

Mr. Scott Deyette  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
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Albany, New York 12233-7014

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Date: November 1, 2021  
Our Ref: 30075710  
Subject: 2021 Post-Construction Monitoring Report  
Goshen Former Manufactured Gas Plant Site  
NYSDEC Site No. 3-36-046

Dear Mr. Deyette,

On behalf of the New York State Electric & Gas Corporation (NYSEG), this letter summarizes the results of the 2021 post-construction monitoring activities for the Goshen Former Manufactured Gas Plant (MGP) site (the site). Arcadis of New York, Inc. (Arcadis) conducted the 2021 monitoring in accordance with the New York State Department of Environmental Conservation- (NYSDEC-) approved March 2021 Site Management Plan (SMP).

For reference, remedial construction was conducted from July through November 2016, and post-construction monitoring was initiated in 2018 (i.e., "Year 1"). 2021 post-construction monitoring represents "Year 4".

## 2021 Monitoring and Sampling

2021 post-construction monitoring, and sampling activities consisted of the following:

- Conducting semi-annual gauging to assess the presence/absence of non-aqueous phase liquid (NAPL)
- Collecting and analyzing samples to assess groundwater quality
- Conducting a site-wide inspection to assess the condition and effectiveness of the site cover system

Monitoring and sampling activity details are presented below. Well locations are shown on Figure 1.

## Semi-Annual NAPL and Water Level Gauging

Arcadis conducted semi-annual NAPL and water level gauging on March 4 and September 13, 2021.

## NAPL Gauging Activities and Results

Field personnel used an oil-water interface probe to check for accumulated NAPL and measure the depth of each well.

A summary of the NAPL gauging results from each of the 2021 events is presented in Table 1. NAPL gauging results from 2018 through 2020 are also included in Table 1 for reference. Notable observations from 2021 include the following:

- Consistent with observations from the previous gauging events, trace amounts of NAPL were observed (as blebs on the interface probe) at NAPL monitoring well NMW08-02 during the 2021 gauging events.
- NAPL was not observed or detected in the remaining wells during the 2021 gauging events.

## Groundwater Elevation and Flow

Field personnel conducted synoptic water level measurements during the semi-annual gauging events. Depth to water was measured from surveyed marks on the top of the inner well casings and converted to elevations. Groundwater elevation data for each monitoring event are summarized in Table 1. Water table and deep overburden potentiometric maps for the September 2021 monitoring event are presented as Figures 2 and 3, respectively.

The ground surface elevation near the in-situ soil solidification (ISS) mass is approximately 430 to 431 feet above mean sea level (ft AMSL) and the top of the ISS mass elevation is approximately 425 ft AMSL. As expected, the September 2021 water table was encountered within the clean fill material immediately above the ISS mass (i.e., at approximately 426 ft AMSL), and shallow overburden groundwater likely flows above and around the ISS mass. Pre- and post-remediation shallow groundwater flow directions are similar. The September 2021 water table is generally within +/- 1 foot of the previously measured water table elevations, which is expected given historical seasonal fluctuations. In general, the groundwater elevation data indicate that the water table is 0.5 to 1 foot higher during the summer months than during the winter months.

The September 2021 deep potentiometric surface is generally within +/- 3 feet of the 2008-2009 Remedial Investigation measured potentiometric surface. As presented in the 2018 Post-Construction Monitoring Report (dated March 27, 2019), deep monitoring wells are screened at or below the bottom of the ISS mass (i.e., approximately 403 ft AMSL). Given that the permeability of the ISS mass is approximately two orders of magnitude less than that of the deep soils (i.e., fine sand/silt and till), groundwater in the deep overburden near the ISS mass is inferred to mostly flow around and beneath the ISS mass. Downgradient from the ISS mass, pre- and post-remediation deep groundwater flow directions are generally consistent with those observed during previous monitoring events.

## Groundwater Sampling Activities and Results

Arcadis conducted the annual post-remediation groundwater sampling event on September 13, 14, and 15, 2021. Groundwater sampling activities and associated analytical results are summarized below.

### Groundwater Sampling Activities

Arcadis field personnel collected groundwater samples from each of the monitoring wells included in the monitoring well network (as identified in the SMP) using low-flow groundwater purging and sampling techniques. Note that monitoring well MW08-07S does not recharge adequately to conduct low-flow purging and sampling and therefore, grab samples were collected from this monitoring well. Field personnel also collected and submitted one set of quality assurance/quality control (QA/QC) samples, including a field duplicate, matrix spike, and matrix

spike duplicate for laboratory analysis. Groundwater samples were submitted to Alpha Analytical, Inc. (Alpha) for analysis of:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) using United States Environmental Protection Agency (USEPA) SW-846 Method 8260C.
- Polycyclic aromatic hydrocarbons (PAHs) using USEPA SW-846 Method 8270D. However, similar to the analyses completed in 2020, the laboratory erroneously analyzed the groundwater samples for PAHs using USEPA SW-846 Modified Method 8270D with Selected Ion Monitoring (SIM), which has a notably lower method detection limit (MDL) and reporting limit (RL) compared to the standard Method 8270D.
- Total cyanide using USEPA SW-846 method 9012B.

Groundwater sampling logs are provided as Attachment 1.

## Groundwater Quality

Alpha reported analytical results using NYSDEC Analytical Service Protocol (ASP) Category B data deliverables; the laboratory report is included as Attachment 2. Arcadis validated the data; a Data Usability Summary Report (DUSR) is included as Attachment 3 and validated analytical results are summarized in Table 2.

Analytical results presented in Table 2 are compared to NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1) Class GA groundwater quality standards/guidance values. Table 2 also includes analytical results for groundwater samples collected during previous groundwater sampling events (i.e., 2008 Remedial Investigation [RI] and during the January 2019, September 2019, and September 2020 annual monitoring events). Analytical results for the September 2021 groundwater monitoring are summarized below.

- BTEX:
  - Consistent with previous sampling events, some BTEX compounds were detected at concentrations greater than the Class GA groundwater quality standards in the groundwater sample collected from monitoring well MW08-05S. However, since April 2009, BTEX concentrations continue to show a decreasing trend. BTEX concentrations in the September 2021 samples are as much as an order of magnitude less than previously detected concentrations and only benzene exceeds the Class GA groundwater quality standard.
  - At the remaining wells sampled, benzene was either not detected, or detected at a concentration less than its Class GA groundwater quality standard.
- PAHs:
  - PAHs were detected at concentrations exceeding the Class GA groundwater quality standards or guidance values in groundwater samples from monitoring wells MW93-1D, MW93-1S, MW93-2D, MW93-2S, MW18-04S, MW08-05D, MW08-05S, MW08-06D, MW08-06S, MW08-07S, and MW08-08S. PAH concentrations detected in groundwater samples from these wells are generally consistent with the previously detected concentrations.
  - At monitoring wells MW18-04D, MW18-04S, and MW18-08D, PAHs had not been detected previously, but were detected at low-level concentrations in groundwater samples collected in 2021. As noted above, the SIM analysis completed by the laboratory in 2021 (and in 2020) has a lower MDL and RL, resulting in “new” detections. With the exception of a slight exceedance the Class GA groundwater quality guidance

value for Ideno(1,2,3-cd)pyrene (0.002 micrograms per liter [µg/L]) in the groundwater sample collected from monitoring well MW18-04S, “new” PAHs were detected at concentrations less than Class GA groundwater quality guidance values.

- Cyanide:
  - Cyanide continues to be detected in site groundwater at concentrations less than the Class GA groundwater quality standard – 200 µg/L standard.
  - Cyanide concentrations in groundwater samples collected from monitoring MW93-1D and MW93-1S (located side gradient to the ISS mass) are greater than those detected in previous sampling events.
  - The remainder of the cyanide concentrations from 2021 samples are generally consistent with those from previous sampling events.

## Site Inspections

Arcadis conducted a site inspection to evaluate site usage, general site conditions, and the condition and continued effectiveness of the cover system, in accordance with the SMP. No signs of intrusive site work were observed within the limits of the site cover system. The September 2021 site inspection form is included as Attachment 4.

## Waste Management

Arcadis containerized and staged investigation-derived waste (IDW) generated during the groundwater sampling and NAPL gauging activities in appropriately labeled NYSDOT-approved 55-gallon drums. Drums of IDW were subsequently transported off-site for treatment/disposal by NYSEG’s waste disposal vendor.

## Conclusions and Recommendations

The 2021 (i.e., Year 4) post-construction monitoring results are generally consistent with 2018 post-construction baseline conditions (i.e., Year 1), except for the low-level PAH concentrations detected due to the SIM analysis performed by the laboratory. Based on the 2021 post-construction monitoring results:

- Post-remediation groundwater flow directions are generally consistent with pre-remediation conditions. Groundwater at/near the ISS mass is inferred to flow over and around the mass.
- BTEX concentrations in groundwater downgradient of the ISS mass continue to decrease or remain stable.
- PAH concentrations in groundwater remain consistent with results from previous events.
- Cyanide concentrations in groundwater are generally consistent with results from previous events.

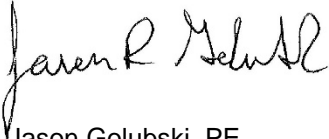
In post-construction Year 5 (i.e., 2022), monitoring and reporting will be completed as required by the SMP. Annual groundwater sampling is tentatively scheduled for September 2022, with NAPL gauging scheduled for March and September 2022. Groundwater samples will continue to be analyzed using the methods presented in the SMP.

As you are aware, NYSDEC issued a letter of Satisfactory Completion on July 7, 2021, and the site has entered the “Site Management” phase. Based on a July 8, 2021, follow-up email from NYSDEC, NYSEG anticipates that the first periodic review report will be due in November 2022.

Mr. Scott Deyette  
New York State Department of Environmental Conservation  
November 1, 2021

Please contact Tracy Blazicek of NYSEG at 607.237.5325 or [tblazicek@nyseg.com](mailto:tblazicek@nyseg.com) with any questions or comments.

Sincerely,  
Arcadis of New York, Inc.



Jason Golubski, PE  
Principal Environmental Engineer

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CC. Kristin Kulow, NYSDOH  
Tracy Blazicek, CHMM, NYSEG  
Mark Castro, NYSEG  
Jason Brien, PE, Arcadis  
Keith White, PG, Arcadis

Enc. Table 1 – NAPL Gauging and Groundwater Elevation Summary  
Table 2 – Groundwater Sample Analytical Results Summary  
Figure 1 – Monitoring Well Plan  
Figure 2 – Shallow Potentiometric Surface Map  
Figure 3 – Deep Potentiometric Surface Map  
Attachment 1 – Groundwater Sampling Logs  
Attachment 2 – Groundwater Laboratory Report  
Attachment 3 – Data Usability Summary Report  
Attachment 4 – Site Inspection Form

# Tables

**Table 1**  
**NAPL Gauging and Groundwater Elevation Summary**  
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**Goshen Former MGP Site - Goshen, New York**



Well ID / Date / TIC Elevation (ft AMSL)	Depth to Water (ft bgs)	Depth to Bottom (ft bgs)	Approximate NAPL Thickness <sup>4</sup> (ft)	Groundwater Elevation (ft AMSL)
<b>MW93-1S 435.49</b>				
3/15/2018	5.25	22.30	0.00	430.24
6/13/2018	6.32	22.59	0.00	429.17
9/14/2018	5.25	22.60	0.00	430.24
1/7/2019	5.36	22.22	0.00	430.13
3/8/2019	5.91	22.21	0.00	429.58
6/7/2019	6.08	22.00	0.00	429.41
9/3/2019	6.30	21.90	0.00	429.19
12/13/2019	5.09	21.88	0.00	430.40
3/12/2020	5.30	21.90	0.00	430.19
7/24/2020	6.15	21.80	0.00	429.34
9/14/2020	6.53	21.98	0.00	428.96
12/18/2020	5.90	21.74	0.00	429.59
3/4/2021	5.29	21.70	0.00	430.20
9/13/2021	5.53	21.64	0.00	429.96
<b>MW93-1D 435.80</b>				
3/15/2018	8.53	36.70	0.00	427.27
6/13/2018	9.91	36.70	0.00	425.89
9/14/2018	8.50	36.65	0.00	427.30
1/7/2019	8.33	36.79	0.00	427.47
3/8/2019	9.79	36.80	0.00	426.01
6/7/2019	9.68	36.65	0.00	426.12
9/3/2019	9.72	36.86	0.00	426.08
12/13/2019	8.24	36.50	0.00	427.56
3/12/2020	8.93	36.50	0.00	426.87
7/24/2020	9.62	36.45	0.00	426.18
9/14/2020	10.08	36.62	0.00	425.72
12/18/2020	8.90	36.28	0.00	426.90
3/4/2021	8.75	36.38	0.00	427.05
9/13/2021	8.77	36.36	0.00	427.03
<b>MW93-2S 429.53</b>				
3/15/2018	NM	NM	0.00	NM
6/13/2018	NM	NM	0.00	NM
9/14/2018	8.38	22.00	0.00	421.15
1/7/2019	8.36	22.20	0.00	421.17
3/8/2019	8.42	22.15	0.00	421.11
6/7/2019	8.77	22.00	0.00	420.76
9/3/2019	9.18	21.91	0.00	420.35
12/13/2019	8.23	21.90	0.00	421.30
3/12/2020	9.65	21.99	0.00	419.88
7/24/2020	9.42	21.90	0.00	420.11
9/14/2020	9.34	21.92	0.00	420.19
12/18/2020	8.70	21.72	0.00	420.83
3/4/2021	8.21	21.85	0.00	421.32
9/13/2021	8.47	20.81	0.00	421.06
<b>MW93-2D 429.52</b>				
3/15/2018	NM	NM	0.00	NM
6/13/2018	NM	NM	0.00	NM
9/14/2018	4.11	30.90	0.00	425.41
1/7/2019	3.82	31.89	0.00	425.70
3/8/2019	5.55	31.15	0.00	423.97
6/7/2019	5.51	30.52	0.00	424.01
9/3/2019	5.12	30.86	0.00	424.40
12/13/2019	3.75	30.85	0.00	425.77
3/12/2020	6.28	30.83	0.00	423.24
7/24/2020	5.28	30.80	0.00	424.24
9/14/2020	5.64	30.84	0.00	423.88
12/18/2020	4.46	30.79	0.00	425.06
3/4/2021	4.35	30.90	0.00	425.17
9/13/2021	4.37	30.79	0.00	425.15

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Well ID / Date / TIC Elevation (ft AMSL)	Depth to Water (ft bgs)	Depth to Bottom (ft bgs)	Approximate NAPL Thickness <sup>4</sup> (ft)	Groundwater Elevation (ft AMSL)
<b>MW18-04S<sup>3</sup></b> <b>432.74</b>				
3/15/2018	NM	NM	NM	NM
6/13/2018	NM	NM	NM	NM
9/14/2018	NM	NM	NM	NM
1/7/2019	11.40	22.52	0.00	421.34
3/8/2019	11.18	22.05	0.00	421.56
6/7/2019	11.57	21.82	0.00	421.17
9/3/2019	11.94	21.76	0.00	420.80
12/13/2019	10.66	21.80	0.00	422.08
3/12/2020	11.63	21.79	0.00	421.11
7/24/2020	NM	NM	NM	NM
9/14/2020	15.66	21.43	0.00	417.08
12/18/2020	15.50	21.15	0.00	417.24
3/4/2021	15.20	21.50	0.00	417.54
9/13/2021	15.49	21.34	0.00	417.25
<b>MW18-04D<sup>3,5</sup></b> <b>432.63</b>				
3/15/2018	NM	NM	NM	NM
6/13/2018	NM	NM	NM	NM
9/14/2018	NM	NM	NM	NM
1/7/2019	7.70	42.10	0.00	424.93
3/8/2019	8.76	41.62	0.00	423.87
6/7/2019	8.77	41.12	0.00	423.86
9/3/2019	8.52	41.07	0.00	424.11
12/13/2019	7.10	41.00	0.00	425.53
3/12/2020	8.62	41.09	0.00	424.01
7/24/2020	NM	NM	NM	NM
9/14/2020	9.07	41.05	0.00	423.56
12/18/2020	7.98	40.74	0.00	424.65
3/4/2021	7.78	40.95	0.00	424.85
9/13/2021	7.80	40.85	0.00	424.83
<b>MW08-05S</b> <b>429.50</b>				
3/15/2018	6.91	18.30	0.00	422.59
6/13/2018	7.30	18.28	0.00	422.20
9/14/2018	6.80	18.35	0.00	422.70
1/7/2019	7.10	18.40	0.00	422.40
3/8/2019	6.95	18.53	0.00	422.55
6/7/2019	7.20	18.50	0.00	422.30
9/3/2019	7.66	18.40	0.00	421.84
12/13/2019	6.85	18.40	0.00	422.65
3/12/2020	7.65	18.40	0.00	421.85
7/24/2020	7.51	18.40	0.00	421.99
9/14/2020	7.64	18.44	0.00	421.86
12/18/2020	7.40	18.23	0.00	422.10
3/4/2021	6.26	18.35	0.00	423.24
9/13/2021	6.96	18.26	0.00	422.54
<b>MW08-05D</b> <b>429.48</b>				
3/15/2018	3.88	35.70	0.00	425.60
6/13/2018	5.42	35.75	0.00	424.06
9/14/2018	4.12	35.85	0.00	425.36
1/7/2019	3.88	36.85	0.00	425.60
3/8/2019	5.52	36.00	0.00	423.96
6/7/2019	5.51	35.63	0.00	423.97
9/3/2019	5.02	35.71	0.00	424.46
12/13/2019	3.74	35.62	0.00	425.74
3/12/2020	5.26	35.70	0.00	424.22
7/24/2020	5.25	35.49	0.00	424.23
9/14/2020	5.61	35.70	0.00	423.87
12/18/2020	4.38	35.44	0.00	425.10
3/4/2021	4.32	35.55	0.00	425.16
9/13/2021	4.55	35.22	0.00	424.93

