



April 26, 2024

Mr. Gerald Pratt  
Project Manager  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233

Re: 2<sup>nd</sup> Groundwater Monitoring Program Sampling Report  
NYSEG Jackson Street Former MGP Site  
Penn Yan, Yates County, New York  
NYSDEC Site Code 862008

Dear Mr. Pratt:

The purpose of this report is to present the results of the second (2<sup>nd</sup>) Groundwater Monitoring Program (GWMP) sampling event completed at the New York State Electric & Gas Corporation (NYSEG) Jackson Street Former Manufactured Gas Plant (MGP) site [New York State Department of Environmental Conservation (NYSDEC) Site No. 862008], located at Linden Street and Court Street in Penn Yan, Yates County, New York (referred to herein as the "Site"), as depicted on **Figure 1**. This groundwater sampling was completed by NEU-VELLE, LLC (NEU-VELLE) personnel in accordance with the Site Management Plan (SMP) for the Site, prepared by AMEC Geomatrix, Inc. and dated December 2011.

## **SCOPE OF WORK**

### **Synoptic Water Levels**

As summarized in **Table 1**, a Site-wide round of synoptic groundwater levels was collected from eight (8) monitoring wells at the Site (MW-1, MW-2S, MW-2D, MW-3A, MW-4S, MW-4D, MW-5, and MW-6) on April 28, 2023, prior to the start of groundwater sampling activities. The monitoring well locations are depicted on **Figure 2**. Each well was gauged for the presence of Non-aqueous Phase Liquid (NAPL) using an oil/water interface probe. NAPL was not detected in any of the wells. The well gauging observations and field measurements are provided in **Table 1**, and a groundwater elevation contour map is provided as **Figure 2**.

### **Groundwater Sampling**

From April 28 through May 8, 2023, the GWMP samples were collected from the eight (8) groundwater monitoring wells at the Site (MW-1, MW-2S, MW-2D, MW-3A, MW-4S, MW-4D, MW-5 and MW-6). A stainless-steel bladder pump equipped with a new polyethylene bladder and new polyethylene tubing was used at each sampling location.

Groundwater samples were collected using the low-stress (low-flow) purging techniques outlined in the United States Environmental Protection Agency (USEPA) Ground-Water Sampling Guidelines for Superfund and Resource Conservation and Recovery Act (RCRA) Project Managers dated May 2002.

Prior to initiating purging, field personnel donned new nitrile gloves, and care was taken to avoid introducing contaminants into the groundwater monitoring wells. During purging, time, water-level measurements, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), pH, turbidity, and specific conductance (purge parameters) were measured and recorded using calibrated field monitoring equipment.

The well information, sample information, monitoring parameters, and field observations were recorded on a groundwater sample log completed at each well. The groundwater sample logs are provided as **Attachment 2**.

New nitrile gloves were donned by field personnel prior to the collection of each groundwater sample. The laboratory samples were collected in appropriate laboratory-supplied sample containers. Samples were placed in a plastic cooler pre-chilled with ice and submitted under chain of custody protocols. The samples were delivered to Paradigm Environmental Services, Inc. (Paradigm) located in Rochester, New York. The groundwater samples were analyzed as follows:

- volatile organic compounds (VOCs), BTEX (benzene, toluene, ethylbenzene, and xylene) only, were analyzed in accordance with USEPA Method 8260;
- semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs) only, were analyzed in accordance with USEPA Method 8270; and
- total cyanide was analyzed in accordance with USEPA Method 9012.

Quality Assurance/Quality Control (QA/QC) samples including a field blank, equipment blanks, blind duplicates (collected at MW-6), a trip blank, and matrix spike/matrix spike duplicate samples (MS/MSD) were collected.

### **Reporting of Results**

Copies of the laboratory analytical reports are presented in **Exhibit A**, and the analytical results, including those for the blind duplicate QA/QC samples, are summarized in **Table 2** of this report.

### **Waste Disposal**

Purged groundwater and decontamination water were containerized into two (2) 55-gallon polyethylene drums and staged at the Site. This wastewater was removed from the Site on March 21, 2024, by Clean Harbors and transported for off-Site disposal.

## **RESULTS**

### **Analytical Results**

The groundwater sample analytical results were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Class A, standards, criteria, and guidance values (SCGs). The analytical results for groundwater samples are summarized in **Table 2** and **Figure 3**, as follows:

- BTEX compounds were detected above their respective TOGS 1.1.1 Class GA SCG values in three (3) of the groundwater samples collected (MW-1, MW-3A, and MW-4S). Benzene was detected above its TOGS 1.1.1 Class GA SCG (1 µg/L) in MW-1, MW-3A, and MW-4S at concentrations of 5.4 micrograms per liter (µg/L) or parts per billion (ppb), 100 µg/L, and 380 µg/L, respectively. Toluene, ethylbenzene, and xylenes (total) were each detected in MW-3A and MW-4S, at concentrations above their respective TOGS 1.1.1 Class GA SCG level (5 µg/L), with the exception of toluene in MW-3A (estimated at 0.72 J µg/L).
- PAHs were detected above laboratory reporting limits in four (4) of the groundwater samples collected (MW-1, MW-3A, MW-4D and MW-4S) and detected (and given estimated concentrations) below reporting limits in five (5) of the groundwater samples collected (MW-2S, MW-3A, MW-4D, MW-4S, MW-5 and MW-6). Seven (7) PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, and naphthalene) were detected at concentrations above their respective TOGS 1.1.1 Class GA SCG; these include:
  - MW-2S - benzo(b)fluoranthene (0.01 J µg/L);
  - MW-3A - benzo(a)anthracene (0.02 J µg/L);
  - MW-4D - benzo(a)anthracene (0.11 µg/L), benzo(a)pyrene (0.14 µg/L), benzo(b)fluoranthene (0.11 µg/L), benzo(k)fluoranthene (0.03 J µg/L), chrysene (0.09 J µg/L), and indeno(1,2,3-cd)pyrene (0.06 J µg/L);
  - MW-4S - benzo(a)anthracene (0.45 J µg/L), benzo(a)pyrene (0.25 J µg/L), benzo(b)fluoranthene (0.20 J µg/L), benzo(k)fluoranthene (0.09 J µg/L), chrysene (0.23 J µg/L), and naphthalene (1,400 µg/L);
  - MW-5 - benzo(a)anthracene (0.03 J µg/L), benzo(a)pyrene (0.04 J µg/L), benzo(b)fluoranthene (0.07 J µg/L), benzo(k)fluoranthene (0.03 J µg/L), chrysene (0.05 J µg/L), and indeno(1,2,3-cd)pyrene (0.05 J µg/L);
  - MW-6 - benzo(a)anthracene (0.03 J µg/L), benzo(b)fluoranthene (0.01 J µg/L), chrysene (0.01 J µg/L), and indeno(1,2,3-cd)pyrene (0.05 J µg/L).

The other PAHs detected in samples were below their respective TOGS 1.1.1 Class GA SCG values.

- Concentrations of total cyanide were detected above laboratory reporting limits in three (3) of the groundwater samples collected (MW-3A [0.036 milligrams per liter (mg/L) or parts per million (ppm)], MW-4S [2.05 mg/L] and MW-6 [0.237 mg/L]) and detected (and given estimated concentrations) below reporting limits in three (3) of the groundwater samples collected (MW-2D, MW-4D, and MW-5). The reported

concentrations of total cyanide in monitoring wells MW-4S and MW-6 were above the TOGS 1.1.1, Class GA SCG for total cyanide (0.2 mg/L).

The analytical results for the QA/QC samples are summarized as follows:

- No detections of BTEX, PAHs, nor total cyanide were reported in the “equipment blank” sample.
- No BTEX compounds were detected in the Trip Blank sample.
- Similar results for BTEX, PAHs, and total cyanide were reported in the blind duplicate sample collected at MW-4D.

### **Groundwater Mapping**

A groundwater contour map (see **Figure 2**) was prepared based on the water level data collected at the Site on April 28, 2023. This groundwater contour map depicts the groundwater beneath the Site flowing to the east, toward Jacobs Brook. The groundwater flow direction appears to generally follow the topography of the Site, which is consistent with prior findings of groundwater flow direction at the Site.

### **CONCLUSIONS**

This report presents the results of the second (2<sup>nd</sup>) GWMP sampling event completed at the NYSEG Jackson Street Former MGP site, Penn Yan, NY (NYSDEC Site No. 862008).

BTEX compounds were detected above their respective TOGS 1.1.1 Class GA SCG values in three (3) of the groundwater samples collected (MW-1, MW-3A, and MW-4S). Seven (7) PAHs (benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, and naphthalene) were detected at concentrations above their respective TOGS 1.1.1 Class GA SCGs in six monitoring wells. Concentrations of total cyanide were detected above laboratory reporting limits in three (3) of the groundwater samples collected (MW-3A, MW-4S, and MW-6) and detected (and given estimated concentrations) below reporting limits in three (3) of the groundwater samples collected (MW-2D, MW-4D, and MW-5), all of which were below the TOGS 1.1.1, Class GA SCG for total cyanide (0.2 mg/L) except for in MW-4S and MW-6 in which they were above the TOGS 1.1.1, Class GA SCG.

The groundwater contour map for April 28, 2023 depicts the groundwater beneath the Site flowing predominantly to the east, toward Jacobs Creek, generally following the Site’s topography.

The periodic (every 15 months) GWMP sampling will continue as described in the SMP (the next groundwater sampling event is scheduled for August 2024) and will continue to assess the groundwater quality beneath the Site.

Please feel free to contact me at any time at (585) 478-3167 with any questions you may have regarding this letter report.



Sincerely,



Logan Reid  
NEU-VELLE, LLC

Attachments:

Table 1 – Monitoring Well Reference Data and Groundwater Measurements

Table 2 – Groundwater Sample Analytical Results

Figure 1 – Site Location

Figure 2 – April 2023 Groundwater Elevation Contours

Figure 3 – Spring2023 Analytical Detections in Groundwater

Attachment 1 – Groundwater Sample Logs

Exhibit A – Laboratory Reports

**Tables**

**Table 1**  
**Monitoring Well Reference Data and Groundwater Measurements**

Well ID	TOC Elevation (ft)	Depth to Water (ft bgs)	Groundwater Elevation (ft)	Depth to Water (ft bgs)	Groundwater Elevation (ft)
		12/1/2021		4/28/2023	
MW-1	754.49	9.43	745.06	9.00	745.49
MW-2D	754.22	10.60	743.62	11.50	742.72
MW-2S	753.76	9.52	744.24	9.00	744.76
MW-3A	752.48	11.15	741.33	11.60	740.88
MW-4D	754.33	11.78	742.55	11.90	742.43
MW-4S	753.02	12.14	740.88	13.00	740.02
MW-5	749.99	NM*	NA	7.60	742.39
MW-6	751.85	10.30	741.55	10.30	741.55

**Notes:**

1. Top of Casing (TOC) elevations surveyed by NYSEG personnel, September 2007. Vertical datum unknown.
2. Depths to water measured by NEU-VELLE on dates indicated.
3. bgs = below ground surface
4. \* MW-5 well cover was damaged and was inaccessible
5. NM = not measured
6. NA = not applicable

**Table 2**  
**Groundwater Sample Analytical Results**

Sample Location Sample Date Sample Identification			MW-1 12/3/2021 PY-MW-1-120321		MW-1 5/3/2023 MW-1-050323		MW-2D 12/2/2021 PY-MW-2D-120221		MW-2D 5/4/2023 MW-2D-050423		MW-2S 12/2/2021 PY-MW-2S-120221		MW-2S 5/4/2023 MW-2S-050423		MW-3A 12/6/2021 PY-MW-3A-120621		MW-3A 5/8/2023 MW-3A-050823	
Analyte	TOGS 1.1.1 Groundwater SCG	Units	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
<b>BTEX</b>																		
Benzene	1	µg/L	<b>13</b>	1.0	<b>5.4</b>	0.50	ND	1.0	ND	0.50	ND	1.0	ND	0.50	<b>81</b>	1.0	<b>100</b>	0.50
Ethylbenzene	5	µg/L	ND	1.0	ND	2.5	ND	1.0	ND	2.5	ND	1.0	ND	2.5	<b>22</b>	1.0	<b>28</b>	2.5
Toluene	5	µg/L	ND	1.0	ND	2.5	ND	1.0	ND	2.5	ND	1.0	ND	2.5	<b>0.73</b> J	1.0	<b>0.72</b> J	2.5
Xylenes, Total	5	µg/L	ND	2.0	ND	2.5	ND	F1 2.0	ND	2.5	ND	2.0	ND	2.5	<b>14</b>	2.0	<b>5.6</b> J	2.5
<b>PAHs</b>																		
Acenaphthene	20	µg/L	ND	0.54	ND	0.10	ND	0.49	ND	0.10	ND	0.53	ND	0.10	ND	0.53	<b>0.01</b> J	0.10
Acenaphthylene	NS	µg/L	ND	0.32	ND	0.10	ND	0.29	ND	0.10	ND	0.32	ND	0.10	<b>0.16</b> J	0.32	<b>0.21</b>	0.10
Anthracene	50	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10
Benzo(a)anthracene	0.002	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	<b>0.02</b> J	0.10
Benzo(a)pyrene	ND	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10
Benzo(b)fluoranthene	0.002	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	<b>0.01</b> J	0.10	NT	NT	ND	0.10
Benzo(k)fluoranthene	0.002	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10
Benzo(ghi)perylene	NS	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10
Chrysene	0.002	µg/L	ND	0.49	ND	0.10	ND	F1 F2 0.49	ND	0.10	ND	0.49	ND	0.10	ND	0.53	ND	0.10
Dibenzo(a,h)anthracene	NS	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10
Fluoranthene	50	µg/L	ND	0.54	ND	0.10	ND	0.49	ND	0.10	<b>0.11</b> J	0.53	<b>0.03</b> J	0.10	ND	0.53	ND	0.10
Fluorene	50	µg/L	ND	0.54	ND	0.10	ND	0.49	ND	0.10	ND	0.53	ND	0.10	ND	0.53	ND	0.10
Indeno(1,2,3-cd) pyrene	0.002	µg/L	NT	NT	ND	0.10	ND	0.49	ND	0.10	ND	0.49	ND	0.10	ND	0.49	ND	0.10
Naphthalene	10	µg/L	<b>0.35</b> J	1.1	<b>0.19</b>	0.10	ND	0.97	ND	0.10	ND	1.1	ND	0.10	<b>2.9</b>	1.1	<b>0.66</b>	0.10
Phenanthrene	50	µg/L	ND	0.22	ND	0.10	ND	0.19	ND	0.10	ND	0.21	ND	0.10	ND	0.21	ND	0.10
Pyrene	50	µg/L	ND	0.54	ND	0.10	ND	0.49	ND	0.10	ND	0.53	<b>0.02</b> J	0.10	ND	0.53	ND	0.10
2-Chloronaphthalene	10	µg/L	NT	NT	ND	0.20	NT	NT	ND	0.20	NT	NT	ND	0.20	NT	NT	ND	0.20
2-Methylnaphthalene	NS	µg/L	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10	NT	NT	ND	0.10
<b>Cyanide</b>																		
Cyanide, Total	0.2	mg/L	<b>0.015</b>	0.010	ND	0.005	<b>0.0074</b> J	0.010	<b>0.002</b> J	0.005	ND	0.010	ND	0.005	<b>0.025</b>	0.010	<b>0.036</b>	0.005

