nationalgrid

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

March 9, 2022

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

***Re:*** ***National Grid Ogdensburg Former MGP Site***
***NYSDEC Site No. 645053***
***10 King Street***
***Ogdensburg, New York***
***2021 Periodic Review Report***

Dear Mr. Deyette:

Enclosed for your review is the 2021 Periodic Review Report (PRR) for the National Grid Ogdensburg Former MGP Site. The PRR pertains to the period from February 17, 2021 through February 17, 2022 and includes a brief report and Institutional Controls/Engineering Controls (IC/EC) Certification Form.

Please feel free to contact me at 315.428.5652 if you have any questions.

Sincerely,

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

300 Erie Boulevard West, C-1
T: 315-428-5652 ■ F: 315-428-3549 ■ steven.stucker@us.ngrid.com ■ www.nationalgrid.com

**National Grid- Ogdensburg MGP Site (NYSDEC Site No. 645053)**

**Reporting Period – February 17, 2021 through February 17, 2022**

# I. Introduction

## A. Brief Site Summary –

The Former Ogdensburg Manufactured Gas Plant (MGP) Site (the Site) is located on an approximate 0.958 acre lot, with the address of 10 King Street in Ogdensburg, New York (refer to Figure 1 Site Location Map). The Site is owned by the St. Lawrence Gas Company. Manufactured gas was produced at the Site from approximately 1854 until at least 1930 using the coal carbonization process. The majority of the buildings and above-grade structures were removed by 1949; however, several subsurface foundations and piping were left in place. In addition to the former MGP, the Site was the location of a quarry from approximately 1850 to after 1865, and was used for the storage of propane gas tanks from before 1945 until sometime before 1997.

An investigation of the Site began in 2003 with the site characterization (SC), the remedial investigation (RI), which was conducted between 2003 and 2009, and culminating in 2010 with the pre-design investigation (PDI). During these investigations, 76 soil borings were drilled, 22 monitoring wells were installed, 10 test pits were excavated, three soil vapor investigations were conducted, and more than 230 samples of environmental media were collected and analyzed. The results of the SC and RI were presented in the Remedial Investigation Report (RI Report; Arcadis 2009), and the results of the PDI were presented in the Pre-Design Investigation Summary Report (PDI Report; National Grid 2011). In March 2009, National Grid also conducted an investigation of the City of Ogdensburg's combined sewer system located downstream from the Site. The investigation was prompted by the findings of the utility evaluation conducted in October 2008 during the Phase III RI, which identified non-aqueous phase liquid (NAPL) in a sewer lateral that extended from the western portion of the Site, along the fence line, to one of the manholes in King Street. The results of the sewer investigation were presented in an April 10, 2009 memorandum to the NYSDEC (Arcadis 2009) and were summarized in the RI Report.

The site investigations identified impacted soils from MGP related activities, specifically coal tar and purifier waste. The constituents of concern (COCs) are primarily the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, and xylenes (collectively, BTEX), the general class of semi-volatile organic compounds (SVOCs) known as polycyclic aromatic hydrocarbons (PAHs), and cyanide, all of which were found at the Site and the off-Site area.

B. **Remedial Program Effectiveness** – During the reporting period (February 17, 2021 to February 17, 2022) the long-term remedial objectives were met for the site.

C. **Remedial Program Compliance** - The major elements within the Institutional Control/Engineering Control(s) (IC/EC) Plan are in compliance.

D. **Remedial Program Recommendations** - It is recommended that no changes be made to the IC/EC Plan. It is recommended that an annual Periodic Review Report (PRR) be submitted. The next PRR submittal will cover the period February 17, 2022 to February 17, 2023.

## II. Site Overview

A. **Site Location and Boundaries –**

The Site is located at 10 King Street in the City of Ogdensburg, County of St. Lawrence, New York (Figure 1 presents the site location map). The Site is an approximate 0.958-acre area bounded by King Street to the north, privately-owned properties to the south and west, a privately-owned property and a vacant National Grid-owned property to the east. Currently, the property is grass-covered, vacant and surrounded by a 6-foot chain link fence with barbed wire.

B. **Regulatory History and Remedy Features –**

The Site was remediated between May and October 2013 in accordance with the *Voluntary Cleanup Program Decision Document* (NYSDEC 2010b) and *Final (100%) Remedial Design* (Arcadis 2012). This PRR is being completed in compliance with Section 6.3 of the NYSDEC – approved Site Management Plan (SMP) for the project. A Deed of Restrictions and Covenants (DCR) was placed on the property in February 2018 by the Owner, and is included in Appendix A of the SMP.

## III. Evaluate Remedy Performance, Effectiveness, and Protectiveness

A. **Evaluation of Remedy Performance** – Annual visual inspections of the cover system are conducted on the Site. The remedy performance has been effective in protecting the public.

## IV. IC/EC Plan Compliance Report

A. **IC/EC Requirements and Compliance**

1. **IC/EC Controls**

   The ICs/ECs:

   - Soil Cover System and Fencing: Annual site inspection of the cover system includes identification of any damage to the cover. The fence is also inspected for any damage. National Grid conducts quarterly inspections for internal security purposes. See Attachment 1 for the Site Inspection Forms.
   - Monitoring Wells Associated with Monitored Natural Attenuation (MNA): Semi-annual groundwater sampling of the monitoring well system will be conducted, until either water quality is consistently below NYSDEC standards, or has become asymptotic at an acceptable level over an extended period.

2. **IC/EC Goals -** Each goal is being met and/or working effectively.

3. **IC/EC Corrective Measures –** No deficiencies were noted during the site inspections.

4. **IC/EC Conclusions/Recommendations –** The EC program is in compliance and there are no recommendations for the program at this time.

5. **IC/EC Certification** – Refer to PRR Form - Attachment 2 for the certification.

**V. Monitoring Plan Compliance Report –** The Annual Monitoring Report was submitted to the NYSDEC on February 1, 2022. See Attachment 3 for a copy of the Annual Monitoring Report.

**VI. Operation & Maintenance (O&M) Plan Compliance Report** – Not Applicable

## VII. Overall PRR Conclusions and Recommendations

A. **Compliance with Site Management Plan (SMP)**

1. **Requirements –** All IC/EC Plan requirements were met during this reporting period.

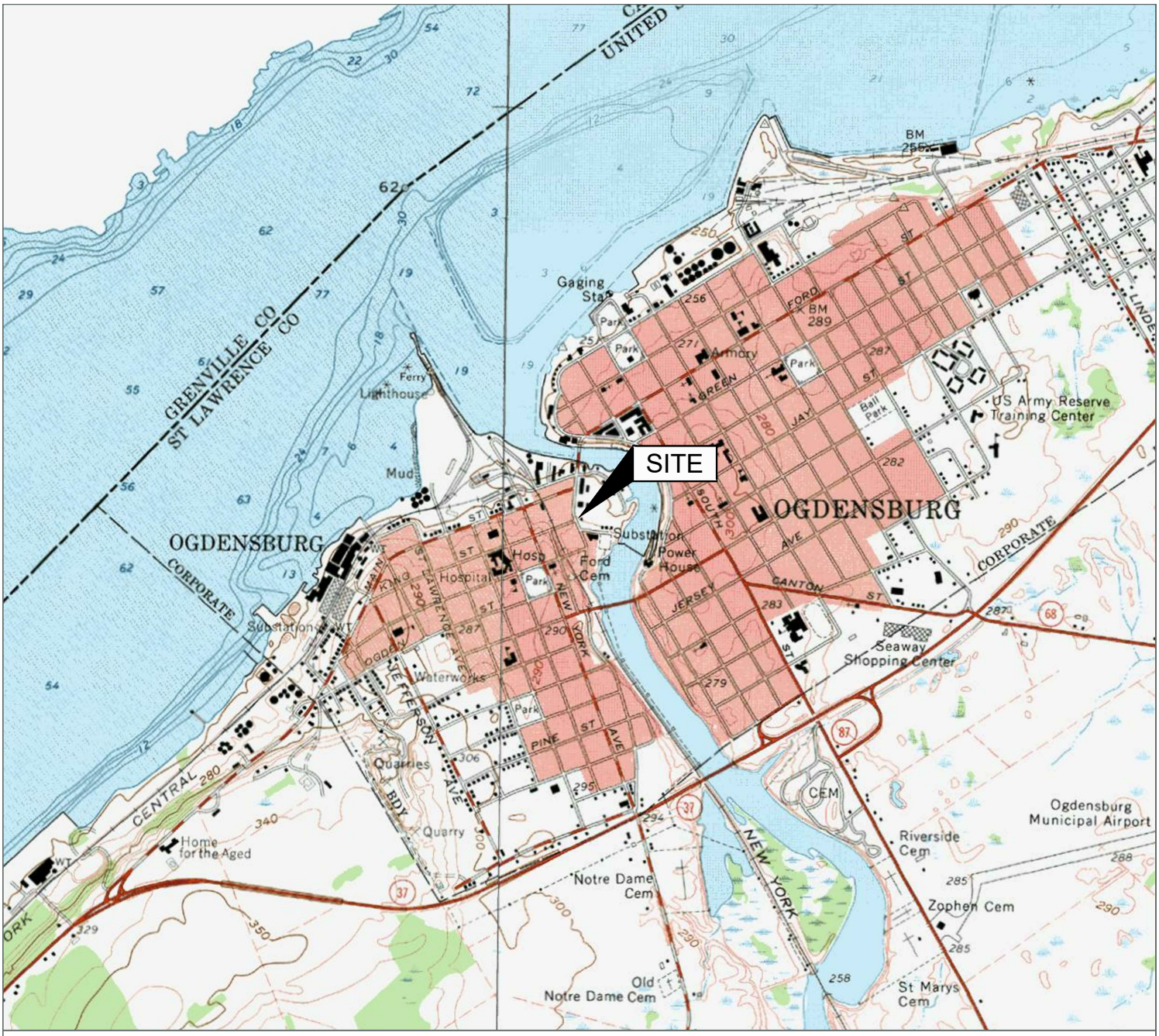
2. **Exposure Pathways –** There are no new completed exposure pathways resulting in unacceptable risk.

3. **Proposed Plans and Schedule to Meet Compliance –** No plan proposed.

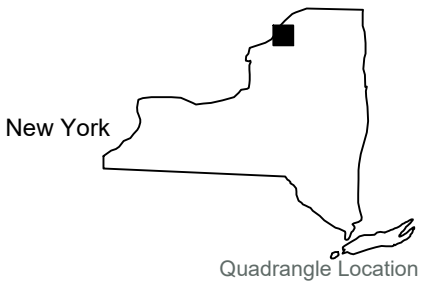
B. **Performance and Effectiveness of the Remedy –** The remedy as described in the Site Management Plan and executed by National Grid has been effective in meeting the program goals.

C. **Future PRR Submittals** – The frequency of PRR Submittals should remain annual. Therefore, the next PRR reporting period will cover February 17, 2022 through February 17, 2023.

## VIII. Additional Guidance – Not needed.




Source:
USGS 7.5 Minute Series
Topographic Quadrangle, 1963
Ogdensburg East, New York
Contour Interval = 10'




Site Location Map

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

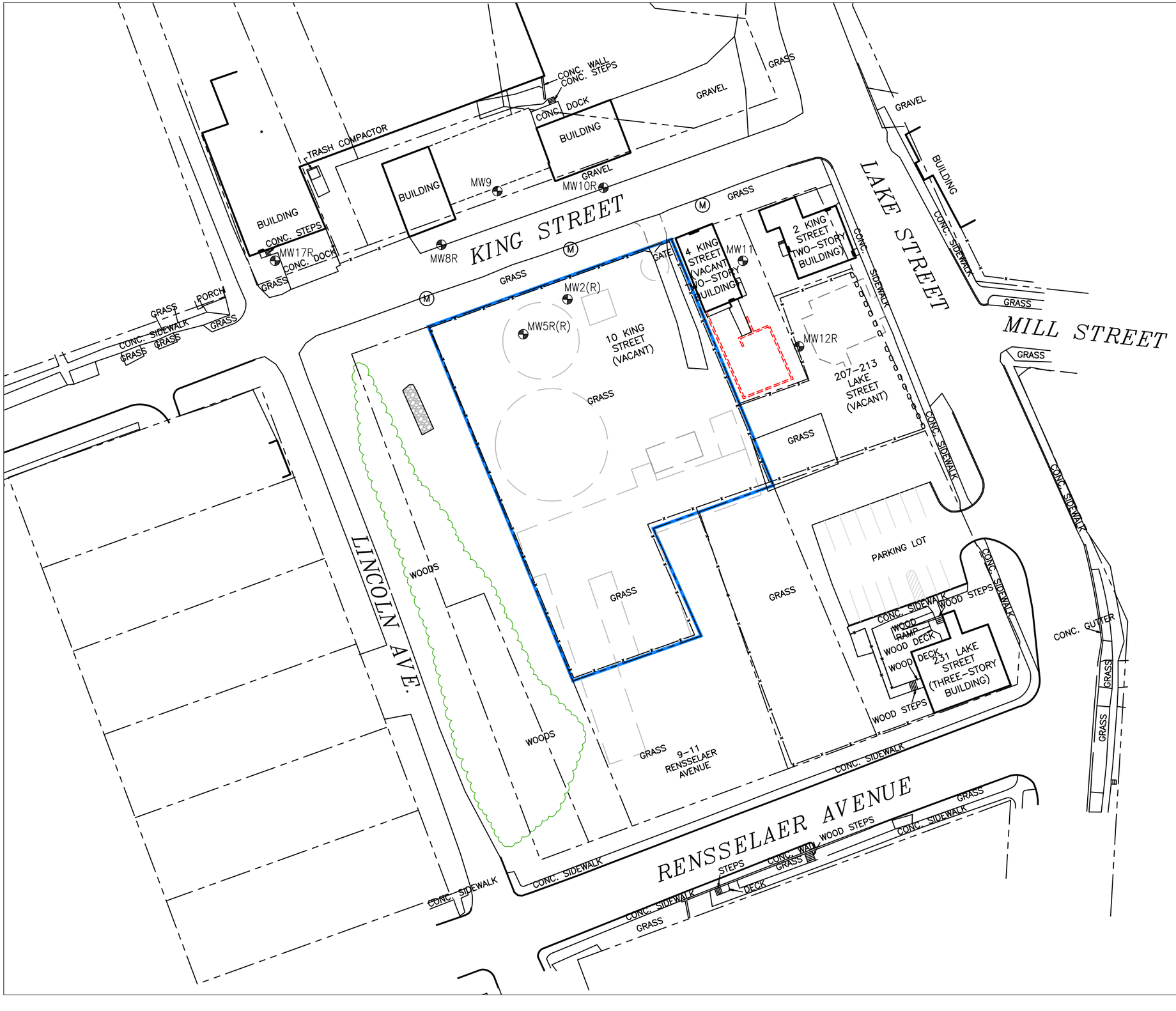
Approved

Date
8/13/20
Figure

Scale In Feet
0 2000

Groundwater & Environmental Services, Inc.

M:\Graphics\0600-Syracuse\Misc\National Grid\Ogdensburg\Ogdensburg SLM.dwg, SLM, WShea




Site Map

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
8/13/20
Figure

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.

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## REFERENCES

Arcadis, 2018. "Site Management Plan, Ogdensburg (King Street) Non-Owned Former MGP Site", September 2018.

## Attachment 1: Site Inspection Forms

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 1/20/2022 Time: 10:30
Technician: KL Weather: Sunny 2

| Site Wide | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| Site Wide - SLG Responsible to Maintain | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: winter |

| Soil Cover System | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| NG Owned Property on Lake Street - Not part of the SMP | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| Miscellaneous | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| Site Monitoring Wells | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 10/20/2021 Time: 8:15
Technician: KL Weather: Sunny 55

| ***Site Wide*** | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: Fence line clearing |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| ***Site Wide - SLG Responsible to Maintain*** | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: |

| ***Soil Cover System*** | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| ***NG Owned Property on Lake Street - Not part of the SMP*** | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: Fence line clearing |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| ***Miscellaneous*** | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| ***Site Monitoring Wells*** | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

All wells are secure and in good condition.

