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

January 31, 2019

Mr. Justin Starr, PG
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway
Albany, NY 12233-70134

Re: ***National Grid Kingsley Avenue Site***
Rome, New York
2018 4th Quarter OM&M Report

Dear Mr. Starr:

Enclosed for your review is the 2018 4th Quarter Operation, Maintenance, and Monitoring (OM&M) Report for the National Grid Rome (Kingsley Avenue) Site. OM&M is being conducted in accordance with the Site Management Plan (SMP) and OM&M Plan issued May 31, 2013. National Grid filed the updated Declaration of Covenants and Restrictions with Oneida County on December 15, 2017. National Grid also submitted the final Site Management Plan to the NYSDEC on January 24, 2018, and is awaiting Department approval.

The completed quarterly OM&M activities included:

- A quarterly site inspection;
- Collection of quarterly static water level measurements of site wells;
- Collection and laboratory analysis of quarterly groundwater samples from OU-1 groundwater wells;
- Collection and laboratory analysis of quarterly groundwater extraction system samples; and
- Monitoring and/or collection of light non-aqueous phase liquid and dense non-aqueous phase liquid at site wells.

The groundwater extraction system is operating continuously and discharging to the sanitary sewer under the existing City of Rome Water Pollution Control Authority discharge permit. A chemical treatment system to minimize iron fouling within the groundwater extraction manhole, submersible pump, and piping also operates continuously.

300 Erie Boulevard West, C-1, Syracuse, NY 13202
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If you have any questions regarding the report or the scheduled activities, 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

Enclosures

Cc: Devin Shay - Groundwater & Environmental Services, Inc.

National Grid

2018 4th Quarter Operations, Maintenance, and Monitoring Report

National Grid Rome Former MGP Site
233 Kingsley Avenue
Rome, NY 13440

January 2019

Version 1

2018 4th Quarter OM&M Report

National Grid Rome Former MGP Site
233 Kingsley Avenue
Rome, NY 13440

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

Prepared by:
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TEL: 800-220-3069
www.gesonline.com

GES Project:
0603040.134400.221

Date:
January 31, 2019

Devin T. Shay

Digitally signed by Devin T. Shay

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

Table of Contents

Figures

Tables

Appendices

Acronyms

AWQS	Ambient Water Quality Standards
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes
DNAPL	Dense Non-Aqueous Phase Liquid
DUSR	Data Usability Summary Report
GES	Groundwater & Environmental Services, Inc.
gpm	Gallons per Minute
IRM	Interim Remedial Measures
LNAPL	Light Non-Aqueous Phase Liquid
MGP	Manufactured Gas Plant
NYSDEC	New York State Department of Environmental Conservation
OM&M	Operations, Maintenance, and Monitoring
OU	Operable Unit
Pace	Pace Analytical Services, LLC
PAH	Polycyclic Aromatic Hydrocarbons
POTW	Publically Owned Treatment Works
QA/QC	Quality Assurance / Quality Control
ROD	Record of Decision
SMP	Site Management Plan
USEPA	United States Environmental Protection Agency
WPCF	Water Pollution Control Facility

1 Introduction

1.1 Overview

Groundwater & Environmental Services, Inc. (GES) has prepared this 2018 4th Quarter Operations, Maintenance, and Monitoring Report (OM&M) on behalf of National Grid. This report compiles the OM&M activities completed in the 4th quarter of 2018 at the Former Kingsley Avenue Manufactured Gas Plant (MGP) Site (the Site), located in Rome, New York. The Site has been classified as a Class 2 inactive hazardous waste disposal site by the New York State Department of Environmental Conservation (NYSDEC) and is identified as Site No. 633043.

In accordance with the Record of Decision (March 2002) and following successful completion of the selected remedy, long-term OM&M is required at the Site. The Site Management Plan (SMP) and OM&M Plan were submitted to NYSDEC on May 31, 2013.

The following long-term OM&M activities are conducted in accordance with the SMP to monitor the effectiveness of the remediation previously conducted:

- Quarterly inspection of the Site (March, June, September, December);
- Collection of quarterly static water level measurements at the 34 site wells (16 Operable Unit [OU]-1 shallow and deep groundwater wells, eight dense non-aqueous phase liquid (DNAPL) wells, five OU-2 groundwater wells, and five extraction trench monitoring wells);
- Collection of quarterly groundwater samples from the 16 OU-1 shallow and deep groundwater wells and laboratory analysis of samples;
- Monitoring and/or collection of light non-aqueous phase liquid (LNAPL) and DNAPL monitoring at the 34 site wells, as needed. Offsite disposal of collected DNAPL at least once every 12 months;
- Removal of vegetation and snow, as necessary, to allow for access to the Site; and
- Submittal of quarterly OM&M reports to NYSDEC.

The groundwater extraction system is fully operational and discharges to the nearby sanitary sewer under an existing City of Rome Water Pollution Control Facility (WPCF) discharge permit. Discharge water samples are collected and analyzed quarterly for comparison to the permit limits as part of OM&M.

This OM&M Quarterly Report covers OM&M activities conducted during October, November, and December 2018.

1.2 Site Description

The Site is located within the City of Rome, Oneida County, New York. Refer to **Figure 1** for the Site location map. The Site consists of an approximately 22 acre parcel owned by National Grid. MGP operations formerly covered the northern half of the Site. National Grid presently operates and maintains a natural gas valving station located adjacent to the terminus of Kingsley Ave.

The Site is located south of East Dominick Street, bordering a historic commercial and residential district, approximately 2,000 feet north of the confluence of the Mohawk River with the New York State Barge Canal. It is bounded by the Genesee and Mohawk Valley Railroad to the north, and the Mohawk River forms the western boundary of the Site. Whitesboro Street terminates near the southern boundary of the Site. The City of Rome Department of Public Works facility is located to the east and southeast of the Site. The Site is bounded on the south by a National Grid electric substation. Residential properties are located near the Site entrance on Kingsley Avenue.

The Site is relatively flat, with existing grades ranging from 430 to 442 feet above mean sea level. The primary surface water feature in the area is the Mohawk River, which discharges into the Barge Canal approximately 2,000 feet downstream toward the south. The groundwater flow direction in both the water table aquifer (near surface) and deep aquifer (within the overburden above the clay) is toward the south-southwest. Depth to groundwater generally ranges from 2 to 15 feet below ground surface at the Site.

1.3 Site History

The Kingsley Avenue MGP was constructed in 1917. Gas production began at the Site in 1917 and peaked in 1927. Manufactured gas was produced at the Site using the coal gas and water gas processes. Coal carbonization produced coal gas by heating coal in retorts or beehive ovens. The water gas process involved the passage of steam through burning coal. This formed a gaseous mixture that was passed through a super heater into which an oil feed stock was sprayed. In each process, the gas produced was condensed and purified prior to distribution. The production of manufactured gas created many by-products, some of which remain onsite. A dense, oily liquid known as coal tar condensed out of the gas at various stages during its production, purification, and distribution. Although much of the coal tar produced was reused, recovery of the coal tar waste was incomplete. Substantial amounts of coal tar leaked from storage and processing facilities, contaminating surface and subsurface soils, as well as groundwater. Another by-product includes the discarded lime and/or wood chips treated with iron oxides to remove cyanide and sulfur from the gas (known as purifier waste).

By 1930, production of gas at the Kingsley Avenue MGP was limited to emergency capacity, as the supply of gas for the City of Rome came from other facilities. Between 1938 and 1941, the retort house and relief holder were decommissioned. By 1949, gas manufacturing equipment had been removed from the central building. In 1959, the main gas holder was dismantled.

Environmental concerns at the Site caused NYSDEC and the United States Environmental Protection Agency (USEPA) to evaluate the need for investigation and remedial action. Regulators typically define a single site into a number of Operable Units (OU). An OU, for technical or administrative reasons, can be addressed separately to eliminate or mitigate a release, threat of release, or exposure pathway resulting from the Site contamination. The lead agency, NYSDEC, defined OUs: OU-1 and OU-2. NYSDEC continues to administer the Site under a Consent Order with National Grid. OU-1 includes the former Kingsley Avenue MGP property, the surface soils of a small contiguous area of undeveloped New York State-owned land along the Mohawk River, and sediments in a backwater area west of the Site. OU-2 includes an approximate 2-acre area between the National Grid property and the eastern shore of the Mohawk

River. Additionally, OU-2 includes the area beneath the Mohawk River and property west of the Mohawk River to East Westboro Street. OU-2 encompasses approximately 20 acres of land. Refer to **Figure 2** for a depiction of OU-1 and OU-2.

This report is focused on OU-1. The following provides a general chronology of key events related to OU-1.

- 1987 – USEPA Preliminary Assessment
- 1992 – Preliminary Site Assessment/Interim Remedial Measures (IRM) Work Plan
- May 1994 – Concentrator House IRM
- July 1994 – Start of Remedial Investigation
- January 1995 – Purifier Disposal Area IRM
- July 1998 – Light non-aqueous phase liquid (LNAPL) Removal IRM initiated
- March 1999 – Remedial Investigation Report
- December 2001 – Offsite Remedial Investigation Report complete
- January 2002 – OU-1 Feasibility Study complete
- March 2002 – OU-1 Record of Decision (ROD) issued by NYSDEC
- August 2006 – Remedial Design approved
- August 2007 – Remedial Action started
- December 2010 – Remedial Action completed
- January 2011 – long-term groundwater and LNAPL and DNAPL monitoring commenced
- December 2011 – long-term groundwater extraction system OM&M commenced
- November 2012 – chemical treatment system for the extraction manhole completed

The remedial elements for OU-1 that have been completed include:

- Utility relocation.
- DNAPL and LNAPL source area soil removal and offsite thermal treatment/disposal.
- Purifier waste material removal and offsite disposal.
- River bank soil removal and offsite disposal.
- Demolition and offsite disposal of the MGP tar well and holder foundations.
- Installation of a sheet pile cutoff wall to contain and minimize offsite migration of DNAPL.
- Installation of a groundwater extraction trench with passive recovery pipe along the upgradient side of the wall. The trench includes a series of collection manholes/sumps. Submersible pumps deliver untreated groundwater to a sanitary manhole under an existing City of Rome WPCF.

