 23:41	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 23:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 23:41	
Dibromofluoromethane	91	80 - 116	12/14/23 23:41	
Toluene-d8	94	87 - 121	12/14/23 23:41	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-X
Lab Code: R2311418-019

Service Request: R2311418
Date Collected: 12/08/23
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	13 U	13	2.5	12/15/23 00:03	
1,1,2,2-Tetrachloroethane	13 U	13	2.5	12/15/23 00:03	
1,1,2-Trichloroethane	13 U	13	2.5	12/15/23 00:03	
1,1,2-Trichloro-1,2,2-trifluoroethane	13 U	13	2.5	12/15/23 00:03	
1,1-Dichloroethane (1,1-DCA)	13 U	13	2.5	12/15/23 00:03	
1,1-Dichloroethene (1,1-DCE)	13 U	13	2.5	12/15/23 00:03	
1,2,3-Trichlorobenzene	13 U	13	2.5	12/15/23 00:03	
1,2,4-Trichlorobenzene	13 U	13	2.5	12/15/23 00:03	
1,2-Dibromo-3-chloropropane (DBCP)	13 U	13	2.5	12/15/23 00:03	
1,2-Dibromoethane	13 U	13	2.5	12/15/23 00:03	
1,2-Dichlorobenzene	13 U	13	2.5	12/15/23 00:03	
1,2-Dichloroethane	13 U	13	2.5	12/15/23 00:03	
1,2-Dichloropropane	13 U	13	2.5	12/15/23 00:03	
1,3-Dichlorobenzene	13 U	13	2.5	12/15/23 00:03	
1,4-Dichlorobenzene	13 U	13	2.5	12/15/23 00:03	
1,4-Dioxane	250 U	250	2.5	12/15/23 00:03	
2-Butanone (MEK)	25 U	25	2.5	12/15/23 00:03	
2-Hexanone	25 U	25	2.5	12/15/23 00:03	
4-Methyl-2-pentanone	25 U	25	2.5	12/15/23 00:03	
Acetone	25 U	25	2.5	12/15/23 00:03	
Benzene	13 U	13	2.5	12/15/23 00:03	
Bromochloromethane	13 U	13	2.5	12/15/23 00:03	
Bromodichloromethane	13 U	13	2.5	12/15/23 00:03	
Bromoform	13 U	13	2.5	12/15/23 00:03	
Bromomethane	13 U	13	2.5	12/15/23 00:03	
Carbon Disulfide	25 U	25	2.5	12/15/23 00:03	
Carbon Tetrachloride	13 U	13	2.5	12/15/23 00:03	
Chlorobenzene	13 U	13	2.5	12/15/23 00:03	
Chloroethane	13 U	13	2.5	12/15/23 00:03	
Chloroform	13 U	13	2.5	12/15/23 00:03	
Chloromethane	13 U	13	2.5	12/15/23 00:03	
Cyclohexane	25 U	25	2.5	12/15/23 00:03	
Dibromochloromethane	13 U	13	2.5	12/15/23 00:03	
Dichlorodifluoromethane (CFC 12)	13 U	13	2.5	12/15/23 00:03	
Dichloromethane	13 U	13	2.5	12/15/23 00:03	
Ethylbenzene	13 U	13	2.5	12/15/23 00:03	
Isopropylbenzene (Cumene)	13 U	13	2.5	12/15/23 00:03	
Methyl Acetate	25 U	25	2.5	12/15/23 00:03	
Methyl tert-Butyl Ether	13 U	13	2.5	12/15/23 00:03	
Methylcyclohexane	25 U	25	2.5	12/15/23 00:03	
Styrene	13 U	13	2.5	12/15/23 00:03	
Tetrachloroethene (PCE)	13 U	13	2.5	12/15/23 00:03	
Toluene	13 U	13	2.5	12/15/23 00:03	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-X
Lab Code: R2311418-019

Service Request: R2311418
Date Collected: 12/08/23
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	580 E	13	2.5	12/15/23 00:03	
Trichlorofluoromethane (CFC 11)	13 U	13	2.5	12/15/23 00:03	
Vinyl Chloride	13 U	13	2.5	12/15/23 00:03	
cis-1,2-Dichloroethene	100	13	2.5	12/15/23 00:03	
cis-1,3-Dichloropropene	13 U	13	2.5	12/15/23 00:03	
m,p-Xylenes	13 U	13	2.5	12/15/23 00:03	
o-Xylene	13 U	13	2.5	12/15/23 00:03	
trans-1,2-Dichloroethene	13 U	13	2.5	12/15/23 00:03	
trans-1,3-Dichloropropene	13 U	13	2.5	12/15/23 00:03	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/15/23 00:03	
Dibromofluoromethane	92	80 - 116	12/15/23 00:03	
Toluene-d8	94	87 - 121	12/15/23 00:03	

ALS Group USA, Corp.
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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-X
Lab Code: R2311418-019