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<b>MW08-06S 428.60</b>				
3/15/2018	NM	NM	0.00	NM
6/13/2018	8.87	19.62	0.00	419.73
9/14/2018	8.32	19.70	0.00	420.28
1/7/2019	8.04	19.85	0.00	420.56
3/8/2019	8.51	19.70	0.00	420.09
6/7/2019	8.74	19.70	0.00	419.86
9/3/2019	8.76	19.75	0.00	419.84
12/13/2019	7.86	19.70	0.00	420.74
3/12/2020	8.69	19.66	0.00	419.91
7/24/2020	8.98	19.65	0.00	419.62
9/14/2020	9.18	19.70	0.00	419.42
12/18/2020	8.60	19.63	0.00	420.00
3/4/2021	7.95	12.55	0.00	420.65
9/13/2021	8.57	19.75	0.00	420.03
<b>MW08-06D 428.61</b>				
3/15/2018	NM	NM	0.00	NM
6/13/2018	4.44	39.52	0.00	424.17
9/14/2018	3.05	39.60	0.00	425.56
1/7/2019	2.81	40.13	0.00	425.80
3/8/2019	4.60	39.60	0.00	424.01
6/7/2019	4.52	40.61	0.00	424.09
9/3/2019	4.20	39.50	0.00	424.41
12/13/2019	2.75	39.66	0.00	425.86
3/12/2020	4.26	39.55	0.00	424.35
7/24/2020	4.20	39.55	0.00	424.41
9/14/2020	4.64	39.80	0.00	423.97
12/18/2020	3.52	39.48	0.00	425.09
3/4/2021	3.52	39.48	0.00	425.09
9/13/2021	3.43	39.51	0.00	425.18
<b>MW08-07S 435.90</b>				
3/15/2018	3.52	15.55	0.00	432.38
6/13/2018	6.82	15.54	0.00	429.08
9/14/2018	4.32	15.58	0.00	431.58
1/7/2019	1.59	15.61	0.00	434.31
3/8/2019	4.26	15.60	0.00	431.64
6/7/2019	6.17	15.57	0.00	429.73
9/3/2019	6.90	15.50	0.00	429.00
12/13/2019	3.61	15.57	0.00	432.29
3/12/2020	6.42	15.55	0.00	429.48
7/24/2020	6.65	15.54	0.00	429.25
9/14/2020	7.08	18.55	0.00	428.82
12/18/2020	6.30	15.49	0.00	429.60
3/4/2021	3.53	15.58	0.00	432.37
9/13/2021	5.23	15.54	0.00	430.67
<b>MW08-07D 435.77</b>				
3/15/2018	9.87	38.85	0.00	425.90
6/13/2018	11.26	38.96	0.00	424.51
9/14/2018	10.10	39.03	0.00	425.67
1/7/2019	9.65	31.15	0.00	426.12
3/8/2019	11.34	39.07	0.00	424.43
6/7/2019	11.29	38.90	0.00	424.48
9/3/2019	11.04	38.95	0.00	424.73
12/13/2019	9.53	38.90	0.00	426.24
3/12/2020	10.99	38.91	0.00	424.78
7/24/2020	11.01	38.90	0.00	424.76
9/14/2020	11.35	38.92	0.00	424.42
12/18/2020	10.20	38.55	0.00	425.57
3/4/2021	10.07	38.98	0.00	425.70
9/13/2021	10.11	38.92	0.00	425.66

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<b>MW08-08S</b> <b>430.61</b>				
3/15/2018	5.93	12.25	0.00	424.68
6/13/2018	5.20	12.23	0.00	425.41
9/14/2018	4.15	12.32	0.00	426.46
1/7/2019	4.51	12.40	0.00	426.10
3/8/2019	4.85	12.50	0.00	425.76
6/7/2019	5.17	12.58	0.00	425.44
9/3/2019	4.88	12.55	0.00	425.73
12/13/2019	4.21	12.50	0.00	426.40
3/12/2020	5.18	12.58	0.00	425.43
7/24/2020	4.96	12.52	0.00	425.65
9/14/2020	5.01	12.54	0.00	425.60
12/18/2020	4.74	12.50	0.00	425.87
3/4/2021	4.55	12.55	0.00	426.06
9/13/2021	4.36	12.57	0.00	426.25
<b>MW18-08D<sup>3</sup></b> <b>432.33</b>				
3/15/2018	NM	NM	NM	NM
6/13/2018	NM	NM	NM	NM
9/14/2018	NM	NM	NM	NM
1/7/2019	6.82	37.19	NM	425.51
3/8/2019	8.47	37.00	0.00	423.86
6/7/2019	8.46	36.60	0.00	423.87
9/3/2019	8.00	36.67	0.00	424.33
12/13/2019	6.69	36.65	0.00	425.64
3/12/2020	8.23	36.61	0.00	424.10
7/24/2020	8.22	36.60	0.00	424.11
9/14/2020	8.54	36.62	0.00	423.79
12/18/2020	7.31	36.41	0.00	425.02
3/4/2021	7.25	36.55	0.00	425.08
9/13/2021	7.27	36.49	0.00	425.06
<b>NMW08-02</b> <b>429.99</b>				
3/15/2018	NM	NM	0.00	NM
6/13/2018	2.49	21.53	Trace	427.50
9/14/2018	1.54	21.40	Trace	428.45
1/7/2019	1.41	19.85	0.08	428.58
3/8/2019	1.46	21.10	Trace	428.53
6/7/2019	2.01	20.79	Trace	427.98
9/3/2019	NM	NM	NM	NM
12/13/2019	1.70	20.85	Trace	428.29
12/19/2019 <sup>6</sup>	6.50	21.80	0.00	423.49
3/12/2020	1.69	21.80	Trace	428.30
7/24/2020	1.87	21.75	Trace	428.12
9/14/2020	2.12	21.85	Trace	427.87
12/18/2020	2.09	21.68	Trace	427.90
3/4/2021	1.86	21.72	Trace	428.13
9/13/2021	1.67	21.59	0.00	428.32
<b>NMW16-01</b> <b>429.82</b>				
3/15/2018	2.54	27.54	0.00	427.28
6/13/2018	3.63	27.55	0.00	426.19
9/14/2018	2.46	27.60	0.00	427.36
1/7/2019	2.55	28.46	0.00	427.27
3/8/2019	3.07	29.10	0.00	426.75
6/7/2019	3.25	27.80	0.00	426.57
9/3/2019	3.46	27.54	0.00	426.36
12/13/2019	2.34	27.60	0.00	427.48
3/12/2020	3.54	27.58	0.00	426.28
7/24/2020	3.36	27.70	0.00	426.46
9/14/2020	3.66	27.70	0.00	426.16
12/18/2020	3.22	27.48	0.00	426.60
3/4/2021	2.62	27.70	0.00	427.20
9/13/2021	2.71	27.69	0.00	427.11

See Notes on Page 6.

**Table 1**  
**NAPL Gauging and Groundwater Elevation Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**



Well ID / Date / TIC Elevation (ft AMSL)	Depth to Water (ft bgs)	Depth to Bottom (ft bgs)	Approximate NAPL Thickness <sup>4</sup> (ft)	Groundwater Elevation (ft AMSL)
<b>NMW16-02</b> <b>429.88</b>				
3/15/2018	3.82	40.34	0.00	426.06
6/13/2018	5.24	41.52	0.00	424.64
9/14/2018	3.89	40.43	0.00	425.99
1/7/2019	3.58	41.45	0.00	426.30
3/8/2019	5.01	42.80	0.00	424.87
6/7/2019	5.17	41.00	0.00	424.71
9/3/2019	4.86	40.41	0.00	425.02
12/13/2019	3.42	40.25	0.00	426.46
3/12/2020	5.18	40.40	0.00	424.70
7/24/2020	5.08	40.50	0.00	424.80
9/14/2020	5.52	40.44	0.00	424.36
12/18/2020	4.22	40.42	0.00	425.66
3/4/2021	4.20	40.50	0.00	425.68
9/13/2021	4.22	40.24	0.00	425.66
<b>NMW16-03</b> <b>429.95</b>				
3/15/2018	1.84	30.85	0.00	428.11
6/13/2018	2.56	31.40	0.00	427.39
9/14/2018	1.60	30.92	0.00	428.35
1/7/2019	1.57	31.82	0.00	428.38
3/8/2019	2.21	32.64	0.00	427.74
6/7/2019	2.28	31.16	0.00	427.67
9/3/2019	2.33	30.88	0.00	427.62
12/13/2019	1.50	31.00	0.00	428.45
3/12/2020	2.49	31.00	0.00	427.46
7/24/2020	2.39	30.88	0.00	427.56
9/14/2020	2.68	31.14	0.00	427.27
12/18/2020	2.17	30.86	0.00	427.78
3/4/2021	1.72	30.98	0.00	428.23
9/13/2021	1.84	31.01	0.00	428.11
<b>NMW16-04</b> <b>430.11</b>				
3/15/2018	2.30	32.00	0.00	427.81
6/13/2018	2.60	32.00	0.00	427.51
9/14/2018	1.55	32.05	0.00	428.56
1/7/2019	1.73	32.77	Trace	428.38
3/8/2019	2.43	34.00	0.00	427.68
6/7/2019	2.26	32.98	0.00	427.85
9/3/2019	2.32	32.00	0.00	427.79
12/13/2019	1.60	32.08	0.00	428.51
3/12/2020	2.62	32.12	0.00	427.49
7/24/2020	2.38	32.05	0.00	427.73
9/14/2020	2.75	32.07	0.00	427.36
12/18/2020	2.21	32.05	0.00	427.90
3/4/2021	1.93	32.10	0.00	428.18
9/13/2021	1.85	32.02	0.00	428.26
<b>NMW16-05</b> <b>430.74</b>				
3/15/2018	3.31	31.79	0.00	427.43
6/13/2018	2.74	31.88	0.00	428.00
9/14/2018	1.50	31.86	0.00	429.24
1/7/2019	1.71	33.00	Trace	429.03
3/8/2019	2.30	33.50	0.00	428.44
6/7/2019	1.98	32.73	0.00	428.76
9/3/2019	1.92	31.78	0.00	428.82
12/13/2019	1.36	31.90	0.00	429.38
3/12/2020	2.38	31.88	0.00	428.36
7/24/2020	2.24	31.85	0.00	428.50
9/14/2020	2.81	32.18	0.00	427.93
12/18/2020	1.93	31.52	0.00	428.81
3/4/2021	1.65	31.55	0.00	429.09
9/13/2021	1.60	32.05	0.00	429.14

See Notes on Page 6.

**Table 1**  
**NAPL Gauging and Groundwater Elevation Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

**Acronyms and Abbreviations:**

AMSL = above mean sea level  
ft = feet  
NAPL = Non-Aqueous Phase Liquid  
NM = not measured  
TIC = top of inner casing

**Notes:**

1. NAPL gauging and water level data collected by Arcadis on the dates indicated.
2. Elevations are shown in feet above mean sea level (AMSL) relative to the North American Vertical Datum of 1988 (NAVD88).
3. Monitoring well installed in December 2018 to replace missing wells.
4. "Trace" indicates that NAPL blebs were observed on interface probe/tape.
5. Monitoring well resurveyed on October 30, 2020.
6. Approximately 4 gallons of NAPL/water/sediment mixture removed from well on date indicated. DTW recorded immediately after pumping.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW93-1D					MW93-1S				
			10/07/08	01/08/19	09/04/19	09/15/20	09/13/21	10/06/08	01/08/19	09/05/19	09/15/20	09/13/21
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U [1.0 U]	0.50 U	0.50 U	0.50 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U [1.0 U]	2.5 U	2.5 U	2.5 U
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U	2.5 U	2.5 U	NA	2.0 U [2.0 U]	2.5 U	2.5 U	2.5 U
o-Xylene	--	µg/L	NA	1.0 U	2.5 U	2.5 U	2.5 U	NA	1.0 U [1.0 U]	2.5 U	2.5 U	2.5 U
Toluene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U [1.0 U]	2.5 U	2.5 U	2.5 U
Xylenes (total)	5	µg/L	3.0 U	2.0 U	2.5 U	2.5 U	2.5 U	3.0 U	2.0 U [2.0 U]	2.5 U	2.5 U	2.5 U
Total BTEX	--	µg/L	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U	5.0 U	25 U [25 U]	2.0 U	0.10 U	0.10 U
Acenaphthylene	--	µg/L	5.0 U	5.0 U	2.0 U	0.020 J	0.090 J	5.0 U	2.4 J [25 U]	2.0 U	0.13	0.27
Anthracene	50	µg/L	5.0 U	5.0 U	2.0 U	0.10 U	0.070 J	5.0 U	1.5 J [25 U]	2.0 U	0.090 J	0.31
Benzo(a)anthracene	0.002	µg/L	5.0 U	5.0 U	2.0 U	0.060 J	0.11	0.60 J	8.3 J [4.8 J]	2.0 U	0.49	0.70
Benzo(a)pyrene	ND	µg/L	5.0 U	5.0 U	2.0 U	0.080 J	0.14	0.80 J	11 J [7.5 J]	2.0 U	0.71	0.95
Benzo(b)fluoranthene	0.002	µg/L	5.0 U	5.0 U	2.0 U	0.090 J	0.20	1.0 J	15 J [9.9 J]	2.0 U	0.87	1.4
Benzo(g,h,i)perylene	--	µg/L	5.0 U	5.0 U	2.0 U	0.070 J	0.13	0.70 J	8.7 J [5.6 J]	2.0 U	0.49	0.86
Benzo(k)fluoranthene	0.002	µg/L	5.0 U	5.0 U	2.0 U	0.040 J	0.070 J	0.50 J	6.4 J [3.9 J]	2.0 U	0.35	0.46
Chrysene	0.002	µg/L	5.0 U	5.0 U	2.0 U	0.040 J	0.090 J	0.50 J	8.2 J [5.4 J]	2.0 U	0.42	0.61
Dibenzo(a,h)anthracene	--	µg/L	5.0 U	5.0 U	2.0 U	0.10 U	0.020 J	5.0 U	2.9 J [25 U]	2.0 U	0.10	0.18
Fluoranthene	50	µg/L	5.0 U	5.0 U	2.0 U	0.060 J	0.13	0.90 J	13 J [8.3 J]	2.0 U	0.76	0.84
Fluorene	50	µg/L	5.0 U	5.0 U	2.0 U	0.10 U	0.030 J	5.0 U	25 U [25 U]	2.0 U	0.030 J	0.030 J
Indeno(1,2,3-cd)pyrene	0.002	µg/L	5.0 U	5.0 U	2.0 U	0.060 J	0.14	0.60 J	7.8 J [5.3 J]	2.0 U	0.55	0.96
2-Methylnaphthalene	--	µg/L	NA	NA	NA	NA	0.020 J	NA	NA	NA	NA	0.10 U
Naphthalene	10	µg/L	5.0 U	5.0 U	2.0 U	2.5 U	0.18 UB	5.0 U	25 U [25 U]	2.0 U	2.5 U	0.070 J
Phenanthrene	50	µg/L	5.0 U	5.0 U	2.0 U	0.10 U	0.080 J	5.0 U	3.2 J [25 U]	2.0 U	0.19	0.19
Pyrene	50	µg/L	5.0 U	5.0 U	2.0 U	0.070 J	0.13	0.80 J	12 J [7.3 J]	2.0 U	0.70	0.78
Total PAHs	--	µg/L	ND	ND	ND	0.59 J	1.63 J	6.4 J	100 J [58 J]	ND	5.88 J	8.61 J
Miscellaneous												
Cyanide	200	µg/L	10.0 U	6.2 J	5.0 UB	5.0 U	28 J	10.0 U	7.6 J [8.6 J]	5.0 U	5.0 U	31 J

