Steven P. Stucker, C.P.G.
Lead Environmental Engineer

December 16, 2020

Mr. Scott Deyette
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, New York 12233-7014

RE: National Grid Former Manufactured Gas Plant Site
1 East Street, Ilion, New York
Annual Groundwater Monitoring Report

Dear Mr. Deyette:

Enclosed for your review is the Annual Groundwater Monitoring Report for the NG Ilion Former MGP Site, for 2020.

Groundwater and Environmental Service, Inc., (GES) contractor for National Grid, conducts all long-term monitoring and sampling activities at the site. Quarterly site inspections were conducted in 2019 and 2020 (December, January, May, July, and November). The site is generally in good shape and in compliance. There were detections in several of the wells during the October 2019, May 2020, and October 2020 sampling events that exceeded the regulatory criteria.

If you have any questions, then please feel free to contact me at 315.428.5652.

Very truly yours,

for SPS

Steven P. Stucker, C.P.G.
Lead Environmental Engineer
National Grid

Cc: Devin T. Shay – Groundwater and Environmental Services, Inc.

National Grid

Annual Groundwater Monitoring Report

National Grid Ilion Former MGP Site
1 East Street, Ilion, NY 13357

December 2020

Version 1

Annual Groundwater Monitoring Report

National Grid Ilion Former MGP Site
1 East Street
Ilion, NY 13357

Prepared for:
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Syracuse, NY 13202

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www.gesonline.com

GES Project:
0603200.133570.221

Date:
December 16, 2020

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

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1 Introduction

This Annual Groundwater Monitoring Report presents results from the activities conducted at the Ilion (East Street and State Street) former non-owned manufactured gas plant (MGP) site (the Site) located in Ilion, New York (Site #6-22-019). A site location map is presented on Figure 1, and a site map is presented as Figure 2. All work summarized herein has been conducted in accordance with the approved Site Management Plan (SMP) for the property, dated October 22, 2018, prepared for and submitted to the New York State Department of Environmental Conservation (NYSDEC) by Arcadis.

A detailed discussion of the semi-annual monitoring activities and results is presented below.

2 Semi-Annual Groundwater Monitoring

2.1 Objectives

The objectives of the October 2019, May 2020, and October 2020 groundwater monitoring activities were to:

- Obtain groundwater elevation data from monitoring wells in the vicinity of the site to evaluate groundwater flow direction, and compare the results with historical groundwater flow conditions.
- Obtain analytical data to assess potential changes in groundwater quality at the site and compare the results to the Class GA groundwater standards and guidance values presented in the NYSDEC document entitled, “Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations” (TOGS 1.1.1), reissued June 1998 and amended April 2000 and June 2004.

2.2 Groundwater Well Gauging

The October 25, 2019, May 27, 2020, and October 12, 2020 groundwater monitoring field activities were conducted by GES. Prior to collecting groundwater samples, static fluid level measurements were collected from MW-02R, MW-03, MW-06, MW-07, W-08R, and MW-13. Water levels were measured to the nearest 0.01 foot using an electronic oil-water interface probe to determine the depth from a surveyed mark on the top of the inner polyvinyl chloride (PVC) well casing to the groundwater within the well.

The fluid level measurements obtained from each monitoring well were converted to groundwater elevations using the surveyed well elevations. The calculated groundwater elevations for each monitoring well are listed in Table 1. Table 1 also includes groundwater elevation measurements obtained during previous groundwater monitoring events, and is depicted on Figures 3, 5, and 7.

Groundwater generally flows to the north from the Site toward the Mohawk River. Groundwater elevations ranged from 385.54 feet above sea level (asl; well MW-03) to 387.78 feet asl (well MW-06). Field data from the gauging event is presented in Appendix B.

2.3 Groundwater Well Sampling and Analytical Results

Groundwater samples were collected by GES from six (6) monitoring wells on October 25, 2019, May 7, 2020, and October 12, 2020 (including MW-02R, MW-03, MW-06, MW-07, MW-08R, and MW-13). Low-flow sampling techniques were used to purge groundwater from each monitoring well prior to collecting groundwater samples. Field parameters (consisting of turbidity, temperature, pH, conductivity, oxidation reduction potential [ORP], and dissolved oxygen) were measured approximately every 5 to 10 minutes during well purging, and the depth to water was monitored throughout the pumping process to minimize drawdown within the well. Well purging activities continued at each well until the field parameters stabilized and the turbidity of the water in the wells was reduced to less than 50 nephelometric turbidity units (NTUs). Groundwater field data is presented in Appendix B.

Following purging, groundwater samples were collected. The groundwater samples were bottled and shipped to Pace Analytical for laboratory analysis for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX; EPA Method 8260C), Semi-Volatile Polycyclic Aromatic Hydrocarbons (PAHs; EPA Method 8270D), as well as total cyanide (EPA Method 9012B). Quality assurance/quality control (QA/QC) samples, including a field duplicate, matrix spike, and duplicate matrix spike were also submitted for laboratory analysis. The laboratory analytical results for the groundwater samples were reported using NYSDEC Analytical Services Protocol (ASP) Category B data deliverable packages to facilitate data validation.

Purge water generated during the sampling activities was collected in 5-gallon buckets and transferred into 55-gallon steel drums for characterization prior to offsite treatment/disposal in accordance with applicable regulations.

Analytical results from the laboratory analysis report are summarized in Table 2 and compared to the Class GA groundwater standards and guidance values presented in TOGS 1.1.1. VOC exceedances are bolded on Table 2 and further shown on Figures 4, 6, and 8. The Data Usability Summary Report (DUSR) is included in Appendix C.

There were BTEX and/or PAH detections in all the monitoring wells sampled in October 2019, May 2020 and October 2020, with the exception of MW-03, MW-06, and MW-13 in October 2019, and MW-13 in October 2020. In October 2019, BTEX, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and naphthalene were detected above the regulatory criteria in one or more samples. Cyanide was detected in MW-02R, and MW-08R in October 2019. In May 2020, BTEX, acenaphthene, benzo(a)pyrene, benzo(b)fluoranthene, and naphthalene were detected above the regulatory criteria in one or more samples. Cyanide was detected in MW-02R, MW-07, and MW-08R in May 2020. In October 2020, BTEX, acenaphthene, acenaphthylene, benzo(a)anthracene, fluoranthene, fluorine, 2-methylnapthalene, naphthalene,

phenanthrene, and pyrene were detected above he regulatory criteria in one or more samples. Cyanide was detected in MW-02R, MW-07, MW-08R during the October 2020 sampling event.

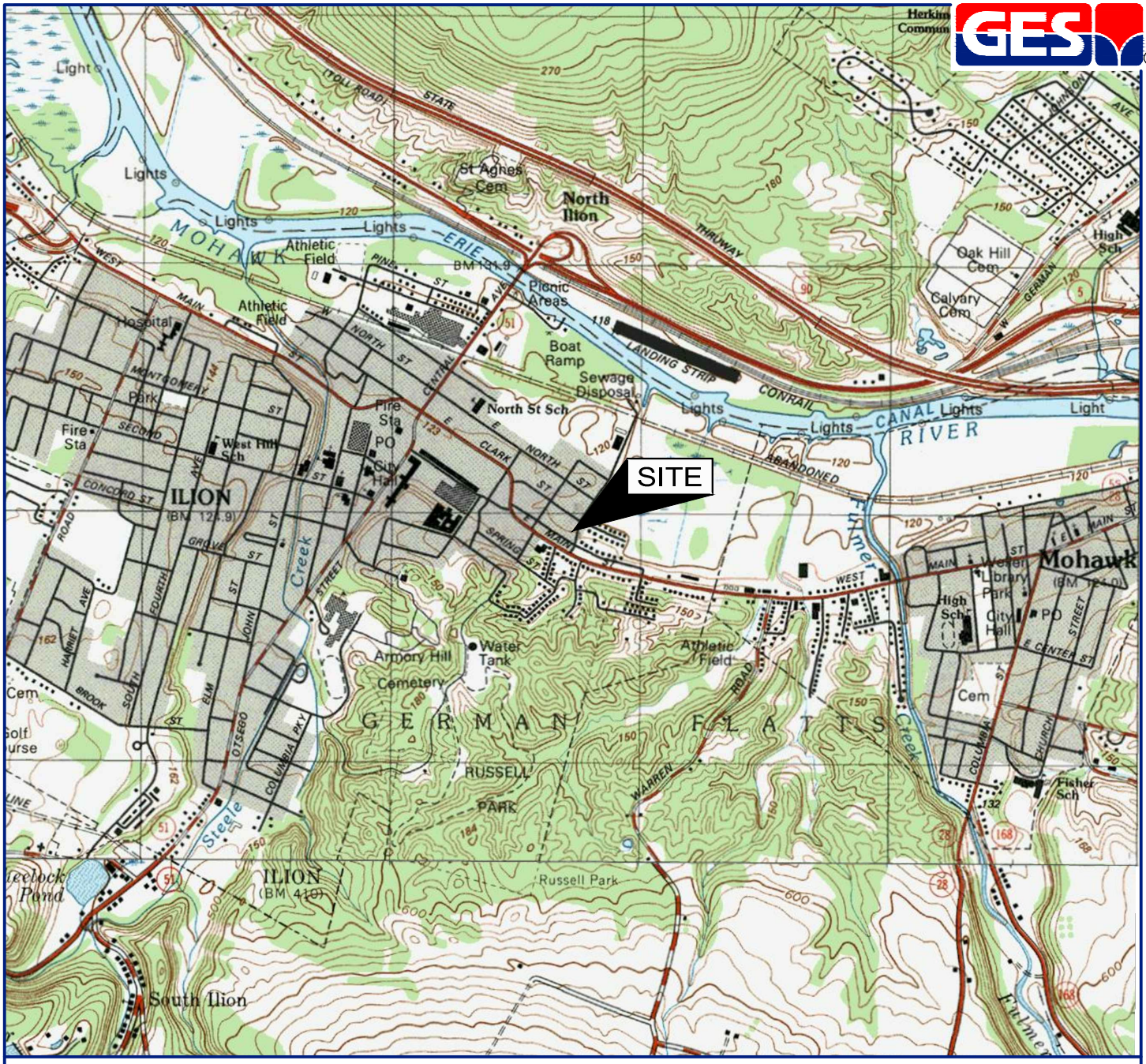
3 Quarterly Site-Wide Inspections

The quarterly site-wide inspections were completed on September 27, October 24, and December 18, 2019, and January 15, May 1, July 30, and October 12, 2020. The Site Inspection Forms are presented in Appendix A. In general, the Site is in compliance.