- Installation of a 14-acre soil cover in the northern portion of the Site.
- The two foot thick vegetative cover (clean soil above geotextile layer).
- Installation of eight DNAPL collection wells within known source areas.
- Installation of five groundwater monitoring wells along the extraction trench.
- Installation of 16 groundwater monitoring wells to monitor shallow and deep aquifers.
- Installation of five groundwater monitoring wells within the OU-2 area.
- An Environmental Easement has been placed on the property and is included with the latest Site Management Plan, currently under review by the NYSDEC.

Figure 3 presents the monitoring well locations for the western portion of the Site. **Figure 4** presents monitoring well locations for the eastern portion of the Site.

Following start-up of the groundwater extraction system, it became apparent that iron fouling would be an operational issue. Therefore, National Grid installed a chemical treatment system to help protect the groundwater wells, piping, and submersible pump associated with the groundwater extraction system. As part of the chemical treatment system, a weather-proof structure was installed adjacent to the groundwater pumping manhole and houses a chemical tote and chemical feed pump. An environmental friendly iron inhibitor (REDUX 340) is injected into the pumping manhole to protect the submersible pump, piping, and metering instruments. This chemical is used at similar National Grid sites across central and eastern New York State in order to minimize iron fouling and reduce operation and maintenance costs and has been approved by the City of Rome publicly owned treatment works (POTW). The chemical treatment system became operational in November 2012.

2 Operation, Maintenance, and Monitoring Activities

2.1 Quarterly Site Inspection

GES conducted the 2018 4th quarter site inspection on December 6, 2018. Inspections are generally conducted in March, June, September, and December of each year. The Site inspection included the Site wells, security perimeter fence/gates, drainage system, vegetation, and the Site access road. In general, the Site was noted to be in good condition during the inspection. Refer to **Appendix A** for the Site Inspection Form.

There are 34 total site wells that were inspected as part of this event. **Figures 3** and **4** show the well locations. **Table 2** details each well in terms of horizontal location, vertical elevation, diameter, material, and screen elevation.

2.2 Quarterly Static Water Level Measurements

Quarterly static water level measurements were collected from the 34 wells on December 5, 2018. **Table 3** presents historical and recent static water level measurements. Refer to **Appendix B** for the field log sheet with water level measurements.

Prior to the construction of the barrier wall and groundwater extraction trench/system remedy, groundwater generally flowed northwesterly toward the Mohawk River. The remedy was designed and constructed to intercept that groundwater flow pattern and minimize migration of site-related DNAPL from the upgradient side of the barrier wall to the river. To ensure that the barrier wall meets the intent of the remedial action, it was agreed by NYSDEC and National Grid that the long-term compliance mechanism would be to compare the top of steel sheeting barrier wall (generally 435 to 437 feet above sea level) with the groundwater levels immediately upgradient of the barrier wall.

Eight manholes (MH-2, MH-3, MH-4, MH-5, MH-6, MH-6A, MH-7, and MH-8) and ten groundwater monitoring wells (DNAPL-2, DNAPL-3, DNAPL-4, DNAPL-5, DNAPL-6, VTW-1, VTW-2, VTW-3, VTW-4, and VTW-5) were constructed immediately upgradient of the barrier wall within the gravel extraction trench. The static water levels in each of the upgradient groundwater monitoring wells were measured and found to be between 425 and 430 **(Table 3)** feet above sea level since start-up of the groundwater extraction system. Groundwater does not overtop the barrier wall. **Figure 5** presents the groundwater levels compared to the barrier wall profile. Gauging data for all 34 wells and containment data for the 10 upgradient groundwater monitoring wells are presented in **Appendix B.**

2.3 Quarterly Groundwater Monitoring Event

The 2018 4th quarter groundwater monitoring event was conducted on December 5 and 6, 2018. Sixteen groundwater monitoring wells were sampled (LTMW-D01, LTMW-S01, LTMW-D02, LTMW-S02, LTMW-D03, LTMW-S03, LTMW-D04, LTMW-S04, LTMW-D05, LTMW-S05, LTMW-D06, LTMW-S06, LTMW-S07, LTMW-S08, LTMW-S09, LTMW-S10).

The wells were sampled in accordance with USEPA Low-Flow Groundwater Sampling Procedures [1996]. Purge water was contained and subsequently discharged to the onsite groundwater extraction system which discharges water to the City of Rome WPCF. Field measurements (temperature, pH, oxidation-reduction potential, conductivity, turbidity, dissolved oxygen, and total dissolved solids) were recorded at each well during the sampling using a water quality meter and are presented in **Appendix C**.

In addition to the 16 water samples collected, four quality assurance/quality control (QA/QC) samples were collected, including one Matrix Spike sample, one Matrix Spike Duplicate sample, one field duplicate sample, and one trip blank sample. Twenty total samples were shipped on ice to the Pace Analytical Services, LLC (Pace) of Greensburg, Pennsylvania, for laboratory analysis. Analyses included: polycyclic aromatic hydrocarbons (PAHs) via USEPA Method 8270D; benzene, toluene, ethylbenzene, and total xylenes (BTEX) via USEPA Method 8260C; heavy metals via USEPA Method 200.7; and total cyanide via USEPA Method 335.4.

The analytical results included detections of BTEX, acenaphthene, benzo(a)anthracene, chrysene, cyanide, fluorene, and napthalene above the New York State regulatory maximum allowable limits. Additionally, analytical results at LTMW-S03 indicated zinc levels above the guidance value provided in NYSDEC's Technical and Operational Guidance Series section 1.1.1. A summary of laboratory analytical results is provided in **Table 4**. Of the 16 wells sampled, LTMW-D01 and LTMW-D03 had BTEX concentrations above the New York State Groundwater Ambient Water Quality Standards (AWQS). Results indicated no detections of any compound for LTMW-D04 and LTMW-D05.

The analytical data report was validated by GES. The primary objective of the data validation is to identify any questionable or invalid laboratory processes or data. The data validator reviewed the summary form information, the raw sample data, and a limited review of associated raw QC data. In summary, sample results are usable as reported. Qualifications are detailed in Table 1 of Appendix D, which presents the Data Usability Summary Report (DUSR) including the validated laboratory data.

2.4 Quarterly Light Non-Aqueous Phase Liquid and Dense Non-Aqueous Phase Liquid Monitoring/Collection Event

Each of the 34 wells was monitored for LNAPL and DNAPL in December for this quarter. The gauging data for these events are presented in **Appendix B**. This activity is conducted in conjunction with the collection of static water level measurements. A probe is lowered to the water level in the well and inspected for LNAPL. The probe is then lowered to the bottom of the well and inspected for DNAPL. If LNAPL or DNAPL is discovered in measurable quantities, product is removed from the well using a submersible pump. The removed product/water mixture is subsequently containerized in a properly labeled NYSDOT-approved 55-gallon drum for future offsite disposal.

DNAPL in measurable quantities was noted in three site wells: MW-OU2-1, MW-OU2-4 and DNAPL-03.

As part of the NAPL monitoring/collection event, a total of 8.0 gallons of DNAPL were collected (3.0 gallons from MW-OU2-1, 4.0 gallons from MW-OU2-4, and 1.0 gallon from DNAPL-03) during this quarter.

Since the start of the NAPL monitoring/collection program, a total of 504 gallons of DNAPL have been removed for offsite disposal. Zero gallons of LNAPL have been detected/recovered.

2.5 Quarterly Groundwater Extraction System Discharge Sampling Event

Under an existing City of Rome WPCF discharge permit, quarterly sampling, analysis, and reporting of the groundwater extraction system discharge to the local sewer system is required. A water sample was collected on December 6, 2018, and analyzed by Pace for the permit-specified parameters. No detections above permit limits were noted. **Table 5** provides the analytical results compared to the permit limits.

The analytical data report was validated by GES. The primary objective of the data validation is to identify any questionable or invalid laboratory processes or data. The validator reviewed the summary form information, the raw sample data, and a limited review of associated raw QC data. The review stated that field sample analyte values/reporting limits were usable as reported. The laboratory result for pH is always considered estimated as the EPA recommended short hold time of 15 minutes can only be met by in-field measurements. Qualifications are detailed in Table 1 of Appendix D, which presents the Data Usability Summary Report (DUSR) including the validated laboratory data. The DUSR including the validated laboratory data is presented in **Appendix D**.

2.6 Groundwater Extraction System Discharge Flow and Operation, Maintenance, and Monitoring

The groundwater extraction system consists of a gravel trench, a pumping manhole, dual submersible pumps, and below ground piping. The piping enters the onsite groundwater treatment building where flow measurements, discharge sampling, pressure measurements, and other OM&M activities can be conducted. The piping then continues below ground from the nearby sanitary sewer manhole to the City of Rome WPCF.