See Notes on Page 8.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW93-2D					MW93-2S				
			10/08/08	01/08/19	09/04/19	09/15/20	09/13/21	10/07/08	01/08/19	09/05/19	09/15/20	09/13/21
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	0.50 U [0.50 U]	0.18 J	0.50 U	1.0 U	1.0 U	0.50 U	0.19 J	0.50 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	2.5 U [2.5 U]	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U [2.5 U]	2.5 U	2.5 U	NA	2.0 U	2.5 U	2.5 U	2.5 U
o-Xylene	--	µg/L	NA	1.0 U	2.5 U [2.5 U]	2.5 U	2.5 U	NA	1.0 U	2.5 U	2.5 U	2.5 U
Toluene	5	µg/L	1.0 U	1.0 U	2.5 U [2.5 U]	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
Xylenes (total)	5	µg/L	3.0 U	2.0 U	2.5 U [2.5 U]	2.5 U	2.5 U	3.0 U	2.0 U	2.5 U	2.5 U	2.5 U
Total BTEX	--	µg/L	ND	ND	ND [ND]	0.18 J	ND	ND	ND	ND	0.19 J	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.10 U	0.11	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Acenaphthylene	--	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.10 U	0.14	5.0 U	5.0 U	2.0 U	0.10 U	0.020 J
Anthracene	50	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.10 U	0.12	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(a)anthracene	0.002	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.030 J	0.13	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(a)pyrene	ND	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.030 J	0.11	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(b)fluoranthene	0.002	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.040 J	0.13	5.0 U	5.0 U	2.0 U	0.10 U	0.010 J
Benzo(g,h,i)perylene	--	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.030 J	0.12	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(k)fluoranthene	0.002	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.020 J	0.11	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Chrysene	0.002	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.020 J	0.11	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Dibenzo(a,h)anthracene	--	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.10 U	0.12	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
Fluoranthene	50	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.040 J	0.13	5.0 U	5.0 U	2.0 U	0.10 U	0.020 J
Fluorene	50	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.10 U	0.14	5.0 U	5.0 U	2.0 U	0.030 J	0.020 J
Indeno(1,2,3-cd)pyrene	0.002	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.030 J	0.12	5.0 U	5.0 U	2.0 U	0.10 U	0.10 U
2-Methylnaphthalene	--	µg/L	NA	NA	NA [NA]	NA	0.14	NA	NA	NA	NA	0.020 J
Naphthalene	10	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	1.7 J	0.38	5.0 U	5.0 U	2.0 U	2.5 U J	0.14
Phenanthrene	50	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.030 J	0.17	5.0 U	5.0 U	2.0 U	0.040 J	0.10 UB
Pyrene	50	µg/L	5.0 U	5.0 U	2.0 U [2.0 U]	0.040 J	0.12	5.0 U	5.0 U	2.0 U	0.10 U	0.020 J
Total PAHs	--	µg/L	ND	ND	ND [ND]	2.01 J	2.40	ND	ND	ND	0.1 J	0.29 J
Miscellaneous												
Cyanide	200	µa/L	10.0 UJ	10.0 U	5.0 U [5.0 U]	5.0 U	5 UJ	67.0	9.7 J	18	4.0 J	7 J

See Notes on Page 8.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW08-04D <sup>5</sup>	MW18-04D				MW08-04S <sup>5</sup>	MW18-04S			
			03/31/09	01/07/19	09/04/19	09/15/20	09/13/21	03/31/09	01/07/19	09/05/19	09/15/20	09/13/21
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	0.50 U	0.50 U [0.50 U]	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U [2.5 U]	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U	2.5 U [2.5 U]	2.5 U	NA	2.0 U	2.5 U	2.5 U	2.5 U
o-Xylene	--	µg/L	NA	1.0 U	2.5 U	2.5 U [2.5 U]	2.5 U	NA	1.0 U	2.5 U	2.5 U	2.5 U
Toluene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U [2.5 U]	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
Xylenes (total)	5	µg/L	2.0 U	2.0 U	2.5 U	2.5 U [2.5 U]	2.5 U	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U
Total BTEX	--	µg/L	ND	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Acenaphthylene	--	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.010 J	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Anthracene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(a)anthracene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(a)pyrene	ND	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(b)fluoranthene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(g,h,i)perylene	--	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.030 J
Benzo(k)fluoranthene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Chrysene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Dibenzo(a,h)anthracene	--	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.040 J
Fluoranthene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Fluorene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J
2-Methylnaphthalene	--	µg/L	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA	0.10 U
Naphthalene	10	µg/L	4.7 U	5.0 U	2.0 U	2.5 U [2.5 U]	0.080 J	4.9 U	5.0 U	2.0 U	2.5 U	0.10 U
Phenanthrene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 UB	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Pyrene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U [0.10 U]	0.10 U	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U
Total PAHs	--	µg/L	ND	ND	ND	ND	0.110 J	ND	ND	2.0 U	ND	0.090 J
Miscellaneous												
Cyanide	200	µa/L	28.1	10.0 U	5.0 U	5.0 U [5.0 U]	5 UJ	10.0 U	6.5 J	5.0 U	17	8 J

See Notes on Page 8.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW08-05D					MW08-05S				
			03/31/09	01/08/19	09/03/19	09/14/20	09/13/21	04/01/09	01/09/19	09/03/19	09/14/20	09/13/21
Volatile Organics												
Benzene	1	µg/L	230 D [230 D]	1.0 U	0.50 U	0.59	0.50 U [0.50 U]	4,900 D	690	310	130	13
Ethylbenzene	5	µg/L	61 [74]	1.0 U	2.5 U	2.5 U	2.5 U [2.5 U]	360 J	57	33	12	2.1 J
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U	2.5 U	2.5 U [2.5 U]	NA	39	24	6.0	2.5 U
o-Xylene	--	µg/L	NA	1.0 U	2.5 U	2.5 U	2.5 U [2.5 U]	NA	29	22	8.2	4.6
Toluene	5	µg/L	1.2 [1.2 J]	1.0 U	2.5 U	2.5 U	2.5 U [2.5 U]	950 D	19	10	3.8	1.7 J
Xylenes (total)	5	µg/L	56 [57]	2.0 U	2.5 U	2.5 U	2.5 U [2.5 U]	800 J	68	46	14.2	2.1 J
Total BTEX	--	µg/L	350 [360 J]	ND	ND	0.59	ND [ND]	7,000 J	830	400	160	21.4 J
Semivolatile Organics												
Acenaphthene	20	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.11	0.10 U [0.10 U]	21	15 J	7.8	7.2	6.5
Acenaphthylene	--	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.050 J	0.030 J [0.030 J]	38	12 J	6.5	5.1	3.6
Anthracene	50	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.040 J	0.020 J [0.020 J]	12	7.3 J	1.8 J	1.5	1.6
Benzo(a)anthracene	0.002	µg/L	4.8 U [0.20 J]	5.0 U	2.0 U	0.10 U	0.060 J [0.070 J]	0.59 J	25 U	1.6 J	1.0	1.2
Benzo(a)pyrene	ND	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.10 U	0.060 J [0.070 J]	5.0 U	25 U	0.86 J	0.52	0.62
Benzo(b)fluoranthene	0.002	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.020 J	0.11 [0.13]	5.0 U	25 U	1.1 J	0.54	0.83
Benzo(g,h,i)perylene	--	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.10 U	0.070 J [0.080 J]	5.0 U	25 U	0.33 J	0.20	0.24
Benzo(k)fluoranthene	0.002	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.010 J	0.030 J [0.040 J]	5.0 U	25 U	0.44 J	0.23	0.25
Chrysene	0.002	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.10 U	0.060 J [0.060 J]	0.40 J	25 U	1.2 J	0.66	0.83
Dibenzo(a,h)anthracene	--	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.10 U	0.010 J [0.020 J]	5.0 U	25 U	2.0 U	0.060 J	0.080 J
Fluoranthene	50	µg/L	4.8 U [4.7 U]	0.42 J	2.0 U	0.040 J	0.080 J [0.10 J]	8.4	12 J	9.5	8.9	6.5
Fluorene	50	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.33	0.10 U [0.10 U]	60	38	19	19	11
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.010 J	0.070 J [0.080 J]	5.0 U	25 U	0.47 J	0.24	0.31
2-Methylnaphthalene	--	µg/L	NA	NA	NA	NA	0.10 U [0.10 U]	NA	NA	NA	NA	0.060 J
Naphthalene	10	µg/L	6.4 [5.0]	5.0 U	2.0 U	2.5 U	0.090 J [0.10 U]	1,600 D	67	12	22 J	0.26
Phenanthrene	50	µg/L	4.8 U [4.7 U]	5.0 U	2.0 U	0.30	0.10 UB [0.10 UB]	65	31	14	13	2.0
Pyrene	50	µg/L	4.8 U [4.7 U]	0.40 J	2.0 U	0.020 J	0.080 J [0.10 J]	6.3	7.8 J	6.1	5.7	4.1
Total PAHs	--	µg/L	6.4 [5.2 J]	0.82 J	ND	0.93 J	0.81 J [0.84 J]	2,000 J	190 J	83 J	86 J	39.98 J
Miscellaneous												
Cyanide	200	µg/L	10.0 U [10.0 U]	65	52	75	21 J [48 J]	30.6	38	34	27	29 J

See Notes on Page 8.



**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW08-06D					MW08-06S				
			04/01/09	01/09/19	09/03/19	09/14/20	09/13/21	04/01/09	01/09/19	09/03/19	09/14/20	09/13/21
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.3	1.0 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U	2.5 U	2.5 U	NA	2.0 U	2.5 U	2.5 U	2.5 U
o-Xylene	--	µg/L	NA	1.0 U	2.5 U	2.5 U	2.5 U	NA	1.0 U	2.5 U	2.5 U	2.5 U
Toluene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
Xylenes (total)	5	µg/L	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U
Total BTEX	--	µg/L	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Acenaphthylene	--	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Anthracene	50	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(a)anthracene	0.002	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.040 J	4.8 U	5.0 U	2.0 U	0.10 U	0.020 J
Benzo(a)pyrene	ND	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	0.19 J	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(b)fluoranthene	0.002	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.030 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(g,h,i)perylene	--	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Benzo(k)fluoranthene	0.002	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.010 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Chrysene	0.002	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Dibenzo(a,h)anthracene	--	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Fluoranthene	50	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.040 J	4.8 U	5.0 U	2.0 U	0.10 U	0.020 J
Fluorene	50	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.020 J	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U
2-Methylnaphthalene	--	µg/L	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA	0.10 U
Naphthalene	10	µg/L	0.31 J	5.0 U	2.0 U	2.5 U	0.10 UB	0.40 J	5.0 U	2.0 U	2.5 U	0.10 U
Phenanthrene	50	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.050 J	4.8 U	5.0 U	2.0 U	0.10 U	0.030 J
Pyrene	50	µg/L	4.9 U	5.0 U	2.0 U	0.10 U	0.050 J	4.8 U	5.0 U	2.0 U	0.10 U	0.020 J
Total PAHs	--	µg/L	0.31 J	ND	ND	ND	0.440 J	0.59 J	ND	ND	ND	0.090 J
Miscellaneous												
Cyanide	200	µa/L	10.0 U	10.0 U	5.0 U	5.0 U	5 UJ	130	64	56	9	17 J

See Notes on Page 8.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW08-07D					MW08-07S				
			03/31/09	01/09/19	09/04/19	09/15/20	09/13/21	03/31/09	01/09/19	09/05/19	09/15/20	09/13/21
Volatile Organics												
Benzene	1	µg/L	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U	2.5 U	2.5 U	NA	2.0 U	2.5 U	2.5 U	2.5 U
o-Xylene	--	µg/L	NA	1.0 U	2.5 U	2.5 U	2.5 U	NA	1.0 U	2.5 U	2.5 U	2.5 U
Toluene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U
Xylenes (total)	5	µg/L	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U
Total BTEX	--	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organics												
Acenaphthene	20	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.10 U	0.10 U
Acenaphthylene	--	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.020 J	0.030 J
Anthracene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.10 U	0.040 J
Benzo(a)anthracene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.080 J	0.090 J
Benzo(a)pyrene	ND	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.090 J	0.080 J
Benzo(b)fluoranthene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.010 J	0.10 U	4.8 U	25 U	2.0 U	0.12	0.11
Benzo(g,h,i)perylene	--	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.070 J	0.050 J
Benzo(k)fluoranthene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.050 J	0.040 J
Chrysene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.060 J	0.060 J
Dibenzo(a,h)anthracene	--	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.020 J	0.10 U
Fluoranthene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.090 J	0.13
Fluorene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.10 U	0.020 J
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.070 J	0.060 J
2-Methylnaphthalene	--	µg/L	NA	NA	NA	NA	0.10 U	NA	NA	NA	NA	0.10 U
Naphthalene	10	µg/L	4.7 U	5.0 U	2.0 U	2.5 U	0.10 U	4.8 U	25 U	2.0 U	2.5 U	0.10 U
Phenanthrene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.030 J	0.070 J
Pyrene	50	µg/L	4.7 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	25 U	2.0 U	0.090 J	0.12
Total PAHs	--	µg/L	ND	ND	ND	0.010 J	ND	ND	ND	ND	0.80 J	0.90 J
Miscellaneous												
Cyanide	200	µg/L	10.0 U	5.9 J	5.0 U	5.0 U	5 UJ	10.0 U	12	5.0	6.0	7 J

See Notes on Page 8.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

Location ID:	NYSDEC TOGS Standards and Guidance Values <sup>3</sup>	Units	MW08-08D <sup>5</sup>	MW18-08D					MW08-08S				
Date Collected:			03/31/09	01/07/19	09/04/19	09/15/20	09/13/21		04/01/09	01/08/19	09/04/19	09/15/20	09/13/21
<b>Volatile Organics</b>													
Benzene	1	µg/L	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	<b>16</b>	<b>32</b>	0.50 U	<b>0.42 J</b>	<b>0.53</b>	
Ethylbenzene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	
m-Xylene & p-Xylene	--	µg/L	NA	2.0 U	2.5 U	2.5 U	2.5 U	NA	2.0 U	2.5 U	2.5 U	2.5 U	
o-Xylene	--	µg/L	NA	1.0 U	2.5 U	2.5 U	2.5 U	NA	1.0 U	2.5 U	2.5 U	2.5 U	
Toluene	5	µg/L	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	2.5 U	
Xylenes (total)	5	µg/L	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U	2.0 U	2.0 U	2.5 U	2.5 U	2.5 U	
Total BTEX	--	µg/L	ND	ND	ND	ND	ND	16	32	ND	ND	0.53	
<b>Semivolatile Organics</b>													
Acenaphthene	20	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	
Acenaphthylene	--	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.060 J</b>	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.090 J</b>	
Anthracene	50	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.020 J</b>	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.080 J</b>	
Benzo(a)anthracene	0.002	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	<b>0.020 J</b>	<b>0.38</b>	
Benzo(a)pyrene	ND	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.34</b>	
Benzo(b)fluoranthene	0.002	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	<b>0.020 J</b>	<b>0.45</b>	
Benzo(g,h,i)perylene	--	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.24</b>	
Benzo(k)fluoranthene	0.002	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.18</b>	
Chrysene	0.002	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.30</b>	
Dibenzo(a,h)anthracene	--	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.050 J</b>	
Fluoranthene	50	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.020 J</b>	4.8 U	<b>0.40 J</b>	2.0 U	<b>0.030 J</b>	<b>0.61</b>	
Fluorene	50	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.10 UB</b>	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.10 UB</b>	
Indeno(1,2,3-cd)pyrene	0.002	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.27</b>	
2-Methylnaphthalene	--	µg/L	NA	NA	NA	NA	<b>0.050 J</b>	NA	NA	NA	NA	<b>0.030 J</b>	
Naphthalene	10	µg/L	4.8 U	5.0 U	2.0 U	2.5 U	<b>0.29</b>	4.8 U	5.0 U	2.0 U	2.5 U	<b>0.10 J</b>	
Phenanthrene	50	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.10 UB</b>	4.8 U	5.0 U	2.0 U	0.10 U	<b>0.20</b>	
Pyrene	50	µg/L	4.8 U	5.0 U	2.0 U	0.10 U	0.10 U	4.8 U	<b>0.35 J</b>	2.0 U	<b>0.030 J</b>	<b>0.56</b>	
Total PAHs	--	µg/L	ND	ND	ND	ND	0.54 J	ND	0.75 J	ND	0.10 J	3.92 J	
<b>Miscellaneous</b>													
Cyanide	200	µg/L	10.0 U	10.0 U	5.0 U	<b>3.0 J</b>	5 UJ	10.0 U	<b>7.6 J</b>	5.0 UB	5.0 U	5 UJ	

See Notes on Page 8.