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 7/15/2021 Time: 8:00
Technician: KL Weather: Sunny 72

| ***Site Wide*** | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| ***Site Wide - SLG Responsible to Maintain*** | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: |

| ***Soil Cover System*** | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| ***NG Owned Property on Lake Street - Not part of the SMP*** | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| ***Miscellaneous*** | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| ***Site Monitoring Wells*** | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

All wells are secure and in good condition.

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 4/15/2021 Time: 9:00
Technician: GE Weather: Cloudy 50's

| Site Wide | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| Site Wide - SLG Responsible to Maintain | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: |

| Soil Cover System | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| NG Owned Property on Lake Street - Not part of the SMP | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| Miscellaneous | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| Site Monitoring Wells | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

## Attachment 2: PRR Certification Form

**Enclosure 2**
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**
**Site Management Periodic Review Report Notice**
**Institutional and Engineering Controls Certification Form**

**Site Details** **Box 1**

**Site No. 645053**

**Site Name NM - Ogdensburg MGP**

Site Address: 10 King St. Zip Code: 13669
City/Town: Ogdensburg
County: St Lawrence
Site Acreage: 0.958

Reporting Period: February 17, 2021 to February 17, 2022

| | YES | NO |
|---|---|---|
| 1. Is the information above correct? | X | ☐ |
| If NO, include handwritten above or on a separate sheet. | | |
| 2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? | ☐ | X |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | ☐ | X |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | ☐ | X |
| **If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.** | | |
| 5. Is the site currently undergoing development? | ☐ | X |

**Box 2**

| | YES | NO |
|---|---|---|
| 6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial | X | ☐ |
| 7. Are all ICs in place and functioning as designed? | X | ☐ |

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

Signature of Owner, Remedial Party or Designated Representative Date

**SITE NO. 645053** **Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **48.078-5-19** | St. Lawrence Gas Company | Ground Water Use Restriction<br>Landuse Restriction<br>Site Management Plan |

Deed Restriction was filed on October 10, 2006. A Site Management Plan was approved on September 26, 2018 (see Site # 645053).

| | | |
|---|---|---|
| **48.078-5-25.1** | NMPC. d/b/a National Grid | Ground Water Use Restriction<br>Landuse Restriction<br>Site Management Plan |

The Easement was recorded on March 22, 2018. The Site Management Plan was approved on September 26, 2018.

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **48.078-5-19** | Cover System<br>Fencing/Access Control |

The Engineering controls for the site include a site cover system and fencing to control access. The property is restricted to commercial use and groundwater use is also prohibited.

| | |
|---|---|
| **48.078-5-25.1** | Cover System<br>Fencing/Access Control |

The Engineering controls in place include a cover system, restriction of land use to commercial, groundwater use prohibited, and site fencing to control access.

**Box 5**

**Periodic Review Report (PRR) Certification Statements**

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

| YES | NO |
|---|---|
| X | |

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

| YES | NO |
|---|---|
| X | |

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

**IC CERTIFICATIONS**
**SITE NO. 645053**

**Box 6**

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerald Cresap, PE (print name) at 6780 Northern Blvd. Suite 100, East Syracuse, NY 13057 (print business address),

am certifying as agent for National Grid (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3-9-2022
Date

## EC CERTIFICATIONS

**Box 7**

### Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerald Cresap, PE (print name) at 6780 Northern Blvd. Suite 100, East Syrcause, NY 13057 (print business address),

am certifying as a Qualified Environmental Professional for the agent for National Grid (Owner or Remedial Party)


Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

3-9-2022
Date

## Attachment 3: Annual Monitoring Report

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

February 1, 2022

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**
**10 King Street, Ogdensburg, New York**
**Annual Groundwater Monitoring Report**

Dear Mr. Deyette:

Enclosed for your review is the Annual Groundwater Monitoring Report for the NG Ogdensburg MGP Site, for 2021.

Groundwater and Environmental Service, Inc., (GES) OM&M contractor for National Grid, conducts all long-term OM&M activities at the site. Semi-annual site inspections were conducted in 2021 (January, April, July, and October). The site is generally in good shape and in compliance. There were detection of BTEX and/or PAHs in all thirteen monitoring wells sampled.

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 Ogdensburg, Former MGP Site
10 King Street, Ogdensburg, NY 13669

February 2022

Version 1

# Annual Groundwater Monitoring Report

National Grid Ogdensburg, Former MGP Site
10 King Street
Ogdensburg, NY 13669

Prepared for:
National Grid
300 Erie Boulevard West, C-1
Syracuse, NY 13202

Prepared by:
Groundwater & Environmental Services, Inc.
6780 Northern Boulevard, Suite 100
East Syracuse, NY 13057
TEL: 800-220-3069
www.gesonline.com

GES Project:
0603275.136690.221

Date:
February 1, 2022

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

# Table of Contents



## Figures



## Tables



## Appendices

# 1 Introduction

This Annual Groundwater Monitoring Report presents results from the activities conducted at the Ogdensburg former manufactured gas plant (MGP) site (the site) located in Ogdensburg, New York (the Site). A site map is presented on Figure 1. The work summarized herein has been conducted in accordance with the approved Site Management Plan (SMP) for the site, dated September 26, 2018.

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 April and October 2021 groundwater monitoring activities were to:

- Obtain groundwater elevation data from monitoring wells in the vicinity of the site to evaluate groundwater flow direction and velocity, 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 New York State Department of Environmental Conservation (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 addended April 2000 and June 2004.

## 2.2 Groundwater Well Gauging

The April 15, 2021 and October 20, 2021groundwater monitoring field activities were conducted by GES. Prior to collecting groundwater samples, static fluid level measurements were collected from MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-14R, MW-15, MW-15RS, MW-17R, MW-19R, and MW-20R. 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. A shallow groundwater potentiometric surface contour map developed based on the groundwater elevation measurements taken on April 15, 2021 and October 20, 2021, is included on Figure 2 and Figure 3, respectfully.

Groundwater generally flows to the north from the Site toward the St. Lawrence River. Groundwater elevations ranged from 248.29 feet above sea level (asl; well MW-15) to 257.29 feet asl (well MW-5R(R)). 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 13 monitoring wells on April 15, 2021 and October 20, 2021 (including MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-14R, MW-15, MW-15RS, MW-17R, MW-19R, and MW-20R). 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 and 5. The Data Usability Summary Report (DUSR) is included in Appendix C.

There were BTEX and/or PAH detections in all the monitoring wells sampled during the April and October 2021 sampling event. In April 2021, BTEX, acenapthene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above the regulatory criteria in one or more samples. Cyanide was detected in monitoring wells MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, and MW-15RS during the April 2021 event. In October 2021, BTEX, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above the regulatory criteria in one or more samples. Cyanide was detected in monitoring wells MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, and MW-15RS in October 2021. As shown on Table 2, BTEX, PAHs and total cyanide detected in groundwater during the April and October 2021 sampling events are consistent with results from previous sampling events.

# 3 Quarterly Site-Wide Inspections

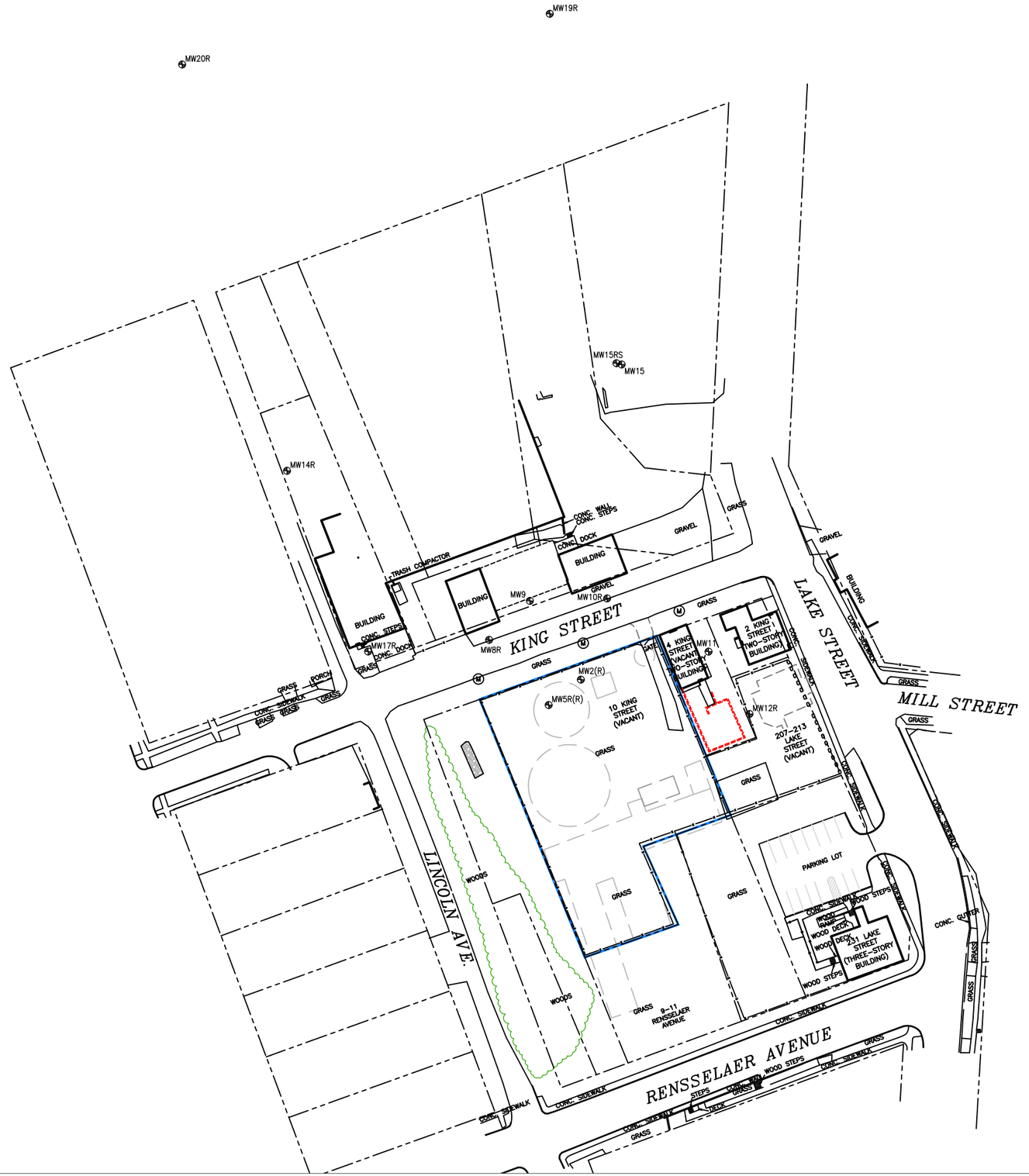
The quarterly site-wide inspections were conducted on January 21, April 15, July 15, and October 20, 2021. The Site Inspection Forms are presented in Appendix A. In general, the Site is in compliance.

# 4 Recommendations

## 4.1 Recommendations

At this time, National Grid recommends continuing the annual monitoring activities. The next annual groundwater sampling event would be in the spring 2022. Semi-Annual site-wide inspections are required; however, for internal security purposes, National Grid will continue to conduct quarterly site-wide inspections.

# Figures




## LEGEND

- PROPERTY BOUNDARY
- FENCE
- UTILITY MANHOLE
- MONITORING WELL

Expanded Site Map

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
11/10/21
Figure
1

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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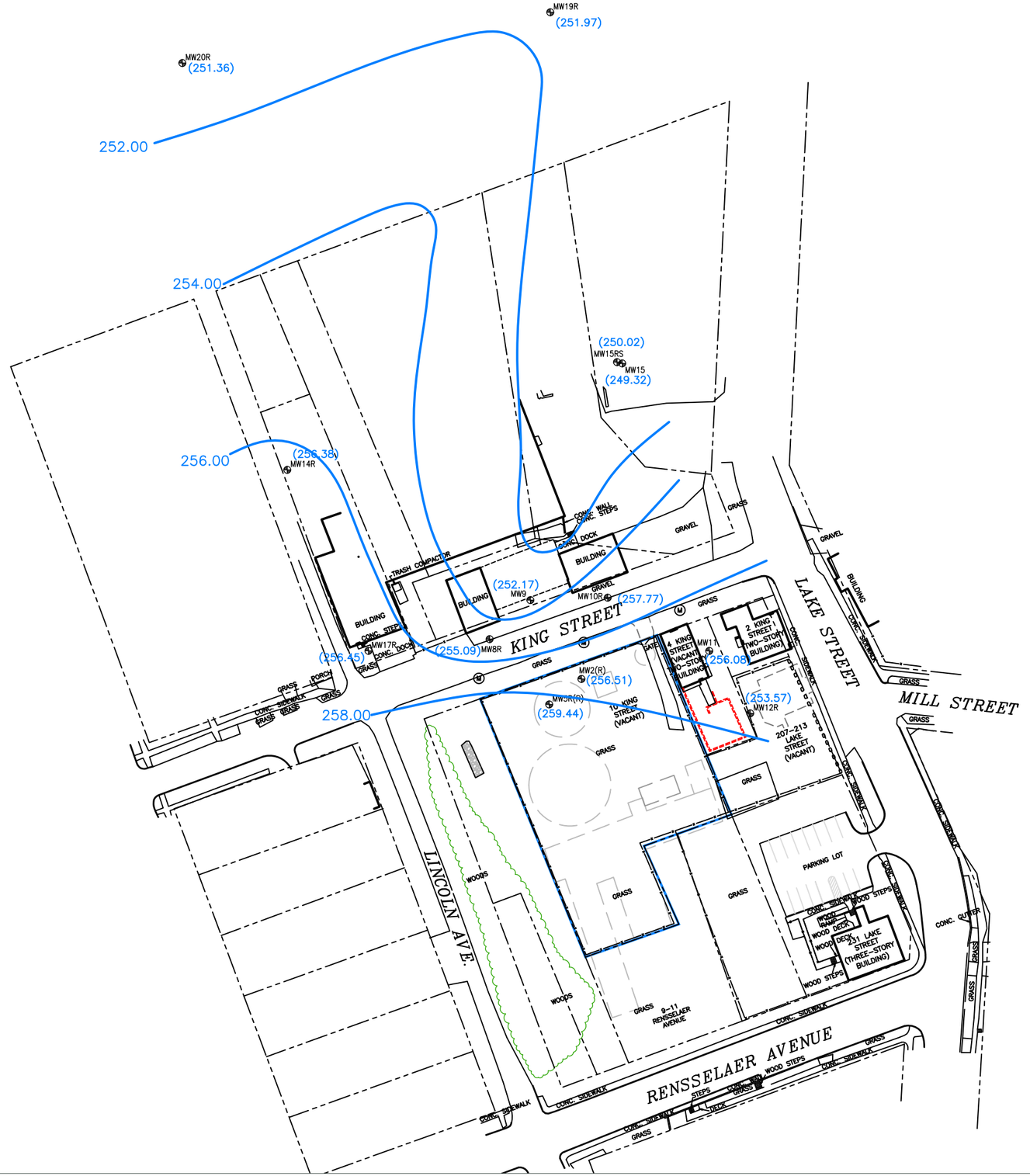


## LEGEND

- PROPERTY BOUNDARY
- FENCE
- UTILITY MANHOLE
- MONITORING WELL
- (259.44) GROUNDWATER ELEVATION (feet)
- NOT SAMPLED

NOTE:

MW10R, MW12R AND MW15 WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

Groundwater Contour Map
April 15, 2021

National Grid
10 King Street
Ogdensburg, New York

Drawn W.G.S.
Designed
Approved

Date 11/10/21
Figure 2

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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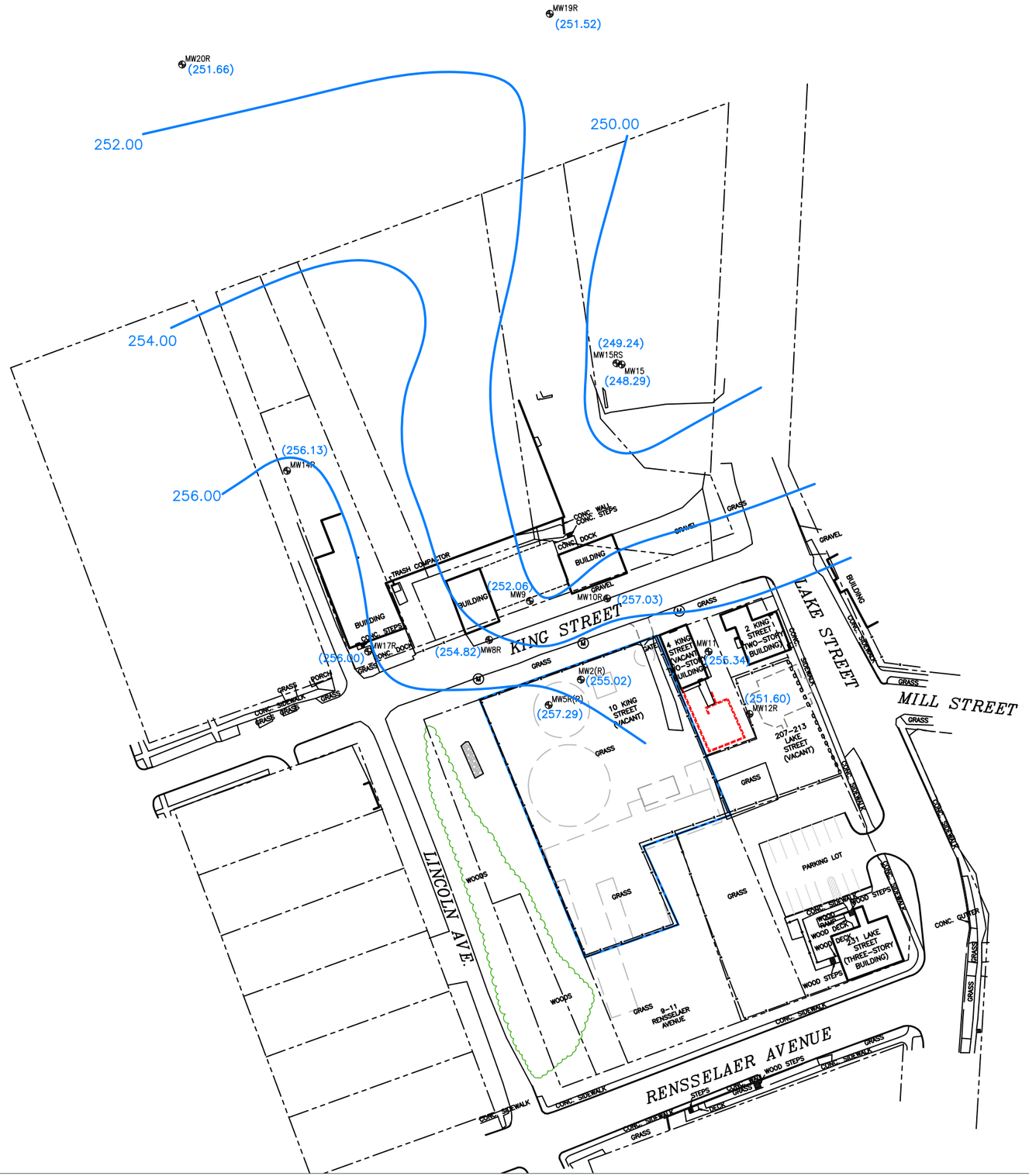


LEGEND

- PROPERTY BOUNDARY
- FENCE
- UTILITY MANHOLE
- MONITORING WELL
- (257.29) GROUNDWATER ELEVATION (feet)
- NOT SAMPLED

NOTE:

MW10R AND MW12R WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

Groundwater Contour Map
October 20, 2021

National Grid
10 King Street
Ogdensburg, New York

Drawn W.G.S.
Designed
Approved
Date 11/10/21
Figure 3

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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## LEGEND

| | |
|---|---|
| — — — — | PROPERTY BOUNDARY |
| —— x —— | FENCE |
| Ⓜ | UTILITY MANHOLE |
| ◒ | MONITORING WELL |
| MW2(R) | WELL IDENTIFICATION |
| 256.51 | GROUNDWATER ELEVATION (feet) |
| 97.3 | BTEX CONCENTRATION (ug/L) |
| 392 | PAHs CONCENTRATION (ug/L) |
| 390 | CYANIDE CONCENTRATION (ug/L) |
| ug/L | MICROGRAMS PER LITER |
| BTEX | BENZENE, TOLUENE, ETHYLBENZENE, XYLENES |
| PAHs | POLYCYCLIC AROMATIC HYDROCARBONS |
| ND | NOT DETECTED |

Groundwater Monitoring Map
April 15, 2021

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
12/28/21
Figure
4

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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## LEGEND

| | |
|---|---|
| — — — — | PROPERTY BOUNDARY |
| —— x —— | FENCE |
| Ⓜ | UTILITY MANHOLE |
| ⊕ | MONITORING WELL |
| MW2(R) | WELL IDENTIFICATION |
| 255.02 | GROUNDWATER ELEVATION (feet) |
| 81.4 | BTEX CONCENTRATION (ug/L) |
| 779 | PAHs CONCENTRATION (ug/L) |
| 4,900 | CYANIDE CONCENTRATION (ug/L) |
| ug/L | MICROGRAMS PER LITER |
| BTEX | BENZENE, TOLUENE, ETHYLBENZENE, XYLENES |
| PAHs | POLYCYCLIC AROMATIC HYDROCARBONS |
| ND | NOT DETECTED |

Groundwater Monitoring Map
October 20, 2021

National Grid
10 King Street
Ogdensburg, New York

Drawn: W.G.S.
Designed:
Approved:
Date: 12/28/21
Figure: 5

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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# Tables

**Table 1**

**Groundwater Monitoring Well Gauging Data**

| Well ID | Well Type & Diameter | Groundwater Elevation (07/14/20) | Depth To Water (10/01/20) | Groundwater Elevation (10/01/20) | Depth To Water (4/15/21) | Groundwater Elevation (4/15/21) | Depth To Water (10/20/21) | Groundwater Elevation (10/20/21) |
|---|---|---|---|---|---|---|---|---|
| MW-2(R) | Flushmount; PVC; 2-inch | 254.38 | 3.92 | 255.28 | 2.69 | 256.51 | 4.18 | 255.02 |
| MW-5R(R) | Flushmount; PVC; 2-inch | 254.28 | 2.75 | 256.65 | -0.04 | 259.44 | 2.11 | 257.29 |
| MW-8R | Flushmount; PVC; 2-inch | 253.86 | 2.20 | 255.18 | 2.29 | 255.09 | 2.56 | 254.82 |
| MW-9 | Flushmount; PVC; 2-inch | 252.12 | 4.85 | 252.15 | 4.83 | 252.17 | 4.94 | 252.06 |
| MW-10R | Flushmount; PVC; 2-inch | 256.42 | 0.50 | 257.08 | -0.19 | 257.77 | 0.55 | 257.03 |
| MW-11 | Flushmount; PVC; 2-inch | 255.45 | 3.49 | 255.58 | 2.99 | 256.08 | 3.73 | 255.34 |
| MW-12R | Flushmount; PVC; 2-inch | 250.47 | 9.34 | 251.45 | 7.22 | 253.57 | 9.19 | 251.60 |
| MW-14R | Flushmount; PVC; 2-inch | 253.66 | 0.00 | 256.13 | -0.25 | 256.38 | 0.00 | 256.13 |
| MW-15 | Flushmount; PVC; 2-inch | 248.40 | 8.06 | 248.56 | 7.30 | 249.32 | 8.33 | 248.29 |
| MW-15RS | Flushmount; PVC; 2-inch | 250.41 | 8.40 | 249.34 | 7.72 | 250.02 | 8.50 | 249.24 |
| MW-17R | Flushmount; PVC; 2-inch | 255.81 | 7.16 | 256.13 | 6.84 | 256.45 | 7.29 | 256.00 |
| MW-19R | Flushmount; PVC; 2-inch | 249.18 | 4.32 | 251.20 | 3.55 | 251.97 | 4.00 | 251.52 |
| MW-20R | Flushmount; PVC; 2-inch | 250.48 | 0.00 | 251.86 | 0.50 | 251.36 | 0.20 | 251.66 |

**Table 2**

**Groundwater Analytical Data**

MW-2(R)

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/23/14 | 10/20/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **61** | **120** | **55.4** | **44.3** | **49.1** | **45.2** |
| Ethylbenzene | 5 | µg/L | ND | 3 | 1.5 | 1.6 | 2.0 | 1.3 |
| Toluene | 5 | µg/L | **29** | **44** | **22.4** | **19.4** | **23.1** | **17.8** |
| Total Xylenes | 5 | µg/L | **23** | **36** | **20.7** | **17.8** | **23.1** | **17.1** |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | 1.8 J | 4 J | 3.5 | 3.0 | 4.9 | 10.7 |
| Acenaphthylene | - - | µg/L | 7.7 | 18 | 16.2 | 12.6 | 20.7 | 44.9 |
| Anthracene | 50 | µg/L | 1.7 J | 3 J | 2.6 | 1.8 | 2.2 | 6.7 |
| Benzo(a)anthracene | 0.002 | µg/L | **3.3** | ND | **0.13** | **0.37** | ND | ND |
| Benzo(a)pyrene | ND | µg/L | **2.8** | ND | ND | 0.38 | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | **3.5** | ND | ND | **0.50** | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | 1.6 J | ND | ND | 0.23 | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | **1.4 J** | ND | ND | **0.17** | ND | ND |
| Chrysene | 0.002 | µg/L | **2.6** | ND | ND | **0.29** | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | 6.9 | ND | 1.2 | 1.3 | 0.98 | 2.9 |
| Fluorene | 50 | µg/L | 2.3 | 7 | 6.2 | 5.2 | 7.7 | 22.1 |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | **1.4 J** | ND | ND | **0.23** | ND | ND |
| 2-Methylnapthalene | - - | µg/L | 5.8 | 20 | 17.9 | 17.1 | 22.5 | 50.1 |
| Naphthalene | 10 | µg/L | **120** | **270** | **210** | **270** | **327** | **622** |
| Phenanthrene | 50 | µg/L | 4.1 | 6 | 5.0 | 4.1 | 5.5 | 17.7 |
| Pyrene | 50 | µg/L | 5.4 | ND | 0.74 | 0.92 | 0.61 | 1.7 |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | **900** | **530** | **240** | **4,100** | **390** | **4,900** |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-5R(R)

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/22/14 | 10/20/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **130** | **440** | **392** | **354** | **144** | **231** |
| Ethylbenzene | 5 | µg/L | **7.0** | **26** | **27.3** | **24.3** | **11.6** | **16.8** |
| Toluene | 5 | µg/L | 3.0 | **70** | **82.6** | **65.0** | **21.8** | **25.5** |
| Total Xylenes | 5 | µg/L | **6.4** | **53** | **78.9** | **58.7** | **24.2** | **33.7** |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | 9.8 | **71** | **44.9** | **38.8** | **26.8** | **28.5** |
| Acenaphthylene | - - | µg/L | 6.6 | 40 | 31.9 | 24.6 | 14.1 | 16.6 |
| Anthracene | 50 | µg/L | 0.50 J | 8 | 4.9 | 3.1 | 0.85 | 2.0 |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | **0.11** | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | 6 | 4.2 | 2.4 | 1.6 | 2.0 |
| Fluorene | 50 | µg/L | 4.7 | 48 | 28.4 | 23.8 | 18.5 | 21.6 |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | 6 | 10.3 | 7.9 | 3.9 | 4.3 |
| Naphthalene | 10 | µg/L | 4.1 | **210** | **248** | **315** | **86.6** | **110** |
| Phenanthrene | 50 | µg/L | 2.6 | 41 | 25.2 | 20.7 | 14.7 | 17.7 |
| Pyrene | 50 | µg/L | ND | 5 | 3.5 | 2.1 | 1.4 | 1.6 |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | 10 | 55 | 55 | 49 | 17 | 34 |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-8R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/24/14 | 10/19/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **550** | **800** | **1,300** | **576** | **431** | **623** |
| Ethylbenzene | 5 | µg/L | **13** | **14** | **66.2** | **13.6** | **9.5** | **20.7** |
| Toluene | 5 | µg/L | **10** | **20** | **75.2** | **9.2** | **5.6** | **20.2** |
| Total Xylenes | 5 | µg/L | **19** | **27** | **132** | **18.0** | **12.5** | **32.6** |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | 5.6 | 10 | 16.2 | 7.6 | 8.2 | 12.6 |
| Acenaphthylene | - - | µg/L | 6.7 | 10 | 23.4 | 5.4 | 3.3 | 12.9 |
| Anthracene | 50 | µg/L | 0.94 J | 0.9 | 2.9 | 0.68 | ND | 1.5 |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | **0.48** | **0.48** | **0.11** | **0.39** |
| Benzo(a)pyrene | ND | µg/L | ND | ND | 0.28 | 0.36 | ND | 0.22 |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | **0.31** | **0.38** | ND | **0.33** |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | 0.10 | 0.13 | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | **0.10** | **0.18** | ND | **0.28** |
| Chrysene | 0.002 | µg/L | **0.39 J** | ND | **0.28** | **0.32** | ND | **0.22** |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | 1.5 J | 0.7 | 2.5 | 1.2 | 0.61 | 1.6 |
| Fluorene | 50 | µg/L | 4.40 | 7 | 15.6 | 4.5 | 4.6 | 10.1 |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | **0.10** | **0.14** | ND | ND |
| 2-Methylnapthalene | - - | µg/L | 3.7 | 3 | 15.0 | 2.5 | 1.4 | 10.2 |
| Naphthalene | 10 | µg/L | **33** | **51** | **333** | **37.9** | **35.8** | **109** |
| Phenanthrene | 50 | µg/L | 2.7 | 2 | 9.2 | 1.7 | 1.3 | 4.0 |
| Pyrene | 50 | µg/L | 1.1 J | 0.5 | 1.8 | 0.97 | 0.45 | 1.2 |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | 59 | **320** | 54 | 58 | 26 | 17 |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-9