**Notes:**

1. µg/L = micrograms per liter
2. mg/L = milligrams per liter
3. "NS" = no standard, "ND" = non-detect, and "NT" = not tested
4. Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Groundwater Effluent Limitations, June 1998.
5. **Bold Sample result** = compound was detected.
6. **Gray shading indicates the sample result is above the TOGS 1.1.1 Standards, Criteria and Guidance Value.**
7. "J" is a laboratory data qualifier indicating "Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value"
8. "F1" is a laboratory data qualifier indicating "MS and/or MSD recovery exceeds control limits"
9. "F2" is a laboratory data qualifier indicating "MS/MSD RPD exceeds control limits"



**Table 2**  
**Groundwater Sample Analytical Results**

Sample Location			MW-4D		MW-4D		MW-4D (DUPLICATE)		MW-4S		MW-4S		MW-5		MW-6		MW-6 (DUPLICATE)		MW-6	
Sample Date			12/4/2021		4/28/2023		4/28/2023		12/4/2021		4/28/2023		5/5/2023		12/3/2021		12/3/2021		5/5/2023	
Sample Identification			PY-MW-4D-120421		MW-4D-042823		DUP-042823		PY-MW-4S-120421		MW-4S-042823		MW-5-050523		PY-MW-6-120321		PY-DUP-120321		MW-6-050523	
Analyte	TOGS 1.1.1 Groundwater SCG	Units	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
<b>BTEX</b>																				
Benzene	1	µg/L	ND	1.0	ND	0.5	ND	0.5	<b>1,600</b>	40	<b>380</b>	5	ND	0.50	ND	1.0	ND	1.0	ND	0.50
Ethylbenzene	5	µg/L	ND	1.0	ND	2.5	ND	2.5	<b>480</b>	40	<b>110</b>	25	ND	2.5	ND	1.0	ND	1.0	ND	2.5
Toluene	5	µg/L	ND	1.0	ND	2.5	ND	2.5	<b>91</b>	40	<b>22</b> J	25	ND	2.5	ND	1.0	ND	1.0	ND	2.5
Xylenes, Total	5	µg/L	ND	2.0	ND	2.5	ND	2.5	<b>800</b>	80	<b>230</b>	25	ND	2.5	ND	2.0	ND	2.0	ND	2.5
<b>PAHs</b>																				
Acenaphthene	20	µg/L	ND	0.53	ND	0.10	<b>0.02</b> J	0.10	<b>13</b>	2.5	<b>5</b>	1.00	ND	0.10	ND	0.48	ND	0.49	ND	0.10
Acenaphthylene	NS	µg/L	ND	0.32	<b>0.07</b> J	0.10	<b>0.11</b>	0.10	<b>64</b>	1.5	<b>35</b>	1.00	ND	0.10	ND	0.29	ND	0.29	ND	0.10
Anthracene	50	µg/L	ND	0.53	<b>0.08</b> J	0.10	<b>0.13</b>	0.10	<b>6.3</b>	2.5	<b>3.2</b>	1.00	ND	0.10	ND	0.48	ND	0.49	ND	0.10
Benzo(a)anthracene	0.002	µg/L	ND	0.49	<b>0.11</b>	0.10	<b>0.18</b>	0.10	ND	2.5	<b>0.45</b> J	1.00	<b>0.03</b> J	0.10	ND	0.48	ND	0.49	<b>0.03</b> J	0.10
Benzo(a)pyrene	ND	µg/L	ND	0.49	<b>0.14</b>	0.10	<b>0.24</b>	0.10	ND	2.5	<b>0.25</b> J	1.00	<b>0.04</b> J	0.10	ND	0.48	ND	0.49	ND	0.10
Benzo(b)fluoranthene	0.002	µg/L	ND	0.49	<b>0.11</b>	0.10	<b>0.18</b>	0.10	ND	2.5	<b>0.20</b> J	1.00	<b>0.07</b> J	0.10	ND	0.48	ND	0.49	<b>0.01</b> J	0.10
Benzo(k)fluoranthene	0.002	µg/L	ND	0.49	<b>0.03</b> J	0.10	<b>0.05</b> J	0.10	ND	2.5	<b>0.09</b> J	1.00	<b>0.03</b> J	0.10	ND	0.48	ND	0.49	ND	0.10
Benzo(ghi)perylene	NS	µg/L	ND	0.49	<b>0.07</b> J	0.10	<b>0.12</b>	0.10	ND	2.5	ND	1.00	<b>0.05</b> J	0.10	ND	0.48	ND	0.49	ND	0.10
Chrysene	0.002	µg/L	ND	0.49	<b>0.09</b> J	0.10	<b>0.15</b>	0.10	ND	2.5	<b>0.23</b> J	1.00	<b>0.05</b> J	0.10	ND	0.48	ND	0.49	<b>0.01</b> J	0.10
Dibenzo(a,h)anthracene	NS	µg/L	ND	0.53	<b>0.01</b> J	0.10	<b>0.02</b> J	0.10	ND	2.5	ND	1.00	ND	0.10	ND	0.48	ND	0.49	ND	0.10
Fluoranthene	50	µg/L	ND	0.53	<b>0.15</b>	0.10	<b>0.26</b>	0.10	<b>2.5</b>	2.5	<b>1.7</b>	1.00	<b>0.10</b>	0.10	ND	0.48	ND	0.49	<b>0.03</b> J	0.10
Fluorene	50	µg/L	ND	0.53	<b>0.04</b> J	0.10	<b>0.08</b> J	0.10	<b>17</b>	2.5	<b>8</b>	1.00	ND	0.10	ND	0.48	ND	0.49	ND	0.10
Indeno(1,2,3-cd) pyrene	0.002	µg/L	ND	0.49	<b>0.06</b> J	0.10	<b>0.09</b> J	0.10	ND	2.5	ND	1.00	<b>0.05</b> J	0.10	ND	0.48	ND	0.49	<b>0.05</b> J	0.10
Naphthalene	10	µg/L	<b>0.67</b> J	1.1	<b>0.47</b>	0.1	<b>0.56</b>	0.10	<b>2,600</b>	400	<b>1,400</b>	5.0	ND	0.10	ND	0.95	ND	0.97	ND	0.10
Phenanthrene	50	µg/L	ND	0.21	<b>0.24</b>	0.10	<b>0.39</b>	0.10	<b>23</b>	1.0	<b>8.4</b>	1.00	<b>0.04</b> J	0.10	ND	0.19	ND	0.19	<b>0.04</b> J	0.10
Pyrene	50	µg/L	ND	0.53	<b>0.22</b>	0.10	<b>0.37</b>	0.10	<b>2.2</b> J	2.5	<b>1.6</b>	1.00	ND	0.10	ND	0.48	ND	0.49	<b>0.08</b> J	0.10
2-Chloronaphthalene	10	µg/L	NT	NT	ND	0.20	ND	0.20	NT	NT	ND	2.00	ND	0.20	NT	NT	NT	NT	ND	0.20
2-Methylnaphthalene	NS	µg/L	NT	NT	<b>0.09</b> J	0.10	<b>0.13</b>	0.10	NT	NT	<b>74</b>	1.00	ND	0.10	NT	NT	NT	NT	ND	0.10
<b>Cyanide</b>																				
Cyanide, Total	0.2	mg/L	ND	0.010	<b>0.003</b> J	0.005	ND	0.005	<b>0.083</b>	0.010	<b>2.05</b>	0.025	<b>0.001</b> J	0.005	ND	0.010	ND	0.010	<b>0.237</b>	0.005

**Notes:**

1. µg/L = micrograms per liter
2. mg/L = milligrams per liter
3. "NS" = no standard, "ND" = non-detect, and "NT" = not tested
4. Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Groundwater Effluent Limitations, June 1998.
5. **Bold Sample result** = compound was detected.
6. **Gray shading indicates the sample result is above the TOGS 1.1.1 Standards, Criteria and Guidance Value.**
7. "J" is a laboratory data qualifier indicating "Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value"
8. "F1" is a laboratory data qualifier indicating "MS and/or MSD recovery exceeds control limits"
9. "F2" is a laboratory data qualifier indicating "MS/MSD RPD exceeds control limits"

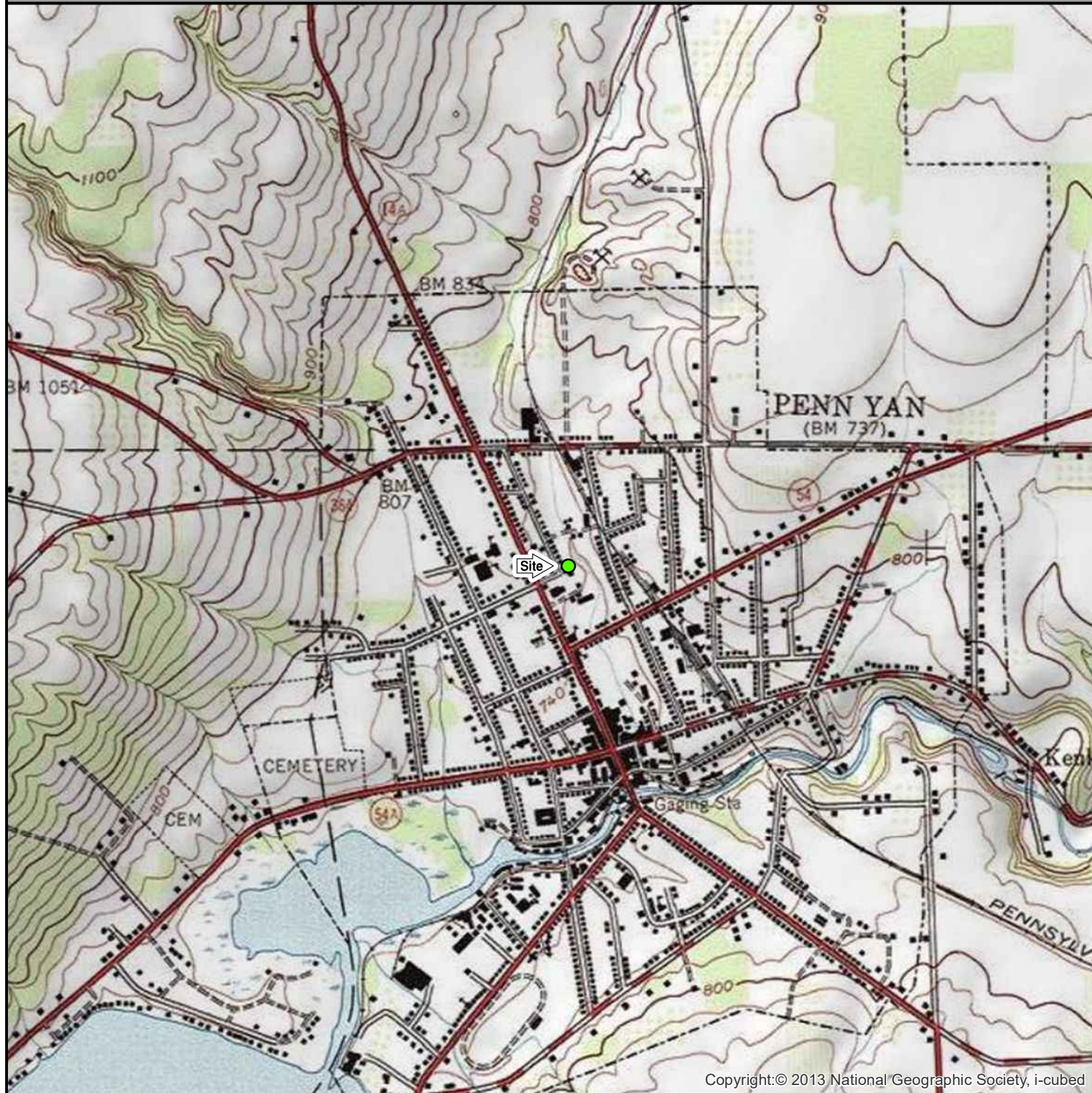


**Figures**



FIGURE 1

C:\Users\LoganReid\Neu-Velle LLC\Public - Documents\ - Clients\RG&E\Penn Yan\Docs\DWG\MXD\1\_Site\_Loc.mxd