Service Request: R2311418
Date Collected: 12/08/23
Date Received: 12/08/23 14:38

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	25 U	25	5	12/15/23 17:33	
1,1,2,2-Tetrachloroethane	25 U	25	5	12/15/23 17:33	
1,1,2-Trichloroethane	25 U	25	5	12/15/23 17:33	
1,1,2-Trichloro-1,2,2-trifluoroethane	25 U	25	5	12/15/23 17:33	
1,1-Dichloroethane (1,1-DCA)	25 U	25	5	12/15/23 17:33	
1,1-Dichloroethene (1,1-DCE)	25 U	25	5	12/15/23 17:33	
1,2,3-Trichlorobenzene	25 U	25	5	12/15/23 17:33	
1,2,4-Trichlorobenzene	25 U	25	5	12/15/23 17:33	
1,2-Dibromo-3-chloropropane (DBCP)	25 U	25	5	12/15/23 17:33	
1,2-Dibromoethane	25 U	25	5	12/15/23 17:33	
1,2-Dichlorobenzene	25 U	25	5	12/15/23 17:33	
1,2-Dichloroethane	25 U	25	5	12/15/23 17:33	
1,2-Dichloropropane	25 U	25	5	12/15/23 17:33	
1,3-Dichlorobenzene	25 U	25	5	12/15/23 17:33	
1,4-Dichlorobenzene	25 U	25	5	12/15/23 17:33	
1,4-Dioxane	500 U	500	5	12/15/23 17:33	
2-Butanone (MEK)	50 U	50	5	12/15/23 17:33	
2-Hexanone	50 U	50	5	12/15/23 17:33	
4-Methyl-2-pentanone	50 U	50	5	12/15/23 17:33	
Acetone	50 U	50	5	12/15/23 17:33	
Benzene	25 U	25	5	12/15/23 17:33	
Bromochloromethane	25 U	25	5	12/15/23 17:33	
Bromodichloromethane	25 U	25	5	12/15/23 17:33	
Bromoform	25 U	25	5	12/15/23 17:33	
Bromomethane	25 U	25	5	12/15/23 17:33	
Carbon Disulfide	50 U	50	5	12/15/23 17:33	
Carbon Tetrachloride	25 U	25	5	12/15/23 17:33	
Chlorobenzene	25 U	25	5	12/15/23 17:33	
Chloroethane	25 U	25	5	12/15/23 17:33	
Chloroform	25 U	25	5	12/15/23 17:33	
Chloromethane	25 U	25	5	12/15/23 17:33	
Cyclohexane	50 U	50	5	12/15/23 17:33	
Dibromochloromethane	25 U	25	5	12/15/23 17:33	
Dichlorodifluoromethane (CFC 12)	25 U	25	5	12/15/23 17:33	
Dichloromethane	25 U	25	5	12/15/23 17:33	
Ethylbenzene	25 U	25	5	12/15/23 17:33	
Isopropylbenzene (Cumene)	25 U	25	5	12/15/23 17:33	
Methyl Acetate	50 U	50	5	12/15/23 17:33	
Methyl tert-Butyl Ether	25 U	25	5	12/15/23 17:33	
Methylcyclohexane	50 U	50	5	12/15/23 17:33	
Styrene	25 U	25	5	12/15/23 17:33	
Tetrachloroethene (PCE)	25 U	25	5	12/15/23 17:33	
Toluene	25 U	25	5	12/15/23 17:33	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: MW-X
Lab Code: R2311418-019

Service Request: R2311418
Date Collected: 12/08/23
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	570 D	25	5	12/15/23 17:33	
Trichlorofluoromethane (CFC 11)	25 U	25	5	12/15/23 17:33	
Vinyl Chloride	25 U	25	5	12/15/23 17:33	
cis-1,2-Dichloroethene	100 D	25	5	12/15/23 17:33	
cis-1,3-Dichloropropene	25 U	25	5	12/15/23 17:33	
m,p-Xylenes	25 U	25	5	12/15/23 17:33	
o-Xylene	25 U	25	5	12/15/23 17:33	
trans-1,2-Dichloroethene	25 U	25	5	12/15/23 17:33	
trans-1,3-Dichloropropene	25 U	25	5	12/15/23 17:33	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85 - 122	12/15/23 17:33	
Dibromofluoromethane	101	80 - 116	12/15/23 17:33	
Toluene-d8	103	87 - 121	12/15/23 17:33	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Collected: 12/08/23
Date Received: 12/08/23 14:38

Sample Name: EB
Lab Code: R2311418-020

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 17:21	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 17:21	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 17:21	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 17:21	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 17:21	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 17:21	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:21	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 17:21	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 17:21	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 17:21	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:21	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 17:21	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 17:21	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:21	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 17:21	
1,4-Dioxane	100 U	100	1	12/14/23 17:21	
2-Butanone (MEK)	10 U	10	1	12/14/23 17:21	
2-Hexanone	10 U	10	1	12/14/23 17:21	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 17:21	
Acetone	10 U	10	1	12/14/23 17:21	
Benzene	5.0 U	5.0	1	12/14/23 17:21	
Bromochloromethane	5.0 U	5.0	1	12/14/23 17:21	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 17:21	
Bromoform	5.0 U	5.0	1	12/14/23 17:21	
Bromomethane	5.0 U	5.0	1	12/14/23 17:21	
Carbon Disulfide	10 U	10	1	12/14/23 17:21	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 17:21	
Chlorobenzene	5.0 U	5.0	1	12/14/23 17:21	
Chloroethane	5.0 U	5.0	1	12/14/23 17:21	
Chloroform	5.0 U	5.0	1	12/14/23 17:21	
Chloromethane	5.0 U	5.0	1	12/14/23 17:21	
Cyclohexane	10 U	10	1	12/14/23 17:21	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 17:21	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 17:21	
Dichloromethane	5.0 U	5.0	1	12/14/23 17:21	
Ethylbenzene	5.0 U	5.0	1	12/14/23 17:21	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 17:21	
Methyl Acetate	10 U	10	1	12/14/23 17:21	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 17:21	
Methylcyclohexane	10 U	10	1	12/14/23 17:21	
Styrene	5.0 U	5.0	1	12/14/23 17:21	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 17:21	
Toluene	5.0 U	5.0	1	12/14/23 17:21	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: EB
Lab Code: R2311418-020