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/24/14 | 10/19/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **280** | **340** | **283** | **228** | **165** | **259** |
| Ethylbenzene | 5 | µg/L | **120** | **140** | **112** | **107** | **65.3** | **111** |
| Toluene | 5 | µg/L | **170** | **85** | **50.8** | **16.3** | **9.6** | **21.3** |
| Total Xylenes | 5 | µg/L | **250** | **180** | **91.7** | **52.1** | **53.0** | **49.5** |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | **76** | **48** | **30.2** | **55.5** | **59.9** | **52.8** |
| Acenaphthylene | - - | µg/L | 29 | 17 | 8.6 | 11.0 | 21.6 | 21.9 |
| Anthracene | 50 | µg/L | 11 | 8 | 2.6 | 11.4 | 7.3 | 19.7 |
| Benzo(a)anthracene | 0.002 | µg/L | ND | **2** | **0.21** | **5.80** | **2.5** | **18.5** |
| Benzo(a)pyrene | ND | µg/L | ND | 1 | ND | 4.4 | 1.6 | 12.7 |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | **1** | ND | **4.8** | **2.1** | **18.0** |
| Benzo(g,h,i)perylene | - - | µg/L | ND | 0.4 J | ND | 1.5 | 0.46 | 4.5 |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | **0.5 J** | ND | **1.8** | **2.0** | **15.4** |
| Chrysene | 0.002 | µg/L | ND | **1** | **0.13** | **4.30** | **1.8** | **11.2** |
| Dibenz(a,h)anthracene | - - | µg/L | ND | 0.2 J | ND | 0.46 | 0.21 | 1.6 |
| Fluoranthene | 50 | µg/L | 6.0 | 8 | 2.2 | 19.2 | 8.7 | 37.4 |
| Fluorene | 50 | µg/L | **56** | 38 | 19.0 | 36.1 | 34.1 | 45.4 |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | **1** | ND | **1.5** | **0.49** | **4.3** |
| 2-Methylnapthalene | - - | µg/L | 14 | 1 | ND | ND | ND | ND |
| Naphthalene | 10 | µg/L | **450** | **72** | **18.1** | 9.1 | **51.2** | **10.3** |
| Phenanthrene | 50 | µg/L | **51** | 36 | 9.7 | 25.2 | 9.2 | 43.5 |
| Pyrene | 50 | µg/L | 3.5 | 5 | 1.2 | 12.7 | 6.1 | 28.1 |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | **410** | **1,300** | **1,000** | **1,500** | **320** | **1,100** |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-10R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/23/14 | 10/19/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **1,700 J** | **1,400** | **1,360** | **1,540** | **1,040** | **1,790** |
| Ethylbenzene | 5 | µg/L | **25 J** | **100** | **122** | **124** | **94.3** | **138** |
| Toluene | 5 | µg/L | 3.1 | **94** | **230** | **201** | **171** | **197** |
| Total Xylenes | 5 | µg/L | **15** | **65** | **161** | **150** | **125** | **161** |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | 9.6 | **24** | 16.8 | **25.3** | 22.0 | **29.8** |
| Acenaphthylene | - - | µg/L | 6.0 | 23 | 22.7 | 27.5 | 31.9 | 34.1 |
| Anthracene | 50 | µg/L | ND | 0.5 | 0.80 | 0.89 | 0.89 | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | 0.11 | 0.11 | ND | ND |
| Fluorene | 50 | µg/L | 3.9 | 11 | 8.1 | 11.4 | 9.7 | 13.2 |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | 1 | 3.6 | 4.8 | 6.4 | 7.4 |
| Naphthalene | 10 | µg/L | **20 J** | **140** | **296** | 486 | **405** | **653** |
| Phenanthrene | 50 | µg/L | 1.3 J | 2 | 1.6 | 2.4 | 1.8 | 2.3 |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | **420** | 190 | 63 | 62 | 74 | 61 |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-11

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/25/14 | 10/18/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Anthracene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | 0.11 | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | 0.14 | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | 0.13 | ND | **0.12** | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | **0.12** | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Fluorene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | 0.19 | ND | ND | ND |
| Naphthalene | 10 | µg/L | ND | ND | 0.87 | 0.36 | 0.18 | ND |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | **250** | **310** | 160 | **270** | 150 | 200 |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-12R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/24/14 | 10/18/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **2,600** | **2,900** | **1,420** | **2,440** | **2,470** | **2,520** |
| Ethylbenzene | 5 | µg/L | **130** | **110** | **67.6** | **86.7** | **87.3** | **104** |
| Toluene | 5 | µg/L | **7.4** | **15** | **5.8** | **13.8** | **16.1** | **13.2** |
| Total Xylenes | 5 | µg/L | **49** | **83** | **27.8** | **58.1** | **70.0** | **72.4** |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | 3.4 | 4 | **104** | 1.2 | **1.4** | 1.8 |
| Acenaphthylene | - - | µg/L | 4.8 | 7 | 1.9 | 1.5 | 2.9 | 3.0 |
| Anthracene | 50 | µg/L | ND | ND | ND | 0.098 | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Fluorene | 50 | µg/L | ND | 0.3 J | 0.24 | 0.20 | 0.20 | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Naphthalene | 10 | µg/L | **31** | **92** | 6.1 | **19.7** | **52.7** | **39.5** |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | 190 | 37 | 62 | 33 | 29 | 40 |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-14R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/25/14 | 10/18/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **3.0** | **48** | 1.0 | ND | **1.6** | 1.8 |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | 0.12 | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Anthracene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Fluorene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | 0.14 | ND | ND | 0.12 |
| Naphthalene | 10 | µg/L | ND | ND | 0.96 | ND | ND | 0.99 |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | ND | ND | ND | ND | ND | ND |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-15

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/24/14 | 10/19/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | 0.15 | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | 0.18 | ND | ND | ND |
| Anthracene | 50 | µg/L | ND | ND | 0.12 | ND | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | **0.28** | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | 0.2 J | 0.27 | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | **0.2 J** | **0.29** | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | 0.2 J | 0.13 | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | **0.11** | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | **0.19** | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | 0.2 J | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | 0.45 | ND | ND | 0.11 |
| Fluorene | 50 | µg/L | ND | 0.3 J | 0.13 | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | **0.12** | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | 0.2 | ND | ND | ND |
| Naphthalene | 10 | µg/L | ND | ND | 1.0 | 0.27 | ND | ND |
| Phenanthrene | 50 | µg/L | ND | 0.1 J | 0.28 | ND | ND | ND |
| Pyrene | 50 | µg/L | 0.35 J | 0.3 J | 0.4 | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | ND | ND | 15 | ND | ND | ND |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-15RS

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/22/14 | 10/19/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | **750** | **170** | **4.8** | **9.7** | **49.6** | **79.0** |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | 0.54 J | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Anthracene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Fluorene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | 0.14 | ND | ND | ND |
| Naphthalene | 10 | µg/L | ND | ND | 0.85 | 0.52 | 0.14 | ND |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | 160 | 64 | 67 | 41 | 51 | 54 |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-17R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/25/14 | 10/18/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | ND | ND | ND | ND | **1.7** | **2.9** |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | ND | ND | ND | 0.30 |
| Anthracene | 50 | µg/L | ND | ND | ND | ND | ND | 0.13 |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | **0.18** |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | 0.11 |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | **0.17** |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | **0.14** |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | **0.11** |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | 0.28 |
| Fluorene | 50 | µg/L | ND | ND | ND | ND | ND | 0.21 |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | ND | ND | ND | 0.35 |
| Naphthalene | 10 | µg/L | ND | ND | 0.13 | 0.37 | 0.21 | 1.9 |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | 0.44 |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | 0.23 |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | ND | ND | ND | ND | ND | ND |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-17R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/25/14 | 10/18/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Anthracene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Fluorene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Naphthalene | 10 | µg/L | ND | ND | 0.30 | 0.12 | ND | ND |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | ND | ND | ND | ND | ND | ND |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

**Table 2**

**Groundwater Analytical Data**

MW-20R

| | NYSDEC TOGS 1.1.1 Guidance Values | Units | 09/25/14 | 10/18/17 | 07/14/20 | 10/01/20 | 04/15/21 | 10/20/21 |
|---|---|---|---|---|---|---|---|---|
| **BTEX** | | | | | | | | |
| Benzene | 1 | µg/L | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Toluene | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| Total Xylenes | 5 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **SVOCs** | | | | | | | | |
| Acenaphthene | 20 | µg/L | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Anthracene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)anthracene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(a)pyrene | ND | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(g,h,i)perylene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Chrysene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| Dibenz(a,h)anthracene | - - | µg/L | ND | ND | ND | ND | ND | ND |
| Fluoranthene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Fluorene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 0.002 | µg/L | ND | ND | ND | ND | ND | ND |
| 2-Methylnapthalene | - - | µg/L | ND | ND | 0.14 | ND | ND | ND |
| Naphthalene | 10 | µg/L | ND | ND | 0.89 | 0.21 | ND | 0.21 |
| Phenanthrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| Pyrene | 50 | µg/L | ND | ND | ND | ND | ND | ND |
| | | | | | | | | |
| **Inorganics** | | | | | | | | |
| Cyanide, Total | 200 | µg/L | ND | ND | ND | ND | ND | ND |

**Notes:**

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

**Bolded** = values indicate exceedance of the NYSDEC AWQS

# Appendix A – Field Inspection Reports

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 10/20/2021 Time: 8:15
Technician: KL Weather: Sunny 55

| ***Site Wide*** | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: Fence line clearing |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| ***Site Wide - SLG Responsible to Maintain*** | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: |

| ***Soil Cover System*** | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| ***NG Owned Property on Lake Street - Not part of the SMP*** | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: Fence line clearing |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| ***Miscellaneous*** | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| ***Site Monitoring Wells*** | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

All wells are secure and in good condition.

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 7/15/2021 Time: 8:00
Technician: KL Weather: Sunny 72

| ***Site Wide*** | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| ***Site Wide - SLG Responsible to Maintain*** | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: |

| ***Soil Cover System*** | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| ***NG Owned Property on Lake Street - Not part of the SMP*** | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| ***Miscellaneous*** | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| ***Site Monitoring Wells*** | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

All wells are secure and in good condition.

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 4/15/2021 Time: 9:00
Technician: GE Weather: Cloudy 50's

| Site Wide | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| Site Wide - SLG Responsible to Maintain | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: |

| Soil Cover System | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| NG Owned Property on Lake Street - Not part of the SMP | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: |
| Have the lawns been mowed? | YES | | NO | COMMENTS: |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| Miscellaneous | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| Site Monitoring Wells | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

***Site Management Plan Inspection Form***
***Ogdensburg (King Street)***
***Non-Owned Former MGP Site***
***Ogdensburg, New York***
***NYSDEC Site No. V00479***

Date: 1/21/2021 Time: 10:00
Technician: KL Weather: Snow 23

| Site Wide | | | |
|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | NO | COMMENTS: |
| Are the requirements of the Site Management Plan being met? | YES | NO | COMMENTS: |
| Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction? | YES | NO | COMMENTS: |

| Site Wide - SLG Responsible to Maintain | | | |
|---|---|---|---|
| Perimeter Fence and Gates intact? | YES | NO | COMMENTS: |
| Have the lawns been mowed? | YES | NO | COMMENTS: winter |

| Soil Cover System | | | |
|---|---|---|---|
| Any signs of ground-intrusive activities? | YES | NO | COMMENTS: |
| Any soil disturbance regardless of quantity/extent? | YES | NO | COMMENTS: |
| Any surface erosion? | YES | NO | COMMENTS: |
| Any settlement? | YES | NO | COMMENTS: |
| Bare or sparsely-vegetated areas? | YES | NO | COMMENTS: |
| Any other conditions affecting the thickness or the integrity of the soil cover system? | YES | NO | COMMENTS: |

| NG Owned Property on Lake Street - Not part of the SMP | | | | |
|---|---|---|---|---|
| Any repairs, maintenace or corrective actions since the last inspection? | YES | | NO | COMMENTS: |
| Have the lawns been mowed? | YES | | NO | COMMENTS: winter |
| Conditon of the sidewalks? | GOOD | FAIR | POOR | COMMENTS: |
| Condition of the site trees? | GOOD | FAIR | POOR | COMMENTS: |
| Are the boulders in place? | YES | | NO | COMMENTS: |

| Miscellaneous | | | | |
|---|---|---|---|---|
| Evidence of Trespassing | YES | | NO | COMMENTS: |
| Litter | NONE | MINOR | SIGNIFICANT | COMMENTS: |

| Site Monitoring Wells | | |
|---|---|---|
| ***Well ID.*** | ***Location Secure*** | |
| **MW-2(R)** | YES | NO |
| **MW-5R(R)** | YES | NO |
| **MW-8R** | YES | NO |
| **MW-9** | YES | NO |
| **MW-10R** | YES | NO |
| **MW-11** | YES | NO |
| **MW-12R** | YES | NO |
| **MW-14R** | YES | NO |
| **MW-15** | YES | NO |
| **MW-15RS** | YES | NO |
| **MW-17R** | YES | NO |
| **MW-19R** | YES | NO |
| **MW-20R** | YES | NO |

***General Comments:***

# Appendix B – Well Sampling Field Data

*National Grid*
*King Street Non-Owned Former MGP Site*
*Ogdensburg, New York*

*Semi-Annual Groundwater Sampling Event*
*April 15, 2021*
*KL/PL*

| Well ID | Sample? | Well Size | DTW | DTP | DTB | Comments |
|---|---|---|---|---|---|---|
| MW-2(R) | Yes | 2" | 2.69 | NP | 6.35 | |
| MW-5R(R) | Yes | 2" | -0.04 | NP | 24.30 | Artesian |
| MW-8R | Yes | 2" | 2.29 | NP | 20.92 | MS/MSD |
| MW-9 | Yes | 2" | 4.83 | NP | 6.35 | |
| MW-10R | Yes | 2" | -0.19 | NP | 22.50 | Artesian, Field Duplicate |
| MW-11 | Yes | 2" | 2.99 | NP | 6.51 | |
| MW-12R | Yes | 2" | 7.22 | NP | 21.40 | |
| MW-14R | Yes | 2" | -0.25 | NP | 50.80 | Artesian |
| MW-15 | Yes | 2" | 7.30 | NP | 9.04 | |
| MW-15RS | Yes | 1" | 7.72 | NP | 23.65 | |
| MW-17R | Yes | 2" | 6.84 | NP | 26.90 | |
| MW-19R | Yes | 2" | 3.55 | NP | 38.05 | |
| MW-20R | Yes | 2" | 0.50 | NP | 28.40 | |

***DTW*** *-depth to water*

***DTP*** *-depth to product*

***DTB*** *-depth to bottom*

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: C. Ernst, P. Lyon
Job Number: 0603200-136690-221
Well Id. **MW-2(R)**

Date: 4/15/21
Weather: Rain 50°s
Time In: 1400 Time Out: 1445

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 2.69 | |
| Depth to Bottom: | (feet) | 6.35 | |
| Depth to Product: | (feet) | ~~3.66~~ NP | |
| Length of Water Column: | (feet) | 3.66 | |
| Volume of Water in Well: | (gal) | 0.59 | |
| Three Well Volumes: | (gal) | 1.76 | |

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) | ~250 | | | |
| Duration of Pumping: (min) | 20 | | | |
| Total Volume Removed: (gal) | 1.5 | | | |

Did well go dry? Yes [X] 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) |
|---|---|---|---|---|---|---|---|---|
| 1405 | 2.69 | 9.91 | 9.61 | -322 | 0.516 | 15.7 | 0.18 | 0.324 |
| 1410 | 3.77 | 9.57 | 10.19 | -345 | 0.421 | 11.2 | 0.19 | 0.272 |
| 1415 | 4.72 | 9.39 | 10.79 | -340 | 0.435 | 11.4 | 0.16 | 0.287 |
| 1420 | 5.77 | 8.90 | 11.20 | -315 | 0.515 | 17.4 | 0.64 | 0.325 |
| 1425 | Dried | 8.54 | 11.66 | -306 | 0.531 | 10.4 | 6.84 | 0.340 |
| ~~1430~~ | | | | | | | | |
| ~~1435~~ | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-2(R)-0421** Duplicate? Yes [ ] No [X]
Sample Time: ~~1430~~ 1430 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [ ]
Ship to Pace [X]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. Ernst, P Lyon
Date: 4/15/21
Job Number: 0603200-136690-221
Weather: Cloudy, LT Rain 50°S
Well Id. **MW-5R(R)**
Time In: 1315 Time Out: 1400

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | -0.04 | |
| Depth to Bottom: | (feet) | 24.30 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 24.34 | |
| Volume of Water in Well: | (gal) | 3.89 | |
| Three Well Volumes: | (gal) | 11.68 | |

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) | ~250 | | | |
| Duration of Pumping: (min) | 30 | | | |
| Total Volume Removed: (gal) | 2.0 | | | |