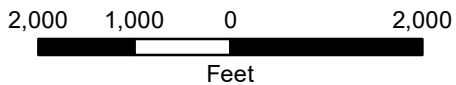
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NEW YORK STATE  
- YATES COUNTY

NEW YORK STATE ELECTRIC & GAS CORPORATION  
JACKSON STREET FORMER MGP SITE  
PENN YAN, NEW YORK

### SITE LOCATION



APRIL 2024








**FIGURE 2**



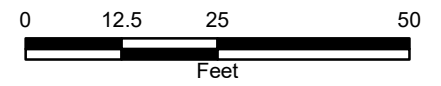
**LEGEND**

-  MONITORING WELL
-  INFERRED GROUNDWATER ELEVATION CONTOUR
-  INFERRED GROUNDWATER FLOW DIRECTION

- NOTES:**
1. BASEMAP ADAPTED FROM SITE MANAGEMENT PLAN, FIGURE 1B.
  2. GROUNDWATER ELEVATION MEASURED APRIL 28, 2023 IN FEET (NAVD 88).
  3. ALL LOCATIONS ARE APPROXIMATE.
  4. MW-2D AND MW4D GROUNDWATER ELEVATIONS EXCLUDED FROM INTERPOLATION.

NEW YORK STATE  
ELECTRIC & GAS  
CORPORATION  
JACKSON STREET  
FORMER MGP SITE  
PENN YAN, NEW YORK

**APRIL 2023  
GROUNDWATER ELEVATION  
CONTOURS**



APRIL 2024





**FIGURE 3**



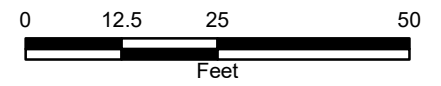
**LEGEND**

MONITORING WELL

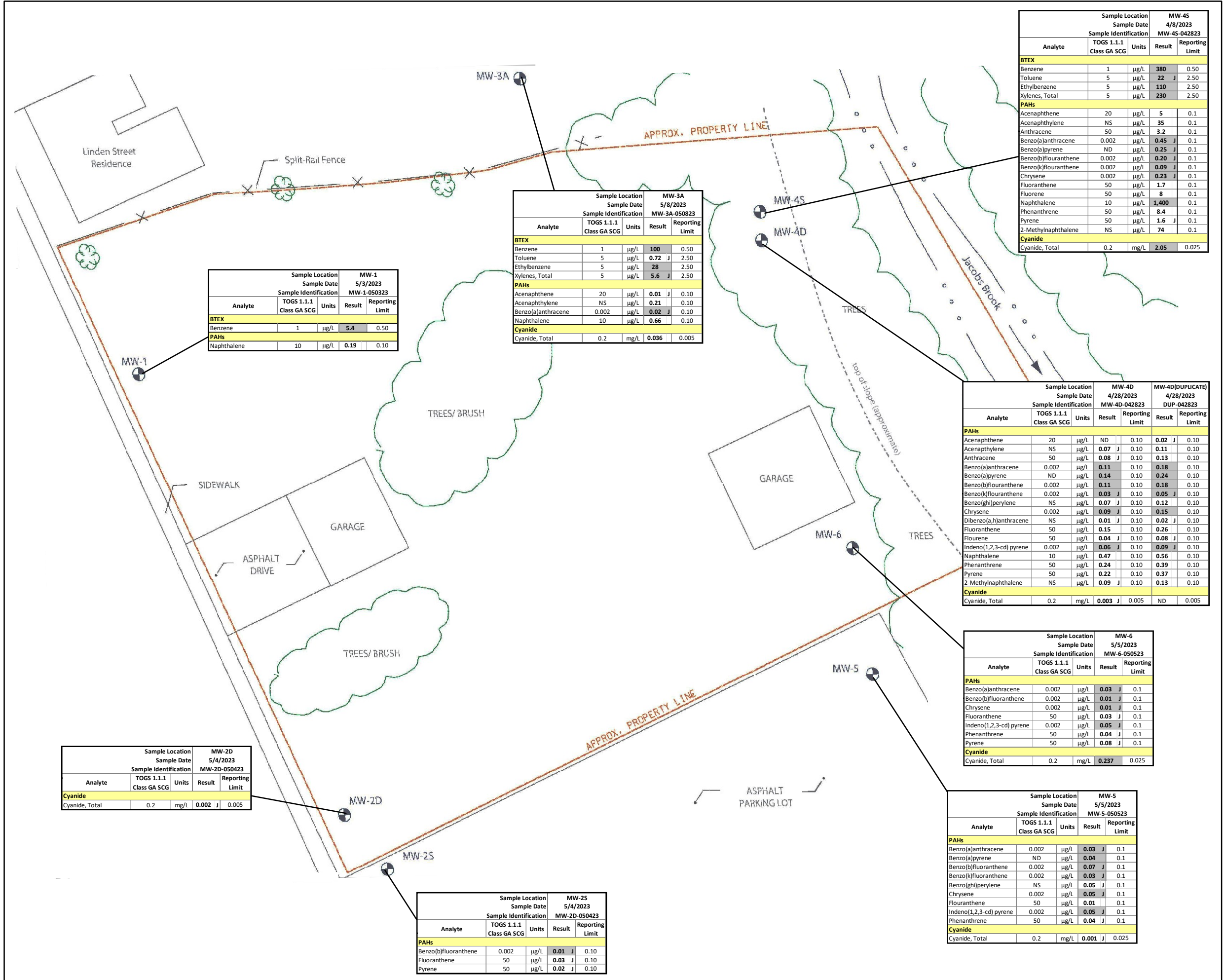
- NOTES:**
1. BASEMAP ADAPTED FROM SITE MANAGEMENT PLAN, FIGURE 1B.
  2. ONLY ANALYTICAL DETECTIONS ARE DEPICTED.
  3. ALL LOCATIONS ARE APPROXIMATE.

NEW YORK STATE  
ELECTRIC & GAS  
CORPORATION  
JACKSON STREET  
FORMER MGP SITE  
PENN YAN, NEW YORK

**SPRING 2023  
ANALYTICAL DETECTIONS  
IN GROUNDWATER**



APRIL 2024



Sample Location		Sample Date		MW-1	
Sample Identification		Sample Date		5/3/2023	
Sample Identification		MW-1-050323			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>BTEX</b>					
Benzene	1	µg/L	5.4	0.50	
<b>PAHs</b>					
Naphthalene	10	µg/L	0.19	0.10	

Sample Location		Sample Date		MW-3A	
Sample Identification		Sample Date		5/8/2023	
Sample Identification		MW-3A-050823			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>BTEX</b>					
Benzene	1	µg/L	100	0.50	
Toluene	5	µg/L	0.72	2.50	J
Ethylbenzene	5	µg/L	28	2.50	
Xylenes, Total	5	µg/L	5.6	2.50	J
<b>PAHs</b>					
Acenaphthene	20	µg/L	0.01	0.10	J
Acenaphthylene	NS	µg/L	0.21	0.10	
Benzo(a)anthracene	0.002	µg/L	0.02	0.10	J
Naphthalene	10	µg/L	0.66	0.10	
<b>Cyanide</b>					
Cyanide, Total	0.2	mg/L	0.036	0.005	

Sample Location		Sample Date		MW-4S	
Sample Identification		Sample Date		4/8/2023	
Sample Identification		MW-4S-042823			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>BTEX</b>					
Benzene	1	µg/L	380	0.50	
Toluene	5	µg/L	22	2.50	J
Ethylbenzene	5	µg/L	110	2.50	
Xylenes, Total	5	µg/L	230	2.50	
<b>PAHs</b>					
Acenaphthene	20	µg/L	5	0.1	
Acenaphthylene	NS	µg/L	35	0.1	
Anthracene	50	µg/L	3.2	0.1	
Benzo(a)anthracene	0.002	µg/L	0.45	0.1	J
Benzo(a)pyrene	ND	µg/L	0.25	0.1	
Benzo(b)fluoranthene	0.002	µg/L	0.20	0.1	J
Benzo(k)fluoranthene	0.002	µg/L	0.09	0.1	J
Chrysene	0.002	µg/L	0.23	0.1	J
Fluoranthene	50	µg/L	1.7	0.1	
Fluorene	50	µg/L	8	0.1	
Naphthalene	10	µg/L	1,400	0.1	
Phenanthrene	50	µg/L	8.4	0.1	
Pyrene	50	µg/L	1.6	0.1	J
2-Methylnaphthalene	NS	µg/L	74	0.1	
<b>Cyanide</b>					
Cyanide, Total	0.2	mg/L	2.05	0.025	

Sample Location		Sample Date		MW-4D		MW-4D(DUPLICATE)	
Sample Identification		Sample Date		4/28/2023		4/28/2023	
Sample Identification		MW-4D-042823		DUP-042823			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	Result	Reporting Limit	
<b>PAHs</b>							
Acenaphthene	20	µg/L	ND	0.10	0.02	J	0.10
Acenaphthylene	NS	µg/L	0.07	0.10	0.11		0.10
Anthracene	50	µg/L	0.08	0.10	0.13		0.10
Benzo(a)anthracene	0.002	µg/L	0.11	0.10	0.18		0.10
Benzo(a)pyrene	ND	µg/L	0.14	0.10	0.24		0.10
Benzo(b)fluoranthene	0.002	µg/L	0.11	0.10	0.18		0.10
Benzo(k)fluoranthene	0.002	µg/L	0.03	0.10	0.05	J	0.10
Benzo(ghi)perylene	NS	µg/L	0.07	0.10	0.12		0.10
Chrysene	0.002	µg/L	0.09	0.10	0.15		0.10
Dibenzo(a,h)anthracene	NS	µg/L	0.01	0.10	0.02	J	0.10
Fluoranthene	50	µg/L	0.15	0.10	0.26		0.10
Fluorene	50	µg/L	0.04	0.10	0.08	J	0.10
Indeno(1,2,3-cd) pyrene	0.002	µg/L	0.06	0.10	0.09	J	0.10
Naphthalene	10	µg/L	0.47	0.10	0.56		0.10
Phenanthrene	50	µg/L	0.24	0.10	0.39		0.10
Pyrene	50	µg/L	0.22	0.10	0.37		0.10
2-Methylnaphthalene	NS	µg/L	0.09	0.10	0.13		0.10
<b>Cyanide</b>							
Cyanide, Total	0.2	mg/L	0.003	0.005	ND		0.005

Sample Location		Sample Date		MW-6	
Sample Identification		Sample Date		5/5/2023	
Sample Identification		MW-6-050523			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>PAHs</b>					
Benzo(a)anthracene	0.002	µg/L	0.03	0.1	J
Benzo(b)fluoranthene	0.002	µg/L	0.01	0.1	J
Chrysene	0.002	µg/L	0.01	0.1	J
Fluoranthene	50	µg/L	0.03	0.1	J
Indeno(1,2,3-cd) pyrene	0.002	µg/L	0.05	0.1	J
Phenanthrene	50	µg/L	0.04	0.1	J
Pyrene	50	µg/L	0.08	0.1	J
<b>Cyanide</b>					
Cyanide, Total	0.2	mg/L	0.237	0.025	

Sample Location		Sample Date		MW-5	
Sample Identification		Sample Date		5/5/2023	
Sample Identification		MW-5-050523			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>PAHs</b>					
Benzo(a)anthracene	0.002	µg/L	0.03	0.1	J
Benzo(a)pyrene	ND	µg/L	0.04	0.1	
Benzo(b)fluoranthene	0.002	µg/L	0.07	0.1	J
Benzo(k)fluoranthene	0.002	µg/L	0.03	0.1	J
Benzo(ghi)perylene	NS	µg/L	0.05	0.1	J
Chrysene	0.002	µg/L	0.05	0.1	J
Fluoranthene	50	µg/L	0.01	0.1	J
Indeno(1,2,3-cd) pyrene	0.002	µg/L	0.05	0.1	J
Phenanthrene	50	µg/L	0.04	0.1	J
<b>Cyanide</b>					
Cyanide, Total	0.2	mg/L	0.001	0.025	

Sample Location		Sample Date		MW-2D	
Sample Identification		Sample Date		5/4/2023	
Sample Identification		MW-2D-050423			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>Cyanide</b>					
Cyanide, Total	0.2	mg/L	0.002	0.005	J

Sample Location		Sample Date		MW-2S	
Sample Identification		Sample Date		5/4/2023	
Sample Identification		MW-2D-050423			
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	
<b>PAHs</b>					
Benzo(b)fluoranthene	0.002	µg/L	0.01	0.10	J
Fluoranthene	50	µg/L	0.03	0.10	J
Pyrene	50	µg/L	0.02	0.10	J