**Table 2**  
**Groundwater Sample Analytical Results Summary**  
**2021 Post-Construction Monitoring Report**  
**Goshen Former MGP Site - Goshen, New York**

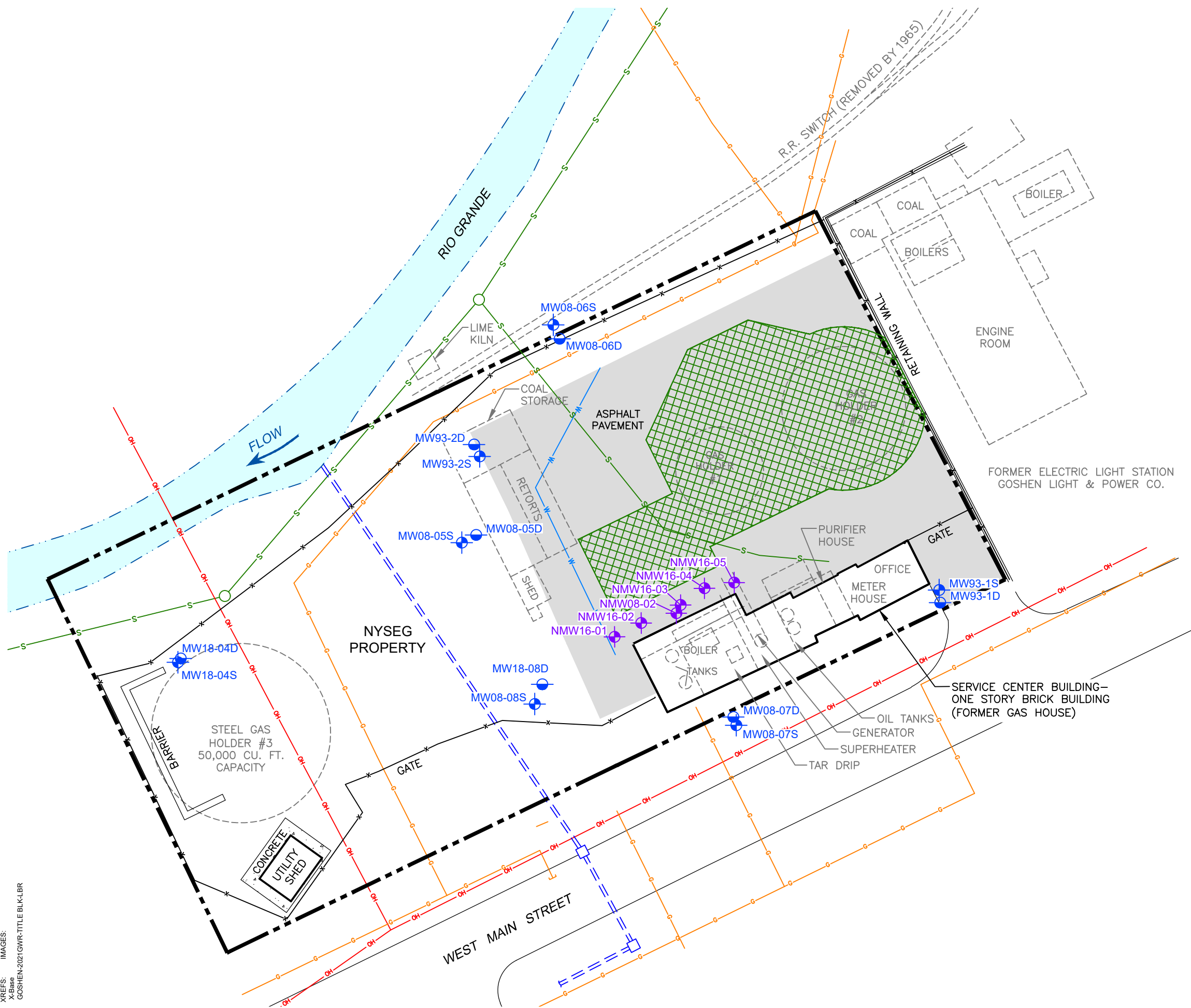
**Acronyms and Abbreviations:**

- B - Indicates an estimated value between the instrument detection limit and the Reporting Limit (RL).
- D - Compound quantitated using secondary dilution.
- J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
- mg/L - milligrams per liter
- NA - not analyzed
- ND - Not Detected at the reporting limit (or MDL or EDL, if shown).
- NYSDEC - New York State Department of Environmental Conservation
- U - Indicates that the compound was analyzed for but not detected. The associated value is the Reporting Limit.
- ug/L - micrograms per liter
- Indicates that no water quality standard or guidance value is available for this compound.
- [ ] - Results shown in brackets represent field duplicates.

**Notes:**

1. Samples collected by Arcadis of New York, Inc. on the dates indicated.
2. Laboratory analysis was performed by TestAmerica of Amherst, NY (January 2019) and Alpha Analytical of Mansfield, MA (September 2019).
3. NYSDEC groundwater standards/guidance values are from the NYSDEC Division of Water, Technical and Operational Guidance Series (TOGS) document titled "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (TOGS 1.1.1) dated June 1998, revised April 2000 and June 2004.
4. Bold values exceed the method detection limit. Shaded results exceed the applicable screening values.
5. Remedial Investigation analytical results from monitoring wells prior to the installation of replacement wells in December 2018.

# Figures

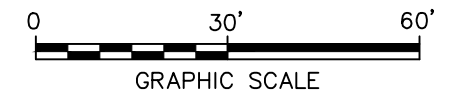


**LEGEND:**

	PROPERTY LINE
	FENCE LINE
	FORMER STRUCTURE (1889-1945)
	GAS LINE
	WATER LINE
	SEWER LINE
	ELECTRIC LINE
	STORM SEWER LINE
	LIMITS OF ISS TREATMENT AREA
	LIMITS OF ASPHALT COVER
	DEEP MONITORING WELL
	SHALLOW MONITORING WELL
	NAPL MONITORING WELL

**NOTES:**

1. ALL LOCATIONS ARE APPROXIMATE. UTILITY SHED LOCATIONS ARE ESTIMATED.
2. LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.

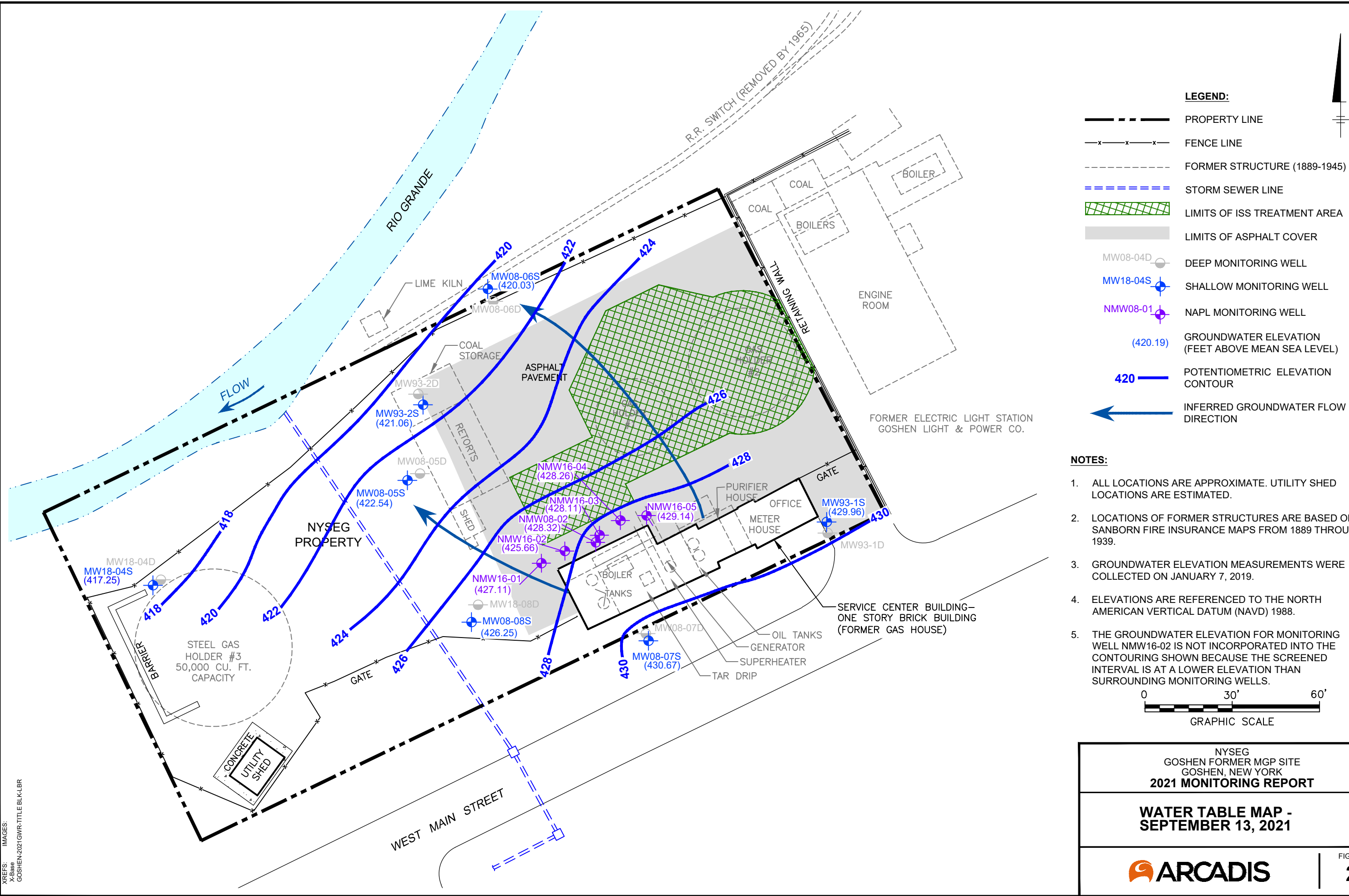


NYSEG  
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GOSHEN, NEW YORK  
**2021 MONITORING REPORT**

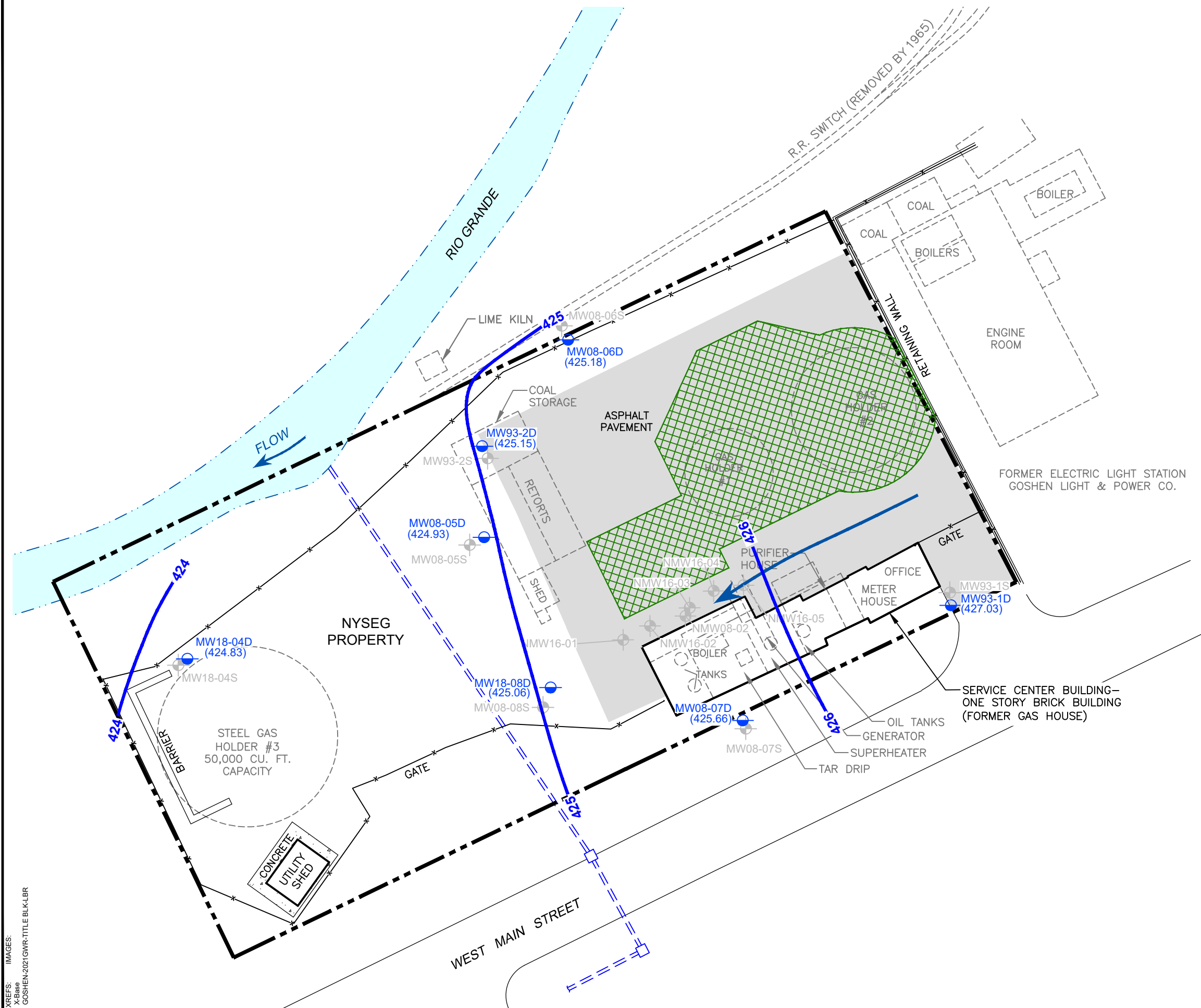
**MONITORING WELL PLAN**



FIGURE  
**1**



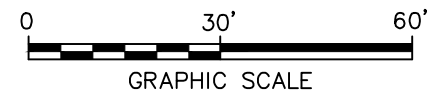




**LEGEND:**

- PROPERTY LINE
- FENCE LINE
- FORMER STRUCTURE (1889-1945)
- STORM SEWER LINE
- LIMITS OF ISS TREATMENT AREA
- LIMITS OF ASPHALT COVER
- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- NAPL MONITORING WELL
- GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- POTENTIOMETRIC ELEVATION CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION

- NOTES:**
- ALL LOCATIONS ARE APPROXIMATE. UTILITY SHED LOCATIONS ARE ESTIMATED.
  - LOCATIONS OF FORMER STRUCTURES ARE BASED ON SANBORN FIRE INSURANCE MAPS FROM 1889 THROUGH 1939.
  - GROUNDWATER ELEVATION MEASUREMENTS WERE COLLECTED ON JANUARY 7, 2019.
  - ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) 1988.



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**DEEP POTENTIOMETRIC SURFACE  
MAP - SEPTEMBER 13, 2021**

**ARCADIS**

FIGURE  
**3**



# **Attachment 1**

## **Groundwater Sampling Logs**



## LOW-FLOW GROUNDWATER SAMPLING FORM

Page 1 of 1

Project No. 30075710

Well ID

MW-18-05D

Date

9/13/21

Project Name/Location

NYSEG Coshen NY

Weather

Sunny 75°

Well Material

☒ PVC  
☐ SS

Measuring Pt.

Screen

Casing

2"

Description

Setting (ft-bmp)

Diameter (in.)

Static Water

7.27

Total Depth (ft-bmp)

36.49

Water Column (ft)

Gallons in Well 4.67

Level (ft-bmp)

MP Elevation

Pump Intake (ft-bmp)

35'

Purge Method:

peristaltic

Sample

Method

low flow

Pump On/Off

1019

Volumes Purged

Centrifugal

Submersible

Other

Sample Time:

Label 1110

Gallons Purged

2.0

Replicate/

Code No.

Sampled by

SS

Purge Start

1110

Purge End

1112

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min +	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C)/(°F) ±3%	Redox (mV) ±10mV	Appearance	
											Color	Odor
1020	0	100	7.27	-	7.18	3.451	10.1	1.71	18.45	71.5	clear	none
1025	5	100	8.03	0.2	7.17	3.476	9.3	0.71	17.88	85.1		
1030	10	100		0.4	7.17	3.497	8.5	0.51	17.37	69.0		
1035	15	100		0.6	7.17	3.519	8.8	0.47	17.89	72.3		
1040	20	100		0.8	7.17	3.531	9.7	0.45	17.70	74.9		
1045	25	100		1.0	7.17	3.530	10.5	0.46	17.45	77.5		
1050	30	100		1.2	7.17	3.537	11.2	0.45	17.20	79.4		
1055	35	100		1.4	7.16	3.539	10.4	0.44	16.88	80.1		
1100	40	100		1.6	7.16	3.540	10.3	0.43	16.74	82.3		
1105	45	100		1.8	7.16	3.544	10.1	0.43	16.76	83.5		
1110	50	100		2.0	7.16	3.548	10.2	0.43	16.77	84.0		
Stabilization Calculations (±)												
Stabilization Criteria												
					±0.1 s.u.	±3%	±10% or within 1 NTU (1)	±10%	±3%	±10 mV		

(1) Turbidity &lt; 50 NTU and ±10% or within 1 NTU of a previous reading when &lt;10 NTU

Constituents Sampled

Container

Number

Preservative

BTEX

PAHs

Cyanide

Comments

Well Casing Volumes

Gallons/Foot

1" = 0.04  
1.25" = 0.061.5" = 0.09  
2" = 0.162.5" = 0.26  
3" = 0.373.5" = 0.50  
4" = 0.65

6" = 1.47

Well Information

Well Location:

Well Locked at Arrival:

Yes

No

Condition of Well:

Well Locked at Departure:

Yes

No

Well Completion:

Flush Mount

Stick Up

Key Number To Well:

OW 5000 P-00



# LOW-FLOW GROUNDWATER SAMPLING FORM



Page 1 of 1

Project No. 30075710

Well ID MW08-5D

Date 9/13/21

Project Name/Location NYSEG, Goshen, NY

Weather Sunny

Measuring Pt. Description TOC Screen Setting (ft-bmp) Casing 2 Diameter (in.)

Well Material PVC SS

Static Water Level (ft-bmp) 4.48 Total Depth (ft-bmp) 35.22 Water Column (ft) 30.74 Gallons in Well 4.91

MP Elevation Pump Intake (ft-bmp) 30.22 Purge Method: Centrifugal Submersible Other

Sample Method Low Flow Kirk Vargus

Pump On/Off 1120 / 1205 Volumes Purged

Sample Time: Label 1200 Gallons Purged 7000 mL

Purge Start Purge End

Replicate/ Code No.

Sampled by Kirk Vargus

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min ±	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos/cm Saline) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C/°F) ±3%	Redox (mV) ±10mV	Appearance Color	Odor
1120	0	200	5.68	0	7.24	1.725	256.6	1.09	19.49	8004	Clear	None
1125	5	200	5.82	1000	7.38	1.702	190.8	0.54	21.05	-4.1	1	1
1130	10	200	5.84	2000	7.38	1.699	167.4	0.43	20.92	-26.5	1	1
1135	15	200	5.86	3000	7.36	1.700	165.0	0.42	20.39	-62.8	1	1
1140	20	200	5.88	4000	7.35	1.707	166.0	0.39	20.33	-70.8	1	1
1145	25	200	5.88	5000	7.34	1.702	151.3	0.39	20.35	-80.8	1	1
1150	30	200	5.88	6000	7.34	1.708	151.0	0.40	20.37	-80.0	1	1
1155	35	200	5.88	7000	7.33	1.708	151.0	0.40	20.36	-80.1	1	1
Stabilization Calculations (±)												
Stabilization Criteria					± 0.1 s.u.	±3%	± 10% or within 1 NTU (1)	± 10%	±3%	±10 mV		

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled	Container	Number	Preservative

Comments BD Done @ this well.