4 Recommendations

At this time, National Grid recommends continuing the semi-annual monitoring activities. The next semi-annual groundwater sampling event would be in May 2021. Semi-annual site-wide inspections are required; however, for internal security purposes, National Grid will continue to conduct quarterly site-wide inspections.

Figures



SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1982
ILION, NEW YORK
CONTOUR INTERVAL = 6 METERS

QUADRANGLE LOCATION

DRAFTED BY: W.G.S.	SITE LOCATION MAP
CHECKED BY:	NATIONAL GRID 1 EAST AVENUE AND STATE STREET ILION, NEW YORK
REVIEWED BY:	Groundwater & Environmental Services, Inc. 5 TECHNOLOGY PLACE, SUITE 4, EAST SYRACUSE, NY 13057
NORTH	SCALE IN FEET: 0 — 2000 / DATE: 11-28-16 / FIGURE: 1

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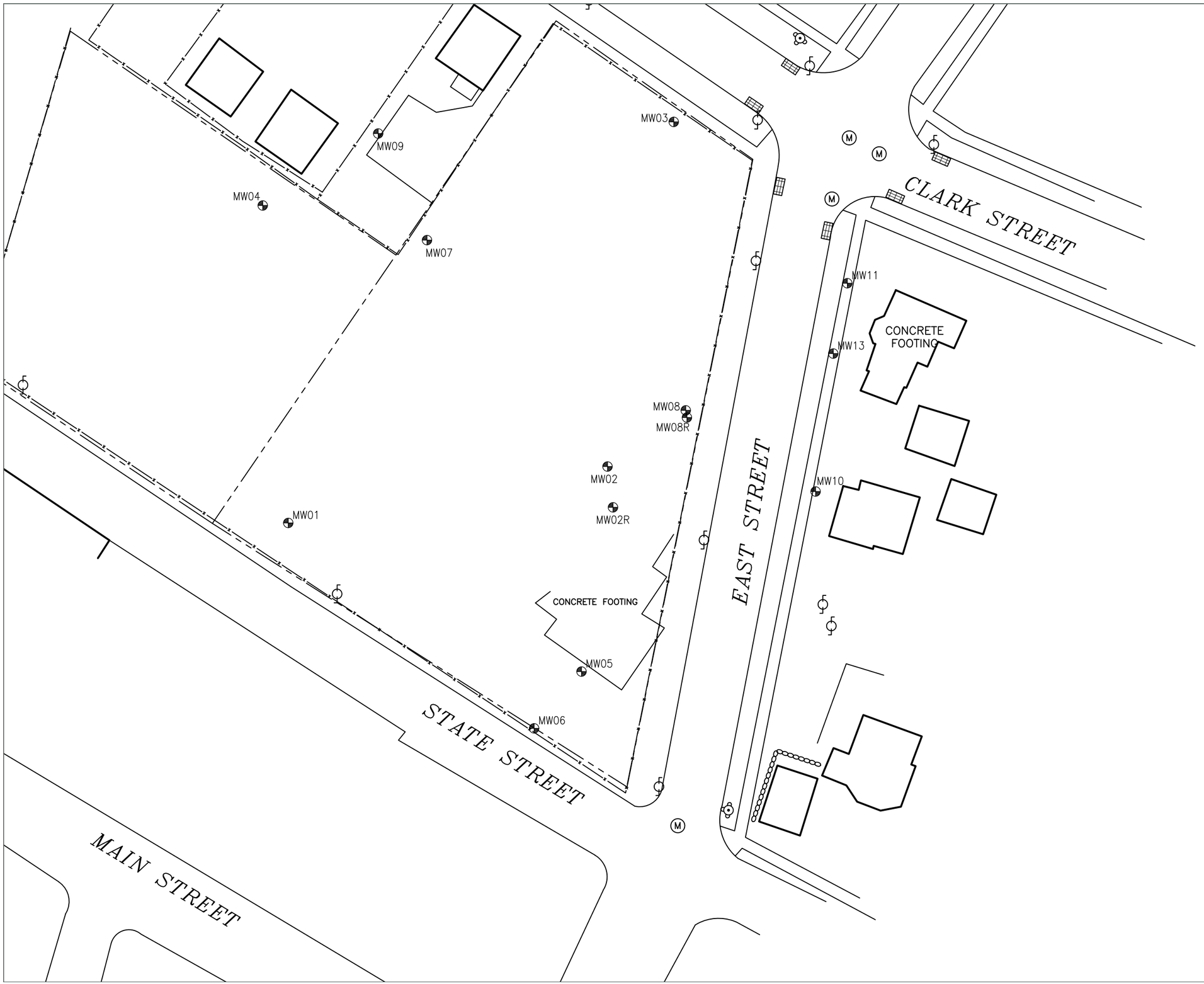

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STONE RETAINING WALL
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- UTILITY POLE
- MONITORING WELL

Site Map

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 9/21/20
Figure 2

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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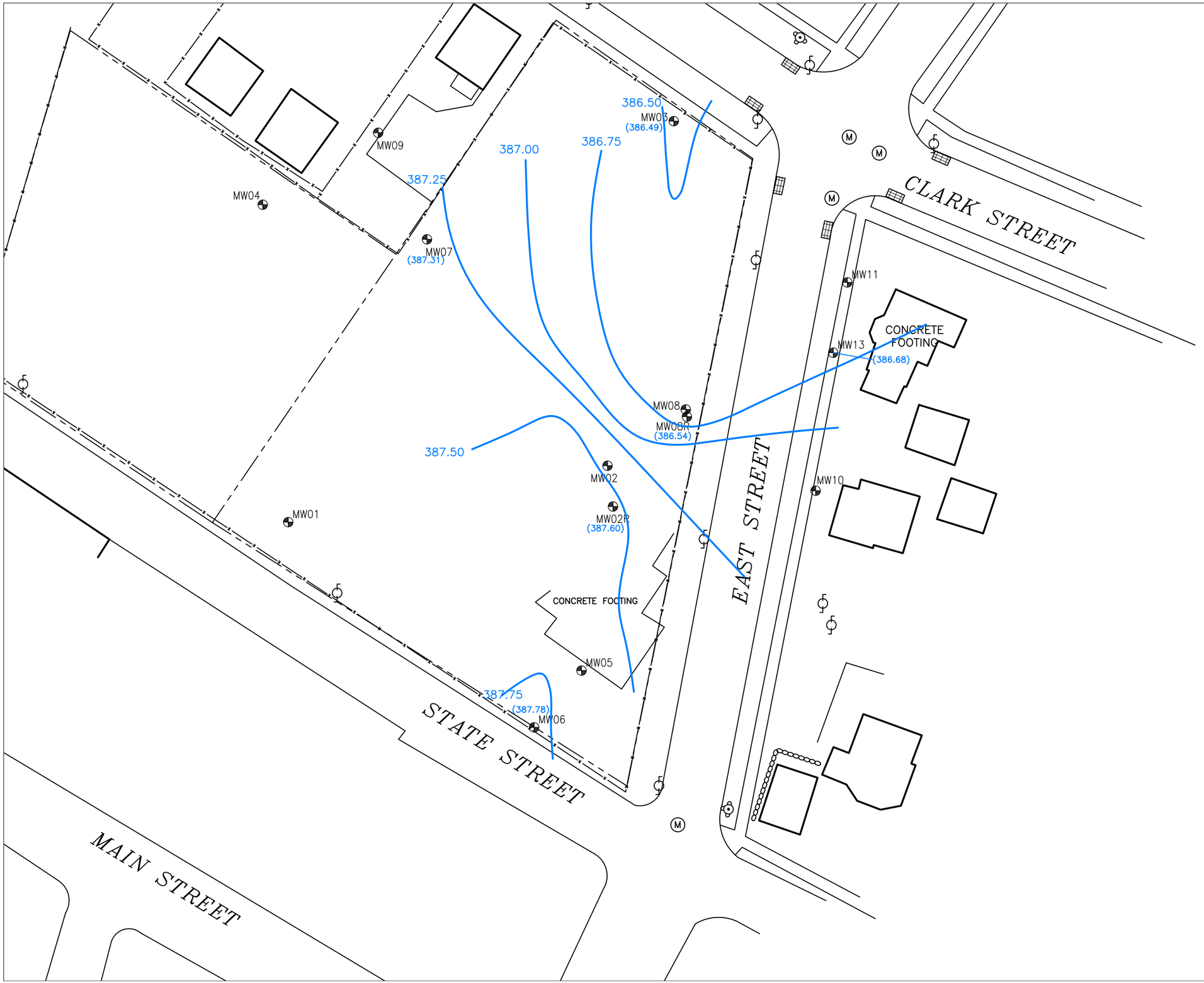

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STONE RETAINING WALL
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- UTILITY POLE
- MONITORING WELL
- (387.78) GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (feet)

Groundwater Contour Map
October 25, 2019

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn
W.G.S.
Designed

Approved

Date
11/18/20
Figure
3

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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LEGEND

— — —	PROPERTY BOUNDARY
— x —	FENCE
	STONE RETAINING WALL
	CATCH BASIN
M	UTILITY MANHOLE
	FIRE HYDRANT
	UTILITY POLE
	MONITORING WELL
MW02R 387.60 277 170 1,600	WELL IDENTIFICATION GROUNDWATER ELEVATION (feet) BTEX CONCENTRATION (ug/L) TOTAL PAHs CONCENTRATION (ug/L) CYANIDE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
ND	NOT DETECTED