**Attachment 1**  
**Groundwater Sampling Logs**







**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date: 4/20/23 Personnel: JC CW Weather: Cloudy 60°F  
 Site Name: MSIEG - Pen 7m Evacuation Method: Low Flow Bladder Well #: MW-4 D  
 Site Location: \_\_\_\_\_ Sampling Method: Low Flow Bladder Project #: \_\_\_\_\_

Well information:  
 Depth of Well \* 40.4 ft.  
 Depth to Water \* 11.7 ft.  
 Length of Water Column 28.5 ft.  
 \* Measurements taken from:  
 Top of Well Casing  
 Top of Protective Casing (354)  
 (Other, Specify)

Start Purge Time: \_\_\_\_\_

Elapsed Time ( )	Depth To Water ( )	Temperature (°C)	pH	Conductivity (µs/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
12:55	35.8	10.5	8.18	0.323	-62.8	0.27	10.8	150
13:00	36.2	10.6	8.00	0.323	-70.2	0.27	14.9	150
13:05	36.9	10.5	7.98	0.333	-67	0.58	60.7	150
13:10	38.5	10.5	8.03	0.324	-56.8	0.82	16.3	150
13:15	39	10.6	7.90	0.322	-53	0.53	16.8	150
13:20	39	10.5	7.89	0.356	-64.8	0.37	16.6	150



End Purge Time: 13:25

Water sample: \_\_\_\_\_  
 Time collected: 13:25 Total volume of purged water removed: 2,000mL

Physical appearance at start: Color Clear, Odor None, Sheen/Free Product None  
 Physical appearance at sampling: Color Clear, Odor None, Sheen/Free Product None  
Turbidity increased through out sample collection

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date 4/28/23 Personnel JC Weather Cloudy, 60°F  
 Site Name NJSEG-Pen 7m Evacuation Method Low Flow Bladder Well # MW-15  
 Site Location \_\_\_\_\_ Sampling Method Low Flow Bladder Project # \_\_\_\_\_

**Well information:**

Depth of Well \* 22.9 ft. \* Measurements taken from \_\_\_\_\_  
 Depth to Water \* 13 ft.  Top of Well Casing  
 Length of Water Column 9.9 ft.  Top of Protective Casing (35L)  
 \_\_\_\_\_ (Other, Specify)

Start Purge Time: 14:30

Elapsed Time ( )	Depth To Water ( )	Temperature (°C)	pH	Conductivity (µS/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
14:35	13.6	10.6	6.97	2.28	168.2	1.52	42.2	150
40	13.9	10.1	7.07	2.13	209.2	0.62	30.9	150
45	14.2	10.0	7.05	2.15	213.2	0.43	21.1	150
50	14.5	10.0	7.04	2.19	210.8	0.27	16	150
55	14.8	9.9	7.03	2.19	209.6	0.07	13.6	150
15:00	15.1	9.9	7.03	2.19	212.5	0.10	11.3	150
05	15.5	9.9	7.00	2.14	215.2	0.46	11.3	150
10	16.1	9.9	7.07	2.09	217.0	0.25	11.4	150
15	16.3	9.9	7.07	1.93	216.8	0.29	11.8	150
20	16.6	9.9	7.01	1.92	212.8	0.28	11.5	150
25	16.8	9.9	6.98	1.88	187.1	0.22	6	150
30	17.2	9.9	7.02	1.82	141.6	0.35	5.67	150
35	18	10	7.05	1.72	87.1	1.28	5	150
40	18.3	10	7.06	1.77	76.4	1.32	6.3	150
45	18.5	10	7.08	1.76	73.9	1.80	7	150

End Purge Time: 15:45

Water sample: 15:50 Total volume of purged water removed: 10,500 mL  
 Time collected: \_\_\_\_\_

Physical appearance at start  
 Color Clear Brown  
 Odor Weak Yes, MGP Odor  
 Sheen/Free Product None

Physical appearance at sampling  
 Color Clear  
 Odor Yes, MGP Odor  
 Sheen/Free Product None

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH



# NEU-VELLE, LLC

# Low Flow Ground Water Sampling Log

Date 5/3/23 Personnel Joe CW Weather Rainy, 50°F  
 Site Name MJFG-Pem 7m Evacuation Method Low Flow Bladder Well # MW-1  
 Site Location Pem 7m, NJ Sampling Method Low Flow Bladder Project # \_\_\_\_\_

**Well information:**

Depth of Well \* 13.9 ft.  
 Depth to Water \* 9 ft.  
 Length of Water Column 4.9 ft.

\* Measurements taken from

- Top of Well Casing  
 Top of Protective Casing  
 (Other, Specify)

Start Purge Time: 15:05

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity (ns/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
15:10	10.3	9.8	7.22	0.618	137.6	0.44	38.3	200
15	10.8	9.7	7.22	0.616	132.4	0.23	47	200
20	10.9	9.7	7.21	0.621	117.0	0.11	656	200
25	11	9.7	7.20	0.625	55.4	0.07	59	200
30	11.1	9.6	7.21	0.617	44.9	0.01	54	200
35	11.1	9.6	7.21	0.615	40	0.07	64	200
40	11.1	9.7	7.21	0.620	37.3	0.0	1718	200
45	11.1	9.6	7.21	0.620	25	0.0	1413	200
50	11.1	9.6	7.21	0.620	14.6	0.04	1459	200
55	11.1	9.5	7.22	0.607	17.8	0.03	61	200
16:00	11.1	9.5	7.21	0.602	21.2	0.0	33	200
05	11.1	9.5	7.20	0.600	22.9	0.0	56	200
10	11.1	9.6	7.20	0.596	22.7	0.0	638	200
15	11.1	9.5	7.21	0.600	21.9	0.0	46	200
20	11.1	9.5	7.21	0.598	21.4	0.0	102	200
25	11.1	9.5	7.22	0.590	20.3	0.0	94	200
30	11.1	9.5	7.21	0.585	21.4	0.0	99	200
35	11.1	9.5	7.21	0.582	22.9	0.0	87	200
40	11.1	9.5	7.20	0.586	21.4	0.0	949	200
45	11.1	9.5	7.22	0.583	21.5	0.0	905	200
50	11.1	9.5	7.22	0.575	21.2	0.0	970	200
17:00	11.1	9.5	7.22	0.582	21.3	0.0	59	200

End Purge Time: 16:55

**Water sample:**

Time collected: 17:00

Total volume of purged water removed: 22,000 mL

Due to turbidity spike, sampled @ next low level after high turbidity from 16:40-16:50

**Physical appearance at start**

Color Brown  
 Odor None  
 Sheen/Free Product None

**Physical appearance at sampling**

Color Clear  
 Odor None  
 Sheen/Free Product None

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

owflowlog



# Low Flow Ground Water Sampling Log

**U-VELLE, LLC**

Date: 5/17/23  
 Site Name: NJREG - Penn Yan  
 Site Location: Penn Yan, NY

Personnel: Joe Curran  
 Evacuation Method: Low Flow Bladder  
 Sampling Method: Low Flow Bladder

Weather: Overcast, 45°F  
 Well #: MW-2D  
 Project #: \_\_\_\_\_

**Well information:**

Depth of Well \* 38.2 ft.  
 Depth to Water \* 11.5 ft.  
 Length of Water Column 26.7 ft.

\* Measurements taken from

<input checked="" type="checkbox"/>	Top of Well Casing
<input type="checkbox"/>	Top of Protective Casing
<input type="checkbox"/>	(Other, Specify)

Start Purge Time: 10:40

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity (ns/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min.)
10:45	12.8	11.5	8.66	0.443	136.2	5.51	28.7	200
50	16.2	11.4	8.68	0.449	135.9	4.83	18.4	200
55	18.6	11.4	8.63	0.451	135	4.30	24.6	200
11:00	21.3	11.4	8.65	0.457	133	3.68	35.8	200
05	23.2	11.4	8.61	0.460	132	3.49	37.6	200
10	25.7	11.4	8.49	0.466	127.5	3.50	45.9	200
15	26.5	11.4	8.44	0.468	123	3.09	46.8	200
20	28.6	11.4	8.39	0.473	108.1	2.80	38.6	200
25	30.3	11.5	8.32	0.482	60.5	2.51	31.2	200
30	30.5	11.5	8.24	0.485	52.3	2.45	33	200
35	30.9	11.6	8.28	0.492	22.6	2.09	29.4	200
40	31.4	11.7	8.48	0.498	-31.9	0.67	27.8	200
45	31.7	11.7	8.50	0.498	-52.9	0.28	28	200
50	32.3	11.7	8.44	0.499	-70.6	0.24	26.6	200
55	32.6	11.8	8.23	0.508	-76	0.40	22.3	200
12:00	32.9	11.8	7.99	0.514	-74	0.36	13	200
05	33.3	11.8	7.90	0.519	-73.3	0.31	16.4	200
10	33.5	11.8	7.84	0.528	-73.1	0.32	18.2	200
15	33.7	11.7	7.78	0.534	-73.4	0.50	16.3	200
20	34	11.8	7.67	0.544	-69.5	0.30	11.33	200
25	34.2	11.8	7.59	0.549	-65.8	0.21	5.34	200
30	34.5	11.8	7.54	0.562	-65.2	0.11	21.4	200
35	34.6	11.8	7.45	0.623	-60.4	0.0	14.2	200
40	34.7	11.8	7.53	0.569	-64.1	0.0	16	200

End Purge Time: 12:40

Water sample:  
 Time collected: 12:45

Total volume of purged water removed: 23,000 mL

**Physical appearance at start**

Color: Clear  
 Odor: None  
 Sheen/Free Product: None

**Physical appearance at sampling**

Color: Clear  
 Odor: None  
 Sheen/Free Product: None

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH



# NEU-VELLE, LLC

# Low Flow Ground Water Sampling Log

Date: 5/14/23 Personnel: Joe Curran Weather: Overcast 1501-  
 Site Name: NISEG - Penn Twp Evacuation Method: Low Flow Bladder Well #: MW-25  
 Site Location: Penn Twp, NY Sampling Method: Low Flow Bladder Project #: \_\_\_\_\_

### Well information:

Depth of Well \* 13.6 ft.  
 Depth to Water \* 9 ft.  
 Length of Water Column 4.6 ft.

\* Measurements taken from

<input checked="" type="checkbox"/>	Top of Well Casing
<input type="checkbox"/>	Top of Protective Casing
<input type="checkbox"/>	(Other, Specify)

Start Purge Time: 13:30

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity ( $\mu$ S/cm )	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min).
13:35	9.4	9.9	7.29	1.29	113.5	4.86	51.8	200
40	9.5	9.7	7.25	1.35	102.6	5.25	11.9	200
45	9.6	9.7	7.23	1.34	109.2	4.54	6.08	200
50	9.6	9.7	7.23	1.33	112.8	4.28	8.03	200
55	9.6	9.6	7.21	1.32	118	4.09	4.86	200
14:00	9.6	9.7	7.21	1.30	121	4.06	4.14	200
05	9.6	9.7	7.20	1.28	123.4	3.87	5.74	200
10	9.6	9.6	7.20	1.28	126.5	3.75	4.95	200
15	9.6	9.6	7.19	1.27	129.5	3.63	5.66	200
20	9.6	9.6	7.20	1.27	131	3.53	4.97	200

End Purge Time: 14:20

Water sample:  
Time collected: 14:25

Total volume of purged water removed: 9,000 mL

### Physical appearance at start

Color: Clear  
 Odor: None  
 Sheen/Free Product: None

### Physical appearance at sampling

Color: Clear  
 Odor: None  
 Sheen/Free Product: None

### Analytical Parameters:

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH



**NEU-VELLE, LLC****Low Flow Ground Water Sampling Log**

Date 5/5/23 Personnel Joe Carter Weather Cloudy, 65°F  
 Site Name N75EG-Penn 7m Evacuation Method Low Flow Bladder Well # MV-6  
 Site Location Penn 7m, M7 Sampling Method Low Flow Bladder Project #           

**Well information:**

Depth of Well \* 29.9 ft.  
 Depth to Water \* 10.3 ft.  
 Length of Water Column 29.4 ft.