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 | -0.04 | 10.99 | 8.75 | -292 | 0.672 | 46.2 | 0.37 | 0.424 |
| 1325 | 1.99 | 10.60 | 9.12 | -337 | 0.553 | 11.2 | 0.09 | 0.356 |
| 1330 | 3.09 | 10.50 | 9.34 | -350 | 0.535 | 13.9 | 0.05 | 0.340 |
| 1335 | 4.24 | 10.40 | 9.42 | -348 | 0.524 | 7.7 | 0.01 | 0.335 |
| 1340 | 5.07 | 10.23 | 9.50 | -350 | 0.530 | 2.7 | 0.00 | 0.339 |
| 1345 | 5.79 | 10.17 | 9.60 | -350 | 0.537 | 2.5 | 0.00 | 0.344 |
| 1350 | 6.14 | 10.09 | 9.64 | -349 | 0.544 | 1.2 | 0.29 | 0.348 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## Sampling Information:

| | | | |
|---|---|---|---|
| EPA SW-846 Method 8270 | SVOC PAH's | 2 - 100 ml 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-5R(R)-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1355 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. Ernst, P. Lyon
Date: 4/15/21
Job Number: 0603200-136690-221
Weather: Cloudy / Rain 50°s
Well Id. **MW-8R**
Time In: 10:50 Time Out: 11:40

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 2.29 | |
| Depth to Bottom: | (feet) | 20.92 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 18.63 | |
| Volume of Water in Well: | (gal) | 2.98 | |
| Three Well Volumes: | (gal) | 8.94 | |

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) | ~250 | | | |
| Duration of Pumping: | (min) | 30 | | | |
| Total Volume Removed: | (gal) | 2.0 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1050 | 2.29 | 11.32 | 7.53 | -120 | 0.696 | 45.4 | 1.36 | 0.447 |
| 1055 | 3.40 | 11.08 | 7.54 | -144 | 0.669 | 23.5 | 0.00 | 0.426 |
| 1100 | 4.11 | 10.81 | 7.95 | -169 | 0.644 | 21.0 | 0.02 | 0.413 |
| 1105 | 4.84 | 10.75 | 8.21 | -202 | 0.630 | 4.1 | 0.04 | 0.403 |
| 1110 | 5.21 | 10.65 | 8.30 | -226 | 0.627 | 4.9 | 0.03 | 0.401 |
| 1115 | 5.44 | 10.63 | 8.35 | -245 | 0.626 | 5.4 | 0.01 | 0.401 |
| 1120 | 5.57 | 10.65 | 8.36 | -254 | 0.625 | 2.5 | 0.00 | 0.400 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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 - 100 ml ambers Yes [X] No [ ]
9 - 40 ml vials Yes [X] No [ ]
3 - 250 ml plastic Yes [X] No [ ]

**MW-8R-MS-0421** **MW-8R-MSD-0421**

Sample ID: **MW-8R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1125 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [ ]
Ship to Pace [X]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. Ernst, P. Lyon
Date: 4/15/21
Job Number: 0603200-136690-221
Weather: Cloudy 50°s
Well Id. **MW-9**
Time In: 10:15 Time Out: 10:40

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 4.83 | |
| Depth to Bottom: | (feet) | 6.35 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 1.52 | |
| Volume of Water in Well: | (gal) | 0.24 | |
| Three Well Volumes: | (gal) | 0.73 | |

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) | ~250 | | | | |
| Duration of Pumping: (min) | 30 | | | | |
| Total Volume Removed: (gal) | 1.0 | | | | |

Did well go dry? Yes [X] 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) |
|---|---|---|---|---|---|---|---|---|
| 1020 | 4.83 | 11.79 | 8.85 | -79 | 1.13 | 66.2 | 9.82 | 0.725 |
| 1025 | 5.48 | 11.48 | 8.26 | -70 | 1.15 | 57.7 | 9.18 | 0.740 |
| 1030 | 6.18 | 10.71 | 7.70 | -83 | 1.21 | 43.1 | 8.68 | 0.772 |
| 1035 | Dried | | | | | | | |
| ~~1040~~ | | | | | | | | |
| ~~1045~~ | | | | | | | | |
| ~~1050~~ | | | | | | | | |
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## Sampling Information:

| | | | | |
|---|---|---|---|---|
| EPA SW-846 Method 8270 | SVOC PAH's | 2 - 100 ml 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-9-0421**
Sample Time: ~~1055~~ 1035
Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]
Shipped: Pace Courier Pickup [~~X~~] Ship to Pace [X]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. Ernst, P. Lyon
Job Number: 0603200-136690-221
Well Id. **MW-10R**

Date: 4/15/21
Weather: cloudy 50°s
Time In: 0900 Time Out: 1015

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | -0.19 | Artesian |
| Depth to Bottom: | (feet) | 22.50 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 22.69 | |
| Volume of Water in Well: | (gal) | 3.63 | |
| Three Well Volumes: | (gal) | 10.9 | |

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: | (ml/min) | ~250 | | | |
| Duration of Pumping: | (min) | 30 | | | |
| Total Volume Removed: | (gal) | 2.0 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 0925 | -0.19 | 14.94 | 10.16 | -183 | 0.463 | 4.0 | 3.32 | 0.300 |
| 0930 | 0.71 | 13.82 | 11.16 | -210 | 0.436 | 3.1 | 1.29 | 0.284 |
| 0935 | 1.42 | 12.65 | 11.21 | -228 | 0.431 | 3.1 | 1.11 | 0.280 |
| 0940 | 1.88 | 11.91 | 11.21 | -236 | 0.434 | 6.6 | 0.93 | 0.282 |
| 0945 | 2.32 | 11.40 | 11.19 | -241 | 0.422 | 5.3 | 0.80 | 0.274 |
| 0950 | 2.53 | 11.23 | 11.17 | -244 | 0.426 | 2.7 | 0.74 | 0.276 |
| 0955 | 2.82 | 11.04 | 11.24 | -247 | 0.405 | 2.4 | 0.74 | 0.263 |
| 1000 | 2.99 | 10.81 | 11.09 | -248 | 0.407 | 2.3 | 0.71 | 0.264 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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 - 100 ml ambers Yes [X] No [ ]
6 - 40 ml vials Yes [X] No [ ]
2 - 250 ml plastic Yes [X] No [ ]

**FD-0421**
Sample ID: **MW-10R-0421** Duplicate? Yes [X] No [ ]
Sample Time: 10:00 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. Ernst, P. Lyon
Date: 4/15/21
Job Number: 0603200-136690-221
Weather: cloudy 50°s
Well Id. **MW-11**
Time In: 12:30 Time Out: 1315

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 2.99 | |
| Depth to Bottom: | (feet) | 6.51 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 3.52 | |
| Volume of Water in Well: | (gal) | 0.56 | |
| Three Well Volumes: | (gal) | 1.69 | |

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) | ~250 | | | | |
| Duration of Pumping: (min) | 30 | | | | |
| Total Volume Removed: (gal) | 2.0 | | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 12:35 | 2.99 | 13.32 | 8.73 | -220 | 1.15 | 137 | 4.83 | 0.779 |
| 12:40 | 3.16 | 10.46 | 8.64 | -191 | 1.27 | 100 | 0.88 | 0.816 |
| 12:45 | 3.16 | 9.95 | 8.12 | -197 | 1.29 | 66.9 | 0.17 | 0.828 |
| 12:50 | 3.17 | 9.83 | 7.88 | -208 | 1.31 | 16.5 | 0.00 | 0.839 |
| 12:55 | 3.18 | 9.77 | 7.72 | -216 | 1.33 | 11.4 | 0.06 | 0855 |
| 13:00 | 3.18 | 9.71 | 7.65 | -219 | 1.35 | 12.4 | 0.11 | 0.863 |
| 1305 | 3.18 | 9.70 | 7.57 | -222 | 1.36 | 13.8 | 0.15 | 0.871 |
| | | | | | | | | |
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## Sampling Information:

| | | | | |
|---|---|---|---|---|
| EPA SW-846 Method 8270 | SVOC PAH's | 2 - 100 ml 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-11-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1310 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. Ernst, P. Lyon
Job Number: 0603200-136690-221
Well Id. **MW-12R**

Date: 4/15/21
Weather: cloudy 50°s
Time In: 11:40 Time Out: 12:30

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 7.22 | |
| Depth to Bottom: | (feet) | 21.40 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 14.18 | |
| Volume of Water in Well: | (gal) | 2.27 | |
| Three Well Volumes: | (gal) | 6.81 | |

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) | ~250 | | | | |
| Duration of Pumping: (min) | 30 | | | | |
| Total Volume Removed: (gal) | 2.0 | 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) |
|---|---|---|---|---|---|---|---|---|
| 11:50 | 7.22 | 11.81 | 8.05 | -231 | 0.627 | 44.7 | 2.52 | 0.400 |
| 11:55 | 8.73 | 11.62 | 8.29 | -273 | 0.578 | 20.2 | 0.59 | 0.370 |
| 12:00 | 9.84 | 11.45 | 8.65 | -303 | 0.564 | 8.1 | 0.35 | 0.361 |
| 12:05 | 10.82 | 11.41 | 8.87 | -317 | 0.555 | 3.3 | 0.20 | 0.355 |
| 12:10 | 11.70 | 11.36 | 8.90 | -328 | 0.552 | 3.5 | 0.16 | 0.353 |
| 12:15 | 12.34 | 11.36 | 8.99 | -334 | 0.551 | 3.2 | 0.13 | 0.353 |
| 12:20 | 12.86 | 11.37 | 9.06 | -338 | 0.552 | 3.7 | 0.10 | 0.353 |
| | | | | | | | | |
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| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-12R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1225 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon, G. ERNST
Job Number: 0603200-136690-221
Well Id. **MW-14R**

Date: 4/15/21
Weather: Light Rain 47°
Time In: 1010 Time Out: 1050

## Well Information

| | | 51.05 TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | ~~50.80~~ | over flowing |
| Depth to Bottom: | (feet) | 50.80 | |
| Depth to Product: | (feet) | -- | |
| Length of Water Column: | (feet) | 50.80 | |
| Volume of Water in Well: | (gal) | 8.12 | |
| Three Well Volumes: | (gal) | 24.38 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1015 | Above well | 10.23 | 8.51 | -186 | .510 | 3.8 | 7.88 | .326 |
| 1020 | ~~-3.5~~ | 10.40 | 8.35 | -224 | .516 | 4.5 | 7.24 | .331 |
| 1025 | Above manway | 10.57 | 8.32 | -241 | .520 | 14.4 | 3.12 | .333 |
| 1030 | Above manway | 10.54 | 8.34 | -249 | .516 | 7.9 | 0.00 | .330 |
| 1035 | Above manway | 10.53 | 8.36 | -256 | .515 | 7.3 | 0.00 | .330 |
| 1040 | Above manway | 10.66 | 8.36 | -260 | .515 | 5.9 | 0.00 | .329 |
| 1045 | Above manway | 10.60 | 8.36 | -265 | .516 | 2.7 | 0.00 | .331 |
| | | | | | | | | |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-14R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1045 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:
Water Level Above Well Manway

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon, G. Ernst
Job Number: 0603200-136690-221
Well Id. **MW-15**

Date: 4/15/21
Weather: 50° Cloudy
Time In: 1234 Time Out: 1315

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 7.30 | |
| Depth to Bottom: | (feet) | 9.04 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 1.74 | |
| Volume of Water in Well: | (gal) | .27 | |
| Three Well Volumes: | (gal) | .83 | |

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) | 250 | | | |
| Duration of Pumping: | (min) | 30 | | | |
| Total Volume Removed: | (gal) | 1 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1240 | 7.51 | 10.17 | 7.98 | -49 | .892 | 1000 | 0.00 | .571 |
| 1245 | 7.76 | 10.03 | 7.47 | -64 | .901 | 650 | 0.00 | .577 |
| 1250 | 7.98 | 9.70 | 7.37 | -70 | .906 | 317 | 0.00 | .580 |
| 1255 | 8.17 | 9.76 | 7.35 | -74 | .906 | 362 | 0.00 | .580 |
| 1300 | 8.36 | 9.70 | 7.35 | -79 | .912 | 108 | 0.00 | .584 |
| 1305 | 8.54 | 9.67 | 7.33 | -81 | .911 | 106 | 0.00 | .584 |
| 1310 | 8.68 | 9.70 | 7.33 | -84 | .911 | 39.8 | 0.00 | .582 |
| | | | | | | | | |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-15-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1310 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Pete Lyon, G. Ernst
Job Number: 0603200-136690-221
Well Id. **MW-15RS**

Date: 4/15/21
Weather: Cloudy 50°
Time In: 13:15 Time Out: 1400

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 7.72 | |
| Depth to Bottom: | (feet) | 23.65 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 15.93 | |
| Volume of Water in Well: | (gal) | .63 | |
| Three Well Volumes: | (gal) | 1.91 | |

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" [X] 2" [ ] 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) | 1 | | | |

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 | 10.84 | 10.22 | 7.43 | -208 | 1.02 | 47.6 | 5.61 | .658 |
| 1325 | 13.64 | 9.96 | 8.04 | -256 | 1.08 | 48.3 | 5.15 | .689 |
| 1330 | 14.00 | 10.31 | 8.09 | -257 | 1.08 | 28.3 | 4.88 | .694 |
| 1335 | 14.15 | 10.35 | 8.10 | -271 | 1.11 | 27.7 | 4.30 | .714 |
| 1340 | 14.51 | 10.34 | 8.06 | -276 | 1.17 | 27.6 | 3.62 | .753 |
| 1345 | 14.76 | 10.28 | 8.06 | -281 | 1.19 | 27.1 | 3.17 | .765 |
| 1350 | 15.02 | 10.20 | 8.05 | -279 | 1.24 | 27.4 | 2.92 | .797 |
| | | | | | | | | |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-15RS-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1350 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [ ]
Ship to Pace [X]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon, G. Ernst
Job Number: 0603200-136690-221
Well Id. **MW-17R**

Date: 4/15/21
Weather: Rainy 47°
Time In: 925 Time Out: 1005

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 6.84 | |
| Depth to Bottom: | (feet) | 26.90 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 20.06 | |
| Volume of Water in Well: | (gal) | 3.20 | |
| Three Well Volumes: | (gal) | 9.62 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 0930 | 8.00 | 14.48 | 8.69 | -148 | .609 | 3.1 | 0.00 | .388 |
| 0935 | 8.72 | 13.31 | 8.10 | -149 | .593 | 2.9 | 0.60 | .380 |
| 0940 | 9.06 | 9.91 | 8.15 | -163 | .643 | 2.7 | 0.59 | .409 |
| 0945 | 9.37 | 11.50 | 8.05 | -171 | .618 | 3.1 | 0.00 | .395 |
| 0950 | 9.58 | 11.60 | 8.01 | -188 | .616 | 3.2 | 0.00 | .395 |
| 0955 | 9.74 | 11.52 | 7.99 | -200 | .620 | 3.3 | 0.00 | .397 |
| 1000 | 9.86 | 11.43 | 7.99 | -206 | .625 | 3.6 | 0.00 | .400 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-17R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1000 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon, G. ERNST
Job Number: 0603200-136690-221
Well Id. **MW-19R**

Date: 4/15/21
Weather: 48° Light Rain
Time In: 1150 Time Out: 1230

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 3.55 | |
| Depth to Bottom: | (feet) | 38.05 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 34.5 | |
| Volume of Water in Well: | (gal) | 5.52 | |
| Three Well Volumes: | (gal) | 16.56 | |