Service Request: R2311418
Date Collected: 12/08/23
Date Received: 12/08/23 14:38
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 17:21	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 17:21	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 17:21	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:21	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:21	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 17:21	
o-Xylene	5.0 U	5.0	1	12/14/23 17:21	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 17:21	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 17:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	12/14/23 17:21	
Dibromofluoromethane	92	80 - 116	12/14/23 17:21	
Toluene-d8	94	87 - 121	12/14/23 17:21	



QC Summary Forms

ALS Environmental—Rochester Laboratory
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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85 - 122	80 - 116	87 - 121
MW-11	R2311418-001	90	91	94
MW-11 DL	R2311418-001	96	93	97
MW-12	R2311418-002	92	92	94
MW-13	R2311418-003	90	88	92
MW-14	R2311418-004	92	92	95
MW-15	R2311418-005	93	91	95
MW-16	R2311418-006	93	93	96
MW-17	R2311418-007	99	96	98
MW-18	R2311418-008	90	89	92
MW-19R	R2311418-009	92	92	94
MW-20	R2311418-010	93	92	96
MW-21	R2311418-011	94	93	95
DR-1	R2311418-012	92	92	94
DR-1 DL	R2311418-012	104	100	103
DR-2	R2311418-013	94	94	95
DR-3	R2311418-014	92	92	94
DR-4	R2311418-015	91	91	93
G-1	R2311418-016	93	93	95
G-2	R2311418-017	90	91	94
G-3	R2311418-018	92	91	94
MW-X	R2311418-019	92	92	94
MW-X DL	R2311418-019	104	101	103
EB	R2311418-020	92	92	94
Lab Control Sample	RQ2316472-03	95	95	94
Method Blank	RQ2316472-04	91	91	92
Lab Control Sample	RQ2316500-03	96	96	95
Method Blank	RQ2316500-04	99	97	102

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2316472-04

Service Request: R2311418
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/14/23 16:59	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/14/23 16:59	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/14/23 16:59	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/14/23 16:59	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/14/23 16:59	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/14/23 16:59	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/14/23 16:59	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/14/23 16:59	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/14/23 16:59	
1,2-Dibromoethane	5.0 U	5.0	1	12/14/23 16:59	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:59	
1,2-Dichloroethane	5.0 U	5.0	1	12/14/23 16:59	
1,2-Dichloropropane	5.0 U	5.0	1	12/14/23 16:59	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:59	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/14/23 16:59	
1,4-Dioxane	100 U	100	1	12/14/23 16:59	
2-Butanone (MEK)	10 U	10	1	12/14/23 16:59	
2-Hexanone	10 U	10	1	12/14/23 16:59	
4-Methyl-2-pentanone	10 U	10	1	12/14/23 16:59	
Acetone	10 U	10	1	12/14/23 16:59	
Benzene	5.0 U	5.0	1	12/14/23 16:59	
Bromochloromethane	5.0 U	5.0	1	12/14/23 16:59	
Bromodichloromethane	5.0 U	5.0	1	12/14/23 16:59	
Bromoform	5.0 U	5.0	1	12/14/23 16:59	
Bromomethane	5.0 U	5.0	1	12/14/23 16:59	
Carbon Disulfide	10 U	10	1	12/14/23 16:59	
Carbon Tetrachloride	5.0 U	5.0	1	12/14/23 16:59	
Chlorobenzene	5.0 U	5.0	1	12/14/23 16:59	
Chloroethane	5.0 U	5.0	1	12/14/23 16:59	
Chloroform	5.0 U	5.0	1	12/14/23 16:59	
Chloromethane	5.0 U	5.0	1	12/14/23 16:59	
Cyclohexane	10 U	10	1	12/14/23 16:59	
Dibromochloromethane	5.0 U	5.0	1	12/14/23 16:59	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/14/23 16:59	
Dichloromethane	5.0 U	5.0	1	12/14/23 16:59	
Ethylbenzene	5.0 U	5.0	1	12/14/23 16:59	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/14/23 16:59	
Methyl Acetate	10 U	10	1	12/14/23 16:59	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/14/23 16:59	
Methylcyclohexane	10 U	10	1	12/14/23 16:59	
Styrene	5.0 U	5.0	1	12/14/23 16:59	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/14/23 16:59	
Toluene	5.0 U	5.0	1	12/14/23 16:59	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2316472-04

Service Request: R2311418
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/14/23 16:59	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/14/23 16:59	
Vinyl Chloride	5.0 U	5.0	1	12/14/23 16:59	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 16:59	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 16:59	
m,p-Xylenes	5.0 U	5.0	1	12/14/23 16:59	
o-Xylene	5.0 U	5.0	1	12/14/23 16:59	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/14/23 16:59	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/14/23 16:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	12/14/23 16:59	
Dibromofluoromethane	91	80 - 116	12/14/23 16:59	
Toluene-d8	92	87 - 121	12/14/23 16:59	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2316500-04