\* Measurements taken from  
 Top of Well Casing  
 Top of Protective Casing  
 (Other, Specify)           

Start Purge Time: 12:35

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity ( μs/cm )	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
12:40	11.3	10.8	7.58	0.506	114.9	5.15	48.1	200
45	14.7	10.8	7.59	0.505	124.7	4.50	16.5	200
50	16.6	10.7	7.60	0.506	122.8	4.55	7.02	200
55	20.1	10.6	7.60	0.506	132	4.40	3.82	200
13:00	21.9	10.6	7.60	0.506	133.6	4.29	2.61	200
05	25.3	10.6	7.60	0.506	135.9	4.26	2.56	200
10	26.9	10.5	7.61	0.506	137.1	4.43	2.45	200
15	30.2	10.5	7.61	0.506	138.5	4.18	2.61	200
20	30.2	10.6	7.60	0.507	139.2	3.96	3.22	200
25	30.5	10.7	7.60	0.508	139.5	2.96	2.77	200
30	31.3	10.8	7.57	0.511	138.5	1.28	4.14	200
35	32	10.9	7.55	0.513	136.8	0.54	3.60	200
40	32.6	10.9	7.54	0.514	136.4	0.85	3.57	200
45	33.3	11	7.54	0.514	134.4	0.42	3.53	200
50	34	11	7.55	0.514	132.3	0.24	3.28	200
55	34.5	11	7.55	0.509	130.2	0.13	3.23	200
14:00	35.3	11	7.55	0.500	120.1	0.15	2.53	200
05	35.8	11.1	7.55	0.495	111.1	0.08	3.30	200
10	36	11.2	7.54	0.494	109.0	0.09	3.56	200
15	36.5	11.1	7.55	0.496	108.8	0.74	3.32	200
20	36.8	11.1	7.55	0.496	108.9	0.70	3.58	200
25	37.1	11.1	7.56	0.495	109.4	0.64	3.62	200
30	37.4	11.1	7.55	0.494	109.5	0.49	3.64	200

End Purge Time: 14:30

Water sample:

Time collected: 14:35Total volume of purged water removed: 22,000 L

Physical appearance at start

Color ClearOdor NoneSheen/Free Product None

Physical appearance at sampling

Color ClearOdor NoneSheen/Free Product None**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

lowflowlog



**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date 5/5/23 Personnel Joe C Weather Cloudy, 65°F  
 Site Name NJSEG-Penn Yan Evacuation Method Low Flow Bladder Well # MW-5  
 Site Location Penn Yan, NY Sampling Method Low Flow Bladder Project # \_\_\_\_\_

**Well information:**

Depth of Well \* 26.8 ft.  
 Depth to Water \* 7.6 ft.  
 Length of Water Column \_\_\_\_\_ ft.

\* Measurements taken from

Top of Well Casing  
 Top of Protective Casing  
 (Other, Specify)

Start Purge Time: 15:25

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity (ns/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
15:30	9.8	11.7	7.18	0.83	-17.5	0.35	680	200
35	12.1	11.5	7.16	0.83	-9.9	0.05	75	200
40	13.7	11.4	7.16	0.83	-8.5	0.0	66	200
45	15.4	11.3	7.13	0.83	0.2	0.0	+	200
50	15.4	11.3	7.05	0.84	-23.1	0.03	67	200
55	15.4	11.2	7.05	0.85	-7	0.29	29	200
16:00	15.4	11.2	7.21	0.87	3.7	2.65	14.2	200
05	15.7	11.1	7.34	0.88	13.4	3.00	11.2	200
10	16.3	11.3	7.40	0.89	23.2	3.51	10.18	200
15	17	11.2	7.41	0.88	5.6	1.26	11.2	200
20	17.4	11.3	7.37	0.86	-13	0.65	10.16	200
25	17.8	11.4	7.38	0.85	-17.2	0.35	11.4	200
30	18.6	11.4	7.42	0.83	-20.5	1.10	10.25	200
35	19	11.3	7.46	0.82	-18.6	0.22	11.8	200
40	19.3	11.3	7.46	0.82	-12	0.13	10.3	200
45	19.9	11.3	7.44	0.81	-4.9	0.13	11.6	200
50	20.7	11.3	7.45	0.79	-1	0.14	10.63	200
55	21.4	11.4	7.38	0.80	-32.8	0.09	11.22	200
17:00	21.8	11.2	7.34	0.80	-42.5	0.13	10.8	200
05	22.1	11.2	7.26	0.80	-44.3	0.30	11.7	200
10	22.7	11.2	7.38	0.81	-39	0.23	10.73	200
15	23.1	11.2	7.35	0.80	-28.9	0.23	11.63	200
20	23.2	11.2	7.39	0.79	-26.1	0.25	10.76	200

End Purge Time: 17:20

**Water sample:**

Time collected: 17:25 Total volume of purged water removed: 22,000 mL

**Physical appearance at start**

Color Light Brown  
 Odor None  
 Sheen/Free Product None

**Physical appearance at sampling**

Color Clear  
 Odor None  
 Sheen/Free Product None

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH



**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date 5/8/23 Personnel Jae Weather Sunny 65°F  
 Site Name NJEG-Pan 7m Evacuation Method Low Flow Bladder Well # NW-3A  
 Site Location Pan 7m, NJ Sampling Method Low Flow Bladder Project # \_\_\_\_\_

**Well information:**

Depth of Well \* 23.2 ft.  
 Depth to Water \* 11.6 ft.  
 Length of Water Column 11.6 ft.

\* Measurements taken from  
 Top of Well Casing  
 Top of Protective Casing  
 (Other, Specify)

Start Purge Time: 10:55

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity (µm/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min)
10:00	12.8	10.5	7.34	0.79	105.9	0.51	+	200
05	12.9	10.7	7.34	0.73	100	0.10	+	200
10	12.9	10.6	7.38	0.689	50.1	0.00	+	200
15	12.9	10.5	7.39	0.77	18.5	0.00	+	200
20	12.9	10.6	7.40	0.78	3.5	0.00	+	200
25	12.9	10.7	7.41	0.681	-14.2	0.00	+	200
30	12.9	10.6	7.42	0.629	-22	0.00	+	200
35	12.9	10.7	7.42	0.573	-29.8	0.00	+	200
40	12.9	10.6	7.38	0.557	-26	0.00	+	200
45	12.9	10.8	7.41	0.72	-31.1	0.00	+	200
50	12.9	10.7	7.45	0.69	-36.1	0.00	+	200
55	12.9	10.6	7.41	0.77	-30.8	0.00	+	200
11:00	12.9	10.7	7.42	0.73	-30.8	0.05	22.94	200
05	12.9	10.6	7.40	0.681	-29.2	0.00	23.69	200
10	12.9	10.7	7.41	0.80	-38.9	0.00	+	200
15	12.9	10.6	7.43	0.83	-40	0.00	+	200
20	12.9	10.6	7.46	0.81	-28.2	0.00	+	200
25	12.9	10.7	7.46	0.78	-38.1	0.00	+	200
30	12.9	10.7	7.46	0.71	-42.9	0.00	+	200
35	12.9	10.7	7.42	0.671	-42	0.00	+	200
40	12.9	10.7	7.46	0.623	-49.9	0.00	+	200
45	12.9	10.7	7.47	0.604	-52	0.00	+	200
50	12.9	10.8	7.50	0.585	-41.6	0.00	31.25 22.58	200 200

End Purge Time: \_\_\_\_\_

Water sample:  
 Time collected: \_\_\_\_\_

Total volume of purged water removed: \_\_\_\_\_

Physical appearance at start  
 Color Grey  
 Odor None  
 Sheen/Free Product None

Physical appearance at sampling  
 Color \_\_\_\_\_  
 Odor \_\_\_\_\_  
 Sheen/Free Product \_\_\_\_\_

*Constant high turbidity, no evidence of improving level throughout purge*

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH



**NEU-VELLE, LLC**

**Low Flow Ground Water Sampling Log**

Date 5/8/23 Personnel Joe C Weather Sunny, 65°F  
 Site Name MUSEG-Penn 7m Evacuation Method Low Flow Bladder Well # MW-3A  
 Site Location Penn 7m, NY Sampling Method Low Flow Bladder Project # \_\_\_\_\_

**Well information:**  
 Depth of Well \* 23.2 ft.  
 Depth to Water \* 11.6 ft.  
 Length of Water Column 11.6 ft.  
 \* Measurements taken from  
 Top of Well Casing  
 Top of Protective Casing  
 (Other, Specify)

Start Purge Time: \_\_\_\_\_

Elapsed Time ( )	Depth To Water ( )	Temperature ( )	pH	Conductivity ( )	Oxidation Reduction Potential	Dissolved Oxygen (mg/l)	Turbidity (NTU)	Flow Rate (ml/min).
12:55	12.9	11.3	7.49	0.597	-55	0.6	1752	200
13:00	12.9	11.2	7.50	0.570	-57.1	0.0	1776	200
05	12.9	11.0	7.51	0.569	-57.3	0.0	1782	200
10	12.9	10.9	7.51	0.568	-57.9	0.0	1799	200
15	12.9	10.9	7.51	0.565	-59.1	0.0	1631	200
20	12.9	11.2	7.52	0.575	-60.2	0.0	1516	200
25	12.9	11.3	7.52	0.571	-61.2	0.0	1438	200
30	12.9	11.7	7.53	0.567	-62.2	0.0	1369	200

End Purge Time: 13:30  
 Water sample: \_\_\_\_\_  
 Time collected: 13:35 Total volume of purged water removed: 30,000mL

Physical appearance at start	Physical appearance at sampling
Color <u>Grey</u>	Color <u>Grey</u>
Odor <u>None</u>	Odor <u>None</u>
Sheen/Free Product <u>None</u>	Sheen/Free Product <u>None</u>

Sampled @ high turbidity

**Analytical Parameters:**

Container Size	Container Type	# Collected	Field Filtered	Preservative	Container pH

owflowlog

**Exhibit A**

**Groundwater Laboratory Reports and Chain of Custody Forms**





## ANALYTICAL REPORT

Lab Number:	L2324157
Client:	NEU-VELLE Inc 10 Jones Avenue Rochester, NY 14608
ATTN:	Logan Reid
Phone:	(585) 478-3167
Project Name:	PENN YANN JACKSON ST FRMR MGP
Project Number:	2023080
Report Date:	05/18/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2324157-01	MW-4D-042823	WATER	PENN YANN , NY	04/28/23 13:25	05/03/23
L2324157-02	MW-4S-042823	WATER	PENN YANN , NY	04/28/23 13:50	05/03/23
L2324157-03	DUP-042823	WATER	PENN YANN , NY	04/28/23 16:20	05/03/23
L2324157-04	TRIP BLANK	WATER	PENN YANN , NY	04/28/23 00:00	05/03/23

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Volatile Organics

L2324157-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Ashaley Moynihan

Title: Technical Director/Representative

Date: 05/18/23

# ORGANICS

# VOLATILES

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

Lab ID: L2324157-01  
 Client ID: MW-4D-042823  
 Sample Location: PENN YANN , NY

Date Collected: 04/28/23 13:25  
 Date Received: 05/03/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/10/23 00:04  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	113		70-130

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

Lab ID: L2324157-02 D  
 Client ID: MW-4S-042823  
 Sample Location: PENN YANN , NY

Date Collected: 04/28/23 13:50  
 Date Received: 05/03/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/09/23 23:43  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
Benzene	380		ug/l	5.0	1.6	10
Toluene	22	J	ug/l	25	7.0	10
Ethylbenzene	110		ug/l	25	7.0	10
p/m-Xylene	130		ug/l	25	7.0	10
o-Xylene	100		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

Lab ID: L2324157-03  
 Client ID: DUP-042823  
 Sample Location: PENN YANN , NY

Date Collected: 04/28/23 16:20  
 Date Received: 05/03/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/09/23 23:22  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	114		70-130

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

Lab ID: L2324157-04  
 Client ID: TRIP BLANK  
 Sample Location: PENN YANN , NY

Date Collected: 04/28/23 00:00  
 Date Received: 05/03/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/09/23 23:01  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	112		70-130

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260D  
Analytical Date: 05/09/23 21:38  
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1777208-5					
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	114		70-130



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YANN JACKSON ST FRMR MGP

**Lab Number:** L2324157

**Project Number:** 2023080

**Report Date:** 05/18/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1777208-3 WG1777208-4								
Benzene	87		87		70-130	0		20
Toluene	88		85		70-130	3		20
Ethylbenzene	87		85		70-130	2		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		85		70-130	6		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	98		97		70-130

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1777208-6 WG1777208-7 QC Sample: L2324157-01 Client ID: MW-4D-042823												
Benzene	ND	10	9.5	95		9.5	95		70-130	0		20
Toluene	ND	10	9.2	92		9.4	94		70-130	2		20
Ethylbenzene	ND	10	9.3	93		9.5	95		70-130	2		20
p/m-Xylene	ND	20	19	95		20	100		70-130	5		20
o-Xylene	ND	20	19	95		20	100		70-130	5		20

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	100		101		70-130
4-Bromofluorobenzene	95		101		70-130
Dibromofluoromethane	101		100		70-130
Toluene-d8	98		101		70-130

# SEMIVOLATILES

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

**Lab ID:** L2324157-01  
**Client ID:** MW-4D-042823  
**Sample Location:** PENN YANN , NY

**Date Collected:** 04/28/23 13:25  
**Date Received:** 05/03/23  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270E-SIM  
**Analytical Date:** 05/08/23 20:47  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 05/05/23 09:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.15		ug/l	0.10	0.02	1
Naphthalene	0.47		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.11		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.14		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.11		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.09	J	ug/l	0.10	0.01	1
Acenaphthylene	0.07	J	ug/l	0.10	0.01	1
Anthracene	0.08	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.07	J	ug/l	0.10	0.01	1
Fluorene	0.04	J	ug/l	0.10	0.01	1
Phenanthrene	0.24		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.01	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.06	J	ug/l	0.10	0.01	1
Pyrene	0.22		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.09	J	ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	71		15-120
4-Terphenyl-d14	61		41-149

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

Lab ID: L2324157-02 D2  
 Client ID: MW-4S-042823  
 Sample Location: PENN YANN , NY

Date Collected: 04/28/23 13:50  
 Date Received: 05/03/23  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/17/23 17:06  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 05/05/23 09:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	1400		ug/l	5.0	2.4	50

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

Lab ID: L2324157-02 D  
 Client ID: MW-4S-042823  
 Sample Location: PENN YANN , NY