## Well Casing Volumes

Gallons/Foot	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

## Well Information

Well Location:	Good	Well Locked at Arrival:	Yes	No
Condition of Well:	Good	Well Locked at Departure:	Yes	No
Well Completion:	Push Mount / Stick Up	Key Number To Well:		



# LOW-FLOW GROUNDWATER SAMPLING FORM



Page 1 of 1

Project No. 30075710

Well ID MW08-55

Date 9/13/21

Project Name/Location NYSEG, Goshen, NY

Weather Sunny

Measuring Pt. Description TOC

Screen Setting (ft-bmp)

Casing Diameter (in.) 2

Well Material PVC SS

Static Water Level (ft-bmp) 6.90

Total Depth (ft-bmp) 18.26

Water Column (ft) 11.36

Gallons in Well 1.81

MP Elevation

Pump Intake (ft-bmp) 13.26

Purge Method:

Sample Method Low Flow

Pump On/Off 1245/1333

Volumes Purged

Centrifugal Submersible

Other hand pump

Sample Time: Label 1330

Gallons Purged 8000 mL

Replicate/ Code No.

Sampled by Kirk Vargus

Purge Start

Purge End

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min *	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µmhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C)(°F) ±3%	Redox (mV) ±10mV	Appearance	
											Color	Odor
1245	0	200	7.98	0	7.18	1.067	12.7	0.32	20.60	-53.1	Clear	None
1250	5	200	8.00	1000	7.13	1.037	17.9	0.32	25.06	-63.3	"	"
1255	10	200	8.02	2000	7.13	1.039	19.2	0.31	24.08	-64.1	"	"
1300	15	200	8.02	3000	7.14	1.050	17.9	0.36	22.42	-64.1	"	"
1305	20	200	8.02	4000	7.19	1.020	10.5	0.22	19.71	-67.7	"	"
1310	25	200	8.08	5000	7.21	1.016	9.6	0.23	19.55	-68.8	"	"
1315	30	200	8.08	6000	7.22	0.980	16.7	0.15	19.86	-63.0	"	"
1320	35	200	8.08	7000	7.23	0.982	16.1	0.13	19.84	-63.0	"	"
1325	40	200	8.08	8000	7.22	0.982	16.5	0.12	19.82	-63.0	"	"
Stabilization Calculations (±)												
Stabilization Criteria					±0.1 s.u.	±3%	±10% or within 1 NTU (1)	±10%	±3%	±10 mV		

(1) Turbidity &lt; 50 NTU and ±10% or within 1 NTU of a previous reading when &lt;10 NTU

Constituents Sampled

Container

Number

Preservative

Comments

## Well Casing Volumes

Gallons/foot 1" = 0.04 1.5" = 0.09 2.5" = 0.26 3.5" = 0.50 6" = 1.47  
1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65

## Well Information

Well Location:

Condition of Well:

Well Completion:

Flush Mount / Stick Up

Well Locked at Arrival:

Yes / No

Well Locked at Departure:

Yes / No

Key Number To Well:

GW Sample Form



# LOW-FLOW GROUNDWATER SAMPLING FORM



Project No. 30075710 Well ID MW93-2D Page 1 of 1  
 Project Name/Location NYSEG, Goshen, NY Date 9/14/21  
 Measuring Pt. Description Tec Screen Setting (ft-bmp)          Casing Diameter (in.) 2" Weather Cloudy 64°F  
 Static Water Level (ft-bmp) 4.55 Total Depth (ft-bmp) 30.79 Water Column (ft) 26.24 Gallons in Well 4.19  
 MP Elevation          Pump Intake (ft-bmp) 25.79 Purge Method:          Sample Method Low flow  
 Pump On/Off 0900/0940 Volumes Purged          Centrifugal           
 Sample Time: Label 0935 ML Gallons Purged 6000 Submersible           
 Purge Start          Other per pump  
 Purge End          Replicate/ Code No.          Sampled by Kirk V. [signature]

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min +	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond (µMhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C/°F) ±3%	Resist (mV) ±10mV	Appearance	
											Color	Odor
0900	0	200	4.98	0	6.90	0.260	1.9	0.33	17.78	101.5	Clear	Wt. /
0905	5	200	4.98	1000	6.81	0.251	0	0.11	18.04	82.2	cc	cc
0910	10	200	4.98	2000	6.85	0.249	0	0.13	17.91	76.3	cc	cc
0915	15	200	4.99	3000	6.88	0.247	0	0.17	17.93	74.0	cc	cc
0920	20	200	4.99	4000	6.94	0.246	0	0.12	17.98	70.5	cc	cc
0925	25	200	4.99	5000	6.99	0.244	0	0.14	17.97	70.1	cc	cc
0930	30	200	4.99	6000	6.99	0.243	0	0.12	17.95	70.0	cc	cc
Stabilization Calculations (±)												
Stabilization Criteria					± 0.1 s.u.	±3%	± 10% or within 1 NTU (1)	± 10%	±3%	±10 mV		

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled	Container	Number	Preservative

Comments  

## Well Casing Volumes

Gallons/Foot 1" = 0.04 1.5" = 0.09 2.5" = 0.26 3.5" = 0.50 6" = 1.47  
 1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65

## Well Information

Well Location: <u> </u>	Well Locked at Arrival: Yes <u>/</u> No <u> </u>
Condition of Well: <u> </u>	Well Locked at Departure: Yes <u>/</u> No <u> </u>
Well Completion: <u>Flush Mount</u> / <u>Stick Up</u>	Key Number To Well: <u> </u>







# LOW-FLOW GROUNDWATER SAMPLING FORM



Project No. 30075716

Well ID MW-93-15

Page 1 of 1

Project Name/Location NYSEG, Goshen, NY

Date 9/14/21

Measuring Pt. Description TOL

Screen Setting (ft-bmp) \_\_\_\_\_

Casing Diameter (in.) 2

Weather Cloudy

Static Water Level (ft-bmp) 5.61

Total Depth (ft-bmp) 21.64

Water Column (ft) 16.03

Well Material PVC  
SS

MP Elevation \_\_\_\_\_

Pump Intake (ft-bmp) 16.64

Purge Method: \_\_\_\_\_

Gallons in Well 2.56

Pump On/Off 1300 / 1350

Volumes Purged \_\_\_\_\_

Centrifugal \_\_\_\_\_

Sample Method Low flow

Sample Time: Label 345

mL Gallons Purged 8000

Submersible \_\_\_\_\_

Purge Start \_\_\_\_\_

Purge End \_\_\_\_\_

Replicate/ Code No. \_\_\_\_\_

Sampled by K. Thompson

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min ±	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C/°F) ±2%	Redox (mV) ±10mV	Appearance
1300	0	200	6.50	0	7.82	0.363	14.8	0.01	20.79	-1.6	Clear
1305	5	200	7.18	1000	7.56	0.357	1.5	0.01	21.06	2.9	Cloudy
1310	10	200	7.28	2000	7.49	0.370	11.2	0.01	22.10	9.9	Cloudy
1315	15	200	7.30	3000	7.36	0.547	11.8	0.01	20.45	10.9	Cloudy
1320	20	200	7.38	4000	6.99	1.906	5.0	0.51	20.52	3.2	Cloudy
1325	25	200	7.38	5000	7.01	2.267	3.7	0.43	20.56	3.5	Cloudy
1330	30	200	7.38	6000	7.00	2.545	1.8	0.43	21.73	-2.6	Cloudy
1335	35	200	7.38	7000	7.00	2.550	1.6	0.43	21.70	-2.3	Cloudy
1340	40	200	7.38	8000	7.00	2.552	1.5	0.42	21.71	-2.5	Cloudy
Stabilization Calculations (±)											
Stabilization Criteria											
				± 0.1 s.u.	±3%	± 10% or within 1 NTU (1)	± 10%	±3%	±10 mV		

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled

Container	Number	Preservative

Comments \_\_\_\_\_

## Well Casing Volumes

Gallons/Foot	1" = 0.04	1.25" = 0.06	1.5" = 0.09	2" = 0.16	2.5" = 0.26	3" = 0.37	3.5" = 0.50	4" = 0.65	6" = 1.47
--------------	-----------	--------------	-------------	-----------	-------------	-----------	-------------	-----------	-----------

## Well Information

Well Location: \_\_\_\_\_

Condition of Well: \_\_\_\_\_

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: \_\_\_\_\_

Yes / No

Well Locked at Departure: \_\_\_\_\_

Yes / No

Key Number To Well: \_\_\_\_\_

OW Sampling Form

OW-001-19



# LOW-FLOW GROUNDWATER SAMPLING FORM



Project No. 30075710 Well ID MW-931D Page 1 of 1  
 Date 9/15/21  
 Project Name/Location Goshen, NY Weather Overcast, 70s  
 Measuring Pt. Description TAC Screen Setting (ft-bmp) \_\_\_\_\_ Casing Diameter (in.) 2 Well Material X PVC SS  
 Static Water Level (ft-bmp) 8.88 Total Depth (ft-bmp) 36.38 Water Column (ft) 27.5 Gallons in Well 4.40  
 MP Elevation \_\_\_\_\_ Pump Intake (ft-bmp) 34 Purge Method: \_\_\_\_\_ Sample Method Low Flow  
 Pump On/Off 0915 Volumes Purged \_\_\_\_\_ Centrifugal X Submersible \_\_\_\_\_ Other \_\_\_\_\_  
 Sample Time: Label 1005 Gallons Purged 2.2 Replicate/Code No. \_\_\_\_\_ Sampled by MM  
 Purge Start \_\_\_\_\_ Purge End \_\_\_\_\_

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min +	Depth to Water (ft) -0.3	Gallons Purged	pH ± 0.1	Cond. (µMhos)/(mS/cm) ± 3%	Turbidity (NTU) ± 10%	DO (mg/L) ± 10%	Temp. (°C)/(°F) ± 3%	Redox (mV) ± 10mV	Appearance Color	Odor
0915	0		8.88									
0920	5	200	9.54		7.40	0.679	25.9	10.22	19.93	251.2		
0925	10	200	9.55		8.17	0.673	20.3	9.81	20.41	210.5		
0930	15	200	9.57		8.30	0.739	17.5	9.29	20.14	186.0		
0935	20	200	9.56		8.36	0.786	11.0	9.22	19.99	170.6		
0940	25	200	9.57		8.35	0.834	16.3	9.23	19.80	151.9		
0945	30	200	9.57		8.34	0.857	14.5	9.27	19.75	145.1		
0950	35	200	9.58		8.36	0.868	14.2	9.19	19.62	141.5		
0955	40	200	9.57		8.38	0.886	14.0	9.13	19.60	135.8		
1000	45	200	9.56		8.41	0.881	13.5	9.06	19.64	137.3		
Stabilization Calculations (±)												
Stabilization Criteria												
					± 0.1 s.u.	± 3%	± 10% or within 1 NTU (1)	± 10%	± 3%	± 10 mV		

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled	Container	Number	Preservative

Comments

ST 1005

## Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

## Well Information

Well Location: _____	Well Locked at Arrival: Yes / No
Condition of Well: _____	Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up	Key Number To Well: _____

GW Sampling Form  
 ARCADIS



Project No. 30075710

Well ID MW08-07D

Page 1 of 1  
Date 9-15-21

Project Name/Location Goshen, NY

Weather Sunny, 80

Measuring Pt. Description	Screen Setting (ft-bmp)	Casing Diameter (in.)
------------------------------	----------------------------	--------------------------

Well Material Y PVC  
SS

Static Water Level (ft-bmp) 10.39 Total Depth (ft-bmp) 36.98 Water Column (ft) 28.59 Gallons in Well 1.14

MP Elevation \_\_\_\_\_ Pump Intake (ft-bmp) 37.0 Purge Method: Centrifugal ☒ Sample Method Low Flow

Pump On/Off 1105 Volumes Purged \_\_\_\_\_ Centrifugal X Method 2 - 1 min  
Submersible \_\_\_\_\_  
Other \_\_\_\_\_

Sample Time: Label 1145 Gallons Purged \_\_\_\_\_ Other \_\_\_\_\_  
Purge Start \_\_\_\_\_ Replicate/Code No. ✓ Sampled by mm  
Purge End \_\_\_\_\_

[illegible]

Constituents Sampled

### Constituents Sampled

**Container**

Number

Preservative

### Comments

ST 1145

**Well Casing Volumes**  
Gallons/Foot      1" = 0.04  
                             1.25" = 0.06

$$\begin{aligned} 1.5^\circ &= 0.09 \\ 2^\circ &= 0.16 \end{aligned}$$
$$2.5^\circ = 0.26$$
$$3^\circ = 0.37$$

3.5" = 0.50  
4" = 0.65

 $\delta^* = 1.47$ 

### Well Information

Well Location:

Condition of Well:

Well Completion:

Flush Mount / Stick Up

Well Locked at Arrival:

Yes

Well Locked at Departure:

**Yes**

Key Number To Well:







# LOW-FLOW GROUNDWATER SAMPLING FORM



Project No. 30075710 Well ID MW08-65

Page 1 of 1  
Date 9/15/21

Project Name/Location NYSEG, Goshen, N.Y.

Weather Cloudy, 75°F

Measuring Pt. Too Screen 2  
Description Setting (ft-bmp) Diameter (in.)

Well Material PVC  
SS

Static Water Level (ft-bmp) 8.65 Total Depth (ft-bmp) 19.75 Water Column (ft) 11.1 Gallons in Well 1.77

MP Elevation 14.75 Pump Intake (ft-bmp) 14.75 Purge Method: Centrifugal Sample Method Low Flow  
Submersible

Pump On/Off 0920/0955 Volumes Purged ML Other per pump

Sample Time: Label 0952 Gallons Purged 6000 Replicate/ Code No. ML Sampled by Kirk Karger

Purge Start 0920  
Purge End 0955

ML												
Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min ±	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µmhos/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C/°F) ±3%	Redox (mV) ±10mV	Appearance	
											Color	Odor
0920	0	200	9.00	0	7.16	0.363	13.3	0.08	17.22	90.6	Clear	None
0925	5	200	9.12	1000	7.11	0.349	17.0	0.20	17.21	53.5	"	"
0930	10	200	9.33	2000	7.11	0.270	15.0	0.37	17.28	52.9	"	"
0935	15	200	9.52	3000	7.07	0.290	10.1	0.36	17.13	63.0	"	"
0940	20	200	9.56	4000	7.07	0.292	10.0	0.37	17.18	62.1	"	"
0945	25	200	9.56	5000	7.07	0.293	9.8	0.36	17.20	62.0	"	"
0950	30	200	9.56	6000	7.07	0.293	9.8	0.36	17.21	62.0	"	"
Stabilization Calculations (±)												
Stabilization Criteria					± 0.1 s.u.	±3%	±10% or within 1 NTU (1)	± 10%	±3%	±10 mV		

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled	Container	Number	Preservative

Comments  

Well Casing Volumes	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
Gallons/Foot	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

## Well Information

Well Location: <u> </u>	Well Locked at Arrival: Yes / No
Condition of Well: <u> </u>	Well Locked at Departure: Yes / No
Well Completion: <u>Flush Mount</u> / <u>Stick Up</u>	Key Number To Well: <u> </u>

GW Samp Form  
10/14/2014



# LOW-FLOW GROUNDWATER SAMPLING FORM

Page 1 of 1

Project No. 30075710 Well ID MN08-85

Date 9/13/11

Project Name/Location NMSEG Goshen NY

Weather Sunny 80

Measuring Pt. Description \_\_\_\_\_ Screen Setting (ft-bmp) \_\_\_\_\_ Casing Diameter (in.) 2"

Well Material X PVC SS

Static Water Level (ft-bmp) 5.35 Total Depth (ft-bmp) 12.57 Water Column (ft) \_\_\_\_\_ Gallons in Well 1.15

MP Elevation \_\_\_\_\_ Pump Intake (ft-bmp) 11' Purge Method: peristaltic Sample Method low flow

Pump On/Off 1128 Volumes Purged \_\_\_\_\_

Centrifugal \_\_\_\_\_  
Submersible \_\_\_\_\_  
Other \_\_\_\_\_

Sample Time: Label 1210 Gallons Purged 1.6

Purge Start 1210

Purge End 1212

Replicate/ Code No. \_\_\_\_\_

Sampled by JS

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min +	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C/°F) ±3%	Redox (mV) ±10mV	Appearance	
											Color	Odor
1130	0	100	5.35	-	7.05	4.173	29.1	1.53	17.65	-39.3	clear	none
1135	5	100		0.2	7.03	4.227	11.9	0.93	17.71	-40.2		
1140	10	100		0.4	7.03	4.340	0.0	0.61	17.88	-40.9		
1145	15	100		0.6	7.00	4.395	0.0	0.48	18.09	-42.4		
1150	20	100		0.8	6.99	4.429	0.0	0.47	18.30	-43.8		
1155	25	100		1.0	6.99	4.481	0.0	0.46	18.48	-45.6		
1200	30	100		1.2	6.99	4.523	0.0	0.45	18.37	-46.5		
1205	35	100		1.4	6.98	4.565	0.0	0.45	18.60	-46.1		
1210	40	100		1.6	6.99	4.527	0.0	0.45	18.63	-45.9		
Stabilization Calculations (±)												
Stabilization Criteria												
					±0.1 s.u.	±3%	±10% or within 1 NTU (1)	±10%	±3%	±10 mV		