Groundwater Monitoring Map
October 25, 2019

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn
W.G.S.
Designed

Approved

Date
9/21/20
Figure
4

N

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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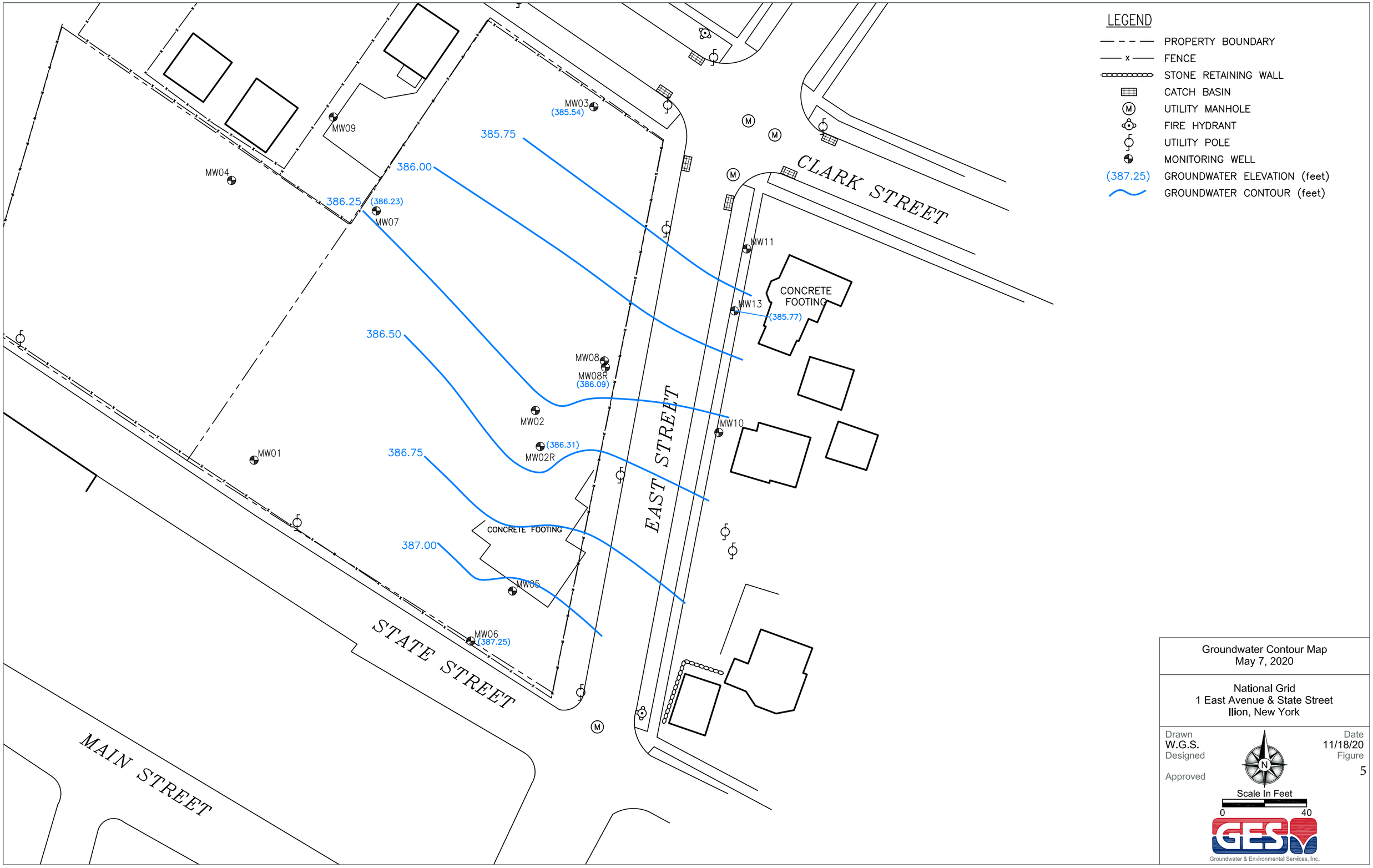

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Groundwater Contour Map
May 7, 2020

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn	Date
W.G.S.	11/18/20
Designed	Figure
	5
Approved	

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

LEGEND

— — —	PROPERTY BOUNDARY
— x —	FENCE
	STONE RETAINING WALL
	CATCH BASIN
M	UTILITY MANHOLE
	FIRE HYDRANT
	UTILITY POLE
	MONITORING WELL
MW02R	WELL IDENTIFICATION
386.31	GROUNDWATER ELEVATION (feet)
839	BTEX CONCENTRATION (ug/L)
295	TOTAL PAHs CONCENTRATION (ug/L)
3,900	CYANIDE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
ND	NOT DETECTED

Groundwater Monitoring Map
May 27, 2020

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 9/21/20
Figure 6

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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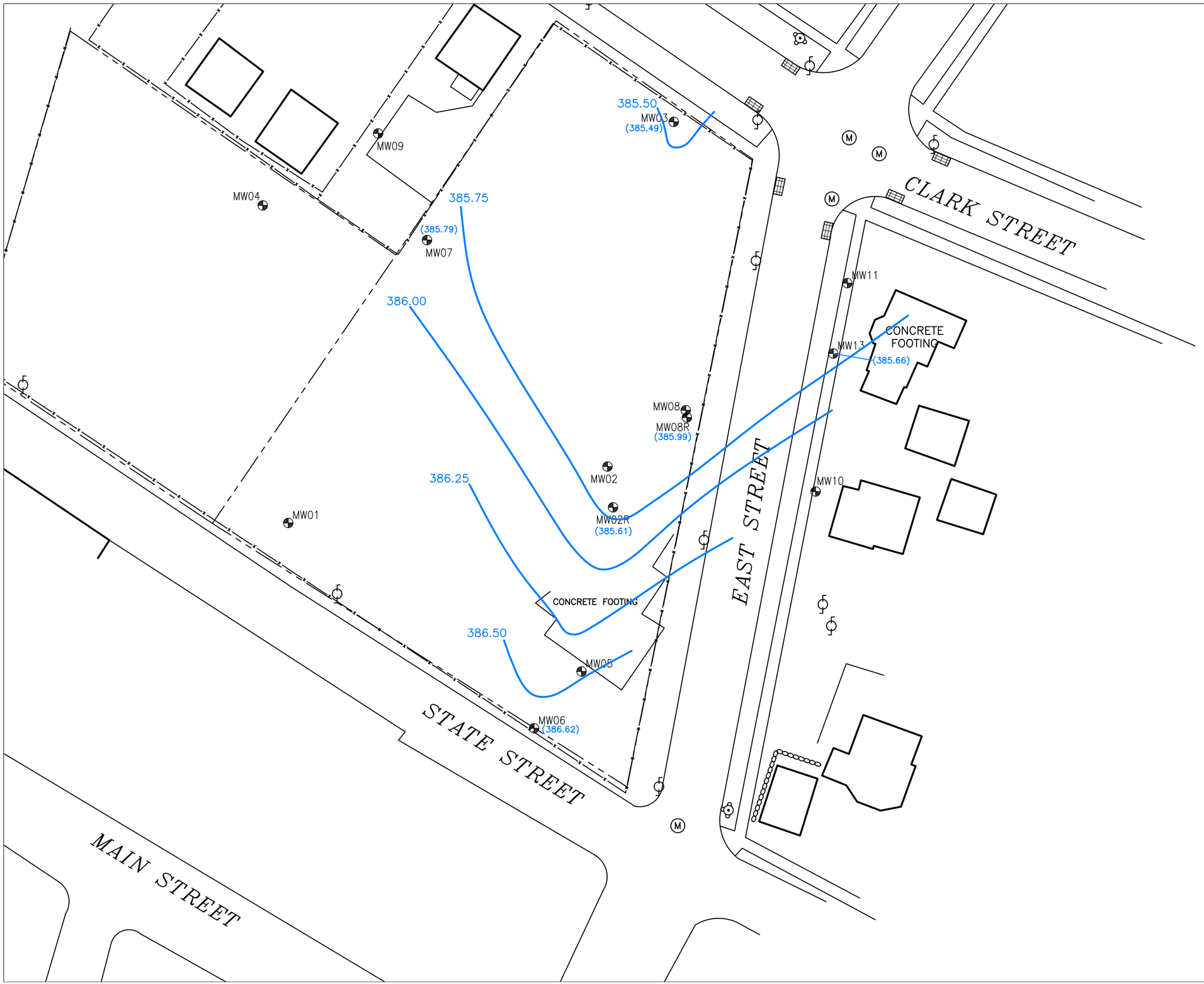

Groundwater Contour Map
October 12, 2020

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 11/18/20
Figure 7

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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LEGEND

— — —	PROPERTY BOUNDARY
— x —	FENCE
	STONE RETAINING WALL
	CATCH BASIN
M	UTILITY MANHOLE
	FIRE HYDRANT
	UTILITY POLE
	MONITORING WELL
MW02R	WELL IDENTIFICATION
385.61	GROUNDWATER ELEVATION (feet)
1,031.7	BTEX CONCENTRATION (ug/L)
588.4	TOTAL PAHs CONCENTRATION (ug/L)
4,100	CYANIDE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
ND	NOT DETECTED

Groundwater Monitoring Map
October 12, 2020

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 11/18/20
Figure 8

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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Tables

Table 1

Groundwater Monitoring Well Gauging Data

Well ID	Well Type & Diameter	Top of Inner Casing Elevation	Depth To Well Bottom	Well Bottom Elevation	Screen Elevation	Depth To Water (10/05/17)	Groundwater Elevation (10/05/17)	Depth To Water (10/25/19)	Groundwater Elevation (1025/19)	Depth To Water (05/07/20)	Groundwater Elevation (05/07/20)	Depth To Water (10/12/20)	Groundwater Elevation (10/12/20)
MW-02R	Flushmount; PVC; 2-inch	398.43	18.0	380.43	8.0 - 18.0	14.15	384.28	10.83	387.60	12.12	386.31	12.82	385.61
MW-03	Flushmount; PVC; 2-inch	391.44	28.0	363.44	15.0 - 25.0	7.13	384.31	4.95	386.49	5.90	385.54	5.95	385.49
MW-06	Flushmount; PVC; 2-inch	404.21	28.0	376.21	15.0 - 25.0	19.00	385.21	16.43	387.78	16.96	387.25	17.59	386.62
MW-07	Flushmount; PVC; 2-inch	394.54	18.4	376.14	8.4 - 18.4	10.18	384.36	7.23	387.31	8.31	386.23	8.75	385.79
MW-08R	Flushmount; PVC; 2-inch	396.00	20.0	376.00	10.0 - 20.0	11.73	384.27	9.46	386.54	9.91	386.09	10.01	385.99
MW-13	Flushmount; PVC; 2-inch	392.20	24.0	368.20	14.0 - 24.0	7.95	384.25	5.52	386.68	6.43	385.77	6.54	385.66