Date Collected: 04/28/23 13:50  
 Date Received: 05/03/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/17/23 16:40  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 05/05/23 09:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	5.0		ug/l	1.0	0.14	10
2-Chloronaphthalene	ND		ug/l	2.0	0.18	10
Fluoranthene	1.7		ug/l	1.0	0.20	10
Naphthalene	1300	E	ug/l	1.0	0.49	10
Benzo(a)anthracene	0.45	J	ug/l	1.0	0.20	10
Benzo(a)pyrene	0.25	J	ug/l	1.0	0.15	10
Benzo(b)fluoranthene	0.20	J	ug/l	1.0	0.12	10
Benzo(k)fluoranthene	0.09	J	ug/l	1.0	0.09	10
Chrysene	0.23	J	ug/l	1.0	0.12	10
Acenaphthylene	35		ug/l	1.0	0.12	10
Anthracene	3.2		ug/l	1.0	0.14	10
Benzo(ghi)perylene	ND		ug/l	1.0	0.14	10
Fluorene	8.0		ug/l	1.0	0.14	10
Phenanthrene	8.4		ug/l	1.0	0.23	10
Dibenzo(a,h)anthracene	ND		ug/l	1.0	0.13	10
Indeno(1,2,3-cd)pyrene	ND		ug/l	1.0	0.12	10
Pyrene	1.6		ug/l	1.0	0.19	10
2-Methylnaphthalene	74		ug/l	1.0	0.22	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	96		23-120
2-Fluorobiphenyl	81		15-120
4-Terphenyl-d14	84		41-149

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

**Lab ID:** L2324157-03  
**Client ID:** DUP-042823  
**Sample Location:** PENN YANN , NY

**Date Collected:** 04/28/23 16:20  
**Date Received:** 05/03/23  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270E-SIM  
**Analytical Date:** 05/08/23 20:31  
**Analyst:** DV

**Extraction Method:** EPA 3510C  
**Extraction Date:** 05/05/23 09:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	0.02	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.26		ug/l	0.10	0.02	1
Naphthalene	0.56		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.18		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.24		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.18		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.05	J	ug/l	0.10	0.01	1
Chrysene	0.15		ug/l	0.10	0.01	1
Acenaphthylene	0.11		ug/l	0.10	0.01	1
Anthracene	0.13		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.12		ug/l	0.10	0.01	1
Fluorene	0.08	J	ug/l	0.10	0.01	1
Phenanthrene	0.39		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.09	J	ug/l	0.10	0.01	1
Pyrene	0.37		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.13		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	77		15-120
4-Terphenyl-d14	58		41-149

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270E-SIM  
Analytical Date: 05/08/23 19:42  
Analyst: DV

Extraction Method: EPA 3510C  
Extraction Date: 05/05/23 09:37

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG1775194-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Naphthalene	0.05	J	ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	0.02	J	ug/l	0.10	0.01
Phenanthrene	0.04	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	102		23-120
2-Fluorobiphenyl	80		15-120
4-Terphenyl-d14	76		41-149



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YANN JACKSON ST FRMR MGP

**Lab Number:** L2324157

**Project Number:** 2023080

**Report Date:** 05/18/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1775194-2 WG1775194-3								
Acenaphthene	70		65		40-140	7		40
2-Chloronaphthalene	69		65		40-140	6		40
Fluoranthene	77		70		40-140	10		40
Naphthalene	65		62		40-140	5		40
Benzo(a)anthracene	86		80		40-140	7		40
Benzo(a)pyrene	87		81		40-140	7		40
Benzo(b)fluoranthene	82		77		40-140	6		40
Benzo(k)fluoranthene	85		78		40-140	9		40
Chrysene	78		71		40-140	9		40
Acenaphthylene	78		74		40-140	5		40
Anthracene	77		71		40-140	8		40
Benzo(ghi)perylene	76		72		40-140	5		40
Fluorene	75		70		40-140	7		40
Phenanthrene	70		65		40-140	7		40
Dibenzo(a,h)anthracene	74		70		40-140	6		40
Indeno(1,2,3-cd)pyrene	76		71		40-140	7		40
Pyrene	75		68		40-140	10		40
2-Methylnaphthalene	73		69		40-140	6		40

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YANN JACKSON ST FRMR MGP

**Lab Number:** L2324157

**Project Number:** 2023080

**Report Date:** 05/18/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG1775194-2 WG1775194-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	89		87		23-120
2-Fluorobiphenyl	70		66		15-120
4-Terphenyl-d14	69		63		41-149

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1775194-4 WG1775194-5 QC Sample: L2324157-01 Client ID: MW-4D-042823												
Acenaphthene	ND	18.2	14	77		15	83		40-140	7		40
2-Chloronaphthalene	ND	18.2	13	72		14	77		40-140	0		40
Fluoranthene	0.15	18.2	17	93		17	93		40-140	13		40
Naphthalene	0.47	18.2	14	74		15	80		40-140	7		40
Benzo(a)anthracene	0.11	18.2	15	82		18	98		40-140	25		40
Benzo(a)pyrene	0.14	18.2	12	65		15	82		40-140	31		40
Benzo(b)fluoranthene	0.11	18.2	12	65		13	71		40-140	17		40
Benzo(k)fluoranthene	0.03J	18.2	11	61		13	72		40-140	17		40
Chrysene	0.09J	18.2	14	77		16	88		40-140	21		40
Acenaphthylene	0.07J	18.2	16	88		18	99		40-140	18		40
Anthracene	0.08J	18.2	16	88		17	94		40-140	13		40
Benzo(ghi)perylene	0.07J	18.2	6.4	35	Q	6.8	37	Q	40-140	29		40
Fluorene	0.04J	18.2	15	83		16	88		40-140	13		40
Phenanthrene	0.24	18.2	15	81		16	87		40-140	13		40
Dibenzo(a,h)anthracene	0.01J	18.2	7.0	39	Q	7.7	42		40-140	35		40
Indeno(1,2,3-cd)pyrene	0.06J	18.2	7.0	39	Q	7.6	42		40-140	39		40
Pyrene	0.22	18.2	16	87		17	92		40-140	13		40
2-Methylnaphthalene	0.09J	18.2	15	83		16	88		40-140	13		40

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
2-Fluorobiphenyl	79		85		15-120
4-Terphenyl-d14	84		90		41-149

### Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** PENN YANN JACKSON ST FRMR MGP

**Lab Number:** L2324157

**Project Number:** 2023080

**Report Date:** 05/18/23

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1775194-4 WG1775194-5 QC Sample: L2324157-01  
 Client ID: MW-4D-042823

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>	
Nitrobenzene-d5	96		104		23-120

# **INORGANICS & MISCELLANEOUS**

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

**Lab ID:** L2324157-01  
**Client ID:** MW-4D-042823  
**Sample Location:** PENN YANN , NY

**Date Collected:** 04/28/23 13:25  
**Date Received:** 05/03/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	05/08/23 03:00	05/08/23 18:24	1,9010C/9012B	JER





**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

**Lab ID:** L2324157-02  
**Client ID:** MW-4S-042823  
**Sample Location:** PENN YANN , NY

**Date Collected:** 04/28/23 13:50  
**Date Received:** 05/03/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	2.05		mg/l	0.025	0.009	5	05/08/23 03:00	05/08/23 18:51	1,9010C/9012B	JER



**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

**SAMPLE RESULTS**

**Lab ID:** L2324157-03  
**Client ID:** DUP-042823  
**Sample Location:** PENN YANN , NY

**Date Collected:** 04/28/23 16:20  
**Date Received:** 05/03/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/09/23 03:00	05/10/23 13:44	1,9010C/9012B	JER



Project Name: PENN YANN JACKSON ST FRMR MGF

Lab Number: L2324157

Project Number: 2023080

Report Date: 05/18/23

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1775958-1										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	05/08/23 03:00	05/08/23 18:07	1,9010C/9012B	JER
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1776444-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/09/23 03:00	05/10/23 13:36	1,9010C/9012B	JER

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1775958-2 WG1775958-3								
Cyanide, Total	104		98		85-115	6		20
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1776444-2 WG1776444-3								
Cyanide, Total	91		96		85-115	5		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1775958-4 WG1775958-5 QC Sample: L2324157-01 Client ID: MW-4D-042823									
Cyanide, Total	0.003J	0.2	0.222	111	0.219	110	80-120	1	20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1776444-4 WG1776444-5 QC Sample: L2324970-02 Client ID: MS Sample									
Cyanide, Total	ND	0.2	0.210	105	0.210	105	80-120	0	20

**Project Name:** PENN YANN JACKSON ST FRMR MGP**Lab Number:** L2324157**Project Number:** 2023080**Report Date:** 05/18/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2324157-01A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01A1	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01A2	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01B1	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01B2	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01C1	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01C2	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-01D	Plastic 250ml NaOH preserved	A	>12	>12	2.8	Y	Absent		TCN-9010(14)
L2324157-01D1	Plastic 250ml NaOH preserved	A	>12	>12	2.8	Y	Absent		TCN-9010(14)
L2324157-01D2	Plastic 250ml NaOH preserved	A	>12	>12	2.8	Y	Absent		TCN-9010(14)
L2324157-01E	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-01E1	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-01E2	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-01F	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-01F1	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-01F2	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-02A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-02B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-02C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-02D	Plastic 250ml NaOH preserved	A	>12	>12	2.8	Y	Absent		TCN-9010(14)
L2324157-02E	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)

**Project Name:** PENN YANN JACKSON ST FRMR MGP**Lab Number:** L2324157**Project Number:** 2023080**Report Date:** 05/18/23**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2324157-02F	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-03A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-03B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-03C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-03D	Plastic 250ml NaOH preserved	A	>12	>12	2.8	Y	Absent		TCN-9010(14)
L2324157-03E	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-03F	Amber 250ml unpreserved	A	7	7	2.8	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324157-04A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)
L2324157-04B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-BTEX(14)



**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
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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



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### 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.

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**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.

**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.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



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#### **Data Qualifiers**

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- 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.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



**Project Name:** PENN YANN JACKSON ST FRMR MGP  
**Project Number:** 2023080

**Lab Number:** L2324157  
**Report Date:** 05/18/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



 <b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	5/4/23	ALPHA Job # 2324157		
		of					
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables		Billing Information	
<b>Client Information</b> Client: <u>Nov-velle LLC</u> Address: <u>10 Joes Ave</u> <u>Kaleska NY 14608</u> Phone: <u>585-478-3167</u> Fax: _____ Email: <u>lrcid@nov-velle.com</u>		Project Name: <u>Penn Yarn Jackson Street Frm MGP</u> Project Location: <u>Penn Yarn, NY</u> Project # <u>2023080</u> (Use Project name as Project #) <input type="checkbox"/>		<input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<input type="checkbox"/> Same as Client Info PO # _____	
Project Manager: <u>Logan Reid</u> ALPHAQuote #: _____ Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____		<input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ 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: _____			
These samples have been previously analyzed by Alpha <input type="checkbox"/>		Other project specific requirements/comments: <u>Sampled 4/28/23, turned in day 4 of 7 day hold</u>		ANALYSIS <u>NYTCL-8160-BTEX</u> <u>NYTCL-PAH/DM-LVI</u> <u>TCLN</u>		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)	
Please specify Metals or TAL.		ALPHA Lab ID (Lab Use Only)      Sample ID      Collection (Date, Time)      Sample Matrix      Sampler's Initials		Sample Specific Comments		Total Bottles	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative	
Relinquished By: _____ Date/Time: _____		Received By: _____ Date/Time: _____		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS AND CONDITIONS. (See reverse side.)			
<u>Logan Reid</u> 5/13/23 @ 10:30		<u>Belinda Seng Seng</u> 5/3/23 1300		<u>Belinda Seng Seng</u> 5/3/23 1300		<u>Logan Reid</u> 5/10/23	



## ANALYTICAL REPORT

Lab Number:	L2324872
Client:	NEU-VELLE Inc 10 Jones Avenue Rochester, NY 14608
ATTN:	Logan Reid
Phone:	(585) 478-3167
Project Name:	PENN YAN FORMER MGP SITE
Project Number:	2023080
Report Date:	05/19/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2324872-01	MW-1-050323	WATER	PENN YAN, NY	05/03/23 17:00	05/05/23
L2324872-02	MW-2D-050423	WATER	PENN YAN, NY	05/04/23 12:45	05/05/23
L2324872-03	MW-2S-050423	WATER	PENN YAN, NY	05/04/23 14:25	05/05/23
L2324872-04	EQUIPMENT BLANK	WATER	PENN YAN, NY	05/04/23 13:02	05/05/23
L2324872-05	TRIP BLANK	WATER	PENN YAN, NY	05/05/23 09:00	05/05/23

**Project Name:** PENN YAN FORMER MGP SITE**Lab Number:** L2324872**Project Number:** 2023080**Report Date:** 05/19/23

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Kelly O'Neill

Title: Technical Director/Representative

Date: 05/19/23

# ORGANICS

# VOLATILES



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-01  
 Client ID: MW-1-050323  
 Sample Location: PENN YAN, NY

Date Collected: 05/03/23 17:00  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/15/23 11:43  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	5.4		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-02  
 Client ID: MW-2D-050423  
 Sample Location: PENN YAN, NY

Date Collected: 05/04/23 12:45  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/15/23 12:04  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	98		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-03  
 Client ID: MW-2S-050423  
 Sample Location: PENN YAN, NY