A mechanical flow meter is located within the Site building and serves as the recording device for the City of Rome WPCF discharge fees. During the 2018 4th quarter, approximately 3,177,174 gallons (average flow ~ 25.0 gpm) were discharged. Since the groundwater extraction system was installed, approximately 139 million gallons have been discharged. Below is a summary table for the groundwater extraction system discharge flow:

Table 1 – Groundwater Extraction System Discharge Flow

Time Period	Discharge Flow (gallons)
2010	11,600,000
2011	14,400,000
2012	19,900,000
2013	19,500,000
2014	16,500,000
2015	16,686,700
2016	13,695,010
2017	13,874,930
2018 1st Quarter	3,520,189
2018 2nd Quarter	3,281,784
2018 3rd Quarter	3,229,042
2018 4th Quarter	3,177,174
TOTAL	**139,364,829**

The previous consultant conducted an evaluation of the groundwater extraction system, including inspections of the extraction manhole, submersible pumps, valving/controls, and clean-outs. Iron fouling throughout the system, particularly scaling on the submersible pumps, piping, and metering instruments, had been observed. As such, a chemical scale inhibitor (Redux 340) system, which applies the Redux 340 at the groundwater extraction manhole/submersible pumps, was installed and became operational in November 2012. A heating element located at the pumping manhole was installed in June 2012. Electrical power and building lighting/heating was installed in August/September 2012. Information regarding the environmentally-friendly, iron scale inhibitor was previously provided to the City of Rome POTW. The groundwater treatment system (including pumping station, conveyance piping, and flow meters) was cleaned (water lancing) during September 2012 in order to remove iron scale build-up in advance of the chemical treatment system installation.

2.7 Vegetation Management and Snow Removal

Vegetation management activities and snow removal were conducted during the 4th quarter 2018 as needed.

3 Conclusions, Recommendations, and Certifications

3.1 Conclusions

Based on data collected from the 2018 4th quarter OM&M activities, the following conclusions were made:

- Overall, the site is in regulatory compliance. Vegetation removal including routine mowing and weed spraying as well as snow removal was conducted as needed during 4th quarter 2018.
- Quarterly static water level measurements were collected at ten groundwater monitoring wells upgradient of the steel sheeting barrier within the gravel extraction trench. The static water levels of the upgradient wells (ranging between 425 to 430 feet above sea level) did not overtop the barrier wall (top of wall ranges between 435 to 437 feet above sea level).
- Site groundwater contained detectable concentrations of BTEX, acenaphthene, benzo(a)anthracene, chrysene, cyanide, fluorine, and napthalene above the New York State regulatory maximum allowable limits. Additionally, analytical results for well LTMW-S03 indicated zinc concentrations above the NYSDEC AWQS guidance value. Eight of the 16 wells (LTMW-D01, LTMW-S01, LTMW-D03, LTMW-S03, LTMW-S04, LTMW-S05, LTMW-S08, and LTMW-S10) sampled had at least one detection of a site-related constituent above the New York State limits.
- The total quarterly volume of DNAPL collected (8.0 gallons) was removed from three wells (MW-OU2-1, MW-OU2-4, and DNAPL-03). 504 gallons of DNAPL have been removed from these wells since the inception of the program. LNAPL has not been observed in any site wells to date.
- The groundwater extraction system operated continuously at an average flow rate of approximately 25.0 gpm, and a quarterly total of 3,177,174 gallons were discharged to the local sanitary sewer in accordance with the City of Rome WPCF discharge permit. A quarterly effluent water sample was collected and analyzed. There were no permit limit exceedances. Since December 2011, approximately 139 million gallons of water have been discharged without any permit limit exceedances.

3.2 Recommendations

It is recommended that all OM&M activities continue.

3.3 Certifications

I certify the following:

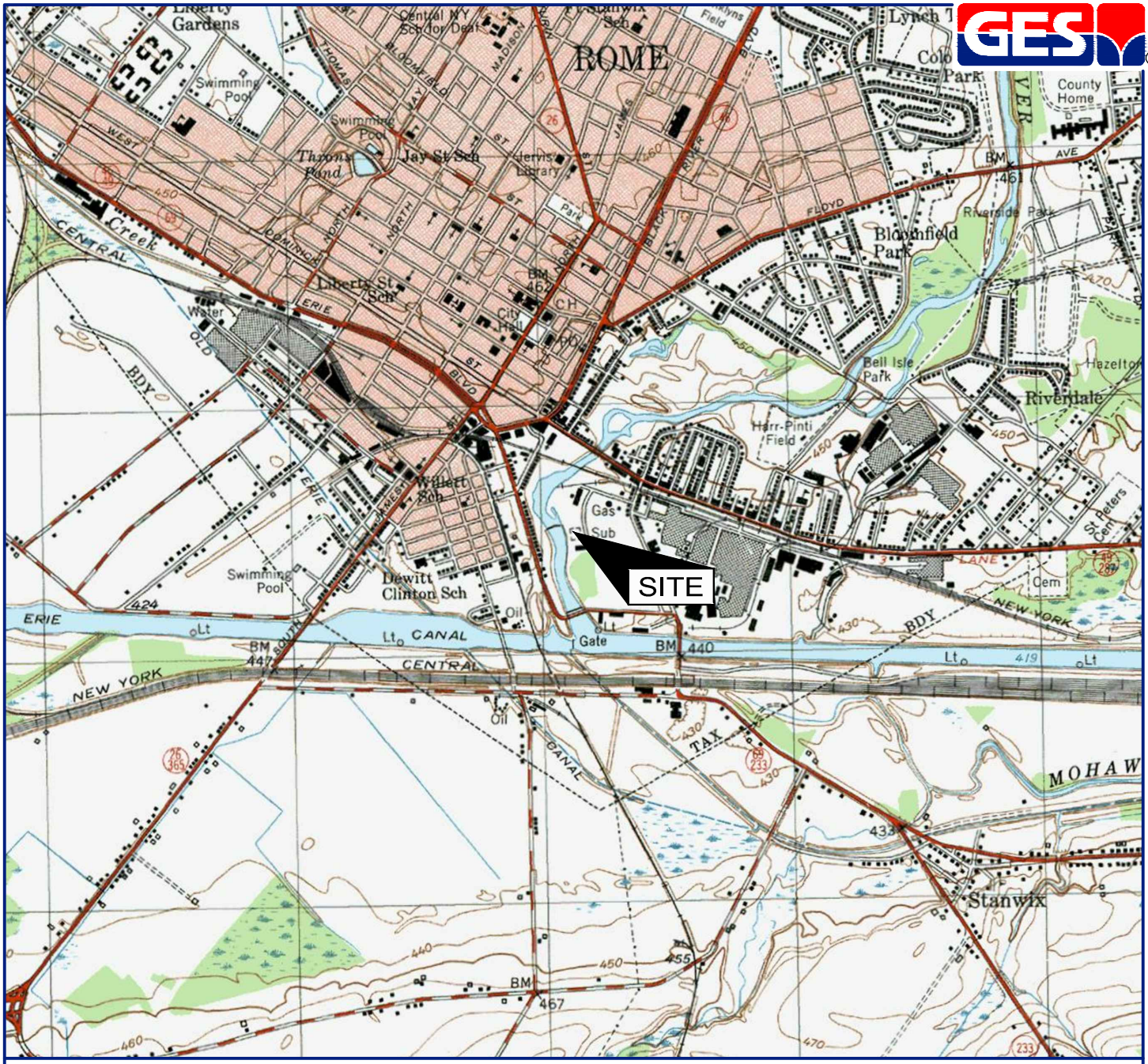
- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional controls and engineering controls employed at this site are unchanged from the date the controls were put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of the controls;
- Use of the Site is compliant with the Declarations of Covenants and Restrictions;
- The engineering control systems are performing as designed and are effective;
- 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
- The information presented in this report is accurate and complete.

Signature

Date 11/30/2019

Name: Gerald H. Cresap, P.E.
Title: Director of Engineering
Company: Groundwater & Environmental Services, Inc.

Figures



SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1955
ROME, NEW YORK
CONTOUR INTERVAL = 10'

QUADRANGLE LOCATION

DRAFTED BY: W.G.S.	SITE LOCATION MAP
CHECKED BY:	NATIONAL GRID KINGSLEY AVENUE ROME, NEW YORK
REVIEWED BY:	
NORTH	Groundwater & Environmental Services, Inc. 5 TECHNOLOGY PLACE, SUITE 4, EAST SYRACUSE, NY 13057
SCALE IN FEET: 0 — 2000	DATE: 10-17-16
	FIGURE: 1