Table 2

Groundwater Analytical Data
MW-02R

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20
BTEX Compounds						
Benzene	µg/L	1	**1.3**	**186**	**551**	**632**
Ethylbenzene	µg/L	5	ND (<1.0)	**32.8**	**81.1**	**103**
Xylenes, Total	µg/L	5	ND (<1.0)	**48.8**	**162**	**253**
Toluene	µg/L	5	ND (<1.0)	**9.1**	**42.7**	**43.7**
PAHs						
Acenaphthene	µg/L	20	2.4	**24.3**	**20.4**	**38.3**
Acenaphthylene	µg/L	NC	1.5	7.5	10.3	19.4
Anthracene	µg/L	50	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Chrysene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Fluoranthene	µg/L	50	0.0982 J	ND (<0.098)	ND (<0.10)	ND (<0.98)
Fluorene	µg/L	50	1.08	4.0	4.4	9.0
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)
2-Methylnaphthalene	µg/L	NC	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Naphthalene	µg/L	10	0.285	**133**	**257**	**515**
Phenanthrene	µg/L	50	0.554	0.94	2.7	6.7
Pyrene	µg/L	50	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)
Cyanide						
Cyanide	µg/L	200	150 J	**1,600**	**3,900**	**4,100**

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-03

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20
BTEX Compounds						
Benzene	µg/L	1	ND (<0.5)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	ND (<1.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs						
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Acenaphthylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Fluoranthene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Naphthalene	µg/L	10	ND (<0.10)	ND (<0.099)	0.61	0.24
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Cyanide						
Cyanide	µg/L	200	10 J	ND (<10)	ND (<10)	ND (<10)

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-06

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20
BTEX Compounds						
Benzene	µg/L	1	ND (<0.5)	ND (<1.0)	**4.5**	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	ND (<1.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs						
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Acenaphthylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Fluoranthene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Naphthalene	µg/L	10	ND (<0.10)	ND (<0.099)	1.2	0.22
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)
Cyanide						
Cyanide	µg/L	200	10 J	ND (<10)	ND (<10)	ND (<10)

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-07

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20
BTEX Compounds						
Benzene	µg/L	1	**3.1**	ND (<1.0)	**2.8**	**17.2**
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.5
Xylenes, Total	µg/L	5	2.2	ND (<3.0)	ND (<3.0)	**7.1**
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs						
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	0.11	0.78
Acenaphthylene	µg/L	NC	0.498	0.16	ND (<0.11)	1.7
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.17
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.099)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	**0.12**	ND (<0.099)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	**0.12**	ND (<0.099)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)
Fluoranthene	µg/L	50	ND (<0.10)	0.10	0.22	0.14
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.18
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.23
Naphthalene	µg/L	10	3.23	ND (<0.099)	0.47	29.7
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.17
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	0.18	ND (<0.099)
Cyanide						
Cyanide	µg/L	200	**290 J**	ND (<10)	**2,300**	**1,800**

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-08R

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/06/17	10/24/19	05/27/20	10/12/20
BTEX Compounds						
Benzene	µg/L	1	**4.1**	**1.5**	**3.3**	ND (<1.0)
Ethylbenzene	µg/L	5	3.6	ND (<1.0)	1.8	ND (<1.0)
Xylenes, Total	µg/L	5	1.5	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	0.38 J	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs						
Acenaphthene	µg/L	20	2.46	3.2	0.25	1.2
Acenaphthylene	µg/L	NC	9.24	7.8	0.79	2.9
Anthracene	µg/L	50	0.214	0.14	ND (<0.11)	ND (<0.095)
Benzo(a)anthracene	µg/L	0.002	**0.167**	**0.16**	ND (<0.11)	ND (<0.095)
Benzo(a)pyrene	µg/L	0.002	**0.18**	**0.15**	ND (<0.11)	ND (<0.095)
Benzo(b)fluoranthene	µg/L	0.002	**0.18**	**0.18**	ND (<0.11)	ND (<0.095)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)
Chrysene	µg/L	0.002	**0.155**	**0.13**	ND (<0.11)	ND (<0.095)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)
Fluoranthene	µg/L	50	0.514	0.55	ND (<0.11)	ND (<0.095)
Fluorene	µg/L	50	4.62	4.5	ND (<0.11)	0.88
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)
Naphthalene	µg/L	10	0.845	0.14	1.0	0.4
Phenanthrene	µg/L	50	2.26	0.27	ND (<0.11)	ND (<0.095)
Pyrene	µg/L	50	0.421	0.37	ND (<0.11)	ND (<0.095)
Cyanide						
Cyanide	µg/L	200	**430 J**	**1,200**	**890**	**560**

AWQS	= Ambient Water Quality Standards
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
J	= Estimated Concentration Value
mg/L	= Milligrams per Liter
NC	= No Criteria
ND (<#)	= Not detected above laboratory reporting limit (indicated by #)
NS	= Not Sampled
NYSDEC	= New York State Department of Environmental Conservation
PAHs	= Polycyclic Aromatic Hydrocarbons
µg/L	= Micrograms per Liter
Bolded	= values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-13

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20
BTEX Compounds						
Benzene	µg/L	1	ND (<0.5)	ND (<1.0)	**1.4**	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	ND (<1.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs						
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Acenaphthylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Fluoranthene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Naphthalene	µg/L	10	ND (<0.10)	ND (<0.099)	0.63	ND (<0.095)
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)
Cyanide						
Cyanide	µg/L	200	10 J	ND (<10)	ND (<10)	ND (<10)

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Appendix A – Field Inspection Reports

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 10/12/2020 Time: 14:10
Technician: AJ Weather: Partly Sunny 59

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 7/30/2020 Time: 8:30
Technician: TB Weather: Partly Cloudy 72

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 5/27/2020 Time: 14:10
Technician: BH Weather: Sunny 89

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:
the fenceline could use some weed trimming

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 5/1/2020 Time: 8:00
Technician: KL Weather: Cloudy 51

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL		NON-OPERATIONAL	COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES		NO	COMMENTS:
Site Been Mowed	YES		NO	COMMENTS:
Evidence of Vandalism	YES		NO	COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS: Cleaned up property

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 1/15/2020 Time: 9:00
Technician: PD Weather: PC 40

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS: Winter
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 12/18/2019 Time: 10:30
Technician: KL Weather: Sunny 29

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS: Snow on site
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 10/24/2019 Time: 8:00
Technician: KL Weather: Sunny 40

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 9/27/2019 Time: 9:30
Technician: KL Weather: Sunny 58

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Appendix B – Well Sampling Field Data

National Grid
Sconondoa Street, Oneida New York

Sampling Personnel: VL
Job Number: 06-03040-133570-221
Well Id. **MW-02R**

Date: 10/24/19
Weather: Sunny 36°
Time In: 08:20 Time Out: 09:05

Well Information

		TOC	Other
Depth to Water:	(feet)	10.63	
Depth to Bottom:	(feet)	18.30	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	7.47	
Volume of Water in Well:	(gal)	1.19	
Three Well Volumes:	(gal)	3.58	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other: ____
Well Diameter: 1" [ ] 2" [X] Other: ____
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2	Did well go dry?	Yes [ ]	No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
08:25	11.00	5.30	7.94	72	1.17	360	7.29	0.748
08:30	11.43	11.26	7.06	-18	1.05	122	0.00	0.670
08:35	11.72	11.85	6.97	-29	1.05	19.1	0.00	0.670
08:40	11.96	12.02	6.89	-40	1.05	20.4	0.00	0.673
08:45	12.05	12.32	6.97	-50	1.05	38.0	0.00	0.673
08:50	12.16	12.41	6.96	-41	1.05	42.0	0.00	0.674
08:55	12.26	12.53	6.96	-46	1.05	42.4	0.00	0.673

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-02R-1019** Duplicate? Yes [ ] No [X]
Sample Time: 08:55 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Sconondoa Street, Oneida New York

Sampling Personnel: EC
Job Number: 06-03040-133570-221
Well Id. **MW-03**

Date: 10/24/19
Weather: Sunny 44
Time In: 10:50 Time Out: 11:50

Well Information

		TOC	Other
Depth to Water:	(feet)	4.95	
Depth to Bottom:	(feet)	27.25	
Depth to Product:	(feet)		
Length of Water Column:	(feet)		
Volume of Water in Well:	(gal)		
Three Well Volumes:	(gal)		

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]
Average Pumping Rate:	(ml/min)	200		
Duration of Pumping:	(min)	30		
Total Volume Removed:	(gal)	7	Did well go dry?	Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
11:00	4.90	14.06	6.81	-27	1.10	90.4	0.00	0.704
11:05	4.92	14.21	7.08	-5	1.16	67.5	0.00	0.745
11:10	4.93	14.16	7.20	10	1.18	59.1	0.00	0.752
11:15	4.95	14.27	7.21	25	1.17	40.8	0.00	0.751
11:20	4.95	14.22	7.21	30	1.17	34.6	0.00	0.751
11:25	4.95	14.24	7.21	35	1.18	27.4	0.00	0.752
11:30	4.95	14.28	7.21	39	1.18	23.0	0.00	0.754

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	4 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	6 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	2 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-03-1019** Duplicate? Yes [X] No [ ]
Sample Time: 11:30 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Sconondoa Street, Oneida New York

Sampling Personnel: KL
Job Number: 06-03040-133570-221
Well Id. **MW-06**

Date: 10/24/16
Weather: SUNNY 39
Time In: 09:05 Time Out: 10:40

Well Information

		TOC	Other
Depth to Water:	(feet)	16.43	
Depth to Bottom:	(feet)	28.60	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	12.17	
Volume of Water in Well:	(gal)	1.94	
Three Well Volumes:	(gal)	5.84	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	

Average Pumping Rate:	(ml/min)	200
Duration of Pumping:	(min)	30
Total Volume Removed:	(gal)	2