Date Collected: 05/04/23 14:25  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/15/23 12:26  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	107		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-04  
 Client ID: EQUIPMENT BLANK  
 Sample Location: PENN YAN, NY

Date Collected: 05/04/23 13:02  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/15/23 12:48  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	108		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-05  
 Client ID: TRIP BLANK  
 Sample Location: PENN YAN, NY

Date Collected: 05/05/23 09:00  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/15/23 13:10  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260D  
Analytical Date: 05/15/23 05:36  
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1779333-5					
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Project Number:** 2023080

**Lab Number:** L2324872

**Report Date:** 05/19/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1779333-3 WG1779333-4								
Benzene	99		100		70-130	1		20
Toluene	93		99		70-130	6		20
Ethylbenzene	96		97		70-130	1		20
p/m-Xylene	90		95		70-130	5		20
o-Xylene	95		95		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		108		70-130
Toluene-d8	99		102		70-130
4-Bromofluorobenzene	99		100		70-130
Dibromofluoromethane	100		98		70-130

# SEMIVOLATILES

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-01  
 Client ID: MW-1-050323  
 Sample Location: PENN YAN, NY

Date Collected: 05/03/23 17:00  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/10/23 17:11  
 Analyst: JJW

Extraction Method: EPA 3510C  
 Extraction Date: 05/09/23 07:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Naphthalene	0.19		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	74		15-120
4-Terphenyl-d14	77		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-02  
 Client ID: MW-2D-050423  
 Sample Location: PENN YAN, NY

Date Collected: 05/04/23 12:45  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/11/23 18:33  
 Analyst: AH

Extraction Method: EPA 3510C  
 Extraction Date: 05/10/23 08:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	74		15-120
4-Terphenyl-d14	76		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-03  
 Client ID: MW-2S-050423  
 Sample Location: PENN YAN, NY

Date Collected: 05/04/23 14:25  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/11/23 18:50  
 Analyst: AH

Extraction Method: EPA 3510C  
 Extraction Date: 05/10/23 08:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.03	J	ug/l	0.10	0.02	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.02	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	69		15-120
4-Terphenyl-d14	79		41-149



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

Lab ID: L2324872-04  
 Client ID: EQUIPMENT BLANK  
 Sample Location: PENN YAN, NY

Date Collected: 05/04/23 13:02  
 Date Received: 05/05/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/11/23 19:06  
 Analyst: AH

Extraction Method: EPA 3510C  
 Extraction Date: 05/10/23 08:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	74		15-120
4-Terphenyl-d14	87		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270E-SIM  
Analytical Date: 05/10/23 16:55  
Analyst: JJW

Extraction Method: EPA 3510C  
Extraction Date: 05/09/23 07:35

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1776530-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	69		15-120
4-Terphenyl-d14	75		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E-SIM  
Analytical Date: 05/11/23 18:17  
Analyst: DV

Extraction Method: EPA 3510C  
Extraction Date: 05/10/23 08:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02-04 Batch: WG1777123-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	68		15-120
4-Terphenyl-d14	76		41-149

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Lab Number:** L2324872

**Project Number:** 2023080

**Report Date:** 05/19/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1776530-2 WG1776530-3								
Acenaphthene	69		66		40-140	4		40
2-Chloronaphthalene	70		68		40-140	3		40
Fluoranthene	76		70		40-140	8		40
Naphthalene	64		62		40-140	3		40
Benzo(a)anthracene	76		72		40-140	5		40
Benzo(a)pyrene	78		75		40-140	4		40
Benzo(b)fluoranthene	72		70		40-140	3		40
Benzo(k)fluoranthene	80		78		40-140	3		40
Chrysene	72		67		40-140	7		40
Acenaphthylene	76		72		40-140	5		40
Anthracene	74		70		40-140	6		40
Benzo(ghi)perylene	70		68		40-140	3		40
Fluorene	74		71		40-140	4		40
Phenanthrene	70		65		40-140	7		40
Dibenzo(a,h)anthracene	73		70		40-140	4		40
Indeno(1,2,3-cd)pyrene	67		64		40-140	5		40
Pyrene	76		71		40-140	7		40
2-Methylnaphthalene	69		67		40-140	3		40

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Project Number:** 2023080

**Lab Number:** L2324872

**Report Date:** 05/19/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1776530-2 WG1776530-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	75		76		23-120
2-Fluorobiphenyl	69		66		15-120
4-Terphenyl-d14	73		70		41-149

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Lab Number:** L2324872

**Project Number:** 2023080

**Report Date:** 05/19/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02-04 Batch: WG1777123-2 WG1777123-3								
Acenaphthene	70		69		40-140	1		40
2-Chloronaphthalene	76		74		40-140	3		40
Fluoranthene	78		77		40-140	1		40
Naphthalene	68		66		40-140	3		40
Benzo(a)anthracene	76		77		40-140	1		40
Benzo(a)pyrene	78		77		40-140	1		40
Benzo(b)fluoranthene	75		75		40-140	0		40
Benzo(k)fluoranthene	76		75		40-140	1		40
Chrysene	72		70		40-140	3		40
Acenaphthylene	81		81		40-140	0		40
Anthracene	72		71		40-140	1		40
Benzo(ghi)perylene	72		72		40-140	0		40
Fluorene	76		75		40-140	1		40
Phenanthrene	67		66		40-140	2		40
Dibenzo(a,h)anthracene	73		73		40-140	0		40
Indeno(1,2,3-cd)pyrene	69		68		40-140	1		40
Pyrene	79		76		40-140	4		40
2-Methylnaphthalene	75		72		40-140	4		40



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Project Number:** 2023080

**Lab Number:** L2324872

**Report Date:** 05/19/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02-04 Batch: WG1777123-2 WG1777123-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	80		78		23-120
2-Fluorobiphenyl	72		71		15-120
4-Terphenyl-d14	77		77		41-149

# **INORGANICS & MISCELLANEOUS**

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

**Lab ID:** L2324872-01  
**Client ID:** MW-1-050323  
**Sample Location:** PENN YAN, NY

**Date Collected:** 05/03/23 17:00  
**Date Received:** 05/05/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/13/23 13:00	05/15/23 15:39	1,9010C/9012B	JER



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

**Lab ID:** L2324872-02  
**Client ID:** MW-2D-050423  
**Sample Location:** PENN YAN, NY

**Date Collected:** 05/04/23 12:45  
**Date Received:** 05/05/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 13:01	1,9010C/9012B	JER



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

**Lab ID:** L2324872-03  
**Client ID:** MW-2S-050423  
**Sample Location:** PENN YAN, NY

**Date Collected:** 05/04/23 14:25  
**Date Received:** 05/05/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 13:02	1,9010C/9012B	JER



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

**SAMPLE RESULTS**

**Lab ID:** L2324872-04  
**Client ID:** EQUIPMENT BLANK  
**Sample Location:** PENN YAN, NY

**Date Collected:** 05/04/23 13:02  
**Date Received:** 05/05/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 13:03	1,9010C/9012B	JER



Project Name: PENN YAN FORMER MGP SITE

Lab Number: L2324872

Project Number: 2023080

Report Date: 05/19/23

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1778604-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	05/13/23 13:00	05/15/23 15:29	1,9010C/9012B	JER
General Chemistry - Westborough Lab for sample(s): 02-04 Batch: WG1778857-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 12:53	1,9010C/9012B	JER



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1778604-2 WG1778604-3								
Cyanide, Total	99		100		85-115	1		20
General Chemistry - Westborough Lab Associated sample(s): 02-04 Batch: WG1778857-2 WG1778857-3								
Cyanide, Total	90		96		85-115	6		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1778604-4 WG1778604-5 QC Sample: L2324260-03 Client ID: MS Sample												
Cyanide, Total	ND	0.2	ND	0	Q	0.008	5	Q	80-120	NC		20
General Chemistry - Westborough Lab Associated sample(s): 02-04 QC Batch ID: WG1778857-4 WG1778857-5 QC Sample: L2325061-01 Client ID: MS Sample												
Cyanide, Total	0.001J	0.2	0.210	105		0.208	104		80-120	1		20

**Project Name:** PENN YAN FORMER MGP SITE**Lab Number:** L2324872**Project Number:** 2023080**Report Date:** 05/19/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2324872-01A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-01B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-01C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-01D	Plastic 250ml NaOH preserved	A	>12	>12	3.9	Y	Absent		TCN-9010(14)
L2324872-01E	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-01F	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-02A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-02B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-02C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-02D	Plastic 250ml NaOH preserved	A	>12	>12	3.9	Y	Absent		TCN-9010(14)
L2324872-02E	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-02F	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-03A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-03B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-03C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-03D	Plastic 250ml NaOH preserved	A	>12	>12	3.9	Y	Absent		TCN-9010(14)
L2324872-03E	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-03F	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-04A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-04B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-04C	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-04D	Plastic 250ml NaOH preserved	A	>12	>12	3.9	Y	Absent		TCN-9010(14)
L2324872-04E	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

Serial\_No:05192313:28  
**Lab Number:** L2324872  
**Report Date:** 05/19/23

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2324872-04F	Amber 250ml unpreserved	A	7	7	3.9	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2324872-05A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)
L2324872-05B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260-BTEX(14)

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

## 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:** PENN YAN FORMER MGP SITE  
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### 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.

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**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.

**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.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** PENN YAN FORMER MGP SITE  
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#### **Data Qualifiers**

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- 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.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers





**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2324872  
**Report Date:** 05/19/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

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The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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For a complete listing of analytes and methods, please contact your Alpha Project Manager.



**NEW YORK CHAIN OF CUSTODY**

Westborough, MA 01581  
8 Walkup Dr.  
TEL: 508-898-9220  
FAX: 508-898-9193

**Service Centers**  
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5  
Albany, NY 12205: 14 Walker Way  
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page  
of

Date Rec'd in Lab  
**5/06/23**

ALPHA Job #  
**232487J**

**Client Information**

Client: *New-velle LLC*  
Address: *10 Jones Ave  
Rochester NY 14608*  
Phone: *585-478-3167*  
Fax:   
Email: *l.reid@new-velle.com*

**Project Information**

Project Name: *Penn Yan Former MGP Site*  
Project Location: *Penn Yan, NY*  
Project # *2023080*  
(Use Project name as Project #)   
Project Manager: *Loren Reid*  
ALPHAQuote #:   
Turn-Around Time  
Standard  Due Date:   
Rush (only if pre approved)  # of Days:   
These samples have been previously analyzed by Alpha

**Deliverables**

ASP-A  ASP-B  
 EQUIS (1 File)  EQUIS (4 File)  
 Other  
**Regulatory Requirement**  
 NY TOGS  NY Part 375  
 AWQ Standards  NY CP-51  
 NY Restricted Use  Other  
 NY Unrestricted Use  
 NYC Sewer Discharge

**Billing Information**

Same as Client Info  
PO #  
**Disposal Site Information**  
Please identify below location of applicable disposal facilities.  
Disposal Facility:  
 NJ  NY  
 Other:

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS						Sample Specific Comments	Total Bottles	
		Date	Time			BTEX 8260	PAHs 8270	Total Cyanide						
2487J-01	MW-1 050323	5/13/23	17:00	GW	JL	x	x	x						
-02	MW 2D - 050423	5/14/23	12:45	GW	JL	x	x	x						
-03	MW 2S - 050423	5/14/23	14:25	GW	JL	x	x	x						
-04	Equipment Blank	5/14/23	13:20	W	JL	x	x	x						
-05	Trip Blank	5/15/23	9:00	W	JL	x								

**Sample Filtration**  
 Done  
 Lab to do  
**Preservation**  
 Lab to do  
(Please Specify below)

Preservative Code:  
A = None  
B = HCl  
C = HNO<sub>3</sub>  
D = H<sub>2</sub>SO<sub>4</sub>  
E = NaOH  
F = MeOH  
G = NaHSO<sub>4</sub>  
H = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
K/E = Zn Ac/NaOH  
O = Other

Container Code:  
P = Plastic  
A = Amber Glass  
V = Vial  
G = Glass  
B = Bacteria Cup  
C = Cube  
O = Other  
E = Encore  
D = BOD Bottle

Westboro: Certification No: MA935  
Mansfield: Certification No: MA015

Container Type  
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
<i>JL</i>	5/15/23 @ 10:30	ARL Secure Storage	5/15/23 1030
ARL Secure Storage	5/15/23 1305	ARL	5/15/23 1305
<i>JL</i>	5/15/23 1305	<i>JL</i>	5/15/23 1305

Form No: 01-25 HC (rev. 30-Sept-2013)



## ANALYTICAL REPORT

Lab Number:	L2325320
Client:	NEU-VELLE Inc 10 Jones Avenue Rochester, NY 14608
ATTN:	Logan Reid
Phone:	(585) 478-3167
Project Name:	PENN YAN FORMER MGP SITE
Project Number:	2023080
Report Date:	05/22/23

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2325320-01	MW6-050523	WATER	PENN YAN, NY	05/05/23 14:35	05/08/23
L2325320-02	MW5-050523	WATER	PENN YAN, NY	05/05/23 17:25	05/08/23
L2325320-03	MW3A-050823	WATER	PENN YAN, NY	05/08/23 13:35	05/08/23
L2325320-04	TRIP BLANK	WATER	PENN YAN, NY	05/08/23 00:00	05/08/23

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Sample Receipt

The analyses performed were specified by the client.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Tiffani Morrissey