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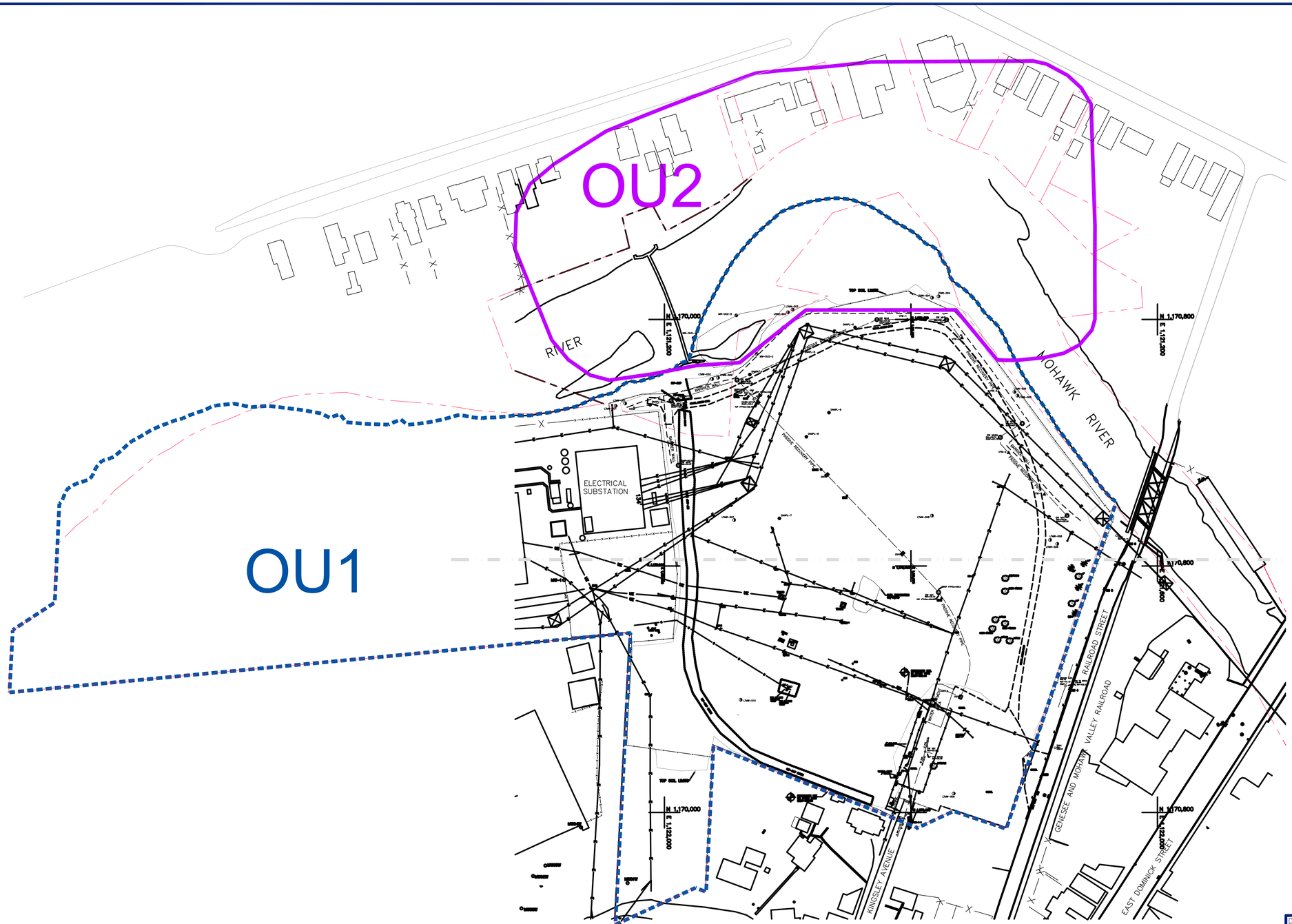

LEGEND

- PROPERTY BOUNDARY
- EAST WEST DIVIDE
- FENCE
- UTILITY POLE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- OVERHEAD ELECTRIC
- ELECTRICAL CONDUIT
- DNAPL-7 — UNDERGROUND TELEPHONE LINE
- LTMW-D01 — LTMW MONITORING WELL
- VTW-1 — VTW MONITORING WELL
- MW-OU2-1 — OU2 MONITORING WELL

GRAPHIC SCALE (feet)

80 0 40 80 160 320

(Scale configured for D-Size 24" x 36" Plot)
1 inch = 80 ft.
(APPROXIMATE)

DRAFTED BY: W.G.S.	SITE MAP OPERABLE UNITS
CHECKED BY:	NATIONAL GRID KINGSLEY AVENUE ROME, NEW YORK
REVIEWED BY:	Groundwater & Environmental Services, Inc. 300 GATEWAY PARK DRIVE, NORTH SYRACUSE, NY 13212
NORTH	DATE 10-17-16 / FIGURE 2

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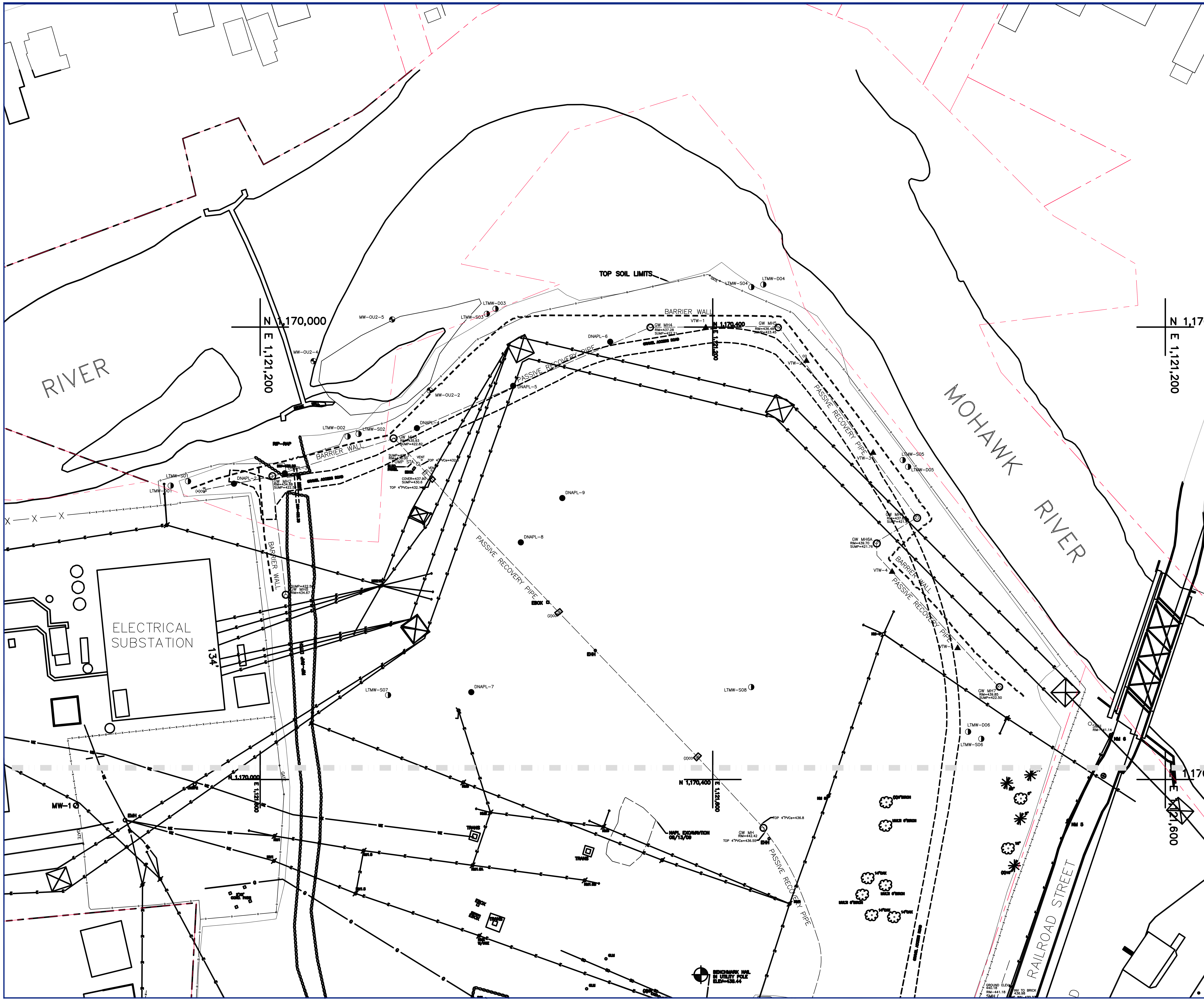

LEGEND

- PROPERTY BOUNDARY
- EAST WEST DIVIDE
- FENCE
- UTILITY POLE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- OVERHEAD ELECTRIC
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- UNDERGROUND TELEPHONE LINE
- DNAPL-7 DNAPL MONITORING WELL
- LTMW-D01 LTMW MONITORING WELL
- VTW-1 VTW MONITORING WELL
- MW-OU2-1 OU2 MONITORING WELL

WELL	NORTHING	EASTING	CASING	PVC	GROUND
LTMW-S01	1169936.2970	1121336.3233	435.52	435.10	433.2
LTMW-D01	1169920.9810	1121340.1793	434.90	434.80	432.7
LTMW-S02	1170087.0350	1121294.4073	436.79	436.59	434.3
LTMW-D02	1170077.3450	1121296.6853	436.74	436.60	434.2
LTMW-S03	1170200.4014	1121188.2719	431.43	431.29	429.3
LTMW-D03	1170208.0726	1121183.8138	431.27	431.13	429.2
LTMW-S04	1170434.1910	1121164.5883	437.24	437.09	435.6
LTMW-D04	1170444.7690	1121162.3583	437.18	436.88	434.9
LTMW-S05	1170567.9900	1121317.5703	437.92	437.77	435.9
LTMW-D05	1170572.7400	1121323.4973	437.78	437.58	435.7
LTMW-S06	1170637.4230	1121564.0263	441.64	441.52	439.7
LTMW-D06	1170625.7620	1121557.7643	441.70	441.55	440.2
LTMW-S07	1170113.1090	1121525.3273	439.94	439.70	438.0
LTMW-S08	1170434.0830	1121518.2593	443.81	443.63	442.4
LTMW-S09	1170469.4300	1121969.1733	439.79	439.54	437.6
LTMW-S10	1170123.6800	1121817.1213	439.67	439.42	437.4
DNAPL-2	1169976.8400	1121338.4483	436.81	no pipe	434.6
DNAPL-3	1170021.7760	1121329.2613	437.23	no pipe	434.6
DNAPL-4	1170138.5720	1121289.3033	438.50	no pipe	436.3
DNAPL-5	1170223.6230	1121251.9083	440.60	no pipe	438.4
DNAPL-6	1170309.3920	1121212.9643	439.71	no pipe	438.0
DNAPL-7	1170186.6060	1121522.7453	441.46	no pipe	439.4
DNAPL-8	1170230.3820	1121390.3173	441.80	no pipe	439.6
DNAPL-9	1170267.0450	1121351.1333	442.63	no pipe	440.1
MW-OU2-1	1169964.4870	1121322.8873	435.72	435.48	433.5
MW-OU2-2	1170149.8980	1121255.9363	436.40	436.06	433.9
MW-OU2-3					
MW-OU2-4	1170047.2131	1121230.1096			
MW-OU2-5	1170116.6727	1121193.2720			
VTW-1	1170393.9230	1121200.2643	439.74	no pipe	437.7
VTW-2	1170482.8870	1121229.5033	438.33	no pipe	436.1
VTW-3	1170541.8140	1121311.1743	439.44	no pipe	437.1
VTW-4	1170558.5060	1121416.3693	441.59	no pipe	439.3
VTW-5	1170616.4890	1121483.6873	441.79	no pipe	439.8

GRAPHIC SCALE (feet)

40 0 20 40 80 160

(Scale configured for D-Size 24" x 36" Plot)
1 inch = 40 ft.
(APPROXIMATE)

DRAFTED BY: W.G.S.