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors

gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47

1 gallon=3.785L=3785mL=1337cu. feet

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
09:10	16.53	12.52	6.92	-65	1.04	147	0.00	0.667
09:15	16.55	12.56	6.87	-59	1.10	94.1	0.00	0.717
09:20	16.55	12.32	7.04	-37	1.27	62.7	0.00	0.816
09:25	16.55	12.21	7.08	-51	1.57	58.3	0.00	1.01
09:30	16.55	12.23	7.16	-36	1.64	45.9	0.00	1.06
09:35	16.55	12.28	7.17	-23	1.69	36.0	0.00	1.09
09:40	16.55	12.29	7.14	-20	1.69	34.5	0.00	1.09

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	6 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	9 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	3 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-06-1019** Duplicate? Yes [ ] No [X]
Sample Time: 09:40 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes: MS - 09:45
MSD - 09:50

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Sconondoa Street, Oneida New York

Sampling Personnel: KC
Job Number: 06-03040-133570-221
Well Id. **MW-07**

Date: 10/24/19
Weather: Sunny 36
Time In: 10:00 Time Out: 10:50

Well Information

		TOC	Other
Depth to Water:	(feet)	7.23	
Depth to Bottom:	(feet)	16.87	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	9.64	
Volume of Water in Well:	(gal)	1.54	
Three Well Volumes:	(gal)	4.62	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate: (ml/min)	200			
Duration of Pumping: (min)	30			
Total Volume Removed: (gal)	2			

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
10:10	8.15	12.37	7.43	6	1.40	431	0.00	0.884
10:15	9.19	12.93	6.78	13	1.10	184	0.00	0.703
10:20	9.35	13.24	6.69	-16	1.08	50.1	0.00	0.690
10:25	9.40	13.39	6.66	-32	1.08	58.4	0.00	0.691
10:30	9.40	13.49	6.64	-35	1.09	20.0	0.00	0.695
10:35	9.40	13.46	6.64	-41	1.10	15.3	0.00	0.705
10:40	9.40	13.47	6.64	-39	1.11	21.0	0.00	0.710

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-07-1019** Duplicate? Yes [ ] No [X]
Sample Time: 10:40 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Sconondoa Street, Oneida New York

Sampling Personnel:

Date: 10/24/19

Job Number: 06-03040-133570-221

Weather: S

Well Id. **MW-08R**

Time In: 11:50 Time Out: 12:35

Well Information

		TOC	Other
Depth to Water:	(feet)	9.40	
Depth to Bottom:	(feet)	20.20	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	10.74	
Volume of Water in Well:	(gal)	1.71	
Three Well Volumes:	(gal)	5.15	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate: (ml/min)	200			
Duration of Pumping: (min)	30			
Total Volume Removed: (gal)	2			

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
11:55	9.60	16.00	7.20	-64	1.45	134	0.00	0.930
12:00	9.90	15.60	6.79	-73	1.45	93.1	0.00	0.927
12:05	10.08	15.56	6.79	-74	1.46	118	0.00	0.933
12:10	10.44	15.45	6.78	-75	1.42	54.3	0.00	0.915
12:15	10.60	15.55	6.79	-77	1.41	76.8	0.00	0.903
12:20	11.10	15.47	6.78	-78	1.41	105	0.00	0.902
12:25	12.03	15.24	6.80	-82	1.41	54.4	0.00	0.900

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-08R-1019** Duplicate? Yes [ ] No [X]
Sample Time: 12:25 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Sconondoa Street, Oneida New York

Sampling Personnel: KC
Job Number: 06-03040-133570-221
Well Id. **MW-13**

Date: 10/24/19
Weather: Cloudy 55°
Time In: ~~1150~~ 12:35 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	5.52	
Depth to Bottom:	(feet)	23.82	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	18.3	
Volume of Water in Well:	(gal)	2.92	
Three Well Volumes:	(gal)	8.76	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate: (ml/min)	200			
Duration of Pumping: (min)				
Total Volume Removed: (gal)				

Did well go dry? Yes [ ] No [ ]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors

gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47

1 gallon=3.785L=3785mL=1337cu. feet

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
12:40	5.82	16.04	6.84	-75	1.51	55.5	0.00	0.967
12:45	5.82	15.50	6.99	-78	1.59	51.6	0.00	1.02
12:50	5.82	14.87	7.05	-46	1.64	37.1	0.00	1.05
12:55	5.82	14.59	7.13	-38	1.66	30.4	0.00	1.06
13:00	5.82	14.50	7.14	-21	1.67	29.5	0.00	1.07
13:05	5.82	14.46	7.14	-11	1.67	28.1	0.00	1.07
13:10	5.82	14.43	7.14	-1	1.67	26.9	0.00	1.07

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-13-1019** Duplicate? Yes [ ] No [X]
Sample Time: 13:10 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
Required Client Information:

Company: GES - Syracuse	
Address: 5 Technology Place, Suite 4	
East Syracuse, New York 13057	
Email To: dshay@gesonline.com	
Phone: 800.220.3069 x4051	Fax: None
Requested Due Date/TAT: Standard	

Section B
Required Project Information:

Report To: Devin Shay (GES) dshay@gesonline.com	
Report To: Tim Beaumont (GES) tbeaumont@gesonline.com	
Purchase Order No.:	
Project Name: National Grid - Ilion East Sreet, Ilion NY	
Project Number: 06-03123-133570-221-1106	

Section C
Invoice Information:

Attention: Accounts Payable via email at ges-invoices@gesonline.com	
Company Name: Groundwater & Environmental Services, Inc.	
Address: 5 Technology Place, Suite 4, East Syracuse, NY 13057	
Pace Quote Reference:	
Pace Project Manager: Rachel Christner	
Pace Profile #: **Semi-Annual GWS**	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION ☐ GA ☐ L ☐ ☐ ☐ ☐ ☐ OH ☐ SC ☐ NJ ☐ HER___

Section D **Required** Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOLID/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
SWAB	SW
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE (COMPOSITE START)	COLLECTED TIME (COMPOSITE START)	COLLECTED DATE (GRAB)	COLLECTED TIME (GRAB)	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (9012B)	Pace Project Number / Lab I.D.
1	MW-02R-1019	WT	G			10/24/19	09:45		7	2		1	3	1				3	2	1	
2	MW-03-1019	WT	G				11:30		7	2		1	3	1				3	2	1	
3	MW-06-1019	WT	G				09:10		7	2		1	3	1				3	2	1	
4	MW-06-MS-1019	WT	G				09:45		7	2		1	3	1				3	2	1	
5	MW-06-MSD-1019	WT	G				09:50		7	2		1	3	1				3	2	1	
6	MW-07-1019	WT	G				10:40		7	2		1	3	1				3	2	1	
7	MW-08R-1019	WT	G				12:25		7	2		1	3	1				3	2	1	
8	MW-13-1019	WT	G				13:10		7	2		1	3	1				3	2	1	
9	FD-1019	WT	G				—		7	2		1	3	1				3	2	1	
10	Trip Blanks	WT	G				—		3				3					3			
11																					
12																					
13																					

Additional Comments:

SAMPLES WILL ARRIVE IN # COOLERS.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	10/24/19	14:30			

SAMPLE CONDITIONS

	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGAmsterdam-labnumber.28351.EQEDD.zip

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/24/19

National Grid
East Street, Ilion New York

Sampling Personnel: BH
Date: 05/27/20
Job Number: 0603123-133570-221
Weather: 85°F, sunny
Well Id. **MW-02R**
Time In: ~~1040~~ 1130 Time Out: 1215

Well Information

		TOC	Other
Depth to Water:	(feet)	~~5.91~~ ~~12.12~~	
Depth to Bottom:	(feet)	18.30	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	~~9.39~~	6.18
Volume of Water in Well:	(gal)	.93	
Three Well Volumes:	(gal)	2.79	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	

Average Pumping Rate: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)
Did well go dry? Yes [ ] No [X]
Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
~~1150~~ ~~1095~~	~~12.18~~							
~~1135~~ ~~1050~~	12.41	23.91	7.97	-178	0.869	850	0.42	0.612
1140 ~~1055~~	12.47	24.17	7.94	-173	0.857	802	0.30	0.547
1145 ~~1100~~	12.52	21.89	7.85	-149	0.858	488	0.22	0.549
1150 ~~1105~~	12.61	21.74	7.82	-145	0.847	212	0.21	0.542
1155 ~~1110~~	12.70	21.61	7.80	-141	0.838	169	0.20	0.536
1200	12.74	21.33	7.80	-143	0.825	121	0.14	0.528
1205	12.77	21.40	7.80	-142	0.829	94.3	0.12	0.530

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

4 - 1 liter ambers Yes [X] No [ ]
6 - 40 ml vials Yes [X] No [ ]
2 - 250 ml plastic Yes [X] No [ ]

FD-0520

Sample ID: **MW-02R-0520** Duplicate? Yes [X] No [ ]
Sample Time: ~~1110~~ 1205 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: BH
Job Number: 0603123-133570-221
Well Id. **MW-03**

Date: 09/27/20
Weather: 82°F, sunny
Time In: 0950 Time Out: 1030

Well Information

		TOC	Other
Depth to Water:	(feet)	5.90	
Depth to Bottom:	(feet)	27.25	
Depth to Product:	(feet)	~~NP 21.35~~	
Length of Water Column:	(feet)	21.35	
Volume of Water in Well:	(gal)	3.416	
Three Well Volumes:	(gal)	10.25	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	

Average Pumping Rate: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)
Did well go dry? Yes [ ] No [X]
Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0955	5.93	24.44	7.93	-82	0.940	459	1.64	0.605
1000	5.93	24.10	8.03	-74	0.991	217	0.83	0.638
1005	5.94	23.71	8.10	-55	1.04	186	0.12	0.663
1010	5.93	24.03	8.06	-40	0.916	94.0	0.03	0.586
1015	5.93	24.12	8.07	-35	0.877	72.3	0.01	0.561
1020	5.93	24.16	8.07	-31	0.870	64.2	0.01	0.557
1025	5.93	24.19	8.07	-29	0.867	56.7	0.00	0.555

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-03-0520** Duplicate? Yes [ ] No [X]
Sample Time: ~~1030~~ 1025 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: BH
Date: 05/27/20
Job Number: 0603123-133570-221
Weather: 85°F, sunny
Well Id. **MW-06**
Time In: 1220 Time Out: 1310