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 [X]

| 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) |
|---|---|---|---|---|---|---|---|---|
| 1155 | 4.75 | 10.42 | 8.40 | -102 | .458 | 48.2 | 8.09 | .298 |
| 1200 | 6.58 | 10.31 | 8.58 | -97 | .468 | 30.5 | 7.08 | .304 |
| 1205 | 7.89 | 10.38 | 8.59 | -92 | .469 | 23.8 | 6.53 | .304 |
| 1210 | 9.56 | 10.45 | 8.60 | -83 | .467 | 19.1 | 5.89 | .304 |
| 1215 | 11.30 | 10.29 | 8.62 | -84 | .468 | 2.0 | 5.11 | .304 |
| 1220 | 12.71 | 10.47 | 8.61 | -81 | .468 | 1.8 | 4.50 | .304 |
| 1225 | 14.16 | 10.51 | 8.63 | -79 | .467 | 1.6 | 3.85 | .303 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-19R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1225 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon, G. Ernst
Date: 4/15/21
Job Number: 0603200-136690-221
Weather: 47° light Rain
Well Id. **MW-20R**
Time In: 1100 Time Out: 1140

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 0.50 | |
| Depth to Bottom: | (feet) | 28.40 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 27.9 | |
| Volume of Water in Well: | (gal) | 4.46 | |
| Three Well Volumes: | (gal) | 13.39 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1105 | 1.32 | 9.95 | 8.39 | -190 | .547 | 26.2 | 7.25 | .351 |
| 1110 | 2.23 | 9.98 | 8.29 | -189 | .545 | 4.2 | 6.26 | .349 |
| 1115 | 2.96 | 10.01 | 8.26 | -187 | .543 | 3.5 | 5.70 | .348 |
| 1120 | 3.71 | 9.96 | 8.25 | -185 | .548 | 2.2 | 5.07 | .351 |
| 1125 | 4.42 | 10.03 | 8.22 | -182 | .542 | 2.1 | 4.97 | .347 |
| 1130 | 5.02 | 10.04 | 8.23 | -178 | .542 | 1.7 | 4.59 | .347 |
| 1135 | 5.67 | 10.17 | 8.18 | -173 | .539 | 1.1 | 3.95 | .345 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-20R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1135 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [X]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

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 - Ogdensburg King Street Ogdensburg, NY | |
| Project Number: 0603200-136690-221-1106 | |

**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 ☐ STATE ☐ ☐ ☐ ☐ ☐ OH ☐ SC ☐ ☐ ☐ OTHER____

**Section D** Required Client Information

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

Valid Matrix Codes

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

Samples

| 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 | Analysis: BTEX (8260C) | SVOCs (PAHs) (8270D) | Cyanide, Total (9012B) | Pace Project Number / Lab I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-2(R)-0421 | WT | G | | | 4/15/24 | 1430 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 2 | MW-5R(R)-0421 | WT | G | | | | 1355 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 3 | MW-8R-0421 | WT | G | | | | 1125 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 4 | MW-8R-MS-0421 | WT | G | | | | 1125 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 5 | MW-8R-MSD-0421 | WT | G | | | | 1125 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 6 | MW-9-0421 | WT | G | | | | 1035 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 7 | MW-10R-0421 | WT | G | | | | 1066 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 8 | MW-11-0421 | WT | G | | | | 1310 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 9 | MW-12R-0421 | WT | G | | | | 1225 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 10 | MW-14R-0421 | WT | G | | | | 1045 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 11 | MW-15-0421 | WT | G | | | | 1310 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 12 | MW-15RS-0421 | WT | G | | | | 1350 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 13 | MW-17R-0421 | WT | G | | | | 1000 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 14 | MW-19R-0421 | WT | G | | | | 1225 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 15 | MW-20R-0421 | WT | G | | | | 1135 | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 16 | FD-0421 | WT | G | | | | | | 7 | 2 | | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 17 | Trip Blanks | WT | G | | | | | | 2 | | | | 3 | | | | | 3 | | | |

**Additional Comments:**

SAMPLES WILL ARRIVE IN # COOLERS.

Please send reports to: dshay@gesonline.com, tbeaumont@gesonline.com
NERegion@gesonline.com, ges@equisonline.com

**SPECIFIC EDD NAME:**

NGOgdensburg-labnumber.28351.EQEDD.zip

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| [signature] | 4/16/24 | 09:00 | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**SAMPLE CONDITIONS**

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

**SAMPLER NAME AND SIGNATURE**

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY)

*National Grid*
*King Street Non-Owned Former MGP Site*
*Ogdensburg, New York*

*Semi-Annual Groundwater Sampling Event*
*October 27, 2021*

| Well ID | Sample? | Well Size | DTW | DTP | DTB | Comments |
|---|---|---|---|---|---|---|
| MW-2(R) | Yes | 2" | 4.18 | | 6.35 | |
| MW-5R(R) | Yes | 2" | 2.11 | | 24.30 | |
| MW-8R | Yes | 2" | 2.56 | | 20.92 | MS/MSD |
| MW-9 | Yes | 2" | 4.94 | | 6.35 | |
| MW-10R | Yes | 2" | 0.55 | | 22.50 | Field Duplicate |
| MW-11 | Yes | 2" | 3.73 | | 6.51 | |
| MW-12R | Yes | 2" | 9.19 | | 21.40 | |
| MW-14R | Yes | 2" | 0.00 | | 50.80 | |
| MW-15 | Yes | 2" | 8.33 | | 9.04 | |
| MW-15RS | Yes | 1" | 8.50 | | 23.65 | |
| MW-17R | Yes | 2" | 7.29 | | 26.90 | |
| MW-19R | Yes | 2" | 4.00 | | 38.05 | |
| MW-20R | Yes | 2" | 0.20 | | 28.40 | |

***DTW*** *-depth to water*

***DTP*** *-depth to product*

***DTB*** *-depth to bottom*

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-136690-221
Well Id. **MW-19R**

Date: 10/20/21
Weather: Sunny 60°
Time In: 1054 Time Out: 1130

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 4.00 | |
| Depth to Bottom: | (feet) | 38.05 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 34.05 | |
| Volume of Water in Well: | (gal) | 5.44 | |
| Three Well Volumes: | (gal) | 16.34 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1055 | 4.71 | 18.47 | 7.51 | -127 | .635 | 156 | 1.85 | .407 |
| 1100 | 5.76 | 17.02 | 7.57 | -149 | .639 | 92.9 | 1.28 | .409 |
| 1105 | 7.21 | 16.85 | 7.63 | -156 | .640 | 115 | 1.03 | .409 |
| 1110 | 8.53 | 16.83 | 7.65 | -159 | .639 | 115 | 1.03 | .409 |
| 1115 | 10.16 | 16.85 | 7.65 | -161 | .637 | 98.4 | 1.03 | .408 |
| 1120 | 11.50 | 16.89 | 7.65 | -161 | .637 | 91.5 | 0.98 | .408 |
| 1125 | 12.61 | 16.88 | 7.64 | -159 | .639 | 90.2 | 1.09 | .409 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-19R-1021** Duplicate? Yes [ ] No [X]
Sample Time: 1125 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. ERNST
Job Number: 0603275-136690-221
Well Id. **MW-2(R)**

Date: 10/20/21
Weather: Clear 60°s
Time In: 1135 Time Out:

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 4.18 | |
| Depth to Bottom: | (feet) | 6.35 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 2.17 | |
| Volume of Water in Well: | (gal) | 0.35 | |
| Three Well Volumes: | (gal) | 1.04 | |

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) | 1.5 | | | |

Did well go dry? Yes [X] 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) |
|---|---|---|---|---|---|---|---|---|
| 1140 | 4.97 | 21.45 | 8.05 | -281 | 0.627 | 27.9 | 3.36 | 0.401 |
| 1145 | 5.88 | 20.91 | 7.76 | -291 | 0.627 | 32.5 | 1.57 | 0.400 |
| 1150 | 6.08 | 21.62 | 8.10 | -269 | 0.623 | 50.9 | 3.50 | 0.398 |
| 1155 | 6.35 | 21.95 | 8.73 | -262 | 0.608 | 51.8 | 4.78 | 0.389 |
| 1200 | | | Dried | | | | | |
| 1205 | | | | | | | | |
| 1210 | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-2(R)-1021** Duplicate? Yes [ ] No [X]
Sample Time: 1205 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. ERNST
Job Number: 0603275-136690-221
Well Id. **MW-5R(R)**

Date: 10/20/21
Weather: clear 60's
Time In: 1050 Time Out: 1135

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 2.11 | |
| Depth to Bottom: | (feet) | 24.30 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 22.19 | |
| Volume of Water in Well: | (gal) | 3.55 | |
| Three Well Volumes: | (gal) | 10.65 | |

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) | 1.5 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1055 | 2.97 | 20.78 | 7.21 | -279 | 0.683 | 128 | 2.55 | 0.440 |
| 1100 | 3.93 | 20.27 | 7.76 | -320 | 0.752 | 117 | 1.22 | 0.483 |
| 1105 | 5.28 | 19.65 | 8.38 | -326 | 0.785 | 109 | 0.99 | 0.503 |
| 1110 | 6.26 | 19.54 | 8.54 | -334 | 0.770 | 91.6 | 0.99 | 0.492 |
| 1115 | 7.03 | 19.51 | 8.57 | -339 | 0.742 | 54.2 | 0.96 | 0.475 |
| 1120 | 7.59 | 19.53 | 8.58 | -342 | 0.717 | 44.7 | 0.95 | 0.458 |
| 1125 | 8.07 | 19.55 | 8.55 | -343 | 0.694 | 25.9 | 0.93 | 0.444 |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-5R(R)-1021** Duplicate? Yes [ ] No [X]
Sample Time: 1130 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: FR
Job Number: 0603275-136690-221
Well Id. **MW-8R**

Date: 10/20/21
Weather:
Time In: 0950 Time Out: 10:40

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 2.56 | |
| Depth to Bottom: | (feet) | 20.92 | |
| 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) | 2 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 10:00 | 4.33 | 17.02 | 7.56 | -276 | 0.707 | 149 | 0.78 | 0.449 |
| 10:05 | 4.89 | 17.17 | 7.92 | -291 | 0.702 | 49.3 | 3.37 | 0.446 |
| 10:10 | 5.98 | 17.42 | 8.34 | -305 | 0.703 | 20.5 | 2.99 | 0.450 |
| 10:15 | 7.47 | 17.59 | 8.66 | -322 | 0.704 | 13.0 | 2.57 | 0.451 |
| 10:20 | 8.97 | 17.44 | 8.94 | -328 | 0.712 | 9.1 | 2.18 | 0.456 |
| 10:25 | 10.03 | 1755 | 9.15 | -330 | 0.714 | 11.0 | 1.93 | 0.457 |
| 10:30 | 10.58 | 17.50 | 9.39 | -330 | 0.709 | 12.6 | 1.71 | 0.453 |
| | | | | | | | | |
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## 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 - 100 ml ambers Yes [X] No [ ]
9 - 40 ml vials Yes [X] No [ ]
3 - 250 ml plastic Yes [X] No [ ]

**MW-8R-MS-1021** **MW-8R-MSD-1021**
Sample ID: **MW-8R-1021** Duplicate? Yes [ ] No [X]
Sample Time: 10:30 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KL
Job Number: 0603275-136690-221
Well Id. **MW-9**

Date: 10/25/21
Weather: Sunny 57
Time In: 09:30 Time Out: 09:45

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 4.94 | |
| Depth to Bottom: | (feet) | 6.35 | |
| Depth to Product: | (feet) | | |
| Length of Water Column: | (feet) | ~~0.88~~ 1.41 | |
| Volume of Water in Well: | (gal) | ~~0.23~~ 0.22 | |
| Three Well Volumes: | (gal) | | 0.674 |

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) | 300 | | | |
| Duration of Pumping: | (min) | 10 | | | |
| Total Volume Removed: | (gal) | .5 | | | |

Did well go dry? Yes [X] 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) |
|---|---|---|---|---|---|---|---|---|
| 09:35 | 5.90 | 16.07 | 7.56 | -185 | 1.19 | 63.4 | 0.97 | 0.767 |
| 09:40 | | | | | | | | |
| 09:45 | | | | | | | | |
| 09:50 | | | | | | | | |
| 09:55 | | | | | | | | |
| 10:00 | | | | | | | | |
| 10:05 | | | | | | | | |
| | | | | Dry | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-9-1021**
Sample Time: ~~10:05~~ 09:40
Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes: 09:40

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: VL
Job Number: 0603275-136690-221
Well Id. **MW-10R**

Date: 10/20/21
Weather: Sunny 55°
Time In: 8:45 Time Out: 09:30

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 0.55 | |
| Depth to Bottom: | (feet) | 22.50 | |
| Depth to Product: | (feet) | | |
| Length of Water Column: | (feet) | 21.95 | |
| Volume of Water in Well: | (gal) | 3.51 | |
| Three Well Volumes: | (gal) | 10.53 | |

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) | 3 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 08:55 | 1.96 | 16.25 | 8.92 | -195 | 0.389 | 2.5 | 1.31 | 0.252 |
| 09:00 | 3.93 | 16.61 | 9.10 | -225 | 0.436 | 2.3 | 0.88 | 0.287 |
| 09:05 | 4.33 | 16.45 | 8.99 | -233 | 0.550 | 2.2 | 0.84 | 0.359 |
| 09:10 | 5.10 | 16.29 | 8.91 | -244 | 0.641 | 0.9 | 1.32 | 0.410 |
| 09:15 | 5.29 | 16.32 | 8.94 | -248 | 0.652 | 0.5 | 1.22 | 0.418 |
| 09:20 | 5.43 | 16.37 | 8.96 | -253 | 0.665 | 0.4 | 1.16 | 0.426 |
| 09:25 | 5.55 | 16.39 | 9.01 | -251 | 0.668 | 0.4 | 1.09 | 0.429 |
| | | | | | | | | |
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## 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 - 100 ml ambers Yes [X] No [ ]
6 - 40 ml vials Yes [X] No [ ]
2 - 250 ml plastic Yes [X] No [ ]

**FD-1021**
Sample ID: **MW-10R-1021**
Sample Time: 09:25

Duplicate? Yes [X] No [ ]
MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. ERNST
Job Number: 0603275-136690-221
Well Id. **MW-11**

Date: 10/20/21
Weather: Clear 60°s
Time In: 1005 Time Out: 1050

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 3.73 | |
| Depth to Bottom: | (feet) | 6.51 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 2.78 | |
| Volume of Water in Well: | (gal) | 0.44 | |
| Three Well Volumes: | (gal) | 1.33 | |

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) | 2.0 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1010 | 3.87 | 19.25 | 7.36 | -179 | 0.002 | 119 | 7.54 | 0.001 |
| 1015 | 4.11 | 18.74 | 7.47 | -195 | 1.49 | 552 | 1.58 | 0.958 |
| 1020 | 4.23 | 18.22 | 7.06 | -215 | 1.50 | 263 | 0.95 | 0.965 |
| 1025 | 4.27 | 18.21 | 6.92 | -219 | 1.54 | 127 | 0.83 | 0.981 |
| 1030 | 4.29 | 18.24 | 6.86 | -219 | 1.54 | 108 | 0.77 | 0.986 |
| 1035 | 4.29 | 18.37 | 6.82 | -218 | 1.53 | 61.4 | 0.72 | 0.979 |
| 1040 | 4.30 | 18.45 | 6.79 | -218 | 1.53 | 21.4 | 0.69 | 0.979 |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-11-1021** Duplicate? Yes [ ] No [X]
Sample Time: 1045 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: G. ERNST
Job Number: 0603275-136690-221
Well Id. **MW-12R**

Date: 10/20/21
Weather: Clear 50°s
Time In: 0910 Time Out: 1005

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 9.19 | |
| Depth to Bottom: | (feet) | 21.40 | |
| Depth to Product: | (feet) | NP | |
| Length of Water Column: | (feet) | 12.21 | |
| Volume of Water in Well: | (gal) | 1.95 | |
| Three Well Volumes: | (gal) | 5.86 | |