Service Request: R2311418
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	12/15/23 13:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/15/23 13:13	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/15/23 13:13	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	12/15/23 13:13	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	12/15/23 13:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	12/15/23 13:13	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	12/15/23 13:13	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	12/15/23 13:13	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	12/15/23 13:13	
1,2-Dibromoethane	5.0 U	5.0	1	12/15/23 13:13	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/15/23 13:13	
1,2-Dichloroethane	5.0 U	5.0	1	12/15/23 13:13	
1,2-Dichloropropane	5.0 U	5.0	1	12/15/23 13:13	
1,3-Dichlorobenzene	5.0 U	5.0	1	12/15/23 13:13	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/15/23 13:13	
1,4-Dioxane	100 U	100	1	12/15/23 13:13	
2-Butanone (MEK)	10 U	10	1	12/15/23 13:13	
2-Hexanone	10 U	10	1	12/15/23 13:13	
4-Methyl-2-pentanone	10 U	10	1	12/15/23 13:13	
Acetone	10 U	10	1	12/15/23 13:13	
Benzene	5.0 U	5.0	1	12/15/23 13:13	
Bromochloromethane	5.0 U	5.0	1	12/15/23 13:13	
Bromodichloromethane	5.0 U	5.0	1	12/15/23 13:13	
Bromoform	5.0 U	5.0	1	12/15/23 13:13	
Bromomethane	5.0 U	5.0	1	12/15/23 13:13	
Carbon Disulfide	10 U	10	1	12/15/23 13:13	
Carbon Tetrachloride	5.0 U	5.0	1	12/15/23 13:13	
Chlorobenzene	5.0 U	5.0	1	12/15/23 13:13	
Chloroethane	5.0 U	5.0	1	12/15/23 13:13	
Chloroform	5.0 U	5.0	1	12/15/23 13:13	
Chloromethane	5.0 U	5.0	1	12/15/23 13:13	
Cyclohexane	10 U	10	1	12/15/23 13:13	
Dibromochloromethane	5.0 U	5.0	1	12/15/23 13:13	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	12/15/23 13:13	
Dichloromethane	5.0 U	5.0	1	12/15/23 13:13	
Ethylbenzene	5.0 U	5.0	1	12/15/23 13:13	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	12/15/23 13:13	
Methyl Acetate	10 U	10	1	12/15/23 13:13	
Methyl tert-Butyl Ether	5.0 U	5.0	1	12/15/23 13:13	
Methylcyclohexane	10 U	10	1	12/15/23 13:13	
Styrene	5.0 U	5.0	1	12/15/23 13:13	
Tetrachloroethene (PCE)	5.0 U	5.0	1	12/15/23 13:13	
Toluene	5.0 U	5.0	1	12/15/23 13:13	

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Analytical Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2316500-04

Service Request: R2311418
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	12/15/23 13:13	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	12/15/23 13:13	
Vinyl Chloride	5.0 U	5.0	1	12/15/23 13:13	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/15/23 13:13	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/15/23 13:13	
m,p-Xylenes	5.0 U	5.0	1	12/15/23 13:13	
o-Xylene	5.0 U	5.0	1	12/15/23 13:13	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/15/23 13:13	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/15/23 13:13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/15/23 13:13	
Dibromofluoromethane	97	80 - 116	12/15/23 13:13	
Toluene-d8	102	87 - 121	12/15/23 13:13	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Analyzed: 12/14/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316472-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	21.1	20.0	105	75-125
1,1,2,2-Tetrachloroethane	8260C	20.8	20.0	104	78-126
1,1,2-Trichloroethane	8260C	20.1	20.0	100	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	21.3	20.0	107	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.6	20.0	103	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.6	20.0	98	69-142
1,2,3-Trichlorobenzene	8260C	20.9	20.0	105	67-136
1,2,4-Trichlorobenzene	8260C	20.4	20.0	102	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	20.6	20.0	103	55-136
1,2-Dibromoethane	8260C	20.7	20.0	104	82-127
1,2-Dichlorobenzene	8260C	20.7	20.0	104	80-119
1,2-Dichloroethane	8260C	19.2	20.0	96	71-127
1,2-Dichloropropane	8260C	20.6	20.0	103	80-119
1,3-Dichlorobenzene	8260C	21.1	20.0	105	83-121
1,4-Dichlorobenzene	8260C	20.8	20.0	104	79-119
1,4-Dioxane	8260C	368	400	92	44-154
2-Butanone (MEK)	8260C	17.3	20.0	87	61-137
2-Hexanone	8260C	19.4	20.0	97	63-124
4-Methyl-2-pentanone	8260C	18.9	20.0	94	66-124
Acetone	8260C	17.1	20.0	85	40-161
Benzene	8260C	20.4	20.0	102	79-119
Bromochloromethane	8260C	20.4	20.0	102	81-126
Bromodichloromethane	8260C	20.2	20.0	101	81-123
Bromoform	8260C	21.2	20.0	106	65-146
Bromomethane	8260C	19.9	20.0	100	42-166
Carbon Disulfide	8260C	17.9	20.0	90	66-128
Carbon Tetrachloride	8260C	20.5	20.0	102	70-127
Chlorobenzene	8260C	20.3	20.0	102	80-121
Chloroethane	8260C	16.3	20.0	82	62-131
Chloroform	8260C	20.7	20.0	104	79-120
Chloromethane	8260C	18.9	20.0	95	72-179
Cyclohexane	8260C	20.6	20.0	103	69-120
Dibromochloromethane	8260C	21.3	20.0	107	72-128