CHECKED BY:

REVIEWED BY:

NORTH

SITE MAP-WEST

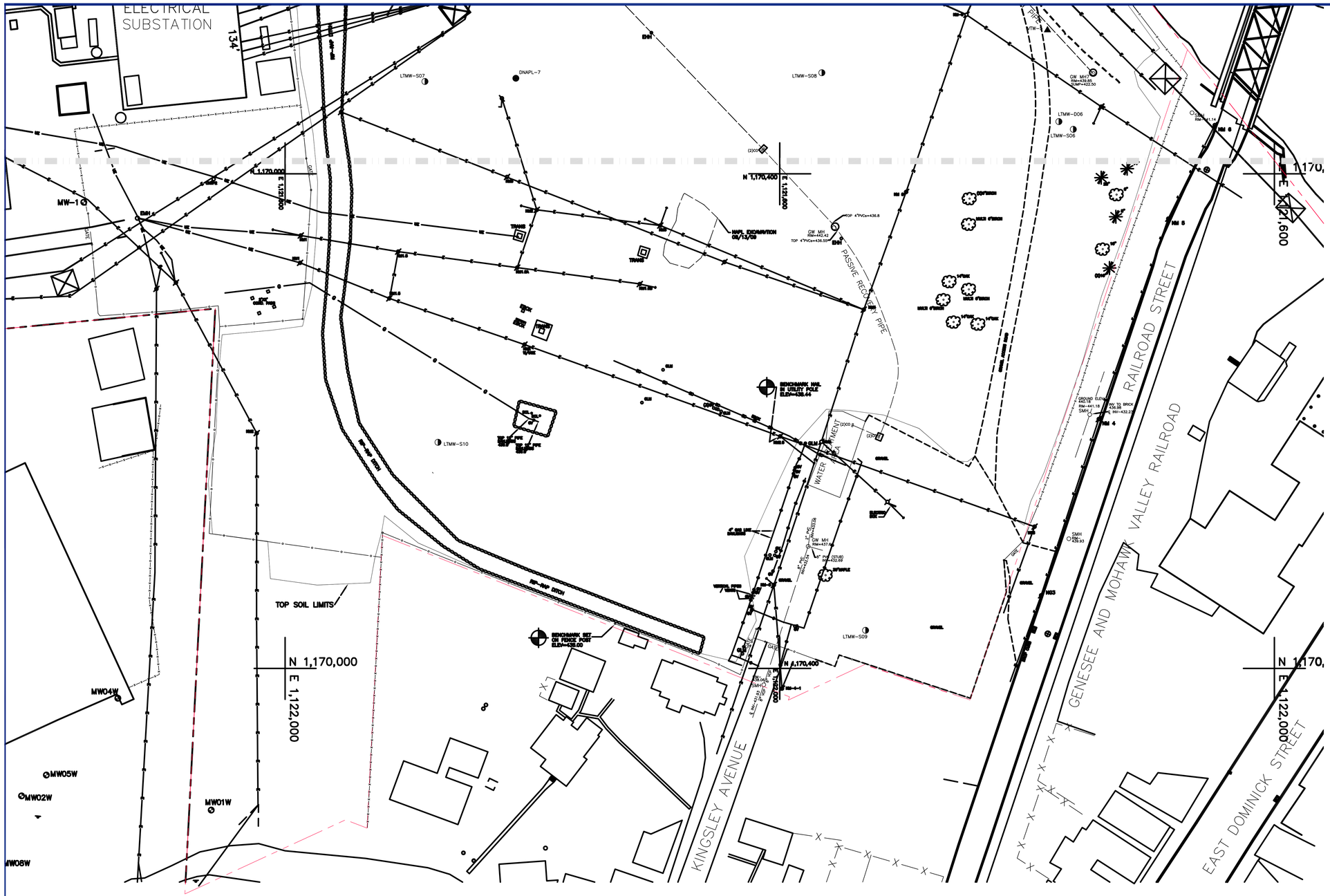
NATIONAL GRID
KINGSLEY AVENUE
ROME, NEW YORK

Groundwater & Environmental Services, Inc.
5 TECHNOLOGY PLACE, SUITE 4, EAST SYRACUSE, NY 13057

DATE 10-27-16

FIGURE 3

M:\Graphics\0600-Syracuse\Misc\National Grid\Rome\Rome SM.dwg, D-40-W, WShea



LEGEND

- PROPERTY BOUNDARY
- EAST WEST DIVIDE
- FENCE
- UTILITY POLE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- OVERHEAD ELECTRIC
- ELECTRICAL CONDUIT
- DNAPL-7 — UNDERGROUND WELL
- LTMW-D01 — LTMW MONITORING WELL
- VTW-1 — VTW MONITORING WELL
- MW-OU2-1 — OU2 MONITORING WELL

WELL	NORTHING	EASTING	CASING	PVC	GROUND
LTMW-S01	1169936.2970	1121336.3233	435.52	435.10	433.2
LTMW-D01	1169920.9810	1121340.1793	434.90	434.80	432.7
LTMW-S02	1170087.0350	1121294.4073	436.79	436.59	434.3
LTMW-D02	1170077.3450	1121296.6853	436.74	436.60	434.2
LTMW-S03	1170200.4014	1121188.2719	431.43	431.29	429.3
LTMW-D03	1170208.0726	1121183.8138	431.27	431.13	429.2
LTMW-S04	1170434.1910	1121164.5883	437.24	437.09	435.6
LTMW-D04	1170444.7690	1121162.3583	437.18	436.88	434.9
LTMW-S05	1170567.9900	1121317.5703	437.92	437.77	435.9
LTMW-D05	1170572.7400	1121323.4973	437.78	437.58	435.7
LTMW-S06	1170637.4230	1121564.0263	441.64	441.52	439.7
LTMW-D06	1170625.7620	1121557.7643	441.70	441.55	440.2
LTMW-S07	1170113.1090	1121525.3273	439.94	439.70	438.0
LTMW-S08	1170434.0830	1121518.2593	443.81	443.63	442.4
LTMW-S09	1170469.4300	1121969.1733	439.79	439.54	437.6
LTMW-S10	1170123.6800	1121817.1213	439.67	439.42	437.4
DNAPL-2	1169976.8400	1121338.4483	436.81	no pipe	434.6
DNAPL-3	1170021.7760	1121329.2613	437.23	no pipe	434.6
DNAPL-4	1170138.5720	1121289.3033	438.50	no pipe	436.3
DNAPL-5	1170223.6230	1121251.9083	440.60	no pipe	438.4
DNAPL-6	1170309.3920	1121212.9643	439.71	no pipe	438.0
DNAPL-7	1170186.6060	1121522.7453	441.46	no pipe	439.4
DNAPL-8	1170230.3820	1121390.3173	441.80	no pipe	439.6
DNAPL-9	1170267.0450	1121351.1333	442.63	no pipe	440.1
MW-OU2-1	1169964.4870	1121322.8873	435.72	435.48	433.5
MW-OU2-2	1170149.8980	1121255.9363	436.40	436.06	433.9
MW-OU2-3					
MW-OU2-4	1170047.2131	1121230.1096			
MW-OU2-5	1170116.6727	1121193.2720			
VTW-1	1170393.9230	1121200.2643	439.74	no pipe	437.7
VTW-2	1170482.8870	1121229.5033	438.33	no pipe	436.1
VTW-3	1170541.8140	1121311.1743	439.44	no pipe	437.1
VTW-4	1170558.5060	1121416.3693	441.59	no pipe	439.3
VTW-5	1170616.4890	1121483.6873	441.79	no pipe	439.8