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) | 1.5 | | | |

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) |
|---|---|---|---|---|---|---|---|---|
| 9:25 | 9.77 | 14.11 | 7.57 | -208 | 0.696 | 0.9 | 4.70 | 0.445 |
| 9:30 | 10.27 | 14.28 | 7.80 | -254 | 0.688 | 1.0 | 3.34 | 0.440 |
| 9:35 | 11.08 | 14.66 | 7.72 | -313 | 0.683 | 0.7 | 3.44 | 0.437 |
| 9:40 | 11.90 | 15.07 | 7.67 | -326 | 0.682 | 0.6 | 2.61 | 0.437 |
| 9:45 | 12.67 | 15.54 | 7.67 | -340 | 0.679 | 0.4 | 1.84 | 0.434 |
| 9:50 | 13.58 | 16.17 | 7.70 | -345 | 0.676 | 0.2 | 2.38 | 0.433 |
| 9:55 | 14.20 | 16.60 | 7.70 | -345 | 0.675 | 0.1 | 1.62 | 0.432 |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-12R-1021**
Sample Time: 10:00

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KC
Job Number: 0603275-136690-221
Well Id. **MW-14R**

Date: 10/20/21
Weather: Sun 60
Time In: 11:25 Time Out: 12:10

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 0.60 | |
| Depth to Bottom: | (feet) | 50.80 | |
| Depth to Product: | (feet) | — | |
| Length of Water Column: | (feet) | 30.20 | |
| Volume of Water in Well: | (gal) | 8.12 | |
| Three Well Volumes: | (gal) | 24.36 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 11:25 | 0.00 | 16.07 | 7.37 | -310 | 0.676 | 3.3 | 0.94 | 0.423 |
| 11:30 | 0.00 | 14.05 | 7.50 | -330 | 0.613 | 3.1 | 0.61 | 0.392 |
| 11:35 | 0.00 | 13.90 | 7.33 | -332 | 0.613 | 3.0 | 0.59 | 0.393 |
| 11:40 | 0.00 | 13.61 | 7.20 | -334 | 0.615 | 1.5 | 0.57 | 0.394 |
| 11:45 | 0.00 | 13.51 | 7.14 | -335 | 0.617 | 1.2 | 0.55 | 0.392 |
| 11:50 | 0.00 | 13.36 | 7.12 | -335 | 0.613 | 1.0 | 0.54 | 0.392 |
| 11:55 | 0.00 | 13.31 | 7.12 | -335 | 0.612 | 1.0 | 0.53 | 0.391 |
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## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-14R-1021** Duplicate? Yes [ ] No [X]
Sample Time: 11:55 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Pete Ingen
Job Number: 0603275-136690-221
Well Id. **MW-15**

Date: 10/20/21
Weather: 60° Sunny
Time In: 1001 Time Out: 1040

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 8.33 | |
| Depth to Bottom: | (feet) | 9.04 | |
| Depth to Product: | (feet) | – | |
| Length of Water Column: | (feet) | 0.71 | |
| Volume of Water in Well: | (gal) | .11 | |
| Three Well Volumes: | (gal) | .34 | |

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 [X] 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) |
|---|---|---|---|---|---|---|---|---|
| 1005 | 8.58 | 16.81 | 6.74 | -178 | .003 | 108 | 9.90 | .002 |
| 1010 | 8.79 | 17.67 | 6.75 | -173 | .003 | 109 | 9.74 | .002 |
| 1015 | Dry | 18.44 | 6.54 | -151 | 1.22 | 0.0 | 2.09 | .780 |
| 1020 | | | | | | | | |
| 1025 | | | | | | | | |
| 1030 | | | | | | | | |
| 1035 | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-15-1021** Duplicate? Yes [ ] No [X]
Sample Time: ~~1035~~ 1020 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:
Went dry Sampled early

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lynn
Job Number: 0603275-136690-221
Well Id. **MW-15RS**

Date: 10/20/21
Weather: Sunny 55°
Time In: 0908 Time Out: 0955

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 8.50 | |
| Depth to Bottom: | (feet) | 23.65 | |
| Depth to Product: | (feet) | - | |
| Length of Water Column: | (feet) | 15.15 | |
| Volume of Water in Well: | (gal) | 2.42 | |
| Three Well Volumes: | (gal) | 7.27 | |

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" [X] 2" [ ] 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) |
|---|---|---|---|---|---|---|---|---|
| 0920 | 10.58 | 14.49 | 6.93 | -179 | 1.40 | 5.4 | 2.48 | .894 |
| ~~0945~~ 0925 | 13.65 | 14.64 | 6.89 | -238 | 1.39 | 16.6 | 2.39 | .889 |
| ~~0930~~ 0930 | 14.10 | 14.61 | 6.86 | -259 | 1.39 | 11.3 | 2.52 | .887 |
| 0935 | 14.42 | 14.63 | 6.86 | -271 | 1.39 | 23.7 | 2.60 | .892 |
| 0940 | 14.90 | 14.55 | 6.84 | -280 | 1.40 | 16.1 | 2.51 | .893 |
| 0945 | 15.22 | 14.61 | 6.84 | -284 | 1.40 | 7.8 | 2.52 | .899 |
| 0950 | 15.65 | 14.48 | 6.82 | -290 | 1.43 | 12.6 | 2.45 | .913 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-15RS-1021** Duplicate? Yes [ ] No [X]
Sample Time: 0950 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KZ
Date: 10/20/14
Weather: Sunny 50
Job Number: 0603275-136690-221
Time In: 10:45 Time Out: 11:25
Well Id. **MW-17R**

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 7.29 | |
| Depth to Bottom: | (feet) | 26.90 | |
| Depth to Product: | (feet) | — | |
| Length of Water Column: | (feet) | 19.61 | |
| Volume of Water in Well: | (gal) | 3.13 | |
| Three Well Volumes: | (gal) | 9.41 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 10:45 | 8.43 | 16.40 | 9.41 | -301 | 0.922 | 3.5 | 1.95 | 0.591 |
| 10:50 | 10.05 | 15.80 | 9.53 | -297 | 0.960 | 0.0 | 1.74 | 0.614 |
| 10:55 | 12:30 | 15.76 | 9.07 | -297 | 0.947 | 0.0 | 1.54 | 0.601 |
| 11:00 | 12.98 | 15.72 | 8.90 | -297 | 0.921 | 0.0 | 1.38 | 0.589 |
| 11:05 | 13.70 | 15.67 | 8.19 | -296 | 0.947 | 3.7 | 1.23 | 0.604 |
| 11:10 | 13.75 | 15.36 | 7.77 | -296 | 0.952 | 5.6 | 1.91 | 0.609 |
| 11:20 | 13.95 | 15.37 | 7.52 | -296 | 0.956 | 5.4 | 1.75 | 0.612 |
| ~~11:25~~ | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-17R-1021**
Sample Time: 11:20
Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-136690-221
Well Id. **MW-20R**

Date: 10/20/21
Weather: Sunny 60°
Time In: 1137 Time Out: 1215

## Well Information

| | | TOC | Other |
|---|---|---|---|
| Depth to Water: | (feet) | 0.20 | |
| Depth to Bottom: | (feet) | 28.40 | |
| Depth to Product: | (feet) | -- | |
| Length of Water Column: | (feet) | 28.20 | |
| Volume of Water in Well: | (gal) | 4.51 | |
| Three Well Volumes: | (gal) | 13.53 | |

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) |
|---|---|---|---|---|---|---|---|---|
| 1140 | 1.34 | 18.04 | 7.34 | -110 | .703 | 29.6 | 0.71 | .450 |
| 1145 | 2.57 | 17.71 | 7.22 | -108 | .709 | 22.4 | 0.62 | .453 |
| 1150 | 4.03 | 12.59 | 7.17 | -105 | .706 | 22.8 | 0.60 | .452 |
| 1155 | 5.43 | 17.38 | 7.14 | -104 | .703 | 21.2 | 0.62 | .450 |
| 1200 | 6.35 | 17.39 | 7.14 | -103 | .703 | 20.8 | 0.59 | .450 |
| 1205 | 7.23 | 17.15 | 7.12 | -103 | .704 | 17.8 | 0.57 | .450 |
| 1210 | 8.10 | 17.04 | 7.10 | -102 | .704 | 17.5 | 0.56 | .451 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## 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

2 - 100 ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-20R-1021**
Sample Time: 1210

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

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: 6780 Northern Blvd, Suite 100
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 - Ogdensburg King Street Ogdensburg, NY
Project Number: 0603275-136690-221-1106

**Section C** — Invoice Information:

Attention: Accounts Payable via email at ges-invoices@gesonline.com
Company Name: Groundwater & Environmental Services, Inc.
Address: 6780 Northern Blvd, Suite 100, 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 ☐ IL ☐ IN ☐ KY ☐ NJ ☐ NY ☐ OH ☐ SC ☐ 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 Unpreserved | Preservatives $H_2SO_4$ | HNO3 | HCl | NaOH | $Na_2S_2O_3$ | Methanol | Other | Analysis Test: BTEX (8260C) | SVOCs (PAHs) (8270D) | Cr w/Hex. Total (8012B) | Pace Project Number / Lab I.D. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-2(R)-1021 | WT | G | | | | 12:00 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 2 | MW-5R(R)-1021 | WT | G | | | | 11:30 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 3 | MW-8R-1021 | WT | G | | | | 10:30 | | 7 | 2 | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 4 | MW-8R-MS-1021 | WT | G | | | | 10:30 | | 7 | 2 | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 5 | MW-8R-MSD-1021 | WT | G | | | | 10:30 | | 7 | 2 | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 6 | MW-9-1021 | WT | G | | | | 09:40 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 7 | MW-10R-1021 | WT | G | | | | 09:25 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 8 | MW-11-1021 | WT | G | | | | 10:45 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 9 | MW-12R-1021 | WT | G | | | | 10:00 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 10 | MW-14R-1021 | WT | G | | | | 11:55 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 11 | MW-15-1021 | WT | G | | | | 10:20 | | 7 | 2 | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 12 | MW-15RS-1021 | WT | G | | | | 09:30 | | 7 | 2 | 1 | 3 | 1 | | | | 3 | 2 | 1 | |
| 13 | MW-17R-1021 | WT | G | | | | 11:20 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 14 | MW-19R-1021 | WT | G | | | | 11:25 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 15 | MW-20R-1021 | WT | G | | | | 12:10 | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 16 | FD-1021 | WT | G | | | | ~~12:00~~ (2) | | 7 | 2 | | 3 | 1 | | | | 3 | 2 | 1 | |
| 17 | Trip Blanks | WT | G | | | | 12:00 | | 2 | | | 3 | | | | | 3 | | | |

| RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|
| | 10/20/21 | | | | |

**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 |

**Additional Comments:**

SAMPLES WILL ARRIVE IN [#] COOLERS.

Please send reports to: dshay@gesonline.com, tbeaumont@gesonline.com
NERegion@gesonline.com, ges@equisonline.com

**SPECIFIC EDD NAME:**

NGOgdensburg-labnumber.28351.EQEDD.zip

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Kevin Lee
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 10/20/21

# Appendix C – Data Usability Summary Report

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

January 28, 2022

Devin Shay
Groundwater & Environmental Services, Syracuse
6780 Northern Blvd., Suite 100
East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid - Ogdensburg: Data Packages Pace Analytical Job No. **30416160**

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the April 2021 sampling event at the National Grid Ogdensburg site. Thirteen aqueous samples, 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 polycyclic aromatic hydrocarbons (PAHs). One trip blank was analyzed for volatiles with the samples. The trip blank is used to determine if there is BTEX contamination caused by transporting the samples.

Analytical methodologies are those of the USEPA 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
- Sample Quantitation and Identification

**Table 1 – Data Qualifications**

| Sample ID | Qualifier | Analyte | Reason for qualification |
|---|---|---|---|
| MW-2R<br>MW-5R<br>MW-8R<br>MW-9<br>MW-10R<br>MW-11<br>MW-12R<br>MW-15RS<br>MW-17R<br>FD | J+ | Naphthalene | High LCS recovery |
| MW-2R<br>MW-9<br>MW-11 | J | Benzo(b)fluoranthene<br>Benzo(k)fluoranthene | Co-elution of peaks |
| MW-8R | J- | Cyanide | Low MS/MSD recovery |
| MW-10R<br>FD | J | Fluorene<br>2-methylnaphthalene | RPD exceeds maximum |
| MW-8R | J+ | Acenaphthene | High MS/MSD recovery |

In summary, sample results are usable as reported, with non-compliances noted.

The result for pH in all applicable samples was qualified by the laboratory as estimated due to the short hold time of 15 minutes.

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

**BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP**

Sample holding times for groundwater and instrumental tune fragmentations are within acceptance ranges. Surrogate and internal standard recoveries are within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-8R** as the matrix. All QC elements fell within project criteria, with the exception of the recovery and RPD for benzene. The original concentration reported for benzene was not less than the EPA recommended 4x the spiking concentration for usable calculations. Therefore, the data is not qualified by the low recovery and RPD exceedance and is usable as reported. . The blind field duplicate correlations of **MW-10R** were within the project specification of ≤25%.

The laboratory control spike reported high, out-of-specification recoveries for naphthalene, and all positive detections associated with the LCS are qualified as estimated, with a possible high bias.

**PAHs by EPA8270D/NYSDEC ASP**

Holding times are met. Instrumental tune fragmentations are within acceptance ranges. Blanks show no contamination. Surrogate recoveries were within criteria. 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, with the exception of a high recovery for naphthalene. All positive detections are qualified as estimated, with a possible high bias. MS/MSD was analyzed using **MW-8R** as the matrix. All QC elements fell within project criteria, with the exception of acenaphthene, which recovered high. Acenaphthene in **MW-8R** is qualified as estimated with a possible high bias. . The blind field duplicate correlations of **MW-10R** were within the project specification of ≤25%, with the exception of fluorene and 2-methylnaphthalene. Both of these compounds in **MW-10R** are qualified as estimated with an indeterminate bias.

## Cyanide by EPA 9012A/NYDESC 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. MS/MSDs were analyzed using **MW-8R**. Cyanide recovered low in the MS/MSD, and is qualified as estimated low in the sample. The blind field duplicate correlations of **MW-10R** were within project criteria. No data was qualified.