(1) Turbidity &lt; 50 NTU and ±10% or within 1 NTU of a previous reading when &lt;10 NTU

Constituents Sampled	Container	Number	Preservative
BTEX			
PAHs			
Cyanide			

Comments \_\_\_\_\_

## Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

## Well Information

Well Location: \_\_\_\_\_ Well Locked at Arrival: Yes / No  
Condition of Well: \_\_\_\_\_ Well Locked at Departure: Yes / No  
Well Completion: Flush Mount / Stick Up Key Number To Well: \_\_\_\_\_



# LOW-FLOW GROUNDWATER SAMPLING FORM

Project No. 30075710 Well ID MW18-04D

Page 1 of 1  
Date 9/14/21

Project Name/Location NYSEG Cooken NJ

Weather  Sunny 75°

Measuring Pt. Description \_\_\_\_\_ Screen Setting (ft-bmp) \_\_\_\_\_ Casing Diameter (in.) 2"

Well Material ☒ PVC ☐ SS

Static Water Level (ft-bmp) 8.07 Total Depth (ft-bmp) 40.85 Water Column (ft) \_\_\_\_\_ Gallons in Well 5.24

MP Elevation \_\_\_\_\_ Pump Intake (ft-bmp) 39' Purge Method: peristaltic Sample Method low flow

Pump On/Off 0843 Volumes Purged \_\_\_\_\_ Centrifugal \_\_\_\_\_ Submersible \_\_\_\_\_ Other \_\_\_\_\_

Sample Time: Label 0930 Gallons Purged 1.8 Replicate/Code No. MS/MSD Sampled by JS  
Purge Start 0930  
Purge End 0940

Time	Minutes Elapsed	Rate (gpm)(mL/min) 200mL/min +	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos)(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C)(°F) ±3%	Redox (mV) ±10mV	Appearance Color	Odor
0845	0	100	8.07	-	7.29	0.676	13.9	6.11	18.70	205.6	clear	none
0850	5	100		0.2	7.43	0.671	13.2	4.77	18.56	187.2		
0855	10	100	8.68	0.4	7.56	0.667	12.8	3.96	18.40	178.3		
0900	15	100		0.6	7.56	0.663	2.2	3.31	18.04	171.2		
0905	20	100	9.24	0.8	7.56	0.662	1.8	2.69	17.92	166.8		
0910	25	100		1.0	7.57	0.661	1.1	2.38	17.66	161.3		
0915	30	100		1.2	7.58	0.665	0.5	1.94	18.59	152.5		
0920	35	100		1.4	7.59	0.669	0.8	1.83	18.77	148.7		
0925	40	100		1.6	7.60	0.665	1.1	1.80	18.21	135.1		
0930	45	100		1.8	7.60	0.663	0.9	1.79	18.22	133.4		
Stabilization Calculations (±)												
Stabilization Criteria					± 0.1 s.u.	±3%	±10% or within 1 NTU (1)	± 10%	±3%	±10 mV		

(1) Turbidity &lt; 50 NTU and ±10% or within 1 NTU of a previous reading when &lt;10 NTU

Constituents Sampled	Container	Number	Preservative
<u>BTEX</u>			
<u>PAH</u>			
<u>Cyanide</u>			

Comments \_\_\_\_\_

Well Casing Volumes  
Gallons/Foot 1" = 0.04 1.5" = 0.09 2.5" = 0.26 3.5" = 0.50 6" = 1.47  
1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65

## Well Information

Well Location: \_\_\_\_\_ Well Locked at Arrival: ☒ Yes / ☐ No  
Condition of Well: \_\_\_\_\_ Well Locked at Departure: ☒ Yes / ☐ No  
Well Completion: Flush Mount / Stick Up Key Number To Well: \_\_\_\_\_



# LOW-FLOW GROUNDWATER SAMPLING FORM



Project No. 30075710 Well ID MW18-048

Page 1 of 1

Project Name/Location NYSEG Goshen NY

Date 9/14/21

Weather Sunny

Well Material X PVC SS

Measuring Pt. Description \_\_\_\_\_ Screen Setting (ft-bmp) \_\_\_\_\_ Casing Diameter (in.) 2"

Static Water Level (ft-bmp) 14.77 Total Depth (ft-bmp) 21.41 Water Column (ft) \_\_\_\_\_ Gallons in Well 1.06

MP Elevation \_\_\_\_\_ Pump Intake (ft-bmp) 20' Purge Method: peristaltic Sample Method for flow

Pump On/Off 1023 Volumes Purged \_\_\_\_\_ Other \_\_\_\_\_

Sample Time: Label 1120 Gallons Purged 2.0 Replicate/Code No. \_\_\_\_\_ Sampled by JS

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min ±	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C)(°F) ±3%	Redox (mV) ±10mV	Appearance Color	Odor
1025	0	100	14.77	-	6.80	1.488	0.3	3.77	19.53	162.7	clear	none
1030	5	100		0.2	6.74	1.553	1.8	1.19	20.05	171.4		
1035	10	100	15.12	0.4	6.74	1.582	2.4	1.10	20.19	180.5		
1040	15	100		0.6	6.73	1.631	1.2	1.04	20.42	180.1		
1045	20	100	15.34	0.8	6.73	1.697	0.3	1.01	20.60	179.9		
1055	25	100		1.0	6.73	1.710	0.0	1.05	20.56	179.2		
1100	30	100	15.45	1.2	6.73	1.728	0.0	1.07	20.51	178.8		
1105	35	100		1.4	6.73	1.743	0.0	1.08	20.52	178.2		
1110	40	100		1.6	6.73	1.759	0.0	1.09	20.60	177.4		
1115	45	100		1.8	6.73	1.760	0.0	1.09	20.58	177.3		
1120	50	100		2.0	6.73	1.760	0.0	1.09	20.56	177.2		

Stabilization Calculations (±)												
Stabilization Criteria				± 0.1 s.u.	±3%	± 10% or within 1 NTU (1)	± 10%	±3%	±10 mV			

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled	Container	Number	Preservative
BTEX			
PAHs			
Acetone			

Comments \_\_\_\_\_

Well Casing Volumes	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
Gallons/foot	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: \_\_\_\_\_ Well Locked at Arrival: Yes / No

Condition of Well: \_\_\_\_\_ Well Locked at Departure: Yes / No

Well Completion: Flush Mount / Stick Up Key Number To Well: \_\_\_\_\_



# LOW-FLOW GROUNDWATER SAMPLING FORM



Project No. 30075710 Well ID MW08-075 Page 1 of 1  
 Project Name/Location Garden, NY Date 9-15-21  
 Measuring Pt. Description TCC Screen Setting (ft-bmp) \_\_\_\_\_ Casing Diameter (in.) 1 Weather Sunny, 80  
 Static Water Level (ft-bmp) 5.84 Total Depth (ft-bmp) 15.54 Water Column (ft) 9.74 Gallons in Well 0.39  
 MP Elevation \_\_\_\_\_ Pump Intake (ft-bmp) 13.0-15.0 Purge Method: \_\_\_\_\_ Sample Method 1 in. Flow  
 Pump On/Off 1030 Volumes Purged \_\_\_\_\_ Centrifugal \_\_\_\_\_ Submersible \_\_\_\_\_ Other \_\_\_\_\_  
 Sample Time: Label 1215 Gallons Purged \_\_\_\_\_ Replicate/Code No. \_\_\_\_\_ Sampled by mm  
 Purge Start \_\_\_\_\_ Purge End \_\_\_\_\_

Time	Minutes Elapsed	Rate (gpm)/(mL/min) 200mL/min ±	Depth to Water (ft) -0.3	Gallons Purged	pH ±0.1	Cond. (µMhos)/(mS/cm) ±3%	Turbidity (NTU) ±10%	DO (mg/L) ±10%	Temp. (°C)/(°F) ±3%	Redox (mV) ±10mV	Appearance Color	Odor
1030	0	X	5.84									
1035	5	200			7.08	0.871	12.5	5.88	20.44	129.5		
1040	10	700			7.12	0.926	22.4	5.85	20.95	128.5		
1045	15	700			7.23	0.965	49.8	7.68	20.89	128.5		
1050	20	200			7.43	0.993	24.32	8.60	21.72	122.6		
1055	25	200			7.32	0.989	93.4	6.68	21.36	108.9		
1100	30	-			-	-	-	-	-	-	Dry	
Stabilization Calculations (±)												
Stabilization Criteria					±0.1 s.u.	±3%	±10% or within 1 NTU (1)	±10%	±3%	±10 mV		

(1) Turbidity < 50 NTU and ±10% or within 1 NTU of a previous reading when <10 NTU

Constituents Sampled	Container	Number	Preservative
* Took Additional Samples with Barker on 9/16/21 as per Joe Bistrorch.			
* 1056 well is Dry			
* Sampled @ 1215 (3VOAs only)			

Comments Can't get WLM + tubing down well - WLM stuck on tubing @ 16'  
Tubing lowered to 15' @ 1050 due to low WL in well

Well Casing Volumes	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
Gallons/Foot	1" = 0.04	2" = 0.16	3" = 0.37	4" = 0.65
	1.25" = 0.06			

## Well Information

Well Location: _____	Well Locked at Arrival: Yes / No
Condition of Well: _____	Well Locked at Departure: Yes / No
Well Completion: Flush Mount / Stick Up	Key Number To Well: _____

# **Attachment 2**

## **Groundwater Laboratory Report**



# **Attachment 3**

## **Data Usability Summary Report**

NYSEG – Goshen Former MGP Site

# Data Usability Summary Report

**Goshen, New York**

Volatile Organic Compounds (VOCs), Semi Volatile Organic Compounds (SVOCs),  
and Cyanide Analyses

SDG #: L2149904

Analyses Performed By:  
Alpha Analytical Laboratories  
Westborough, Massachusetts

Report #: 43119R  
Review Level: Tier III  
Project: 30075710.00020

## Summary

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # L2149904 for samples collected in association with the NYSEG Goshen Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
					VOC	SVOC	CN
MW08-6S	L2149904-01	Water	09/15/2021		X	X	X
MW08-6D	L2149904-02	Water	09/15/2021		X	X	X
MW08-7D	L2149904-03	Water	09/15/2021		X	X	X
MW93-1D	L2149904-04	Water	09/15/2021		X	X	X
MW93-1S	L2149904-05	Water	09/14/2021		X	X	X
MW93-2S	L2149904-06	Water	09/14/2021		X	X	X
MW93-2D	L2149904-07	Water	09/14/2021		X	X	X
MW08-05S	L2149904-08	Water	09/13/2021		X	X	X
MW08-05D	L2149904-09	Water	09/13/2021		X	X	X
MW08-08S	L2149904-10	Water	09/13/2021		X	X	X
MW18-04D	L2149904-11	Water	09/14/2021		X	X	X
MW18-04S	L2149904-12	Water	09/14/2021		X	X	X
MW18-08D	L2149904-13	Water	09/13/2021		X	X	X
BD-20210913	L2149904-14	Water	09/13/2021	MW08-05D	X	X	X
FB-20210913	L2149904-15	Water	09/13/2021		X	X	X
FB-20210914	L2149904-16	Water	09/14/2021		X	X	X
FB-20210915	L2149904-17	Water	09/15/2021		X	X	X
MW08-07S	L2149904-18	Water	09/15/2021		X	X	X
TRIP BLANK	L2149904-19	Water	09/15/2021		X		

### Notes:

VOC = Volatile Organic Compounds (VOCs).

SVOC = Semi Volatile Organic Compounds (SVOCs).

CN = Cyanide analysis.

## Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed chain-of-custody form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

**Note:**

QA = quality assurance

## Organic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260C and 8270D selective ion monitoring (SIM). Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-20-005, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

# Volatile Organic Compound (VOC) analyses

## 1. Holding Times

Method	Matrix	Holding Time	Preservation
SW-846 8260C	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

**Note:**

s.u. = Standard units

## 2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks, trip blanks, and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure sample storage contamination. Rinse blanks also measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable, and all analyses were performed within a 12-hour tune clock. System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

## **5. Surrogates/System Monitoring Compounds**

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All samples exhibited surrogate recoveries within the control limits.

## **6. Internal Standard Performance**

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

## **7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis**

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

The MS/MSD analysis was performed on sample MW18-04D. MS/MSD analysis exhibited acceptable recoveries and RPDs.

## **8. Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) Analysis**

The LCS/LCSD analysis are used to assess the precision and accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS/LCSD analysis must exhibit recoveries and RPDs within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries and RPDs within the control limits.

## **9. Field Duplicate Sample Analysis**

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD
MW08-05D / BD-20210913	All compounds	U	U	AC

**Notes:**

AC = Acceptable

U = non detect

The calculated RPDs between the parent sample and field duplicate were acceptable.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.



## Data Validation Checklist for VOCs

VOCs: SW-846 8260C and 8270D SIM	Reported		Performance Acceptable		Not Required	
	No	Yes	No	Yes		
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>						
<b>Tier II Validation</b>						
Holding times		X		X		
Reporting limits (units)		X		X		
Blanks						
A. Method blanks		X		X		
B. Equipment blanks		X		X		
C. Trip blanks		X		X		
Laboratory Control Sample (LCS) %R		X		X		
Laboratory Control Sample Duplicate (LCSD) %R		X		X		
LCS/LCSD Precision (RPD)		X		X		
Matrix Spike (MS) %R		X		X		
Matrix Spike Duplicate (MSD) %R		X		X		
MS/MSD Precision (RPD)		X		X		
Field/Lab Duplicate (RPD)		X		X		
Surrogate Spike Recoveries (%R)		X		X		
Dilution Factor (%D)		X		X		
Moisture Content	X				X	
<b>Tier III Validation</b>						
System performance and column resolution		X		X		
Initial calibration %RSDs		X		X		
Continuing calibration RRFs		X		X		
Continuing calibration %Ds		X		X		
Instrument tune and performance check		X		X		
Ion abundance criteria for each instrument used		X		X		
Internal standard		X		X		
Compound identification and quantitation						
A. Reconstructed ion chromatograms		X		X		
B. Quantitation Reports		X		X		
C. RT of sample compounds within the established RT windows		X		X		
D. Transcription/calculation errors present		X		X		
E. Reporting limits adjusted to reflect sample dilutions		X		X		

**Notes:**

%RSD =Relative standard deviation

%R = Percent recovery

RPD = Relative percent difference

%D = Percent difference

# Semivolatile Organic Compound (SVOC) Analyses

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270D SIM	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C

All samples were analyzed within the specified holding time criteria.

## 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample ID	Analytes	Sample Result	Qualification
MW08-05D	Phenanthrene (FB)	Detected sample results <RL and <BAL	"UB" at the RL
MW08-08S	Fluorene (FB)	Detected sample results <RL and <BAL	"UB" at the RL
MW18-08D	Fluorene (FB)	Detected sample results <RL and <BAL	"UB" at the RL
	Phenanthrene (FB)		
BD-20210913	Phenanthrene (FB)	Detected sample results <RL and <BAL	"UB" at the RL
MW93-2S	Phenanthrene (FB and MB)	Detected sample results <RL and <BAL	"UB" at the RL
MW18-04D	Phenanthrene (FB and MB)	Detected sample results <RL and <BAL	"UB" at the RL
MW08-6D	Naphthalene (FB)	Detected sample results <RL and <BAL	"UB" at the RL
MW93-1D	Naphthalene (FB)	Detected sample results >RL and <BAL	"UB" at detected sample concentration

**Note:**

RL Reporting limit

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

## **4. Calibration**

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

### **4.1 Initial Calibration**

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (20%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

### **4.2 Continuing Calibration**

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

## **5. Surrogates/System Monitoring Compounds**

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## **6. Internal Standard Performance**

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

## **7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis**

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD analysis was performed on sample MW18-04D. MS/MSD analysis exhibited acceptable recoveries and RPDs.