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Analyzed: 12/14/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316472-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	16.4	20.0	82	59-155
Dichloromethane	8260C	20.1	20.0	101	73-122
Ethylbenzene	8260C	21.3	20.0	107	76-120
Isopropylbenzene (Cumene)	8260C	21.0	20.0	105	77-128
Methyl Acetate	8260C	14.8	20.0	74	61-133
Methyl tert-Butyl Ether	8260C	19.4	20.0	97	75-118
Methylcyclohexane	8260C	21.4	20.0	107	51-129
Styrene	8260C	21.2	20.0	106	80-124
Tetrachloroethene (PCE)	8260C	21.5	20.0	107	72-125
Toluene	8260C	20.5	20.0	103	79-119
Trichloroethene (TCE)	8260C	20.6	20.0	103	74-122
Trichlorofluoromethane (CFC 11)	8260C	21.0	20.0	105	71-136
Vinyl Chloride	8260C	18.6	20.0	93	74-159
cis-1,2-Dichloroethene	8260C	20.4	20.0	102	80-121
cis-1,3-Dichloropropene	8260C	21.1	20.0	106	77-122
m,p-Xylenes	8260C	42.1	40.0	105	80-126
o-Xylene	8260C	21.3	20.0	107	79-123
trans-1,2-Dichloroethene	8260C	20.3	20.0	102	73-118
trans-1,3-Dichloropropene	8260C	22.0	20.0	110	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Analyzed: 12/15/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316500-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.8	20.0	99	75-125
1,1,2,2-Tetrachloroethane	8260C	17.7	20.0	89	78-126
1,1,2-Trichloroethane	8260C	18.0	20.0	90	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	19.3	20.0	96	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.3	20.0	101	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	17.1	20.0	85	69-142
1,2,3-Trichlorobenzene	8260C	20.3	20.0	101	67-136
1,2,4-Trichlorobenzene	8260C	20.5	20.0	103	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	17.8	20.0	89	55-136
1,2-Dibromoethane	8260C	19.1	20.0	96	82-127
1,2-Dichlorobenzene	8260C	20.0	20.0	100	80-119
1,2-Dichloroethane	8260C	19.6	20.0	98	71-127
1,2-Dichloropropane	8260C	20.1	20.0	100	80-119
1,3-Dichlorobenzene	8260C	20.4	20.0	102	83-121
1,4-Dichlorobenzene	8260C	20.1	20.0	100	79-119
1,4-Dioxane	8260C	338	400	84	44-154
2-Butanone (MEK)	8260C	16.0	20.0	80	61-137
2-Hexanone	8260C	17.7	20.0	88	63-124
4-Methyl-2-pentanone	8260C	18.4	20.0	92	66-124
Acetone	8260C	15.3	20.0	77	40-161
Benzene	8260C	19.8	20.0	99	79-119
Bromochloromethane	8260C	18.6	20.0	93	81-126
Bromodichloromethane	8260C	20.3	20.0	102	81-123
Bromoform	8260C	20.4	20.0	102	65-146
Bromomethane	8260C	18.5	20.0	93	42-166
Carbon Disulfide	8260C	17.4	20.0	87	66-128
Carbon Tetrachloride	8260C	21.4	20.0	107	70-127
Chlorobenzene	8260C	19.7	20.0	99	80-121
Chloroethane	8260C	14.3	20.0	72	62-131
Chloroform	8260C	20.9	20.0	104	79-120
Chloromethane	8260C	20.1	20.0	101	72-179
Cyclohexane	8260C	22.0	20.0	110	69-120
Dibromochloromethane	8260C	19.9	20.0	100	72-128

ALS Group USA, Corp.
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QA/QC Report

Client: Colliers Engineering & Design (Formerly Bergmann Associates)
Project: Gowanda/6974.96
Sample Matrix: Water

Service Request: R2311418
Date Analyzed: 12/15/23

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2316500-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	18.6	20.0	93	59-155
Dichloromethane	8260C	19.5	20.0	98	73-122
Ethylbenzene	8260C	20.6	20.0	103	76-120
Isopropylbenzene (Cumene)	8260C	20.1	20.0	100	77-128
Methyl Acetate	8260C	13.8	20.0	69	61-133
Methyl tert-Butyl Ether	8260C	19.3	20.0	97	75-118
Methylcyclohexane	8260C	21.7	20.0	108	51-129
Styrene	8260C	19.8	20.0	99	80-124
Tetrachloroethene (PCE)	8260C	20.7	20.0	103	72-125
Toluene	8260C	19.6	20.0	98	79-119
Trichloroethene (TCE)	8260C	19.3	20.0	97	74-122
Trichlorofluoromethane (CFC 11)	8260C	21.4	20.0	107	71-136
Vinyl Chloride	8260C	17.9	20.0	89	74-159
cis-1,2-Dichloroethene	8260C	18.9	20.0	94	80-121
cis-1,3-Dichloropropene	8260C	20.0	20.0	100	77-122
m,p-Xylenes	8260C	40.2	40.0	101	80-126
o-Xylene	8260C	19.5	20.0	98	79-123
trans-1,2-Dichloroethene	8260C	18.8	20.0	94	73-118
trans-1,3-Dichloropropene	8260C	19.9	20.0	99	71-133



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FIELD FORMS

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-1
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 5.52
 Depth to bottom of the well: 16.02
 Length of water column in well: 10.50

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.7115
 3 Well volumes (= length water column X gal/foot X 3): 5.13
 Actual volume purged prior to sampling: 5.25

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1018.2	NTU								
Temperature	7.9	°C								
pH	7.9									
Conductivity	0.006	SPC ms/cm								
Oxygen	11.48	DO mg/L								
Salinity										

Time sample was collected: 7:40

COMMENTS MW-X taken from this well.