## Precision

**Table 2 – Data Precision**

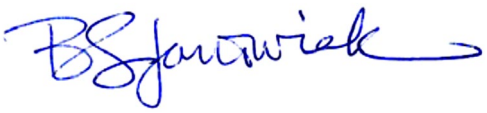
| Compound | MW-10R | FD | RPD |
|---|---|---|---|
| Acenaphthene | 22.0 | 26.8 | 19.7 |
| Acenaphthylene | 31.6 | 38.2 | 18.9 |
| Anthracene | 0.89 | 0.90 | 1.1 |
| Acenaphthene | 22.0 | 26.8 | 19.7 |
| Fluorene | 9.7 | 12.9 | 28.3 |
| 2-Methylnaphthalene | 6.4 | 8.9 | 32.7 |
| Naphthalene | 405 | 470 | 14.9 |
| Phenanthrene | 1.8 | 2.2 | 20.0 |
| Benzene | 1040 | 1050 | 1.0 |
| Ethylbenzene | 94.3 | 98.5 | 4.4 |
| Toluene | 171 | 153 | 11.1 |
| Xylene, total | 125 | 122 | 2.4 |
| m&p-Xylene | 82.5 | 84.5 | 2.4 |
| o-Xylene | 42.4 | 37.7 | 11.7 |
| Cyanide | 0.074 | 0.078 | 5.3 |

**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, NRCC Certified

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

## SAMPLE SUMMARY

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30416160

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **30416160001** | **MW-2(R)-0421** | Water | 04/15/21 14:30 | 04/19/21 09:45 |
| **30416160002** | **MW-5R(R)-0421** | Water | 04/15/21 13:55 | 04/19/21 09:45 |
| **30416160003** | **MW-8R-0421** | Water | 04/15/21 11:25 | 04/19/21 09:45 |
| **30416160004** | **MW-8R-MS-0421** | Water | 04/15/21 11:25 | 04/19/21 09:45 |
| **30416160005** | **MW-8R-MSD-0421** | Water | 04/15/21 11:25 | 04/19/21 09:45 |
| **30416160006** | **MW-9-0421** | Water | 04/15/21 10:35 | 04/19/21 09:45 |
| **30416160007** | **MW-10R-0421** | Water | 04/15/21 10:00 | 04/19/21 09:45 |
| **30416160008** | **MW-11-0421** | Water | 04/15/21 13:10 | 04/19/21 09:45 |
| **30416160009** | **MW-12R-0421** | Water | 04/15/21 12:25 | 04/19/21 09:45 |
| **30416160010** | **MW-14R-0421** | Water | 04/15/21 10:45 | 04/19/21 09:45 |
| **30416160011** | **MW-15-0421** | Water | 04/15/21 13:10 | 04/19/21 09:45 |
| **30416160012** | **MW-15RS-0421** | Water | 04/15/21 13:50 | 04/19/21 09:45 |
| **30416160013** | **MW-17R-0421** | Water | 04/15/21 10:00 | 04/19/21 09:45 |
| **30416160014** | **MW-19R-0421** | Water | 04/15/21 12:25 | 04/19/21 09:45 |
| **30416160015** | **MW-20R-0421** | Water | 04/15/21 11:35 | 04/19/21 09:45 |
| **30416160016** | **FD-0421** | Water | 04/15/21 00:00 | 04/19/21 09:45 |
| **30416160017** | **Trip Blanks** | Water | 04/15/21 00:00 | 04/19/21 09:45 |

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# PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30416160

**Method:** **EPA 8270D by SIM**
**Description:** 8270D PAH SIM Reduced Volume
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** April 28, 2021

**General Information:**
16 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.

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

QC Batch: 444465

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 2145684)
  - Naphthalene

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

QC Batch: 444465

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30416160003

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MSD (Lab ID: 2145686)
  - Acenaphthene

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## PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30416160

**Method:** **EPA 8270D by SIM**
**Description:** 8270D PAH SIM Reduced Volume
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** April 28, 2021

**Additional Comments:**

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# PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30416160

**Method:** **EPA 8260C**
**Description:** 8260C MSV
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** April 28, 2021

**General Information:**
17 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.

QC Batch: 444389

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30416160003

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

- MS (Lab ID: 2145169)
  - Benzene

R1: RPD value was outside control limits.

- MSD (Lab ID: 2145170)
  - Benzene

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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# PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30416160

**Method:** **EPA 9012B**
**Description:** 9012B Cyanide, Total
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** April 28, 2021

**General Information:**
16 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: 444477

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30415885005,30415885008

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

- MS (Lab ID: 2145740)
  - Cyanide
- MSD (Lab ID: 2145741)
  - Cyanide

QC Batch: 444476

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30416160003,30416160004

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

- MS (Lab ID: 2145732)
  - Cyanide
- MS (Lab ID: 2145734)
  - Cyanide
- MSD (Lab ID: 2145733)
  - Cyanide
- MSD (Lab ID: 2145735)
  - Cyanide

**Additional Comments:**

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

## REPORT OF LABORATORY ANALYSIS

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

January 28, 2022

Devin Shay
Groundwater & Environmental Services, Syracuse
6780 Northern Blvd., Suite 100
East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid - Ogdensburg: Data Packages Pace Analytical Job No. 30446758

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the October 2021 sampling event at the National Grid Ogdensburg site. Collected samples included twelve aqueous samples, a trip blank and a field duplicate from the main site. The samples were processed for volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), cyanide and polycyclic aromatic hydrocarbons (PAHs). The trip blank was analyzed for volatiles with the samples. The trip blank is used to determine if there is BTEX contamination caused by transporting the samples.

Analytical methodologies are those of the USEPA 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
- 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-8R-1021** | J- | Cyanide | Low MS/MSD recoveries |

J-/UJ-: estimated detect/estimated non-detect with a possible low bias

## BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and instrumental tune fragmentations are within acceptance ranges. Surrogate and internal standard recoveries are within required limits, with the exception of 1,2-dichloroethane-d4 which had low recoveries in the calibration and in the samples. This is a surrogate compound, and the low recovery in the calibration indicates that there was an instrumental issue with the compound, rather than an extraction inefficiency. The low recoveries therefore do not indicate a failure of the method to accurately determine concentrations of COCs, and the data is not qualified. Calibrations standards show acceptable responses within analytical protocol and validation action limits with the exception of the above surrogate calibration response.

An MS/MSD was analyzed using **MW-8R-1021** as the matrix. All QC elements fell within project criteria. The blind field duplicate correlations of **MW-10R-1021** were within the project specification of ≤25%.

**Table 2: *VOCs* Precision Calculations**

| Compound | MW-10R | FD | RPD |
|---|---|---|---|
| Benzene | 1790 | 1730 | 3.4 |
| Ethylbenzene | 138 | 143 | 3.6 |
| Toluene | 197 | 200 | 1.5 |
| Xylene (Total) | 161 | 164 | 1.8 |
| m&p-Xylenes | 103 | 104 | 1.0 |
| o-Xylene | 58 | 60.2 | 3.7 |

µg/L-microgram per liter RPD - relative percent difference

## Cyanide by EPA 9012A/NYDESC 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 **MW-8R-1021** where the recoveries were below criteria (77%, 76%). The cyanide data for this sample is qualified as estimated with a possible low bias. The blind field duplicate correlations of **MW-10R-1021** were within project criteria. No data was qualified.

**Table *3*: Cyanide Precision Calculations**

| Compound | MW-10R | FD | RPD |
|---|---|---|---|
| Cyanide | 0.061 | 0.066 | 7.9 |

µg/L-microgram per liter RPD - relative percent difference

## PAHs by EPA8270D/NYSDEC ASP

Holding times were met. Instrumental tune fragmentations are within acceptance ranges. Blanks no above RL concentrations.

Surrogates were within specification for all samples. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines. Samples with high concentrations were run at dilution to allow accurate quantification. Some detection limits are elevated.

The laboratory control spike recoveries and precision indicate the method is within laboratory control. Matrix spike and matrix spike recoveries were within laboratory specified criteria, with the exception of the recovery for naphthalene. As the original concentration >>4x the spiking concentration, the recovery does not accurately reflect the method efficacy, and no qualifications are required. The blind field duplicate correlations of **MW-10R** were within project specification of RPD ≤ 25%.

**Table *4*: PAH Precision Calculations**

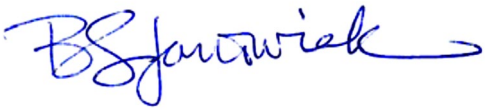
| Compound | MW-10R | FD | RPD |
|---|---|---|---|
| Acenaphthene | 29.8 | 33 | 10.2 |
| Acenaphthylene | 34.1 | 38.8 | 12.9 |
| Fluorene | 13.2 | 14.3 | 8.0 |
| 2-Methylnaphthalene | 7.4 | 8.4 | 12.7 |
| Naphthalene | 653 | 738 | 12.2 |
| Phenanthrene | 2.3 | 2.5 | 8.3 |

**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, NRCC Certified

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## SAMPLE SUMMARY

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **30446758001** | **MW-2(R)-1021** | Water | 10/20/21 12:00 | 10/22/21 09:30 |
| **30446758002** | **MW-5R(R)-1021** | Water | 10/20/21 11:30 | 10/22/21 09:30 |
| **30446758003** | **MW-8R-1021** | Water | 10/20/21 10:30 | 10/22/21 09:30 |
| **30446758004** | **MW-8R-MS-1021** | Water | 10/20/21 10:30 | 10/22/21 09:30 |
| **30446758005** | **MW-8R-MSD-1021** | Water | 10/20/21 10:30 | 10/22/21 09:30 |
| **30446758006** | **MW-9-1021** | Water | 10/20/21 09:40 | 10/22/21 09:30 |
| **30446758007** | **MW-10R-1021** | Water | 10/20/21 09:25 | 10/22/21 09:30 |
| **30446758008** | **MW-11-1021** | Water | 10/20/21 10:45 | 10/22/21 09:30 |
| **30446758009** | **MW-12R-1021** | Water | 10/20/21 10:00 | 10/22/21 09:30 |
| **30446758010** | **MW-14R-1021** | Water | 10/20/21 11:55 | 10/22/21 09:30 |
| **30446758011** | **MW-15-1021** | Water | 10/20/21 10:20 | 10/22/21 09:30 |
| **30446758012** | **MW-15RS-1021** | Water | 10/20/21 09:50 | 10/22/21 09:30 |
| **30446758013** | **MW-17R-1021** | Water | 10/20/21 11:20 | 10/22/21 09:30 |
| **30446758014** | **MW-19R-1021** | Water | 10/20/21 11:25 | 10/22/21 09:30 |
| **30446758015** | **MW-20R-1021** | Water | 10/20/21 12:10 | 10/22/21 09:30 |
| **30446758016** | **FD-1021** | Water | 10/20/21 00:00 | 10/22/21 09:30 |
| **30446758017** | **Trip Blanks** | Water | 10/20/21 12:00 | 10/22/21 09:30 |

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# PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

**Method:** **EPA 8270D by SIM**
**Description:** 8270D PAH SIM Reduced Volume
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** November 05, 2021

**General Information:**
16 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.

ED: Due to the extract's physical characteristics, the analysis was performed at dilution.
- FD-1021 (Lab ID: 30446758016)
- MW-10R-1021 (Lab ID: 30446758007)
- MW-12R-1021 (Lab ID: 30446758009)
- MW-2(R)-1021 (Lab ID: 30446758001)
- MW-5R(R)-1021 (Lab ID: 30446758002)
- MW-9-1021 (Lab ID: 30446758006)

**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: 469580

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- MW-9-1021 (Lab ID: 30446758006)
  - Terphenyl-d14 (S)

**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.

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## PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

**Method:** **EPA 8270D by SIM**
**Description:** 8270D PAH SIM Reduced Volume
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** November 05, 2021

QC Batch: 469580

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30446758003

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

- MS (Lab ID: 2267435)
  - Naphthalene
- MSD (Lab ID: 2267436)
  - Naphthalene

**Additional Comments:**

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## PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

**Method:** **EPA 8260C**
**Description:** 8260C MSV
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** November 05, 2021

**General Information:**
17 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.

QC Batch: 470688

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 2272248)
  - 1,2-Dichloroethane-d4 (S)
- FD-1021 (Lab ID: 30446758016)
  - 1,2-Dichloroethane-d4 (S)
- LCS (Lab ID: 2272249)
  - 1,2-Dichloroethane-d4 (S)
- MS (Lab ID: 2272250)
  - 1,2-Dichloroethane-d4 (S)
- MSD (Lab ID: 2272251)
  - 1,2-Dichloroethane-d4 (S)
- MW-10R-1021 (Lab ID: 30446758007)
  - 1,2-Dichloroethane-d4 (S)
- MW-11-1021 (Lab ID: 30446758008)
  - 1,2-Dichloroethane-d4 (S)
- MW-12R-1021 (Lab ID: 30446758009)
  - 1,2-Dichloroethane-d4 (S)
- MW-14R-1021 (Lab ID: 30446758010)
  - 1,2-Dichloroethane-d4 (S)
- MW-15-1021 (Lab ID: 30446758011)
  - 1,2-Dichloroethane-d4 (S)
- MW-15RS-1021 (Lab ID: 30446758012)
  - 1,2-Dichloroethane-d4 (S)
- MW-17R-1021 (Lab ID: 30446758013)
  - 1,2-Dichloroethane-d4 (S)
- MW-19R-1021 (Lab ID: 30446758014)
  - 1,2-Dichloroethane-d4 (S)
- MW-2(R)-1021 (Lab ID: 30446758001)
  - 1,2-Dichloroethane-d4 (S)
- MW-20R-1021 (Lab ID: 30446758015)
  - 1,2-Dichloroethane-d4 (S)

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# PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

**Method:** **EPA 8260C**
**Description:** 8260C MSV
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** November 05, 2021

QC Batch: 470688

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- MW-5R(R)-1021 (Lab ID: 30446758002)
  - 1,2-Dichloroethane-d4 (S)
- MW-8R-1021 (Lab ID: 30446758003)
  - 1,2-Dichloroethane-d4 (S)
- MW-8R-MS-1021 (Lab ID: 30446758004)
  - 1,2-Dichloroethane-d4 (S)
- MW-8R-MSD-1021 (Lab ID: 30446758005)
  - 1,2-Dichloroethane-d4 (S)
- MW-9-1021 (Lab ID: 30446758006)
  - 1,2-Dichloroethane-d4 (S)
- Trip Blanks (Lab ID: 30446758017)
  - 1,2-Dichloroethane-d4 (S)

**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: 470688

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

- BLANK (Lab ID: 2272248)
  - 1,2-Dichloroethane-d4 (S)
- FD-1021 (Lab ID: 30446758016)
  - 1,2-Dichloroethane-d4 (S)
- LCS (Lab ID: 2272249)
  - 1,2-Dichloroethane-d4 (S)
- MS (Lab ID: 2272250)
  - 1,2-Dichloroethane-d4 (S)
- MSD (Lab ID: 2272251)
  - 1,2-Dichloroethane-d4 (S)
- MW-10R-1021 (Lab ID: 30446758007)
  - 1,2-Dichloroethane-d4 (S)
- MW-11-1021 (Lab ID: 30446758008)
  - 1,2-Dichloroethane-d4 (S)
- MW-12R-1021 (Lab ID: 30446758009)
  - 1,2-Dichloroethane-d4 (S)
- MW-14R-1021 (Lab ID: 30446758010)
  - 1,2-Dichloroethane-d4 (S)
- MW-15-1021 (Lab ID: 30446758011)
  - 1,2-Dichloroethane-d4 (S)
- MW-15RS-1021 (Lab ID: 30446758012)
  - 1,2-Dichloroethane-d4 (S)
- MW-17R-1021 (Lab ID: 30446758013)

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## PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

**Method:** **EPA 8260C**
**Description:** 8260C MSV
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** November 05, 2021

QC Batch: 470688

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.
- 1,2-Dichloroethane-d4 (S)
- MW-19R-1021 (Lab ID: 30446758014)
  - 1,2-Dichloroethane-d4 (S)
- MW-2(R)-1021 (Lab ID: 30446758001)
  - 1,2-Dichloroethane-d4 (S)
- MW-5R(R)-1021 (Lab ID: 30446758002)
  - 1,2-Dichloroethane-d4 (S)
- MW-8R-1021 (Lab ID: 30446758003)
  - 1,2-Dichloroethane-d4 (S)
- MW-8R-MS-1021 (Lab ID: 30446758004)
  - 1,2-Dichloroethane-d4 (S)
- MW-8R-MSD-1021 (Lab ID: 30446758005)
  - 1,2-Dichloroethane-d4 (S)
- MW-9-1021 (Lab ID: 30446758006)
  - 1,2-Dichloroethane-d4 (S)
- Trip Blanks (Lab ID: 30446758017)
  - 1,2-Dichloroethane-d4 (S)

**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: 470688

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30446758003

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
- MSD (Lab ID: 2272251)
  - Ethylbenzene
  - Toluene
  - m&p-Xylene
  - o-Xylene

R1: RPD value was outside control limits.
- MSD (Lab ID: 2272251)
  - Toluene
  - m&p-Xylene
  - o-Xylene

**Additional Comments:**

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

# PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30446758

**Method:** **EPA 9012B**
**Description:** 9012B Cyanide, Total
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)
**Date:** November 05, 2021

**General Information:**
16 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: 470157

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30445664004

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

- MS (Lab ID: 2269582)
  - Cyanide
- MSD (Lab ID: 2269583)
  - Cyanide

QC Batch: 470401

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30446758003,30447620003

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

- MS (Lab ID: 2271020)
  - Cyanide
- MS (Lab ID: 2271022)
  - Cyanide
- MSD (Lab ID: 2271021)
  - Cyanide

**Additional Comments:**

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