## 8. Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits with the exceptions noted below.

Sample ID	Compound	LCS Recovery	LCSD Recovery
FB-20210915	Acenaphthene	>UL	>UL
	2-Chloronaphthalene		
	Fluoranthene		
	Naphthalene		
	Benzo(a)anthracene		
	Benzo(a)pyrene		
	Benzo(b)fluoranthene		
	Benzo(k)fluoranthene		
	Chrysene		
	Acenaphthylene		
	Anthracene		
	Benzo(ghi)perylene		
	Fluorene		
	Phenanthrene		
	Dibenzo(a,h)anthracene		
	Indeno(1,2,3-cd)pyrene		
	Pyrene		
	Methylnaphthalene		

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

Sample locations associated with LCS/LCSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample ID	Compound
FB-20210915	Acenaphthene
	2-Chloronaphthalene
	Fluoranthene
	Naphthalene

Sample ID	Compound
	Benzo(a)anthracene
	Benzo(a)pyrene
	Benzo(b)fluoranthene
	Benzo(k)fluoranthene
	Chrysene
	Acenaphthylene
	Anthracene
	Benzo(ghi)perylene
	Fluorene
	Phenanthrene
	Dibenzo(a,h)anthracene
	Indeno(1,2,3-cd)pyrene
	Pyrene
	Methylnaphthalene

The criteria used to evaluate the RPD between the LCS/LCSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD
MW08-05D / BD-20210913	Fluoranthene	0.08 J	0.10 J	AC
	Naphthalene	0.09 J	0.10 U	AC
	Benzo(a)anthracene	0.06 J	0.07 J	AC
	Benzo(a)pyrene	0.06 J	0.07 J	AC
	Benzo(b)fluoranthene	0.11	0.13	AC
	Benzo(k)fluoranthene	0.03 J	0.04 J	AC
	Chrysene	0.06 J	0.06 J	AC
	Acenaphthylene	0.03 J	0.03 J	AC
	Anthracene	0.02 J	0.02 J	AC
	Benzo(ghi)perylene	0.07 J	0.08 J	AC

Sample ID/Duplicate ID	Compound	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD
	Phenanthrene	0.04 J	0.04 J	AC
	Dibenzo(a,h)anthracene	0.01 J	0.02 J	AC
	Indeno(1,2,3-cd)pyrene	0.07 J	0.08 J	AC
	Pyrene	0.08 J	0.10 J	AC

**Notes:**

AC = Acceptable

U = non detect

The calculated RPDs between the parent sample and field duplicate were acceptable.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## Data Validation Checklist for SVOCs

SVOCs: SW-846 8270D SIM	Reported		Performance Acceptable		Not Required	
	No	Yes	No	Yes		
<b>GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)</b>						
<b>Tier II Validation</b>						
Holding times		X		X		
Reporting limits (units)		X		X		
Blanks						
A. Method blanks		X	X			
B. Equipment/Field blanks		X	X			
Laboratory Control Sample (LCS) %R		X	X			
Laboratory Control Sample Duplicate (LCSD) %R		X	X			
LCS/LCSD Precision (RPD)		X	X			
Matrix Spike (MS) %R		X		X		
Matrix Spike Duplicate (MSD) %R		X		X		
MS/MSD Precision (RPD)		X		X		
Field/Lab Duplicate (RPD)		X		X		
Surrogate Spike Recoveries		X		X		
Dilution Factor		X		X		
Moisture Content	X				X	
<b>Tier III Validation</b>						
System performance and column resolution		X		X		
Initial calibration %RSDs		X		X		
Continuing calibration RRFs		X		X		
Continuing calibration %Ds		X		X		
Instrument tune and performance check		X		X		
Ion abundance criteria for each instrument used		X		X		
Internal standard		X		X		
Compound identification and quantitation						
A. Reconstructed ion chromatograms		X		X		
B. Quantitation Reports		X		X		
C. RT of sample compounds within the established RT windows		X		X		
D. Quantitation transcriptions/calculations		X		X		
E. Reporting limits adjusted to reflect sample dilutions		X		X		
<b>Notes:</b> %RSD = Relative standard deviation %R = Percent recovery RPD = Relative percent difference %D = Percent difference						

## Inorganic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 9012B. USEPA CLP National Functional Guidelines for Inorganic Superfund Methods Data Review, document number EPA 542-R-20-006, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, OSWER 9240.1-45, October 2004, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - B The reported value was obtained from a reading less than the contract-required detection limit (RL), but greater than or equal to the instrument detection limit (IDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - \* Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.



## General Chemistry Analyses

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Cyanide by SW846 9012B	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of greater than 12.

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

### 3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

### 4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis / Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

#### 4.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS/MSD analysis was performed on sample MW08-6S and MW18-04D. MS/MSD analysis exhibited acceptable recoveries and RPDs with the exceptions noted below.

Sample ID	Analyte	MS Recovery	MSD Recovery
MW08-6S	Cyanide Total	Acceptable	62%

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

## 4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL for soil matrices.

Laboratory duplicate analysis was not performed on samples from this SDG.

## 5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD
MW08-05D / BD-20210913	Cyanide Total	0.021	0.048	NC

### Notes:

NC = non-compliant

The analyte cyanide total associated with samples MW08-05D and BD-20210913 exhibited a field duplicate RPD greater than the control limit. The associated sample results from this SDG for the listed analyte were qualified as estimated.

## **6. Laboratory Control Sample (LCS) Analysis**

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

## **7. System Performance and Overall Assessment**

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## Data Validation Checklist for General Chemistry

General Chemistry: 9012B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment/Field blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X	X		
Dilution Factor		X		X	
Moisture Content	X				X
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

**Notes:**

%R = percent recovery

RPD = relative percent difference

### SAMPLE COMPLIANCE REPORT

SDG	Sampling Date	Protocol	Sample ID	Matrix	Compliance <sup>1</sup>			Noncompliance
					VOC	SVOC	MISC	
L2149904	09/15/2021	SW846	MW08-6S	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/15/2021	SW846	MW08-6D	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/15/2021	SW846	MW08-7D	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/15/2021	SW846	MW93-1D	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/14/2021	SW846	MW93-1S	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/14/2021	SW846	MW93-2S	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/14/2021	SW846	MW93-2D	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/13/2021	SW846	MW08-05S	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/13/2021	SW846	MW08-05D	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/13/2021	SW846	MW08-08S	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/14/2021	SW846	MW18-04D	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/14/2021	SW846	MW18-04S	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/13/2021	SW846	MW18-08D	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/13/2021	SW846	BD-20210913	Water	Yes	No	No	SVOC – Blank contamination MISC – MSD % recovery and field duplicate RPD
	09/13/2021	SW846	FB-20210913	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/14/2021	SW846	FB-20210914	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/15/2021	SW846	FB-20210915	Water	Yes	No	No	SVOC – LCS/LCSD % recovery and RPD MISC – MSD % recovery and field duplicate RPD
	09/15/2021	SW846	MW08-07S	Water	Yes	Yes	No	MISC – MSD % recovery and field duplicate RPD
	09/15/2021	SW846	TRIP BLANK	Water	Yes	--	--	--

**Notes:**

SDG = sample delivery group

- 1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Prashanth.K

SIGNATURE:



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DATE: October 20, 2021

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PEER REVIEW: Dennis Capria

DATE: October 20, 2021

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# CHAIN OF CUSTODY AND CORRECTED SAMPLE ANALYSIS DATA SHEETS





<b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 3 Walkup Dr. TEL: 508-698-9220 FAX: 508-698-8191 Mansfield, MA 01960 320 Forbes Blvd. TEL: 508-452-9301 FAX: 508-452-0288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 3 Albany, NY 12205: 74 Walker Way Tonawanda, NY 14150: 275 Gosport Ave, Suite 103		Page 1 of 2		Date Rec'd in Lab: 9/16/11		ALPHA Job #: L2148904																																																																																																																																																																																																							
		Project Information Project Name: NYSEG - Goshen Former MGP Site Project Location: Goshen, NY Project #: 30075710 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUS (1 File) <input checked="" type="checkbox"/> EQUS (4 File) <input checked="" type="checkbox"/> Other		Basic Information <input checked="" type="checkbox"/> Same as Client Info																																																																																																																																																																																																									
		Client: Arcadis of NY, Inc. Address: 110 West Fayette St, Suite 300 Syracuse, NY 13202 Phone: 315-671-9657 Fax: Email: joe.bistrovich@arcadis.com		Project Manager: Jason Golubski ALPHAQuote #: 15984 Turnaround Time: Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre-approved) <input type="checkbox"/> # of Days:		Regulatory Requirements <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWD Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other: <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																																																																																																																							
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Please specify Metals or TAL:						<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>BTEX - 8260</th> <th>PAH - 8270</th> <th>Cyanide - 9010/9012</th> <th>MS/MSD</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				BTEX - 8260	PAH - 8270	Cyanide - 9010/9012	MS/MSD							X	X	X								Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)																																																																																																																																																																																	
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<b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-6020 FAX: 508-898-9189 Needham, MA 02046 330 Forbes Blvd TEL: 508-822-0300 FAX: 508-825-3289		Service Center: Edison, NJ 07430: 18 Wynton Rd, Suite 2 Albany, NY 12205: 14 Vetter Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 108		Page <u>3</u> of <u>2</u>		Date Rec'd in Lab: <u>9/14/21</u>		ALPHA Job # <u>62147904</u>																																																											
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Client: <u>Arcadis of NY, Inc.</u> Address: <u>110 West Fayette St., Suite 300</u> <u>Syracuse, NY 13202</u> Phone: <u>315-571-8897</u> Fax: _____ Email: <u>joel.bistrovich@arcadis.com</u>		Project Manager: <u>Jason Golubski</u> ALPHAQuote #: <u>15984</u> Turnaround Time: Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Rush Date: _____ # of Days: _____		Regulatory Requirements: <input type="checkbox"/> NY TDQS <input type="checkbox"/> NY Part 575 <input type="checkbox"/> AWC Standard <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Determination: Please identify below location of applicable disposal facilities: Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____																																																													
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## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format:* DU Report with 'J' Qualifiers



**Project Name:** NYSEG-GOSHEN FORMER MGP SITE  
**Project Number:** 30075710

**Lab Number:** L2149904  
**Report Date:** 09/24/21

#### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Report Format:** DU Report with 'J' Qualifiers





# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-01	Date Collected	: 09/15/21 09:52
Client ID	: MW08-6S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 11:22
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A07	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-02	Date Collected	: 09/15/21 11:00
Client ID	: MW08-6D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 11:42
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A08	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-03	Date Collected	: 09/15/21 11:45
Client ID	: MW08-7D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 12:02
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A09	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-04	Date Collected	: 09/15/21 10:05
Client ID	: MW93-1D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 12:23
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A10	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-05	Date Collected	: 09/14/21 13:45
Client ID	: MW93-1S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 12:43
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A11	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-06	Date Collected	: 09/14/21 11:15
Client ID	: MW93-2S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 13:03
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A12	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-07	Date Collected	: 09/14/21 09:35
Client ID	: MW93-2D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 13:24
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A13	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-08	Date Collected	: 09/13/21 13:30
Client ID	: MW08-05S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 13:44
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A14	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	13	0.50	0.16	
108-88-3	Toluene	1.7	2.5	0.70	J
100-41-4	Ethylbenzene	2.1	2.5	0.70	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	4.6	2.5	0.70	



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-09	Date Collected	: 09/13/21 12:00
Client ID	: MW08-05D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 14:04
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A15	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-10	Date Collected	: 09/13/21 12:10
Client ID	: MW08-08S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 14:25
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A16	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	0.53	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-11	Date Collected	: 09/14/21 09:30
Client ID	: MW18-04D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 14:45
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A17	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-12	Date Collected	: 09/14/21 11:20
Client ID	: MW18-04S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 15:05
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A18	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-13	Date Collected	: 09/13/21 11:10
Client ID	: MW18-08D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 15:25
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A19	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-14	Date Collected	: 09/13/21 00:00
Client ID	: BD-20210913	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 15:46
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A20	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-15	Date Collected	: 09/13/21 13:55
Client ID	: FB-20210913	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 16:06
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A21	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-16	Date Collected	: 09/14/21 13:30
Client ID	: FB-20210914	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 16:26
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A22	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-17	Date Collected	: 09/15/21 13:30
Client ID	: FB-20210915	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 16:47
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A23	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-18	Date Collected	: 09/15/21 12:15
Client ID	: MW08-07S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 17:07
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A24	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-19	Date Collected	: 09/15/21 00:00
Client ID	: TRIP BLANK	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/20/21 17:27
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: MKS
Lab File ID	: V08210920A25	Instrument ID	: VOA108
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U

# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-01  
 Client ID : MW08-6S  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-01  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/15/21 09:52  
 Date Received : 09/16/21  
 Date Analyzed : 09/21/21 14:01  
 Date Extracted : 09/20/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV119  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.02	0.10	0.02	J
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	0.02	0.10	0.02	J
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	ND	0.10	0.01	U
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	0.03	0.10	0.02	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	0.02	0.10	0.02	J
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.	Lab Number : L2149904
Project Name : NYSEG-GOSHEN FORMER MGP SITE	Project Number : 30075710
Lab ID : L2149904-02	Date Collected : 09/15/21 11:00
Client ID : MW08-6D	Date Received : 09/16/21
Sample Location : GOSHEN, NY	Date Analyzed : 09/21/21 14:20
Sample Matrix : WATER	Date Extracted : 09/20/21
Analytical Method : 1,8270D-SIM	Dilution Factor : 1
Lab File ID : 49904-02	Analyst : JJW
Sample Amount : 275 ml	Instrument ID : SV119
Extraction Method : EPA 3510C	GC Column : RXI-5SiLM
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.04	0.10	0.02	J
91-20-3	Naphthalene	0.10 UB 0.08	0.10	0.05	J
56-55-3	Benzo(a)anthracene	0.04	0.10	0.02	J
50-32-8	Benzo(a)pyrene	0.02	0.10	0.02	J
205-99-2	Benzo(b)fluoranthene	0.03	0.10	0.01	J
207-08-9	Benzo(k)fluoranthene	0.01	0.10	0.01	J
218-01-9	Chrysene	0.02	0.10	0.01	J
208-96-8	Acenaphthylene	0.02	0.10	0.01	J
120-12-7	Anthracene	0.02	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	0.02	0.10	0.01	J
86-73-7	Fluorene	0.02	0.10	0.01	J
85-01-8	Phenanthrene	0.05	0.10	0.02	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	0.10	0.01	J
129-00-0	Pyrene	0.05	0.10	0.02	J
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U

# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-03  
 Client ID : MW08-7D  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-03  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/15/21 11:45  
 Date Received : 09/16/21  
 Date Analyzed : 09/21/21 14:39  
 Date Extracted : 09/20/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV119  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.02	U
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	ND	0.10	0.01	U
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	ND	0.10	0.02	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	ND	0.10	0.02	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-04  
 Client ID : MW93-1D  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-04  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/15/21 10:05  
 Date Received : 09/16/21  
 Date Analyzed : 09/21/21 14:58  
 Date Extracted : 09/20/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV119  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.13	0.10	0.02	
91-20-3	Naphthalene	0.18 UB	0.10	0.05	
56-55-3	Benzo(a)anthracene	0.11	0.10	0.02	
50-32-8	Benzo(a)pyrene	0.14	0.10	0.02	
205-99-2	Benzo(b)fluoranthene	0.20	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.07	0.10	0.01	J
218-01-9	Chrysene	0.09	0.10	0.01	J
208-96-8	Acenaphthylene	0.09	0.10	0.01	J
120-12-7	Anthracene	0.07	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	0.13	0.10	0.01	
86-73-7	Fluorene	0.03	0.10	0.01	J
85-01-8	Phenanthrene	0.08	0.10	0.02	J
53-70-3	Dibenzo(a,h)anthracene	0.02	0.10	0.01	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.14	0.10	0.01	
129-00-0	Pyrene	0.13	0.10	0.02	
91-57-6	2-Methylnaphthalene	0.02	0.10	0.02	J



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-05  
 Client ID : MW93-1S  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-05  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/14/21 13:45  
 Date Received : 09/16/21  
 Date Analyzed : 09/20/21 16:22  
 Date Extracted : 09/19/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV125  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.84	0.10	0.02	
91-20-3	Naphthalene	0.07	0.10	0.05	J
56-55-3	Benzo(a)anthracene	0.70	0.10	0.02	
50-32-8	Benzo(a)pyrene	0.95	0.10	0.02	
205-99-2	Benzo(b)fluoranthene	1.4	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.46	0.10	0.01	
218-01-9	Chrysene	0.61	0.10	0.01	
208-96-8	Acenaphthylene	0.27	0.10	0.01	
120-12-7	Anthracene	0.31	0.10	0.01	
191-24-2	Benzo(ghi)perylene	0.86	0.10	0.01	
86-73-7	Fluorene	0.03	0.10	0.01	J
85-01-8	Phenanthrene	0.19	0.10	0.02	
53-70-3	Dibenzo(a,h)anthracene	0.18	0.10	0.01	
193-39-5	Indeno(1,2,3-cd)pyrene	0.96	0.10	0.01	
129-00-0	Pyrene	0.78	0.10	0.02	
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-06  
 Client ID : MW93-2S  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-06  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/14/21 11:15  
 Date Received : 09/16/21  
 Date Analyzed : 09/20/21 16:41  
 Date Extracted : 09/19/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV125  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.02	0.10	0.02	J
91-20-3	Naphthalene	0.14	0.10	0.05	
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	0.01	0.10	0.01	J
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	0.02	0.10	0.01	J
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	0.02	0.10	0.01	J
85-01-8	Phenanthrene	0.10 UB <del>0.04</del>	0.10	0.02	<del>U</del>
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	0.02	0.10	0.02	J
91-57-6	2-Methylnaphthalene	0.02	0.10	0.02	J



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-07  
 Client ID : MW93-2D  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-07  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/14/21 09:35  
 Date Received : 09/16/21  
 Date Analyzed : 09/20/21 17:00  
 Date Extracted : 09/19/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV125  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	0.11	0.10	0.01	
91-58-7	2-Chloronaphthalene	0.11	0.20	0.02	J
206-44-0	Fluoranthene	0.13	0.10	0.02	
91-20-3	Naphthalene	0.38	0.10	0.05	
56-55-3	Benzo(a)anthracene	0.13	0.10	0.02	
50-32-8	Benzo(a)pyrene	0.11	0.10	0.02	
205-99-2	Benzo(b)fluoranthene	0.13	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.11	0.10	0.01	
218-01-9	Chrysene	0.11	0.10	0.01	
208-96-8	Acenaphthylene	0.14	0.10	0.01	
120-12-7	Anthracene	0.12	0.10	0.01	
191-24-2	Benzo(ghi)perylene	0.12	0.10	0.01	
86-73-7	Fluorene	0.14	0.10	0.01	
85-01-8	Phenanthrene	0.17	0.10	0.02	
53-70-3	Dibenzo(a,h)anthracene	0.12	0.10	0.01	
193-39-5	Indeno(1,2,3-cd)pyrene	0.12	0.10	0.01	
129-00-0	Pyrene	0.12	0.10	0.02	
91-57-6	2-Methylnaphthalene	0.14	0.10	0.02	

# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

<b>Client</b> : Arcadis of New York, Inc. <b>Project Name</b> : NYSEG-GOSHEN FORMER MGP SITE <b>Lab ID</b> : L2149904-08 <b>Client ID</b> : MW08-05S <b>Sample Location</b> : GOSHEN, NY <b>Sample Matrix</b> : WATER <b>Analytical Method</b> : 1,8270D-SIM <b>Lab File ID</b> : 49904-08 <b>Sample Amount</b> : 275 ml <b>Extraction Method</b> : EPA 3510C <b>Extract Volume</b> : 1000 uL <b>GPC Cleanup</b> : N	<b>Lab Number</b> : L2149904 <b>Project Number</b> : 30075710 <b>Date Collected</b> : 09/13/21 13:30 <b>Date Received</b> : 09/16/21 <b>Date Analyzed</b> : 09/19/21 13:51 <b>Date Extracted</b> : 09/18/21 <b>Dilution Factor</b> : 1 <b>Analyst</b> : JJW <b>Instrument ID</b> : SV128 <b>GC Column</b> : RXI-5SiLM <b>%Solids</b> : N/A <b>Injection Volume</b> : 1 uL
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CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	6.5	0.10	0.01	
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	6.5	0.10	0.02	
91-20-3	Naphthalene	0.26	0.10	0.05	
56-55-3	Benzo(a)anthracene	1.2	0.10	0.02	
50-32-8	Benzo(a)pyrene	0.62	0.10	0.02	
205-99-2	Benzo(b)fluoranthene	0.83	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.25	0.10	0.01	
218-01-9	Chrysene	0.83	0.10	0.01	
208-96-8	Acenaphthylene	3.6	0.10	0.01	
120-12-7	Anthracene	1.6	0.10	0.01	
191-24-2	Benzo(ghi)perylene	0.24	0.10	0.01	
86-73-7	Fluorene	11	0.10	0.01	
85-01-8	Phenanthrene	2.0	0.10	0.02	
53-70-3	Dibenzo(a,h)anthracene	0.08	0.10	0.01	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.31	0.10	0.01	
129-00-0	Pyrene	4.1	0.10	0.02	
91-57-6	2-Methylnaphthalene	0.06	0.10	0.02	J

# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.	Lab Number : L2149904
Project Name : NYSEG-GOSHEN FORMER MGP SITE	Project Number : 30075710
Lab ID : L2149904-09	Date Collected : 09/13/21 12:00
Client ID : MW08-05D	Date Received : 09/16/21
Sample Location : GOSHEN, NY	Date Analyzed : 09/19/21 14:11
Sample Matrix : WATER	Date Extracted : 09/18/21
Analytical Method : 1,8270D-SIM	Dilution Factor : 1
Lab File ID : 49904-09	Analyst : JJW
Sample Amount : 275 ml	Instrument ID : SV128
Extraction Method : EPA 3510C	GC Column : RXI-5SiLM
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.08	0.10	0.02	J
91-20-3	Naphthalene	0.09	0.10	0.05	J
56-55-3	Benzo(a)anthracene	0.06	0.10	0.02	J
50-32-8	Benzo(a)pyrene	0.06	0.10	0.02	J
205-99-2	Benzo(b)fluoranthene	0.11	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.03	0.10	0.01	J
218-01-9	Chrysene	0.06	0.10	0.01	J
208-96-8	Acenaphthylene	0.03	0.10	0.01	J
120-12-7	Anthracene	0.02	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	0.07	0.10	0.01	J
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	0.10 UB <del>0.04</del>	0.10	0.02	<del>U</del>
53-70-3	Dibenzo(a,h)anthracene	0.01	0.10	0.01	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.07	0.10	0.01	J
129-00-0	Pyrene	0.08	0.10	0.02	J
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U

# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.	Lab Number : L2149904
Project Name : NYSEG-GOSHEN FORMER MGP SITE	Project Number : 30075710
Lab ID : L2149904-10	Date Collected : 09/13/21 12:10
Client ID : MW08-08S	Date Received : 09/16/21
Sample Location : GOSHEN, NY	Date Analyzed : 09/19/21 14:31
Sample Matrix : WATER	Date Extracted : 09/18/21
Analytical Method : 1,8270D-SIM	Dilution Factor : 1
Lab File ID : 49904-10	Analyst : JJW
Sample Amount : 275 ml	Instrument ID : SV128
Extraction Method : EPA 3510C	GC Column : RXI-5SiLM
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.61	0.10	0.02	
91-20-3	Naphthalene	0.10	0.10	0.05	J
56-55-3	Benzo(a)anthracene	0.38	0.10	0.02	
50-32-8	Benzo(a)pyrene	0.34	0.10	0.02	
205-99-2	Benzo(b)fluoranthene	0.45	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.18	0.10	0.01	
218-01-9	Chrysene	0.30	0.10	0.01	
208-96-8	Acenaphthylene	0.09	0.10	0.01	J
120-12-7	Anthracene	0.08	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	0.24	0.10	0.01	
86-73-7	Fluorene	0.10 UB <del>0.04</del>	0.10	0.01	<del>J</del>
85-01-8	Phenanthrene	0.20	0.10	0.02	
53-70-3	Dibenzo(a,h)anthracene	0.05	0.10	0.01	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.27	0.10	0.01	
129-00-0	Pyrene	0.56	0.10	0.02	
91-57-6	2-Methylnaphthalene	0.03	0.10	0.02	J



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-11  
 Client ID : MW18-04D  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-11  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/14/21 09:30  
 Date Received : 09/16/21  
 Date Analyzed : 09/20/21 15:25  
 Date Extracted : 09/19/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV125  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.02	U
91-20-3	Naphthalene	0.08	0.10	0.05	J
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	0.01	0.10	0.01	J
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	0.10 UB	<del>0.02</del>	0.02	<del>J</del>
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	ND	0.10	0.02	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

<b>Client</b> : Arcadis of New York, Inc. <b>Project Name</b> : NYSEG-GOSHEN FORMER MGP SITE <b>Lab ID</b> : L2149904-12 <b>Client ID</b> : MW18-04S <b>Sample Location</b> : GOSHEN, NY <b>Sample Matrix</b> : WATER <b>Analytical Method</b> : 1,8270D-SIM <b>Lab File ID</b> : 49904-12 <b>Sample Amount</b> : 275 ml <b>Extraction Method</b> : EPA 3510C <b>Extract Volume</b> : 1000 uL <b>GPC Cleanup</b> : N	<b>Lab Number</b> : L2149904 <b>Project Number</b> : 30075710 <b>Date Collected</b> : 09/14/21 11:20 <b>Date Received</b> : 09/16/21 <b>Date Analyzed</b> : 09/20/21 17:19 <b>Date Extracted</b> : 09/19/21 <b>Dilution Factor</b> : 1 <b>Analyst</b> : JJW <b>Instrument ID</b> : SV125 <b>GC Column</b> : RXI-5SiLM <b>%Solids</b> : N/A <b>Injection Volume</b> : 1 uL
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CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.02	U
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	ND	0.10	0.01	U
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	0.03	0.10	0.01	J
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	ND	0.10	0.02	U
53-70-3	Dibenzo(a,h)anthracene	0.04	0.10	0.01	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	0.10	0.01	J
129-00-0	Pyrene	ND	0.10	0.02	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U

# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-13  
 Client ID : MW18-08D  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-13  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/13/21 11:10  
 Date Received : 09/16/21  
 Date Analyzed : 09/19/21 14:50  
 Date Extracted : 09/18/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV128  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.02	0.10	0.02	J
91-20-3	Naphthalene	0.29	0.10	0.05	
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	0.06	0.10	0.01	J
120-12-7	Anthracene	0.02	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	0.10 UB <del>0.04</del>	0.10	0.01	<del>J</del>
85-01-8	Phenanthrene	0.10 UB <del>0.06</del>	0.10	0.02	<del>J</del>
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	ND	0.10	0.02	U
91-57-6	2-Methylnaphthalene	0.05	0.10	0.02	J



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-14  
 Client ID : BD-20210913  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-14  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/13/21 00:00  
 Date Received : 09/16/21  
 Date Analyzed : 09/19/21 15:10  
 Date Extracted : 09/18/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV128  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.10	0.10	0.02	J
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	0.07	0.10	0.02	J
50-32-8	Benzo(a)pyrene	0.07	0.10	0.02	J
205-99-2	Benzo(b)fluoranthene	0.13	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.04	0.10	0.01	J
218-01-9	Chrysene	0.06	0.10	0.01	J
208-96-8	Acenaphthylene	0.03	0.10	0.01	J
120-12-7	Anthracene	0.02	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	0.08	0.10	0.01	J
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	0.10 UB <del>0.04</del>	0.10	0.02	<del>J</del>
53-70-3	Dibenzo(a,h)anthracene	0.02	0.10	0.01	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.08	0.10	0.01	J
129-00-0	Pyrene	0.10	0.10	0.02	J
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-15  
 Client ID : FB-20210913  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-15  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/13/21 13:55  
 Date Received : 09/16/21  
 Date Analyzed : 09/19/21 15:29  
 Date Extracted : 09/18/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV128  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.02	U
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	ND	0.10	0.01	U
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	0.02	0.10	0.01	J
85-01-8	Phenanthrene	0.03	0.10	0.02	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	ND	0.10	0.02	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U





# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-16  
 Client ID : FB-20210914  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-16  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/14/21 13:30  
 Date Received : 09/16/21  
 Date Analyzed : 09/20/21 17:38  
 Date Extracted : 09/19/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV125  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.02	U
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U
218-01-9	Chrysene	ND	0.10	0.01	U
208-96-8	Acenaphthylene	ND	0.10	0.01	U
120-12-7	Anthracene	ND	0.10	0.01	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U
86-73-7	Fluorene	ND	0.10	0.01	U
85-01-8	Phenanthrene	0.03	0.10	0.02	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U
129-00-0	Pyrene	ND	0.10	0.02	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-17  
 Client ID : FB-20210915  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-17  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/15/21 13:30  
 Date Received : 09/16/21  
 Date Analyzed : 09/22/21 17:33  
 Date Extracted : 09/21/21  
 Dilution Factor : 1  
 Analyst : DV  
 Instrument ID : SV128  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier	
		Results	RL	MDL		
83-32-9	Acenaphthene	ND	0.10	0.01	U	UJ
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U	UJ
206-44-0	Fluoranthene	ND	0.10	0.02	U	UJ
91-20-3	Naphthalene	0.05	0.10	0.05	J	
56-55-3	Benzo(a)anthracene	ND	0.10	0.02	U	UJ
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U	UJ
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.01	U	UJ
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.01	U	UJ
218-01-9	Chrysene	ND	0.10	0.01	U	UJ
208-96-8	Acenaphthylene	ND	0.10	0.01	U	UJ
120-12-7	Anthracene	ND	0.10	0.01	U	UJ
191-24-2	Benzo(ghi)perylene	ND	0.10	0.01	U	UJ
86-73-7	Fluorene	ND	0.10	0.01	U	UJ
85-01-8	Phenanthrene	ND	0.10	0.02	U	UJ
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U	UJ
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.01	U	UJ
129-00-0	Pyrene	ND	0.10	0.02	U	UJ
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U	UJ



# Results Summary

## Form 1

### Semivolatile Organics by GC/MS-SIM

Client : Arcadis of New York, Inc.  
 Project Name : NYSEG-GOSHEN FORMER MGP SITE  
 Lab ID : L2149904-18  
 Client ID : MW08-07S  
 Sample Location : GOSHEN, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : 49904-18  
 Sample Amount : 275 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L2149904  
 Project Number : 30075710  
 Date Collected : 09/15/21 12:15  
 Date Received : 09/16/21  
 Date Analyzed : 09/21/21 15:17  
 Date Extracted : 09/20/21  
 Dilution Factor : 1  
 Analyst : JJW  
 Instrument ID : SV119  
 GC Column : RXI-5SiLM  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.01	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.13	0.10	0.02	
91-20-3	Naphthalene	ND	0.10	0.05	U
56-55-3	Benzo(a)anthracene	0.09	0.10	0.02	J
50-32-8	Benzo(a)pyrene	0.08	0.10	0.02	J
205-99-2	Benzo(b)fluoranthene	0.11	0.10	0.01	
207-08-9	Benzo(k)fluoranthene	0.04	0.10	0.01	J
218-01-9	Chrysene	0.06	0.10	0.01	J
208-96-8	Acenaphthylene	0.03	0.10	0.01	J
120-12-7	Anthracene	0.04	0.10	0.01	J
191-24-2	Benzo(ghi)perylene	0.05	0.10	0.01	J
86-73-7	Fluorene	0.02	0.10	0.01	J
85-01-8	Phenanthrene	0.07	0.10	0.02	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.01	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.06	0.10	0.01	J
129-00-0	Pyrene	0.12	0.10	0.02	
91-57-6	2-Methylnaphthalene	ND	0.10	0.02	U



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-01	Date Collected	: 09/15/21 09:52
Client ID	: MW08-6S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:02
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.017	0.005	0.001	J



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-02	Date Collected	: 09/15/21 11:00
Client ID	: MW08-6D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:05
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	<del>U</del> UU





# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-03	Date Collected	: 09/15/21 11:45
Client ID	: MW08-7D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:06
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	U U

# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-04	Date Collected	: 09/15/21 10:05
Client ID	: MW93-1D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:07
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.028	0.005	0.001	J

# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-05	Date Collected	: 09/14/21 13:45
Client ID	: MW93-1S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:08
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.031	0.005	0.001	J



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-06	Date Collected	: 09/14/21 11:15
Client ID	: MW93-2S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:26
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.007	0.005	0.001	J



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-07	Date Collected	: 09/14/21 09:35
Client ID	: MW93-2D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:10
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	U UJ





# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-08	Date Collected	: 09/13/21 13:30
Client ID	: MW08-05S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:11
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.029	0.005	0.001	J



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-09	Date Collected	: 09/13/21 12:00
Client ID	: MW08-05D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:14
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.021	0.005	0.001	J



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-10	Date Collected	: 09/13/21 12:10
Client ID	: MW08-08S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:15
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	U UJ

# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-11	Date Collected	: 09/14/21 09:30
Client ID	: MW18-04D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:16
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	U UJ



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-12	Date Collected	: 09/14/21 11:20
Client ID	: MW18-04S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:19
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.008	0.005	0.001	J





# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-13	Date Collected	: 09/13/21 11:10
Client ID	: MW18-08D	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:20
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	<del>U</del> JJ

# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-14	Date Collected	: 09/13/21 00:00
Client ID	: BD-20210913	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:21
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.048	0.005	0.001	J



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-15	Date Collected	: 09/13/21 13:55
Client ID	: FB-20210913	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:22
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	U UJ



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-16	Date Collected	: 09/14/21 13:30
Client ID	: FB-20210914	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:23
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	<del>U</del> UJ

# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-17	Date Collected	: 09/15/21 13:30
Client ID	: FB-20210915	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:27
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A1	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	ND	0.005	0.001	U UJ



# Form 1

## WETCHEM

Client	: Arcadis of New York, Inc.	Lab Number	: L2149904
Project Name	: NYSEG-GOSHEN FORMER MGP SITE	Project Number	: 30075710
Lab ID	: L2149904-18	Date Collected	: 09/15/21 12:15
Client ID	: MW08-07S	Date Received	: 09/16/21
Sample Location	: GOSHEN, NY	Date Analyzed	: 09/24/21 13:28
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,9010C/9012B	Analyst	: JO
Lab File ID	: TCN092421-A1	Instrument ID	: LACHAT
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 09/23/21

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
57-12-5	Cyanide, Total	0.007	0.005	0.001	J



# Attachment 4

Site Inspection Form

# **Goshen Former MGP Site** **Goshen, Orange County, New York** **Site-Wide Inspection Form**

**Date:** 9/13/21

**Personnel:** Kirk Vargas

**Time of Arrival:** 6:00

**Time of Departure:**

**Weather Conditions:** Sunny

**Temperature:** 81°F

**Wind Speed:** WNW 9 MPH

**Wind Direction (from):** WNW

Inspection Checklist	Yes	No	Comments
<b>Asphalt Cover</b>			
Intrusive Activities Being Performed?			
- Trenching?		X	
- Excavation?		X	
- Tunneling?		X	
- Saw cutting?		X	
Signs of Previous Intrusive Activities Performed?			
- New drainage feature?		X	
- Evidence of a new underground utility?		X	
- New grass/vegetation/asphalt?		X	
- Other (e.g., cracking, potholes, depressions)		X	
<b>Monitoring Well Condition</b>			
NAPL monitoring needs to be performed this year?		X	
Covers secure?	✓		
Casing in need of repair?		✓	
Concrete surface seal intact?	✓		
Settling in area around well?		✓	
Well obstructed?		✓	
Ponded water above well?		✓	
Well screen silted in?		✓	
Well in need of redevelopment?		✓	

**General Comments/Suggested Action Items:**