Well Information

		TOC	Other
Depth to Water:	(feet)	16.96	
Depth to Bottom:	(feet)	28.60	
Depth to Product:	(feet)	NP+1.64	
Length of Water Column:	(feet)	11.64	
Volume of Water in Well:	(gal)	1.86	
Three Well Volumes:	(gal)	5.58	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1225	17.08	22.72	7.96	-124	1.25	603	2.12	0.812
1230	17.09	20.91	8.02	-110	1.36	201	1.03	0.876
1235	17.07	18.03	8.06	-93	1.48	5.7	0.01	0.950
1240	17.07	17.64	8.05	-84	1.53	4.2	0.01	0.961
1245	17.07	17.11	8.03	-75	1.55	2.0	0.00	0.983
1250	17.06	17.27	8.06	-66	1.54	1.2	0.00	0.992
1255	17.06	17.21	8.04	-61	1.54	1.1	0.00	0.997

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	6 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	9 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	3 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-06-0520** Duplicate? Yes [ ] No [X]
Sample Time: 1255 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: BH
Job Number: 0603123-133570-221
Well Id. **MW-07**

Date: 05/27/20
Weather: Sunny, 78°F
Time In: 0900 Time Out: 0940

Well Information

		TOC	Other
Depth to Water:	(feet)	8.31	
Depth to Bottom:	(feet)	16.87	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	8.66	
Volume of Water in Well:	(gal)	1.385	
Three Well Volumes:	(gal)	4.15	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]

Average Pumping Rate: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors

gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47

1 gallon=3.785L=3785mL=1337cu. feet

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0905	8.68	23.41	7.83	-155	0.678	421	0.86	0.430
0910	9.18	21.54	7.80	-140	0.631	355	0.42	0.401
0915	9.31	19.78	7.73	-132	0.622	311	0.24	0.399
0920	9.39	19.68	7.68	-128	0.646	311	0.24	0.413
0925	9.40	18.67	7.69	-129	0.731	297	0.13	0.469
0930	9.39	18.60	7.69	-129	0.781	277	0.16	0.500
0935	9.40	17.52	7.70	-135	0.743	254	0.01	0.476

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-07-0520** Duplicate? Yes [ ] No [X]
Sample Time: 0935 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: BH
Date: 05/27/20
Job Number: 0603123-133570-221
Weather: 80°F, sunny
Well Id. **MW-08R**
Time In: 1040 Time Out: 1120

Well Information

		TOC	Other
Depth to Water:	(feet)	9.91	
Depth to Bottom:	(feet)	20.20	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	11.29	
Volume of Water in Well:	(gal)	1.81	
Three Well Volumes:	(gal)	5.42	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1045	~~9.98~~	21.39	7.91	-41	1.03	71.3	3.10	0.752
1050	10.31	20.96	7.73	-46	1.10	58.2	2.09	0.707
1055	10.34	18.89	7.63	-54	1.14	16.5	0.30	0.727
1100	10.38	18.10	7.55	-58	1.18	12.7	0.16	0.758
1105	10.40	18.08	7.53	-60	1.21	10.3	0.11	0.762
1110	10.43	18.31	7.54	-62	1.19	9.1	0.06	0.760
1115	10.45	18.30	7.61	-66	1.19	9.6	0.04	0.761

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-08R-0520** Duplicate? Yes [ ] No [X]
Sample Time: 1115 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: BH
Date: 05/27/20
Job Number: 0603123-133570-221
Weather: 85°F, sunny
Well Id. **MW-13**
Time In: 1320 Time Out: 1400

Well Information

		TOC	Other
Depth to Water:	(feet)	6.43	
Depth to Bottom:	(feet)	23.82	
Depth to Product:	(feet)	ND	
Length of Water Column:	(feet)	17.39	
Volume of Water in Well:	(gal)	2.8	
Three Well Volumes:	(gal)	8.4	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate: 200 (ml/min)					
Duration of Pumping: 30 (min)					
Total Volume Removed: 2 (gal)					

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1325	6.52	23.12	8.36	-27	1.39	379	2.65	0.876
1330	6.64	18.02	8.04	-16	1.41	99.7	0.39	0.971
1335	6.71	16.10	7.99	-3	1.44	20.1	0.16	0.924
1340	6.72	15.43	7.98	3	1.45	13.6	0.00	0.929
1345	6.70	15.14	7.98	10	1.45	7.0	0.00	0.928
1350	6.71	14.98	7.99	12	1.46	5.1	0.00	0.931
1355	6.71	14.96	7.99	13	1.46	4.2	0.00	0.933

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-13-0520** Duplicate? Yes [ ] No [X]
Sample Time: 1355 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A — Required Client Information:

Company: GES - Syracuse
Address: 5 Technology Place, Suite 4
East Syracuse, New York 13057
Email To: dshay@gesonline.com
Phone: 800.220.3069 x4051 Fax: None
Requested Due Date/TAT: Standard

Section B — Required Project Information:

Report To: Devin Shay (GES) dshay@gesonline.com
Report To: Tim Beaumont (GES) tbeaumont@gesonline.com
Purchase Order No.:
Project Name: National Grid - Ilion East Street, Ilion NY
Project Number: 06-03123-133570-221-1106

Section C — Invoice Information:

Attention: Accounts Payable via email at ges-invoices@gesonline.com
Company Name: Groundwater & Environmental Services, Inc.
Address: 5 Technology Place, Suite 4, East Syracuse, NY 13057
Pace Quote Reference:
Pace Project Manager: Rachel Christner
Pace Profile #: Semi-Annual GWS

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ NY ☐ NJ ☐ ☐ ☐ ☐ ☐ PA ☐ OH ☐ WI ☐ OTHER___

Section D — Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED GRAB DATE	COLLECTED GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (9012B)	Pace Project Number / Lab I.D.
1	MW-02R-0420	WT	G			05/27	1205		6	2			3	1				3	2	1	
2	MW-03-0420	WT	G			05/27	1025		6	2			3	1				3	2	1	
3	MW-06-0420	WT	G			05/27	1255		6	2			3	1				3	2	1	
4	MW-06-MS-0420	WT	G			05/27	1255		6	2			3	1				3	2	1	
5	MW-06-MSD-0420	WT	G			05/27	1255		6	2			3	1				3	2	1	
6	MW-07-0420	WT	G			05/27	0935		6	2			3	1				3	2	1	
7	MW-08R-0420	WT	G			05/27	1115		6	2			3	1				3	2	1	
8	MW-13-0420	WT	G			05/27	1355		6	2			3	1				3	2	1	
9	FD-0420	WT	G			05/27			6	2			3	1				3	2	1	
10	Trip Blanks	WT	G						6	2			3	1				3	2	1	
11									2				2					3			
12																					
13																					

Additional Comments:

SAMPLES WILL ARRIVE IN # 1 COOLERS.

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGIlion-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Ben Hendry/Sempra	5/27/20	1540		5/27/20	1540

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Ben Hendry

SIGNATURE of SAMPLER: Ben Hendry

DATE Signed (MM / DD / YY): 05/27/20

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

National Grid
East Street, Ilion New York

Sampling Personnel: AS
Job Number: 0603200-133570-221
Well Id. **MW-02R**

Date: 10/12/20
Weather: 46°F, cloudy
Time In: 0850 Time Out: 0945

Well Information

		TOC	Other
Depth to Water:	(feet)	12.82	
Depth to Bottom:	(feet)	18.30	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	5.48	
Volume of Water in Well:	(gal)	0.87	
Three Well Volumes:	(gal)	2.6	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0900	13.41	14.56	6.14	-123	1.01	48.0	3.53	0.648
0905	14.40	14.85	6.06	-125	1.01	97.9	2.11	0.645
0910	14.78	14.18	5.99	-126	1.00	133	0.84	0.642
0915	14.99	14.04	5.97	-126	1.00	109	0.56	0.642
0920	15.18	13.95	5.97	-125	1.00	78.9	0.49	0.642
0925	15.45	13.86	5.97	-122	0.999	42.3	0.46	0.639
0930	15.65	13.59	5.97	-115	0.989	20.5	0.49	0.633

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	4 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	6 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	2 - 250 ml plastic	Yes [X] No [ ]

FD-1020

Sample ID: **MW-02R-1020** Duplicate? Yes [X] No [ ]
Sample Time: 0935 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: AJ
Date: 10/12/20
Job Number: 0603200-133570-221
Weather: 50°F, cloudy
Well Id. **MW-03**
Time In: 1040 Time Out: 1125

Well Information

		TOC	Other
Depth to Water:	(feet)	5.95	
Depth to Bottom:	(feet)	27.25	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	21.3	
Volume of Water in Well:	(gal)	3.4	
Three Well Volumes:	(gal)	10.2	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1045	5.96	14.01	6.11	0	1.04	19.4	0.38	0.660
1050	5.96	13.73	6.29	-8	1.07	17.5	0.31	0.698
1055	5.96	13.68	6.31	18	1.10	13.2	0.16	0.702
1100	5.96	13.61	6.31	34	1.10	10.6	0.11	0.701
1105	5.96	13.57	6.31	43	1.09	7.8	0.08	0.700
1110	5.96	13.55	6.32	50	1.09	6.9	0.04	0.699
1115	5.96	13.52	6.32	53	1.09	5.2	0.02	0.698

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-03-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1120 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: AJS
Job Number: 0603200-133570-221
Well Id. **MW-06**

Date: 10/12/20
Weather: 56°F, partly sunny
Time In: 1220 Time Out: 1315

Well Information

		TOC	Other
Depth to Water:	(feet)	17.59	
Depth to Bottom:	(feet)	28.60	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	11.01	
Volume of Water in Well:	(gal)	1.7	
Three Well Volumes:	(gal)	5.2	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]

Average Pumping Rate: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)
Did well go dry? Yes [ ] No [X]
Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1225	17.71	15.09	5.95	-80	1.19	61.6	0.56	0.764
1230	17.69	15.13	6.21	-52	1.16	12.0	0.65	0.735
1235	17.69	14.73	6.31	-20	1.42	0.0	0.26	0.902
1240	17.69	14.52	6.32	-5	1.53	0.0	0.17	0.979
1245	17.69	14.40	6.33	6	1.58	0.0	0.13	0.999
1250	17.69	14.21	6.33	12	1.61	0.0	0.07	1.03
1255	17.69	14.20	6.33	17	1.62	0.0	0.11	1.04