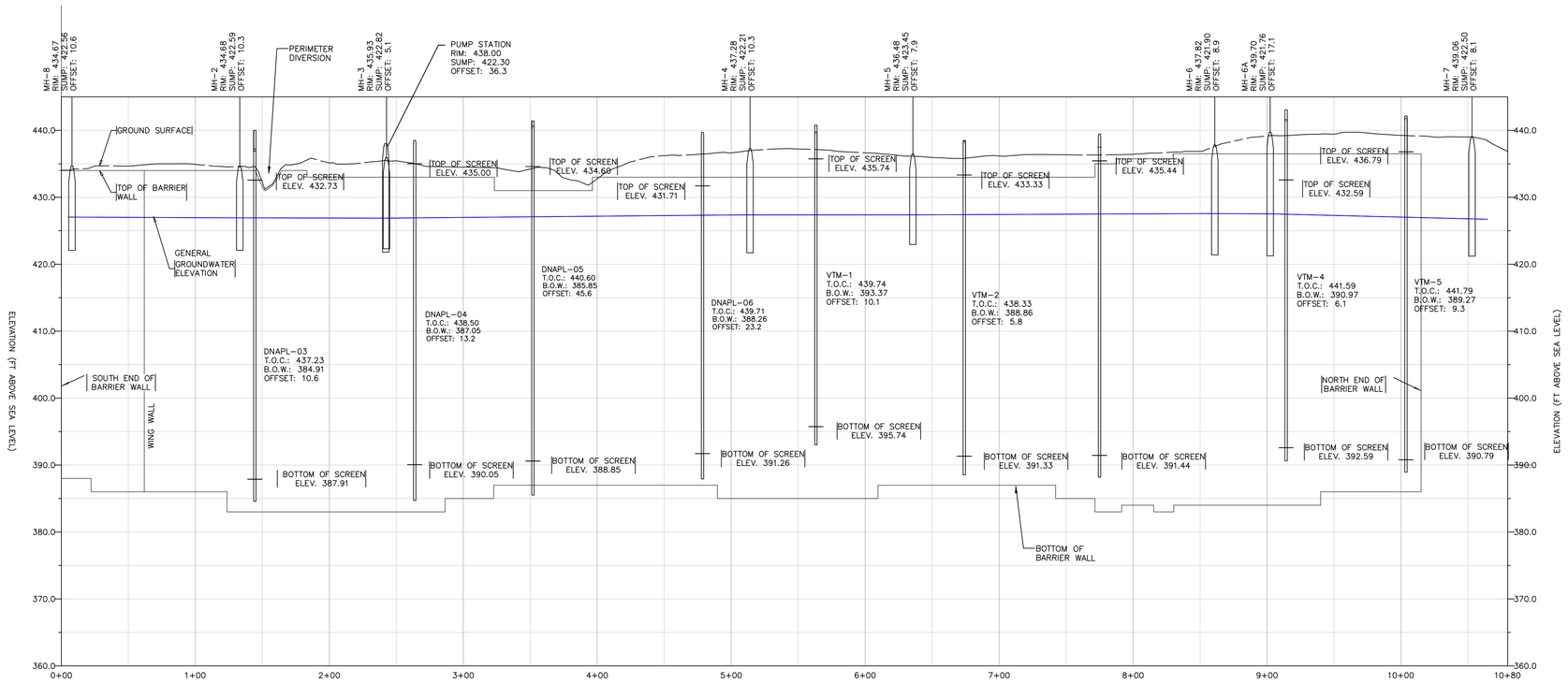
GRAPHIC SCALE (feet)

40 0 20 40 80 160

(Scale configured for D-Size 24" x 36" Plot)
1 inch = 40 ft.
(APPROXIMATE)

DRAFTED BY: W.G.S.	SITE MAP-EAST
CHECKED BY:	NATIONAL GRID KINGSLEY AVENUE ROME, NEW YORK
REVIEWED BY:	Groundwater & Environmental Services, Inc. 5 TECHNOLOGY PLACE, SUITE 4, EAST SYRACUSE, NY 13057
NORTH	DATE: 10-27-16 / FIGURE: 4

M:\Graphics\2005-Syracuse\Rec\National Grid\Rome\Rome SM.dwg, D=AE, WShea



PROFILE

HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'

LEGEND

T.O.C.	TOP OF CASING
B.O.W.	BOTTOM OF WELL
	TOP OF WALL
	GROUNDWATER ELEVATION (JUNE 2012)

NOTES:

1. THE DEPTH OF THE BARRIER WALL IS APPROXIMATELY 50 FEET.
2. GROUNDWATER ELEVATION MEASUREMENTS TAKEN JUNE 2012.

DRAFTED BY: W.G.S.	BARRIER WALL PROFILE
CHECKED BY:	NATIONAL GRID KINGSLEY AVENUE ROME, NEW YORK
REVIEWED BY:	Groundwater & Environmental Services, Inc. 300 GATEWAY PARK DRIVE, NORTH SYRACUSE, NY 13212
NORTH	DATE: 10-17-16 / FIGURE: 5

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Tables

Table 2

Site Monitoring Wells

Well ID	Northing	Easting	Elevation of Ground	Elevation Top of Outer Casing	Elevation Top of Inner Casing	Nominal Well Diameter (inches)	Well Material	Well Sump Depth (ft)	Depth to Bottom of Well (ft)	Elevation Bottom of Well	Depth to Top Screen (ft)	Elevation Top Screen	Depth to Bottom Screen (ft)	Elevation Bottom Screen	Action
MW-OU2-1	1169964.4870	1121322.8873	433.5	435.72	435.48	4	SS	3.0	46.12	389.36	33.0	402.48	43.0	392.48	Quarterly Inspection; Quarterly Static Water Level Measurement
MW-OU2-2	1170149.8980	1121255.9363	433.9	436.40	436.06	4	SS	3.0	49.60	386.46	39.0	397.06	49.0	387.06	Quarterly Inspection; Quarterly Static Water Leve Measurement
MW-OU2-3	1170101.2208	1121177.4485	430.63	433.25	432.96	4	SS	3.0	35.15	397.81	31.0	401.96	41.0	391.96	Quarterly Inspection; Quarterly Static Water Level Measurement (Surveyed in January 2014)
MW-OU2-4	1170149.6326	1121136.1811	430.63	433.05	432.88	4	SS	3.0	38.85	394.03	31.0	401.88	41.0	391.88	Quarterly Inspection; Quarterly Static Water Level Measurement (Surveyed in January 2014)
MW-OU2-5	1170167.9650	1121091.2658	431.23	433.77	433.46	4	SS	3.0	36.34	397.12	31.0	402.46	41.0	392.46	Quarterly Inspection; Quarterly Static Water Level Measurement (Surveyed in January 2014)
DNAPL-02	1169976.8400	1121338.4483	434.6	436.81	NA	6	SS	3.0	50.40	386.41	4.0	432.81	46.0	389.41	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-03	1170021.7760	1121329.2613	434.6	437.23	NA	6	SS	3.0	52.32	384.91	4.5	432.73	46.5	387.91	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-04	1170138.5720	1121289.3033	436.3	438.50	NA	6	SS	3.0	51.45	387.05	3.5	435.00	47.5	390.05	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-05	1170223.6230	1121251.9083	438.4	440.60	NA	6	SS	3.0	54.75	385.85	6.0	434.60	50.0	388.85	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-06	1170309.3920	1121212.9643	438	439.71	NA	6	SS	3.0	51.45	388.26	8.0	431.71	48.0	391.26	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-07	1170186.6060	1121522.7453	439.4	441.46	NA	6	SS	3.0	53.60	387.86	5.0	436.46	55.5	390.86	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-08	1170230.3820	1121390.3173	439.6	441.80	NA	6	SS	3.0	58.01	383.79	7.0	434.80	53.0	386.79	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
DNAPL-09	1170267.0450	1121351.1333	440.1	442.63	NA	6	SS	3.0	57.58	385.05	5.0	437.63	53.2	388.05	Quarterly Inspection; Quarterly Static Water Level Measurement; DNAPL Monitoring/Collection
VTM-1	1170393.9230	1121200.2643	437.7	439.74	NA	6	SS	NA	46.37	393.37	4.0	435.74	44.0	395.74	Quarterly Inspection; Quarterly Static Water Leve Measurement
VTM-2	1170482.8870	1121229.5033	436.1	438.33	NA	6	SS	NA	49.47	388.86	5.0	433.33	47.0	391.33	Quarterly Inspection; Quarterly Static Water Leve Measurement
VTM-3	1170541.8140	1121311.1743	437.1	439.44	NA	6	SS	NA	50.91	388.53	4.0	435.44	48.0	391.44	Quarterly Inspection; Quarterly Static Water Leve Measurement
VTM-4	1170558.5060	1121416.3693	439.3	441.59	NA	6	SS	NA	50.62	390.97	9.0	432.59	49.0	392.59	Quarterly Inspection; Quarterly Static Water Leve Measurement
VTM-5	1170616.4890	1121483.6873	439.8	441.79	NA	6	SS	NA	52.52	389.27	5.0	436.79	51.0	390.79	Quarterly Inspection; Quarterly Static Water Leve Measurement
LTMW-D01	1169920.9810	1121340.1793	432.7	434.90	434.80	2	PVC	NA	46.84	387.96	34.0	400.80	44.0	390.80	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S01	1169936.2970	1121336.3233	433.2	435.52	435.10	2	PVC	NA	16.92	418.18	5.0	430.10	15.0	420.10	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-D02	1170077.3450	1121296.6853	434.2	436.74	436.60	2	PVC	NA	40.29	396.31	30.0	406.60	40.0	396.60	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S02	1170087.0350	1121294.4073	434.3	436.79	436.59	2	PVC	NA	17.98	418.61	5.0	431.59	15.0	421.59	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-D03	1170208.0726	1121183.8138	429.2	431.27	431.13	2	PVC	NA	40.73	390.40	29.0	402.13	39.0	392.13	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S03	1170200.4014	1121188.2719	429.3	431.43	431.29	2	PVC	NA	13.70	417.59	2.0	429.29	12.0	419.29	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-D04	1170444.7690	1121162.3583	434.9	437.18	436.88	2	PVC	NA	46.36	390.52	34.0	402.88	44.0	392.88	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S04	1170434.1910	1121164.5883	435.6	437.24	437.09	2	PVC	NA	17.26	419.83	5.0	432.09	15.0	422.09	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-D05	1170572.7400	1121323.4973	435.7	437.78	437.58	2	PVC	NA	46.53	391.05	35.0	402.58	45.0	392.58	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S05	1170567.9900	1121317.5703	435.9	437.92	437.77	2	PVC	NA	16.83	420.94	5.0	432.77	15.0	422.77	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-D06	1170625.7620	1121557.7643	440.2	441.70	441.55	2	PVC	NA	52.22	389.33	40.0	401.55	50.0	391.55	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S06	1170637.4230	1121564.0263	439.7	441.64	441.52	2	PVC	NA	17.60	423.92	5.0	436.52	15.0	426.52	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S07	1170113.1090	1121525.3273	438	439.94	439.70	2	PVC	NA	17.82	421.88	5.0	434.70	15.0	424.70	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S08	1170434.0830	1121518.2593	442.4	443.81	443.63	2	PVC	NA	17.39	426.24	5.0	438.63	15.0	428.63	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S09	1170469.4300	1121969.1733	437.6	439.79	439.54	2	PVC	NA	16.92	422.62	5.0	434.54	15.0	424.54	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling
LTMW-S10	1170123.6800	1121817.1213	437.4	439.67	439.42	2	PVC	NA	17.18	422.24	5.0	434.42	15.0	424.42	Quarterly Inspection; Quarterly Static Water Leve Measurement; Quarterly Sampling