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-2
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 4.8
 Depth to bottom of the well: 17.15
 Length of water column in well: 12.35

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 2.01
 3 Well volumes (= length water column X gal/foot X 3): 6.04
 Actual volume purged prior to sampling: 6.25
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer
 Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	N/A	NTU								
Temperature	12.4	°C								
pH	6.97									
Conductivity	0.724	SPC ms/cm								
Oxygen	3.89	DO mg/L								
Salinity										

Time sample was collected: 16:05

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



PROJECT NAME: Gowanda Q4 2023
Project Number: 23006924A
Site Location: Gowanda, New York
Sample Date: 12/7/2023
Weather: 33 Degrees F
Personnel: Justin L. O'Brien

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GROUNDWATER SAMPLE POINT

Well Number: MW-3
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 5.25
Depth to bottom of the well: 16.30
Length of water column in well: 11.05

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.8
3 Well volumes (= length water column X gal/foot X 3): 5.40
Actual volume purged prior to sampling: 5.5

Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	180.79	NTU								
Temperature	11.6	°C								
pH	6.3									
Conductivity	324.3	SPC ms/cm								
Oxygen	8.32	DO mg/L								
Salinity										

Time sample was collected: 15:40

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-4
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 6.53
 Depth to bottom of the well: 15.78
 Length of water column in well: 9.25

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.5078
 3 Well volumes (= length water column X gal/foot X 3): 4.5233
 Actual volume purged prior to sampling: 4.75

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	739.14	NTU								
Temperature	10.7	°C								
pH	6.93									
Conductivity	0.317	SPC ms/cm								
Oxygen	8.9	DO mg/L								
Salinity										

Time sample was collected: 7:10

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
Project Number: 23006924A
Site Location: Gowanda, New York
Sample Date: 12/8/2023
Weather: 43 Degrees F
Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-5
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 10.32
Depth to bottom of the well: 13.95
Length of water column in well: 3.63

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.59
3 Well volumes (= length water column X gal/foot X 3): 1.78
Actual volume purged prior to sampling: 2.00

Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1335.9	NTU								
Temperature	13.5	°C								
pH	7.1									
Conductivity	0.008	SPC ms/cm								
Oxygen	7.14	DO mg/L								
Salinity										

Time sample was collected: 10:10

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
Project Number: 23006924A
Site Location: Gowanda, New York
Sample Date: 12/8/2023
Weather: 43 degrees F
Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-6
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 12.95
Depth to bottom of the well: 22.88
Length of water column in well: 9.93

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.62
3 Well volumes (= length water column X gal/foot X 3): 4.86
Actual volume purged prior to sampling: 5.00

Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1588.1	NTU								
Temperature	11.7	°C								
pH	7.2									
Conductivity	0.286	SPC ms/cm								
Oxygen	7.67	DO mg/L								
Salinity										

Time sample was collected: 10:05

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-7
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 13.05
 Depth to bottom of the well: 21.8
 Length of water column in well: 8.75

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.4
 3 Well volumes (= length water column X gal/foot X 3): 4.28
 Actual volume purged prior to sampling: 4.50

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1027	NTU								
Temperature	16.7	°C								
pH	6.55									
Conductivity	0.634	SPC ms/cm								
Oxygen	6.84	DO mg/L								
Salinity										

Time sample was collected: 8:30

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien



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GROUNDWATER SAMPLE POINT

Well Number: MW-8
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 8.9
 Depth to bottom of the well: 17.65
 Length of water column in well: 8.75

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.43
 3 Well volumes (= length water column X gal/foot X 3): 4.279
 Actual volume purged prior to sampling: 4.50

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	360.21	NTU								
Temperature	10.8	°C								
pH	6.84									
Conductivity	0.001	SPC ms/cm								
Oxygen	98.3	DO mg/L								
Salinity										

Time sample was collected: 6:20

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-9
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 8.34
 Depth to bottom of the well: 20.96
 Length of water column in well: 12.62

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 2.06
 3 Well volumes (= length water column X gal/foot X 3): 6.171
 Actual volume purged prior to sampling: 6.25

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	214.97	NTU								
Temperature	9.3	°C								
pH	6.55									
Conductivity	0.873	SPC ms/cm								
Oxygen	58.7	DO mg/L								
Salinity										

Time sample was collected: 6:48

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-10
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 6.05
 Depth to bottom of the well: 19.44
 Length of water column in well: 13.39

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 2.2
 3 Well volumes (= length water column X gal/foot X 3): 6.55
 Actual volume purged prior to sampling: 6.75

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	56.16	NTU								
Temperature	8.2	°C								
pH	7.37									
Conductivity	0.008	SPC ms/cm								
Oxygen	97.4	DO mg/L								
Salinity										

Time sample was collected: 8:10

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-11
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 5.7
 Depth to bottom of the well: 15.48
 Length of water column in well: 9.78

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5941
 3 Well volumes (= length water column X gal/foot X 3): 4.7824
 Actual volume purged prior to sampling: 5
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	N/A	NTU								
Temperature	11.90	°C								
pH	7.31									
Conductivity	0.734	SPC ms/cm								
Oxygen	6.92	DO mg/L								
Salinity										

Time sample was collected: 15:24

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-12
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 6.15
 Depth to bottom of the well: 17.38
 Length of water column in well: 11.23