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

6 - 1 liter ambers Yes [X] No [ ]
9 - 40 ml vials Yes [X] No [ ]
3 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-06-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1300 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: AJ
Job Number: 0603200-133570-221
Well Id. **MW-07**

Date: 10/12/20
Weather: 54°F, cloudy
Time In: 1125 Time Out: 1210

Well Information

		TOC	Other
Depth to Water:	(feet)	8.75	
Depth to Bottom:	(feet)	16.87	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	8.12	
Volume of Water in Well:	(gal)	1.3	
Three Well Volumes:	(gal)	3.9	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1130	9.52	13.83	6.27	-7	1.06	62.8	0.30	0.678
1135	9.80	14.46	6.05	-60	1.05	141	0.55	0672
1140	9.91	14.75	5.83	-75	1.14	128	0.39	0.728
1145	10.05	14.88	5.78	-81	1.20	115	0.31	0765
1150	10.05	14.93	5.77	-84	1.22	105	0.23	0.781
1155	10.11	14.95	5.77	-86	1.23	100	0.19	0.790
1200	10.15	14.96	5.81	-87	1.26	98.6	0.21	0.806

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-07-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1205 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: AS
Job Number: 0603200-133570-221
Well Id. **MW-08R**

Date: 10/12/20
Weather: 48°F, cloudy
Time In: 0950 Time Out: 1040

Well Information

		TOC	Other
Depth to Water:	(feet)	10.01	
Depth to Bottom:	(feet)	20.20	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	10.19	
Volume of Water in Well:	(gal)	1.63	
Three Well Volumes:	(gal)	4.9	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0955	11.05	13.75	5.98	-60	1.02	183	0.50	0.650
1000	11.59	14.09	5.98	17	1.05	238	0.43	0.674
1005	12.25	14.26	5.95	35	1.05	52.5	0.32	0.671
1010	12.32	14.33	5.93	41	1.04	33.6	0.26	0.666
1015	12.35	14.34	5.92	43	1.03	33.1	0.23	0.662
1020	12.49	14.33	5.92	44	1.02	20.4	0.24	0.655
1025	12.49	14.28	5.92	32	1.00	15.2	0.33	0.641

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-08R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1030 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: AJ
Job Number: 0603200-133570-221
Well Id. **MW-13**

Date: 10/12/20
Weather: 57°F, partly sunny
Time In: 1320 Time Out: 1405

Well Information

		TOC	Other
Depth to Water:	(feet)	6.54	
Depth to Bottom:	(feet)	23.82	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	17.28	
Volume of Water in Well:	(gal)	2.7	
Three Well Volumes:	(gal)	8.2	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other: ____
Well Diameter: 1" [ ] 2" [X] Other: ____
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		

Average Pumping Rate: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)
Did well go dry? Yes [ ] No [X]
Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1320	6.78	14.55	6.38	62	1.59	5.3	0.32	1.02
1325	6.78	14.71	6.38	86	1.55	11.0	0.29	0.995
1330	6.78	14.62	6.34	82	1.55	7.6	0.10	0.990
1335	6.78	14.56	6.31	81	1.55	2.5	0.03	0.989
1340	6.78	14.57	6.30	81	1.54	0.3	0.01	0.988
1345	6.78	14.58	6.29	80	1.54	0.0	0.00	0.986
1350	6.78	14.59	6.28	81	1.54	0.0	0.00	0.984

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-13-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1355 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company: GES - Syracuse
Address: 5 Technology Place, Suite 4
East Syracuse, New York 13057
Email To: dshay@gesonline.com
Phone: 800.220.3069 x4051 Fax: None
Requested Due Date/TAT: Standard

Section B — Required Project Information:

Report To: Devin Shay (GES) dshay@gesonline.com
Report To: Tim Beaumont (GES) tbeaumont@gesonline.com
Purchase Order No.:
Project Name: National Grid - Ilion East Street, Ilion NY
Project Number: 0603200-133570-221-1106

Section C — Invoice Information:

Attention: Accounts Payable via email at ges-invoices@gesonline.com
Company Name: Groundwater & Environmental Services, Inc.
Address: 5 Technology Place, Suite 4, East Syracuse, NY 13057
Pace Quote Reference:
Pace Project Manager: Rachel Christner
Pace Profile #: Semi-Annual GWS

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER_____

SITE LOCATION: ☐ NY ☐ NJ ☐ CT ☐ PA ☐ OTHER_____

Section D — Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (9012B)	Pace Project Number / Lab I.D.
1	MW-02R-1020	WT	G	10/12/20	0935		6	2			3	1				3	2	1	
2	MW-03-1020	WT	G		1120		6	2			3	1				3	2	1	
3	MW-06-1020	WT	G		1300		6	2			3	1				3	2	1	
4	MW-06-MS-1020	WT	G		1300		6	2			3	1				3	2	1	
5	MW-06-MSD-1020	WT	G		1300		6	2			3	1				3	2	1	
6	MW-07-1020	WT	G		1205		6	2			3	1				3	2	1	
7	MW-08R-1020	WT	G		1030		6	2			3	1				3	2	1	
8	MW-13-1020	WT	G		1355		6	2			3	1				3	2	1	
9	FD-1020	WT	G				6	2			3	1				3	2	1	
10	Trip Blanks	WT	G				6	2			3	1				3	2	1	
11							3				3					3			
12																			
13																			

Filtered (Y/N)

Additional Comments:
SAMPLES WILL ARRIVE IN # COOLERS.

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:
NGIlion-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[redacted] GES	10/12/20	1525		10-12	1525

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY):

Appendix C – Data Usability Summary Report

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

October 19, 2020

Devin Shay
Groundwater & Environmental Services, Syracuse
5 Technology Place, Suite 4
East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid- Ilion, East Ave.: Data Packages
Pace Analytical Job Nos. 30331848, 30365233

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the October 2019 and the May 2020 sampling events at the National Grid Ilion, East Avenue site. For each event, six aqueous samples, a matrix spike/matrix spike duplicate pair, a trip blank and a field duplicate were collected from the main site. These samples were processed for volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), cyanide and polynuclear aromatic hydrocarbons (PAHs).

Analytical methodologies are those of the USEPA SW846 with additional requirements of the NYSDEC ASP.

Complete NYSDEC Category B deliverables were included in the laboratory data package and all information required for validation of the data is present. This usability report is generated from review of the summary form information, and review of associated QC raw data. The reported summary forms have been reviewed for application of validation qualifiers, using guidance from the National Grid generic QAPP, USEPA Region 2 validation SOPs, the USEPA National Functional Guidelines for Data Review, and professional judgment, as affects the usability of the data. The following items were reviewed:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate (MS/MSD) Correlations
- Field Duplicate Correlations
- Laboratory Control Sample (LCS)
- Preparation/Calibration Blanks
- Calibration/Low Level Standard Responses
- Instrumental Tunes
- Instrument MDLs
- Sample Quantitation and Identification
-

All of the items were determined to be acceptable for the DUSR level review. In summary, sample results are usable.

The laboratory case narratives and sample identification summary forms are attached to this text, and should be reviewed in conjunction with this report.

- **Table 1 – Data Qualifications**

Sample ID	Qualifier	Analyte	Reason for qualification
MW-02R-0420 FD-0420	UJ	Cyanide	Field duplicate RPD exceeds criteria
MW-03-0420, MW-06-0420, MW-07-0420, MW-08R-0420, MW-13-0420	R	Naphthalene	Positive blank contamination
MW-06-1019	UJ	Anthracene Fluoranthene Phenanthrene 2-Methylnaphthalene Acenaphthene Acenaphthylene	MS/MSD RPD exceeds criteria
MW-06-0420	UJ	Anthracene Fluoranthene Fluorene Phenanthrene Pyrene	MS/MSD RPD exceeds criteria

UJ: estimated non-detect with an unknown bias
R: data rejected

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and effluent samples and instrumental tune fragmentations were within acceptance ranges. Blanks were free of contamination. Surrogate and internal standard recoveries were within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-06** as the matrix for both the 2019 and 2020 sampling events. All QC elements associated with the MS/MSD fell within project criteria. The blind field duplicate correlations of **MW-03 2019** were not calculated, as there were no positive detections reported in the original or duplicate sample. The RPDs between **MW-02R 2020** and the duplicate for analytical detections all fell within EPA criteria (<30%).

PAHs by EPA8270D/NYSDEC ASP

Holding times were met.

There were no blank detections associated with the 2019 data.

The method blank associated with the 2020 data reported a positive concentration (0.25 µg/L) of naphthalene. EPA guidance indicates that any organic analyte with a positive concentration less than five times the concentration found in an associated blank cannot be considered representative of the sampling location. For the May 2020 sampling event, **MW-03-0420, MW-06-0420, MW-07-0420, MW-08R-0420, and MW-13-0420** all reported concentrations that were less than five times the blank concentration. The naphthalene concentrations in these samples were considered unreliable, as they may not be representative of the sampling location, and the concentrations were qualified as rejected (“R”).

Surrogate recoveries were within criteria with the exception of a low recovery in terphenyl the 2020 PAH blank. The other surrogates recovered within laboratory-provided ranges, and the low surrogate did not impact the data.

The laboratory control spike recoveries and precision indicate the methods were within laboratory control.

An MS/MSD was analyzed using **MW-06** as the matrix for both the 2019 and 2020 sampling events For 2019 the matrix spike/matrix spike duplicate relative percent differences were within laboratory-provided limits, with the exception of anthracene, fluoranthene and phenanthrene. The non-detect data for these three analytes are qualified as estimated non-detect with and indeterminate bias. For 2020, the matrix spike/matrix spike duplicate relative percent differences were within laboratory-provided limits with the exception of 2-fluorobiphenyl (surrogate), 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluoranthene, fluorene, phenanthrene, and pyrene. With the exception of the surrogate, all data for these analytes are qualified as estimated non-detect with an indeterminate bias.

The blind field duplicate correlations of **MW-03 2019** were not calculated, as there were no positive detections reported in the original or duplicate sample. The RPDs between **MW-02R 2020** and the duplicate for analytical detections all fell within EPA criteria (<30%).