Notes:

1) Shallow monitoring wells were sampled with a low flow peristaltic pump with battery pa
2) Deep monitoring wells were sampled with a low flow submersible pump with genera
3) Static water level measurements were taken from top of inner casing. If the well has no inner casing, the measurement will be taken from the top of outer ca

Table 3

Historical Groundwater Data
Operable Unit 2 Wells

Well	MW-OU2-1		Well	MW-OU2-2		Well	MW-OU2-3		Well	MW-OU2-4		Well	MW-OU2-5	
	TOC =	435.72		TOC =	436.40		TOC =	432.96		TOC =	432.88		TOC =	433.46
Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.
12/05/18	8.90	426.82	12/05/18	9.05	427.35	12/05/18	5.69	427.27	12/05/18	5.60	427.28	12/05/18	6.25	427.21
09/13/18	9.58	426.14	09/13/18	10.40	426.00	09/13/18	7.02	425.94	09/13/18	7.06	425.82	09/13/18	7.72	425.74
06/07/18	9.53	426.19	06/07/18	10.25	426.15	06/07/18	7.90	425.06	06/07/18	6.90	425.98	06/07/18	7.56	425.90
03/22/18	9.15	426.57	03/22/18	9.85	426.55	03/22/18	6.60	426.36	03/22/18	6.55	426.33	03/22/18	7.20	426.26
12/06/17	9.37	426.35	12/06/17	9.96	426.44	12/06/17	6.60	426.36	12/06/17	6.50	426.38	12/06/17	7.20	426.26
09/01/17	9.53	426.19	09/01/17	10.35	426.05	09/01/17	NM	-	09/01/17	6.98	425.90	09/01/17	7.73	425.73
06/23/17	9.35	426.37	06/23/17	10.02	426.38	06/23/17	7.10	425.86	06/23/17	6.70	426.18	06/23/17	7.15	426.31
03/08/17	8.68	427.04	03/08/17	5.94	430.46	03/08/17	5.93	427.03	03/08/17	5.94	426.94	03/08/17	6.62	426.84
12/15/16	8.91	426.81	12/15/16	9.80	426.60	12/15/16	6.42	426.54	12/15/16	6.35	426.53	12/15/16	7.02	426.44
09/19/16	9.58	426.14	09/19/16	10.52	425.88	09/19/16	7.29	425.67	09/19/16	7.15	425.73	09/19/16	7.84	425.62
06/07/16	9.45	426.27	06/07/16	10.28	426.12	06/07/16	6.95	426.01	06/07/16	6.87	426.01	06/07/16	7.57	425.89
03/07/16	8.45	427.27	03/07/16	9.28	427.12	03/07/16	5.91	427.05	03/07/16	5.82	427.06	03/07/16	6.49	426.97
12/02/15	9.30	426.42	12/02/15	10.19	426.21	12/02/15	6.85	426.11	12/02/15	6.77	426.11	12/02/15	7.44	426.02
09/16/15	9.66	426.06	09/16/15	10.47	425.93	09/16/15	7.15	425.81	09/16/15	7.05	425.83	09/16/15	7.74	425.72
06/03/15	9.34	426.38	06/03/15	9.73	426.67	06/03/15	6.41	426.55	06/03/15	6.34	426.54	06/03/15	6.95	426.51
04/08/15	8.63	427.09	04/08/15	9.29	427.11	04/08/15	6.14	426.82	04/08/15	5.96	426.92	04/08/15	6.98	426.48
12/01/14	9.32	426.40	12/01/14	9.84	426.56	12/01/14	6.49	426.47	12/01/14	6.41	426.47	12/01/14	7.08	426.38
09/10/14	9.49	426.23	09/10/14	9.89	426.51	09/10/14	7.02	425.94	09/10/14	6.95	425.93	09/10/14	7.63	425.83
06/12/14	9.58	426.14	06/12/14	10.33	426.07	06/12/14	6.99	425.97	06/12/14	6.94	425.94	06/12/14	7.63	425.83
03/25/14	9.12	426.60	03/25/14	10.22	426.18	03/25/14	6.75	426.21	03/25/14	6.85	426.03	03/25/14	7.24	426.22
12/12/13	8.47	427.25	12/12/13	9.35	427.05	12/12/13	5.92	427.04	12/12/13	5.84	427.04	12/12/13	6.51	426.95
09/23/13	9.52	426.20	09/23/13	10.32	426.08	09/23/13	7.08	425.88	09/23/13	6.98	425.90	09/23/13	7.63	425.83
06/10/13	8.46	427.26	06/10/13	9.32	427.08	06/10/13	5.78	427.18	06/10/13	5.68	427.20	06/10/13	5.35	428.11
03/27/13	9.30	426.42	03/27/13	10.11	426.29	03/27/13	6.78	426.18	03/27/13	6.95	425.93	03/27/13	7.42	426.04
12/03/12	9.49	426.23	12/03/12	10.33	426.07	12/03/12	7.02	425.94	12/03/12	6.93	425.95	12/03/12	7.70	425.76
09/12/12	9.75	425.97	09/12/12	10.63	425.77	09/12/12	7.32	425.64	09/12/12	7.25	425.63	09/12/12	8.02	425.44
06/18/12	9.51	426.21	06/18/12	10.36	426.04	06/18/12	7.05	425.91	06/18/12	6.95	425.93	06/18/12	7.69	425.77
03/19/12	8.88	426.84	03/19/12	9.79	426.61	03/19/12	6.46	426.50	03/19/12	6.32	426.56	03/19/12	7.13	426.33
12/05/11	9.10	426.62	12/05/11	9.84	426.56	12/05/11	6.72	426.24	12/05/11	6.73	426.15	12/05/11	7.50	425.96
09/26/11	9.31	426.41	09/26/11	10.11	426.29	09/26/11	6.64	426.32	09/26/11	6.68	426.20	09/26/11	7.35	426.11
06/13/11	9.29	426.43	06/13/11	10.07	426.33	06/13/11	6.71	426.25	06/13/11	7.87	425.01	06/13/11	7.33	426.13
03/29/11	8.64	427.08	03/29/11	9.43	426.97	03/29/11	6.04	426.92	03/29/11	5.93	426.95	03/29/11	6.68	426.78

Notes:
TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet
El. = Elevation in Feet