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.83
 3 Well volumes (= length water column X gal/foot X 3): 5.49
 Actual volume purged prior to sampling: 5.5
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	421.83	NTU								
Temperature	12.9	°C								
pH	6.57									
Conductivity	0.486	SPC ms/cm								
Oxygen	3.61	DO mg/L								
Salinity										

Time sample was collected: 14:37

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-13
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 6.45
 Depth to bottom of the well: 17.40
 Length of water column in well: 10.95

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.7849
 3 Well volumes (= length water column X gal/foot X 3): 5.3546
 Actual volume purged prior to sampling: 5.5
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	737.45	NTU								
Temperature	12.4	°C								
pH	6.97									
Conductivity	158.46	SPC ms/cm								
Oxygen	6.57	DO mg/L								
Salinity										

Time sample was collected: 14:49

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
Project Number: 23006924A
Site Location: Gowanda, New York
Sample Date: 12/7/2023
Weather: 33 Degrees F
Personnel: _____

GROUNDWATER SAMPLE POINT

Well Number: MW-14
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 9.9
Depth to bottom of the well: 18.15
Length of water column in well: 8.25

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.34
3 Well volumes (= length water column X gal/foot X 3): 4.03
Actual volume purged prior to sampling: 4.25
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1021.00	NTU								
Temperature	13.2	°C								
pH	6.68									
Conductivity	0.606	SPC ms/cm								
Oxygen	6.76	DO mg/L								
Salinity										

Time sample was collected: 13:31

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-15
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 10.2
 Depth to bottom of the well: 19.80
 Length of water column in well: 9.60

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.5648
 3 Well volumes (= length water column X gal/foot X 3): 4.69
 Actual volume purged prior to sampling: 4.75

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? _____
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	682	NTU								
Temperature	14.2	°C								
pH	6.7									
Conductivity	0.572	SPC ms/cm								
Oxygen	6.14	DO mg/L								
Salinity										

Time sample was collected: 12:56

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien



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GROUNDWATER SAMPLE POINT

Well Number: MW-16
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 12.75
 Depth to bottom of the well: 23.26
 Length of water column in well: 10.51

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.7131
 3 Well volumes (= length water column X gal/foot X 3): 5.1394
 Actual volume purged prior to sampling: 5.25

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	298.33	NTU								
Temperature	9.7	°C								
pH	6.68									
Conductivity	0.004	SPC ms/cm								
Oxygen	6.88	DO mg/L								
Salinity										

Time sample was collected: 8:59

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
Project Number: 23006924A
Site Location: Gowanda, New York
Sample Date: 12/8/2023
Weather: 43 Degrees F
Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-17
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 12.8
Depth to bottom of the well: 25.18
Length of water column in well: 12.38

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.0179
3 Well volumes (= length water column X gal/foot X 3): 6.0538
Actual volume purged prior to sampling: 6.25
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	3215.6	NTU								
Temperature	10.8	°C								
pH	7.17									
Conductivity	0.505	SPC ms/cm								
Oxygen	8.65	DO mg/L								
Salinity										

Time sample was collected: 9:45

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-18
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 8.85
 Depth to bottom of the well: 25.0
 Length of water column in well: 16.15

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 2.6325
 3 Well volumes (= length water column X gal/foot X 3): 7.90
 Actual volume purged prior to sampling: 8
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? _____
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1500.63	NTU								
Temperature	13	°C								
pH	7.41									
Conductivity	0.738	SPC ms/cm								
Oxygen	91.8	DO mg/L								
Salinity										

Time sample was collected: 11:30

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-19R
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 7.31
 Depth to bottom of the well: 17.67
 Length of water column in well: 10.36

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.7
 3 Well volumes (= length water column X gal/foot X 3): 5.07
 Actual volume purged prior to sampling: 5.25
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	980.52	NTU								
Temperature	11.8	°C								
pH	7.74									
Conductivity	7.424	SPC ms/cm								
Oxygen	10.34	DO mg/L								
Salinity										

Time sample was collected: 10:57

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-20
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 8.6
 Depth to bottom of the well: 14.75
 Length of water column in well: 6.15

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 1.0025
 3 Well volumes (= length water column X gal/foot X 3): 3.0
 Actual volume purged prior to sampling: 3
 Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	325.31	NTU								
Temperature	13.2	°C								
pH	7.02									
Conductivity	118.57	SPC ms/cm								
Oxygen	8.64	DO mg/L								
Salinity										

Time sample was collected: 10:20

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/8/2023
 Weather: 43 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: MW-21
 Location: _____
 Casing Diameter: 2"

Depth to water, below top of casing: 7.92
 Depth to bottom of the well: 15.82
 Length of water column in well: 7.9

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2877
 3 Well volumes (= length water column X gal/foot X 3): 3.86
 Actual volume purged prior to sampling: 4

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	725.53	NTU								
Temperature	12.6	°C								
pH	6.97									
Conductivity	1.637	SPC ms/cm								
Oxygen	6.31	DO mg/L								
Salinity										

Time sample was collected: 11:58

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: DR-1
 Location: _____
 Casing Diameter: 4"

Depth to water, below top of casing: 6.7
 Depth to bottom of the well: 18.06
 Length of water column in well: 11.36

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 7.4181
 3 Well volumes (= length water column X gal/foot X 3): 22.254
 Actual volume purged prior to sampling: 22.33

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	144.79	NTU								
Temperature	11	°C								
pH	7.27									
Conductivity	0.257	SPC ms/cm								
Oxygen	2.18	DO mg/L								
Salinity										

Time sample was collected: 15:13

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: DR-2
 Location: _____
 Casing Diameter: 4"