Title: Technical Director/Representative

Date: 05/22/23



# ORGANICS

# VOLATILES

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

Lab ID: L2325320-01  
 Client ID: MW6-050523  
 Sample Location: PENN YAN, NY

Date Collected: 05/05/23 14:35  
 Date Received: 05/08/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/12/23 22:45  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	126		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

Lab ID: L2325320-02  
 Client ID: MW5-050523  
 Sample Location: PENN YAN, NY

Date Collected: 05/05/23 17:25  
 Date Received: 05/08/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/12/23 22:24  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	124		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

Lab ID: L2325320-03  
 Client ID: MW3A-050823  
 Sample Location: PENN YAN, NY

Date Collected: 05/08/23 13:35  
 Date Received: 05/08/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/12/23 22:03  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Benzene	100		ug/l	0.50	0.16	1
Toluene	0.72	J	ug/l	2.5	0.70	1
Ethylbenzene	28		ug/l	2.5	0.70	1
p/m-Xylene	3.3		ug/l	2.5	0.70	1
o-Xylene	2.3	J	ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	110		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

Lab ID: L2325320-04  
 Client ID: TRIP BLANK  
 Sample Location: PENN YAN, NY

Date Collected: 05/08/23 00:00  
 Date Received: 05/08/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260D  
 Analytical Date: 05/12/23 21:42  
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	126		70-130

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260D  
Analytical Date: 05/12/23 19:56  
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1779128-5					
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	124		70-130



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Project Number:** 2023080

**Lab Number:** L2325320

**Report Date:** 05/22/23

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1779128-3 WG1779128-4								
Benzene	94		93		70-130	1		20
Toluene	88		85		70-130	3		20
Ethylbenzene	88		83		70-130	6		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	90		90		70-130	0		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	101		102		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	95		97		70-130
Dibromofluoromethane	100		106		70-130

# SEMIVOLATILES

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

Lab ID: L2325320-01  
 Client ID: MW6-050523  
 Sample Location: PENN YAN, NY

Date Collected: 05/05/23 14:35  
 Date Received: 05/08/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/12/23 20:08  
 Analyst: AH

Extraction Method: EPA 3510C  
 Extraction Date: 05/11/23 09:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.03	J	ug/l	0.10	0.02	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	0.01	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.04	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.04	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	64		15-120
4-Terphenyl-d14	89		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

Lab ID: L2325320-02  
 Client ID: MW5-050523  
 Sample Location: PENN YAN, NY

Date Collected: 05/05/23 17:25  
 Date Received: 05/08/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 05/12/23 20:24  
 Analyst: AH

Extraction Method: EPA 3510C  
 Extraction Date: 05/11/23 09:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.10		ug/l	0.10	0.02	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.04	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.07	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.05	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.05	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.04	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.05	J	ug/l	0.10	0.01	1
Pyrene	0.08	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	64		15-120
4-Terphenyl-d14	86		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

**Lab ID:** L2325320-03  
**Client ID:** MW3A-050823  
**Sample Location:** PENN YAN, NY

**Date Collected:** 05/08/23 13:35  
**Date Received:** 05/08/23  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8270E-SIM  
**Analytical Date:** 05/13/23 21:58  
**Analyst:** JJW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 05/13/23 00:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	0.01	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Naphthalene	0.66		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.02	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.21		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	68		15-120
4-Terphenyl-d14	66		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270E-SIM  
**Analytical Date:** 05/12/23 19:51  
**Analyst:** AH

**Extraction Method:** EPA 3510C  
**Extraction Date:** 05/11/23 09:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1777656-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	76		15-120
4-Terphenyl-d14	105		41-149

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270E-SIM  
Analytical Date: 05/13/23 21:41  
Analyst: JJW

Extraction Method: EPA 3510C  
Extraction Date: 05/13/23 00:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 03 Batch: WG1778490-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	0.02	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	82		15-120
4-Terphenyl-d14	84		41-149

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Lab Number:** L2325320

**Project Number:** 2023080

**Report Date:** 05/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1777656-2 WG1777656-3								
Acenaphthene	79		78		40-140	1		40
2-Chloronaphthalene	70		70		40-140	0		40
Fluoranthene	96		96		40-140	0		40
Naphthalene	69		69		40-140	0		40
Benzo(a)anthracene	90		91		40-140	1		40
Benzo(a)pyrene	101		101		40-140	0		40
Benzo(b)fluoranthene	88		91		40-140	3		40
Benzo(k)fluoranthene	89		85		40-140	5		40
Chrysene	85		84		40-140	1		40
Acenaphthylene	85		85		40-140	0		40
Anthracene	89		89		40-140	0		40
Benzo(ghi)perylene	98		101		40-140	3		40
Fluorene	84		84		40-140	0		40
Phenanthrene	78		79		40-140	1		40
Dibenzo(a,h)anthracene	103		105		40-140	2		40
Indeno(1,2,3-cd)pyrene	102		102		40-140	0		40
Pyrene	96		96		40-140	0		40
2-Methylnaphthalene	74		74		40-140	0		40



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Project Number:** 2023080

**Lab Number:** L2325320

**Report Date:** 05/22/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1777656-2 WG1777656-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	90		88		23-120
2-Fluorobiphenyl	71		72		15-120
4-Terphenyl-d14	92		93		41-149

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Lab Number:** L2325320

**Project Number:** 2023080

**Report Date:** 05/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 03 Batch: WG1778490-2 WG1778490-3								
Acenaphthene	73		73		40-140	0		40
2-Chloronaphthalene	68		67		40-140	1		40
Fluoranthene	79		78		40-140	1		40
Naphthalene	67		66		40-140	2		40
Benzo(a)anthracene	88		85		40-140	3		40
Benzo(a)pyrene	97		96		40-140	1		40
Benzo(b)fluoranthene	87		86		40-140	1		40
Benzo(k)fluoranthene	93		91		40-140	2		40
Chrysene	80		80		40-140	0		40
Acenaphthylene	82		81		40-140	1		40
Anthracene	83		82		40-140	1		40
Benzo(ghi)perylene	85		84		40-140	1		40
Fluorene	79		79		40-140	0		40
Phenanthrene	74		73		40-140	1		40
Dibenzo(a,h)anthracene	92		91		40-140	1		40
Indeno(1,2,3-cd)pyrene	89		87		40-140	2		40
Pyrene	76		75		40-140	1		40
2-Methylnaphthalene	74		72		40-140	3		40

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE

**Project Number:** 2023080

**Lab Number:** L2325320

**Report Date:** 05/22/23

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 03 Batch: WG1778490-2 WG1778490-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
Nitrobenzene-d5	98		96		23-120
2-Fluorobiphenyl	76		74		15-120
4-Terphenyl-d14	84		81		41-149

# **INORGANICS & MISCELLANEOUS**

**Project Name:** PENN YAN FORMER MGP SITE**Lab Number:** L2325320**Project Number:** 2023080**Report Date:** 05/22/23**SAMPLE RESULTS**

Lab ID: L2325320-01

Date Collected: 05/05/23 14:35

Client ID: MW6-050523

Date Received: 05/08/23

Sample Location: PENN YAN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	0.237		mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 13:10	1,9010C/9012B	JER



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

**SAMPLE RESULTS**

**Lab ID:** L2325320-02  
**Client ID:** MW5-050523  
**Sample Location:** PENN YAN, NY

**Date Collected:** 05/05/23 17:25  
**Date Received:** 05/08/23  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 13:12	1,9010C/9012B	JER



Project Name: PENN YAN FORMER MGP SITE

Lab Number: L2325320

Project Number: 2023080

Report Date: 05/22/23

## SAMPLE RESULTS

Lab ID: L2325320-03

Date Collected: 05/08/23 13:35

Client ID: MW3A-050823

Date Received: 05/08/23

Sample Location: PENN YAN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.036		mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 13:15	1,9010C/9012B	JER



Project Name: PENN YAN FORMER MGP SITE

Lab Number: L2325320

Project Number: 2023080

Report Date: 05/22/23

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1778857-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 12:53	1,9010C/9012B	JER
General Chemistry - Westborough Lab for sample(s): 02-03 Batch: WG1778858-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	05/15/23 03:55	05/16/23 12:53	1,9010C/9012B	JER



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1778857-2 WG1778857-3								
Cyanide, Total	90		96		85-115	6		20
General Chemistry - Westborough Lab Associated sample(s): 02-03 Batch: WG1778858-2 WG1778858-3								
Cyanide, Total	90		96		85-115	6		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1778857-4 WG1778857-5 QC Sample: L2325061-01 Client ID: MS Sample										
Cyanide, Total	0.001J	0.2	0.210	105	0.208	104	80-120	1		20
General Chemistry - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG1778858-4 WG1778858-5 QC Sample: L2325320-02 Client ID: MW5-050523										
Cyanide, Total	0.001J	0.2	0.211	106	0.219	110	80-120	4		20

**Project Name:** PENN YAN FORMER MGP SITE**Lab Number:** L2325320**Project Number:** 2023080**Report Date:** 05/22/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2325320-01A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-01B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-01C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-01D	Plastic 250ml NaOH preserved	A	>12	>12	4.3	Y	Absent		TCN-9010(14)
L2325320-01E	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2325320-01F	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2325320-02A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-02B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-02C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-02D	Plastic 250ml NaOH preserved	A	>12	>12	4.3	Y	Absent		TCN-9010(14)
L2325320-02E	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2325320-02F	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2325320-03A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-03B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-03C	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-03D	Plastic 250ml NaOH preserved	A	>12	>12	4.3	Y	Absent		TCN-9010(14)
L2325320-03E	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2325320-03F	Amber 250ml unpreserved	A	7	7	4.3	Y	Absent		NYTCL-PAHSIM-LVI(7)
L2325320-04A	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)
L2325320-04B	Vial HCl preserved	A	NA		4.3	Y	Absent		NYTCL-8260-BTEX(14)

**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

## 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:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

### 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.

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**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.

**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.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

#### **Data Qualifiers**

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- 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.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



**Project Name:** PENN YAN FORMER MGP SITE  
**Project Number:** 2023080

**Lab Number:** L2325320  
**Report Date:** 05/22/23

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 195	Page	Date Rec'd in Lab	ALPHA Job #																																																											
		of	5/9/23	L2325320																																																											
Client Information Client: <i>Men-ville LLC</i> Address: <i>10 Jones Ave Rochester NY 14606</i> Phone: <i>585-478-3167</i> Fax: _____ Email: <i>l.reid@men-ville.com</i>	Project Information Project Name: <i>Penn Yan Farm MGP S12</i> Project Location: <i>Penn Yan, NY</i> Project # <i>2023080</i> (Use Project name as Project #) <input type="checkbox"/>	Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other	Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #	T o t a l  B o t t l e																																																											
Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: _____     # of Days: _____	Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ 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	Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____	ANALYSIS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:15%;">ALPHA Lab ID (Lab Use Only)</th> <th style="width:15%;">Sample ID</th> <th style="width:10%;">Collection Date</th> <th style="width:10%;">Collection Time</th> <th style="width:10%;">Sample Matrix</th> <th style="width:10%;">Sampler's Initials</th> <th style="width:10%;">BTEX</th> <th style="width:10%;">PAHs</th> <th style="width:10%;">Total Guide</th> <th colspan="3">Sample Specific Comments</th> </tr> <tr> <td><i>Z5320-01</i></td> <td><i>MW 6-050523</i></td> <td><i>5/15/23</i></td> <td><i>14:35</i></td> <td><i>GW</i></td> <td><i>JL</i></td> <td><i>X</i></td> <td><i>X</i></td> <td><i>X</i></td> <td colspan="3"></td> </tr> <tr> <td><i>02</i></td> <td><i>MW 5-050523</i></td> <td><i>5/15/23</i></td> <td><i>17:25</i></td> <td><i>GW</i></td> <td><i>JL</i></td> <td><i>X</i></td> <td><i>X</i></td> <td><i>X</i></td> <td colspan="3"></td> </tr> <tr> <td><i>03</i></td> <td><i>MW 3A-050823</i></td> <td><i>5/18/23</i></td> <td><i>13:33</i></td> <td><i>GW</i></td> <td><i>JL</i></td> <td><i>X</i></td> <td><i>X</i></td> <td><i>X</i></td> <td colspan="3"></td> </tr> <tr> <td><i>04</i></td> <td><i>Trip Blank</i></td> <td></td> <td></td> <td><i>W</i></td> <td><i>X</i></td> <td><i>X</i></td> <td><i>X</i></td> <td colspan="3"></td> </tr> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	BTEX	PAHs	Total Guide	Sample Specific Comments			<i>Z5320-01</i>	<i>MW 6-050523</i>	<i>5/15/23</i>	<i>14:35</i>	<i>GW</i>	<i>JL</i>	<i>X</i>	<i>X</i>	<i>X</i>				<i>02</i>	<i>MW 5-050523</i>	<i>5/15/23</i>	<i>17:25</i>	<i>GW</i>	<i>JL</i>	<i>X</i>	<i>X</i>	<i>X</i>				<i>03</i>	<i>MW 3A-050823</i>	<i>5/18/23</i>	<i>13:33</i>	<i>GW</i>	<i>JL</i>	<i>X</i>	<i>X</i>	<i>X</i>				<i>04</i>	<i>Trip Blank</i>			<i>W</i>	<i>X</i>	<i>X</i>	<i>X</i>			
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Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type Preservative	Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																										
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