Cyanide by EPA 9012B /NYSDEC ASP

Holding times were met. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

The laboratory control spike recoveries and precision indicate the method is within laboratory control. An MS/MSDs were analyzed using samples unassociated with the site. The blind field duplicate correlations of **MW-03 2019** were not calculated, as there were no positive detections reported in the original or duplicate sample. The blind field duplicate cyanide RPD of **MW-02R-0420** and the associated duplicate detection exceeded the EPA criteria (<30%), where the 40% RPD indicates a precision issue. The **MW-02R-0420** and **FD** cyanide data is qualified as estimated with an indeterminate bias.

Data Package Completeness

Complete NYSDEC Category B deliverables were included in the laboratory data package, all information required for validation of the data is present.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Sincerely,

Bonnie Janowiak, Ph.D.
Senior Chemist

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: National Grid - Ilion East Str
Pace Project No.: 30331848

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30331848001	**MW-02R-1019**	Water	10/24/19 08:55	10/25/19 09:40
30331848002	**MW-03-1019**	Water	10/24/19 11:30	10/25/19 09:40
30331848003	**MW-06-1019**	Water	10/24/19 09:40	10/25/19 09:40
30331848004	**MW-06-MS-1019**	Water	10/24/19 09:45	10/25/19 09:40
30331848005	**MW-06-MSD-1019**	Water	10/24/19 09:50	10/25/19 09:40
30331848006	**MW-07-1019**	Water	10/24/19 10:40	10/25/19 09:40
30331848007	**MW-08R-1019**	Water	10/24/19 12:25	10/25/19 09:40
30331848008	**MW-13-1019**	Water	10/24/19 13:10	10/25/19 09:40
30331848009	**FD-1019**	Water	10/24/19 00:01	10/25/19 09:40
30331848010	**Trip Blanks**	Water	10/24/19 00:01	10/25/19 09:40

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Ilion East Str
Pace Project No.: 30331848

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 01, 2019

General Information:
9 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 368051

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30331848003

R1: RPD value was outside control limits.

- MSD (Lab ID: 1786089)
  - Anthracene
  - Fluoranthene
  - Phenanthrene

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Ilion East Str
Pace Project No.: 30331848

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 01, 2019

General Information:
10 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Ilion East Str
Pace Project No.: 30331848

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 01, 2019

General Information:
9 samples were analyzed for EPA 9012B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 368724

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30324293001,30331690005

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 1789087)
  - Cyanide
- MSD (Lab ID: 1789086)
  - Cyanide

R1: RPD value was outside control limits.

- MSD (Lab ID: 1789086)
  - Cyanide

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: National Grid - Ilion, NY-Revised Report
Pace Project No.: 30365233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30365233001	**MW-02R-0420**	Water	05/27/20 12:05	05/28/20 10:00
30365233002	**MW-03-0420**	Water	05/27/20 10:25	05/28/20 10:00
30365233003	**MW-06-0420**	Water	05/27/20 12:55	05/28/20 10:00
30365233004	**MW-06-MS-0420**	Water	05/27/20 12:55	05/28/20 10:00
30365233005	**MW-06-MSD-0420**	Water	05/27/20 12:55	05/28/20 10:00
30365233006	**MW-07-0420**	Water	05/27/20 09:35	05/28/20 10:00
30365233007	**MW-08R-0420**	Water	05/27/20 11:15	05/28/20 10:00
30365233008	**MW-13-0420**	Water	05/27/20 13:55	05/28/20 10:00
30365233009	**FD-0420**	Water	05/27/20 00:01	05/28/20 10:00
30365233010	**Trip Blanks**	Water	05/27/20 00:01	05/28/20 10:00

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY-Revised Report
Pace Project No.: 30365233

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 10, 2020

General Information:
9 samples were analyzed for EPA 8270D by SIM by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 399093

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.

- BLANK (Lab ID: 1932727)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 399093

B: Analyte was detected in the associated method blank.

- BLANK for HBN 399093 [OEXT/412 (Lab ID: 1932727)
  - Naphthalene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY-Revised Report
Pace Project No.: 30365233

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 10, 2020

QC Batch: 399093

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30365233003

R1: RPD value was outside control limits.

- MSD (Lab ID: 1932730)
  - 2-Fluorobiphenyl (S)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Fluoranthene
  - Fluorene
  - Phenanthrene
  - Pyrene

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY-Revised Report
Pace Project No.: 30365233

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 10, 2020

General Information:
10 samples were analyzed for EPA 8260C by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY-Revised Report
Pace Project No.: 30365233

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 10, 2020

General Information:
9 samples were analyzed for EPA 9012B by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

December 9, 2020

Devin Shay
Groundwater & Environmental Services, Syracuse
5 Technology Place, Suite 4
East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid- Ilion, East Ave.: Data Package Pace Analytical Job No. 30387068

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the October 2020 sampling events at the National Grid Ilion, East Avenue site. Six aqueous samples, a matrix spike/matrix spike duplicate pair, a trip blank and a field duplicate were collected from the main site. These samples were processed for volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), cyanide and polynuclear aromatic hydrocarbons (PAHs).

Analytical methodologies are those of the USEPA SW846 with additional requirements of the NYSDEC ASP.

Complete NYSDEC Category B deliverables were included in the laboratory data package and all information required for validation of the data is present. This usability report is generated from review of the summary form information, and review of associated QC raw data. The reported summary forms have been reviewed for application of validation qualifiers, using guidance from the National Grid generic QAPP, USEPA Region 2 validation SOPs, the USEPA National Functional Guidelines for Data Review, and professional judgment, as affects the usability of the data. The following items were reviewed:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate (MS/MSD) Correlations
- Field Duplicate Correlations
- Laboratory Control Sample (LCS)
- Preparation/Calibration Blanks
- Calibration/Low Level Standard Responses
- Instrumental Tunes
- Instrument MDLs
- Sample Quantitation and Identification
-

All of the items were determined to be acceptable for the DUSR level review. In summary, sample results are usable.

The laboratory case narratives and sample identification summary forms are attached to this text, and should be reviewed in conjunction with this report.

- **Table 1 – Data Qualifications**

Sample ID	Qualifier	Analyte	Reason for qualification
MW-02R-1020	J	Naphthalene	Field duplicate RPD exceeds criteria
MW-03-1020 **MW-06-1020** **MW-08R-1020**	R	Naphthalene	Positive blank contamination

J: estimated detect with an unknown bias

R: data rejected

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and effluent samples and instrumental tune fragmentations were within acceptance ranges. Blanks were free of contamination. Surrogate and internal standard recoveries were within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-06** as the matrix. All QC elements associated with the MS/MSD fell within project criteria. The blind field duplicate correlations between **MW-02R-1020** and the duplicate for analytical detections all fell within EPA criteria (<30%).

PAHs by EPA8270D/NYSDEC ASP

Holding times were met

The method blank associated with the 2020 data reported a positive concentration (0.13 µg/L) of naphthalene. EPA guidance indicates that any organic analyte with a positive concentration less than five times the concentration found in an associated blank cannot be considered representative of the sampling location. For the October 2020 sampling event, **MW-03-1020, MW-06-1020,** and **MW-08R-1020** all reported concentrations that were less than five times the blank concentration. The naphthalene concentrations in these samples were considered unreliable, as they may not be representative of the sampling location, and the concentrations were qualified as rejected (“R”).

Surrogate recoveries were within criteria.

The laboratory control spike recoveries and precision indicate the methods were within laboratory control.

An MS/MSD was analyzed using **MW-06** as the matrix for both the 2020 sampling event. The matrix spike/matrix spike duplicate recoveries and relative percent differences were within laboratory-provided limits.

The blind field duplicate correlations of **MW-03 2019** were not calculated, as there were no positive detections reported in the original or duplicate sample. The RPDs between **MW-02R 2020** and the duplicate for analytical detections all fell within EPA criteria (<30%).

Cyanide by EPA 9012B /NYSDEC ASP

Holding times were met. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

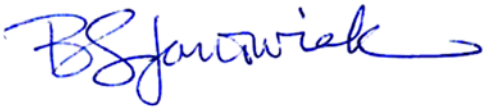
The laboratory control spike recoveries and precision indicate the method is within laboratory control. An MS/MSDs were analyzed using samples unassociated with the site. The blind field duplicate correlations of **MW-02R** were within project criteria.

Data Package Completeness

Complete NYSDEC Category B deliverables were included in the laboratory data package, all information required for validation of the data is present.

Please do not hesitate to contact me if you have comments or questions regarding this report.

Sincerely,



Bonnie Janowiak, Ph.D.
Senior Chemist

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SAMPLE SUMMARY

Project: National Grid - Ilion, NY
Pace Project No.: 30387068

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30387068001	**MW-02R-1020**	Water	10/12/20 09:35	10/13/20 17:00
30387068002	**MW-03-1020**	Water	10/12/20 11:20	10/13/20 17:00
30387068003	**MW-06-1021**	Water	10/12/20 13:00	10/13/20 17:00
30387068004	**MW-06-MS-1020**	Water	10/12/20 13:00	10/13/20 17:00
30387068005	**MW-06-MSD-1020**	Water	10/12/20 13:00	10/13/20 17:00
30387068006	**MW-07-1020**	Water	10/12/20 12:05	10/13/20 17:00
30387068007	**MW-08R-1020**	Water	10/12/20 10:30	10/13/20 17:00
30387068008	**MW-13-1020**	Water	10/12/20 13:55	10/13/20 17:00
30387068009	**FD-1020**	Water	10/12/20 00:01	10/13/20 17:00
30387068010	**Trip Blank**	Water	10/12/20 00:01	10/13/20 17:00

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30387068

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 19, 2020

General Information:
9 samples were analyzed for EPA 8270D by SIM by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 418643

B: Analyte was detected in the associated method blank.
- BLANK for HBN 418643 [OEXT/423 (Lab ID: 2023739)
  - Naphthalene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30387068

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 19, 2020

General Information:
10 samples were analyzed for EPA 8260C by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30387068

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 19, 2020

General Information:
9 samples were analyzed for EPA 9012B by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 418491

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30387068003,30387068009

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MS (Lab ID: 2022968)
  - Cyanide
- MSD (Lab ID: 2022969)
  - Cyanide

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.