Depth to water, below top of casing: 6.5
 Depth to bottom of the well: 18.06
 Length of water column in well: 11.56

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 7.5487
 3 Well volumes (= length water column X gal/foot X 3): 22.65
 Actual volume purged prior to sampling: 22.75

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	387.54	NTU								
Temperature	13.43	°C								
pH	7.02									
Conductivity	0.387	SPC ms/cm								
Oxygen	3.25	DO mg/L								
Salinity										

Time sample was collected: 14:21

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien



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 ARCHITECTS ENGINEERS PLANNERS

GROUNDWATER SAMPLE POINT

Well Number: DR-3
 Location: _____
 Casing Diameter: 4"

Depth to water, below top of casing: 11.3
 Depth to bottom of the well: 20.45
 Length of water column in well: 9.15

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 6.0
 3 Well volumes (= length water column X gal/foot X 3): 17.925
 Actual volume purged prior to sampling: 18.00

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	291.63	NTU								
Temperature	13.5	°C								
pH	6.66									
Conductivity	0.606	SPC ms/cm								
Oxygen	47.00	DO mg/L								
Salinity										

Time sample was collected: 13:56

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 61 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: DR-4
 Location: _____
 Casing Diameter: 4"

Depth to water, below top of casing: 11.25
 Depth to bottom of the well: 19.69
 Length of water column in well: 8.44

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 5.51
 3 Well volumes (= length water column X gal/foot X 3): 16.53
 Actual volume purged prior to sampling: 16.75

Sampling Methodology: _____
 Sampling Equipment: Hand bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	868	NTU								
Temperature	13.2	°C								
pH	6.7									
Conductivity	0.577	SPC ms/cm								
Oxygen	5.44	DO mg/L								
Salinity										

Time sample was collected: 13:20

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: G-1
 Location: _____
 Casing Diameter: 4"

Depth to water, below top of casing: 11.47
 Depth to bottom of the well: 22.98
 Length of water column in well: 11.51

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 7.516
 3 Well volumes (= length water column X gal/foot X 3): 22.55
 Actual volume purged prior to sampling: 22.75

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	164.34	NTU								
Temperature	15.6	°C								
pH	6.86									
Conductivity	0.533	SPC ms/cm								
Oxygen	9.78	DO mg/L								
Salinity										

Time sample was collected: 12:40

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2023
 Project Number: 23006924A
 Site Location: Gowanda, New York
 Sample Date: 12/7/2023
 Weather: 33 Degrees F
 Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: G-2
 Location: _____
 Casing Diameter: 4"

Depth to water, below top of casing: 11.5
 Depth to bottom of the well: 20.72
 Length of water column in well: 9.22

Well Dia.	Volume/Foot
1"	= 0.041 gal/foot
2"	= 0.163 gal/foot
4"	= 0.653 gal/foot
6"	= 1.469 gal/foot
8"	= 2.611 gal/foot

Volume of water in well casing, gallons: 6.0207
 3 Well volumes (= length water column X gal/foot X 3): 18.062
 Actual volume purged prior to sampling: 18.25

Sampling Methodology: Hand bailing
 Sampling Equipment: Bailer

Well Recharged? N/A
 Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	123.6	NTU								
Temperature	14.3	°C								
pH	6.89									
Conductivity	967	SPC ms/cm								
Oxygen	3.27	DO mg/L								
Salinity										

Time sample was collected: 12:15

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET



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PROJECT NAME: Gowanda Q4 2023
Project Number: 23006924A
Site Location: Gowanda, New York
Sample Date: 12/8/2023
Weather: 43 Degrees F
Personnel: Justin L. O'Brien

GROUNDWATER SAMPLE POINT

Well Number: G-3
Location: _____
Casing Diameter: 4"

Depth to water, below top of casing: 9.89
Depth to bottom of the well: 18.15
Length of water column in well: 8.26

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 5.39
3 Well volumes (= length water column X gal/foot X 3): 16.18
Actual volume purged prior to sampling: 16.25

Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	102.11	NTU								
Temperature	11	°C								
pH	7.51									
Conductivity	0.258	SPC ms/cm								
Oxygen	10	DO mg/L								
Salinity										

Time sample was collected: 9:23

COMMENTS _____



CALIBRATION SHEETS



Calibration Certificate

rev 8/9/11

Work Order No.: SE-125221

Date of Service: 12/05/23

Order Time: 9:20:48 AM

Unit Under Test: YSI ProDSS, 4M with Flow Cell

Asset No.: FA03313 Technician: Haley Steinbruckner

Initials: _____

Serial No: 17J100574/18D100738

TEST	Specification	Result
Standard Calibration	Pass/Fail	pass

TEST STANDARDS USED:

DESCRIPTION	LOT NO./EXPIRATION DATE	QUANTITY
7.00 mS Conductivity Standard Solution	Lot No. 2GK874 Exp. 11/2023	1
pH 10.00 Standard Solution	Lot No. 3GE0965 Exp. 05/2025	1
pH 4.00 Standard Solution	Lot No. 2GA766 Exp. 01/2024	1
pH 7.00 Standard Solution	Lot No. 3GE1252 Exp. 05/2025	1
ORP Standard Solution	Lot No. 23D100185 Exp. 04/11/2028	1
Turbidity Free Water	Lot No. 3GF0946 Exp. 06/2025	1
100 NTU AMCO Turbidity Standard	Lot No. 22420023 Exp. 05/2024	1
Air Saturated Water		1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.