Table 3

Historical Groundwater Data
DNAPL Wells

Well	DNAPL-02		Well	DNAPL-03		Well	DNAPL-04		Well	DNAPL-05	
	TOC =	436.81		TOC =	437.23		TOC =	438.50		TOC =	440.60
Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.
12/05/18	8.10	428.71	12/05/18	8.70	428.53	12/05/18	9.65	428.85	12/05/18	11.75	428.85
09/13/18	9.60	427.21	09/13/18	9.70	427.53	09/13/18	11.00	427.50	09/13/18	13.08	427.52
06/07/18	9.70	427.11	06/07/18	10.00	427.23	06/07/18	11.26	427.24	06/07/18	13.34	427.26
03/22/18	9.35	427.46	03/22/18	9.60	427.63	03/22/18	10.90	427.60	03/22/18	12.99	427.61
12/06/17	9.00	427.81	12/06/17	9.31	427.92	12/06/17	10.59	427.91	12/06/17	12.65	427.95
09/01/17	9.75	427.06	09/01/17	10.00	427.23	09/01/17	11.36	427.14	09/01/17	13.44	427.16
06/23/17	9.30	427.51	06/23/17	9.56	427.67	06/23/17	10.90	427.60	06/23/17	13.00	427.60
03/08/17	8.92	427.89	03/08/17	9.19	428.04	03/08/17	10.51	427.99	03/08/17	12.57	428.03
12/15/16	8.33	428.48	12/15/16	8.60	428.63	12/15/16	9.89	428.61	12/15/16	11.98	428.62
09/19/16	9.56	427.25	09/19/16	9.88	427.35	09/19/16	11.20	427.30	09/19/16	13.27	427.33
06/07/16	9.41	427.40	06/07/16	9.73	427.50	06/07/16	11.05	427.45	06/07/16	13.12	427.48
03/07/16	8.45	428.36	03/07/16	8.73	428.50	03/07/16	10.05	428.45	03/07/16	12.10	428.50
12/02/15	9.41	427.40	12/02/15	9.71	427.52	12/02/15	11.01	427.49	12/02/15	13.09	427.51
09/16/15	9.91	426.90	09/16/15	10.21	427.02	09/16/15	11.51	426.99	09/16/15	13.58	427.02
06/03/15	8.33	428.48	06/03/15	8.84	428.39	06/03/15	10.15	428.35	06/03/15	12.24	428.36
04/08/15	8.39	428.42	04/08/15	8.68	428.55	04/08/15	9.96	428.54	04/08/15	12.07	428.53
12/01/14	9.16	427.65	12/01/14	9.45	427.78	12/01/14	10.75	427.75	12/01/14	12.81	427.79
09/10/14	9.25	427.56	09/10/14	9.55	427.68	09/10/14	10.62	427.88	09/10/14	12.70	427.90
06/12/14	9.90	426.91	06/12/14	10.20	427.03	06/12/14	11.41	427.09	06/12/14	13.56	427.04
03/25/14	9.52	427.29	03/25/14	9.81	427.42	03/25/14	11.15	427.35	03/25/14	13.21	427.39
12/12/13	8.71	428.10	12/12/13	9.03	428.20	12/12/13	10.35	428.15	12/12/13	12.41	428.19
09/23/13	9.92	426.89	09/23/13	10.25	426.98	09/23/13	11.56	426.94	09/23/13	13.61	426.99
06/10/13	8.27	428.54	06/10/13	8.62	428.61	06/10/13	9.91	428.59	06/10/13	11.98	428.62
03/27/13	9.51	427.30	03/27/13	9.81	427.42	03/27/13	11.15	427.35	03/27/13	13.21	427.39
12/03/12	9.19	427.62	12/03/12	10.10	427.13	12/03/12	11.45	427.05	12/03/12	13.48	427.12
09/12/12	10.14	426.67	09/12/12	10.48	426.75	09/12/12	11.81	426.69	09/12/12	13.84	426.76
06/18/12	9.46	427.35	06/18/12	9.80	427.43	06/18/12	11.15	427.35	06/18/12	13.24	427.36
03/19/12	9.02	427.79	03/19/12	9.35	427.88	03/19/12	10.69	427.81	03/19/12	12.74	427.86
12/05/11	9.46	427.35	12/05/11	9.79	427.44	12/05/11	11.13	427.37	12/05/11	13.30	427.30
09/26/11	9.36	427.45	09/26/11	9.70	427.53	09/26/11	11.09	427.41	09/26/11	13.08	427.52
06/13/11	9.18	427.63	06/13/11	9.54	427.69	06/13/11	10.84	427.66	06/13/11	12.89	427.71
03/29/11	8.41	428.40	03/29/11	8.72	428.51	03/29/11	10.05	428.45	03/29/11	12.11	428.49

Notes:
TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet
El. = Elevation in Feet

Table 3

Historical Groundwater Data
DNAPL Wells

Well	DNAPL-06		Well	DNAPL-07		Well	DNAPL-08		Well	DNAPL-09	
	TOC =	439.71		TOC =	441.46		TOC =	441.80		TOC =	442.63
Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.
12/05/18	10.70	429.01	12/05/18	11.70	429.76	12/05/18	12.10	429.70	12/05/18	13.00	429.63
09/13/18	12.15	427.56	09/13/18	13.20	428.26	09/13/18	13.65	428.15	09/13/18	14.50	428.13
06/07/18	12.33	427.38	06/07/18	13.18	428.28	06/07/18	13.61	428.19	06/07/18	14.50	428.13
03/22/18	12.00	427.71	03/22/18	12.67	428.79	03/22/18	13.16	428.64	03/22/18	14.06	428.57
12/06/17	11.74	427.97	12/06/17	12.55	428.91	12/06/17	13.00	428.80	12/06/17	13.91	428.72
09/01/17	12.40	427.31	09/01/17	13.40	428.06	09/01/17	13.80	428.00	09/01/17	14.69	427.94
06/23/17	11.97	427.74	06/23/17	12.70	428.76	06/23/17	13.15	428.65	06/23/17	14.07	428.56
03/08/17	11.57	428.14	03/08/17	12.37	429.09	03/08/17	12.75	429.05	03/08/17	13.65	428.98
12/15/16	11.05	428.66	12/15/16	10.80	430.66	12/15/16	12.24	429.56	12/15/16	13.15	429.48
09/19/16	12.31	427.40	09/19/16	13.22	428.24	09/19/16	13.64	428.16	09/19/16	14.55	428.08
06/07/16	12.15	427.56	06/07/16	12.98	428.48	06/07/16	13.44	428.36	06/07/16	14.32	428.31
03/07/16	11.17	428.54	03/07/16	11.91	429.55	03/07/16	12.36	429.44	03/07/16	13.25	429.38
12/02/15	12.21	427.50	12/02/15	13.03	428.43	12/02/15	13.49	428.31	12/02/15	14.39	428.24
09/16/15	12.69	427.02	09/16/15	13.32	428.14	09/16/15	13.78	428.02	09/16/15	14.67	427.96
06/03/15	11.36	428.35	06/03/15	11.88	429.58	06/03/15	12.37	429.43	06/03/15	13.29	429.34
04/08/15	11.19	428.52	04/08/15	11.71	429.75	04/08/15	12.19	429.61	04/08/15	13.12	429.51
12/01/14	11.92	427.79	12/01/14	12.55	428.91	12/01/14	12.98	428.82	12/01/14	13.88	428.75
09/10/14	11.76	427.95	09/10/14	12.91	428.55	09/10/14	13.35	428.45	09/10/14	14.29	428.34
06/12/14	12.61	427.10	06/12/14	13.12	428.34	06/12/14	13.60	428.20	06/12/14	14.57	428.06
03/25/14	12.25	427.46	03/25/14	13.01	428.45	03/25/14	13.44	428.36	03/25/14	14.21	428.42
12/12/13	11.51	428.20	12/12/13	12.19	429.27	12/12/13	12.63	429.17	12/12/13	13.51	429.12
09/23/13	12.71	427.00	09/23/13	13.26	428.20	09/23/13	13.75	428.05	09/23/13	13.91	428.72
06/10/13	11.07	428.64	06/10/13	11.85	429.61	06/10/13	12.28	429.52	06/10/13	13.16	429.47
03/27/13	12.31	427.40	03/27/13	12.80	428.66	03/27/13	13.26	428.54	03/27/13	14.20	428.43
12/03/12	12.61	427.10	12/03/12	13.75	427.71	12/03/12	13.71	428.09	12/03/12	14.65	427.98
09/12/12	12.91	426.80	09/12/12	13.76	427.70	09/12/12	14.21	427.59	09/12/12	15.11	427.52
06/18/12	12.28	427.43	06/18/12	13.11	428.35	06/18/12	13.56	428.24	06/18/12	14.47	428.16
03/19/12	11.84	427.87	03/19/12	12.61	428.85	03/19/12	13.95	427.85	03/19/12	13.05	429.58
12/05/11	12.28	427.43	12/05/11	12.88	428.58	12/05/11	13.36	428.44	12/05/11	14.28	428.35
09/26/11	10.18	429.53	09/26/11	12.86	428.60	09/26/11	13.35	428.45	09/26/11	14.25	428.38
06/13/11	11.94	427.77	06/13/11	12.84	428.62	06/13/11	13.27	428.53	06/13/11	14.14	428.49
03/29/11	11.12	428.59	03/29/11	12.25	429.21	03/29/11	12.66	429.14	03/29/11	13.75	428.88

Notes:
TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet
El. = Elevation in Feet

Table 3

Historical Groundwater Data
Trench Wells

Well	VTM-1		Well	VTM-2		Well	VTM-3		Well	VTM-4		Well	VTM-5	
	TOC =	439.74		TOC =	438.33		TOC =	439.44		TOC =	441.59		TOC =	441.79
Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.	Date	DTW	Water El.
12/05/18	10.55	429.19	12/05/18	8.95	429.38	12/05/18	10.05	429.39	12/05/18	12.00	429.59	12/05/18	12.15	429.64
09/13/18	12.20	427.54	09/13/18	10.65	427.68	09/13/18	11.80	427.64	09/13/18	13.70	427.89	09/13/18	13.85	427.94
06/07/18	12.14	427.60	03/22/18	10.46	427.87	03/22/18	11.62	427.82	03/22/18	13.61	427.98	03/22/18	13.75	428.04
03/22/18	11.86	427.88	03/22/18	10.41	427.92	03/22/18	11.36	428.08	03/22/18	13.31	428.28	03/22/18	13.45	428.34
12/06/17	11.65	428.09	12/06/17	10.07	428.26	12/06/17	11.22	428.22	12/06/17	13.17	428.42	12/06/17	13.32	428.47
09/01/17	12.10	427.64	09/01/17	10.40	427.93	09/01/17	10.55	428.89	09/01/17	13.60	427.99	09/01/17	13.77	428.02
06/23/17	11.80	427.94	06/23/17	10.10	428.23	06/23/17	11.21	428.23	06/23/17	13.15	428.44	06/23/17	13.29	428.50
03/08/17	11.24	428.50	03/08/17	9.52	428.81	03/08/17	10.65	428.79	03/08/17	12.58	429.01	03/08/17	12.76	429.03
12/15/16	10.99	428.75	12/15/16	9.33	429.00	12/15/16	10.49	428.95	12/15/16	12.49	429.10	12/15/16	12.54	429.25
09/19/16	12.23	427.51	09/19/16	10.56	427.77	09/19/16	11.71	427.73	09/19/16	13.65	427.94	09/19/16	13.82	427.97
06/07/16	11.98	427.76	06/07/16	10.29	428.04	06/07/16	11.43	428.01	06/07/16	13.44	428.15	06/07/16	13.61	428.18
03/07/16	10.98	428.76	03/07/16	9.25	429.08	03/07/16	10.36	429.08	03/07/16	12.32	429.27	03/07/16	12.49	429.30
12/02/15	12.12	427.62	12/02/15	10.53	427.80	12/02/15	11.68	427.76	12/02/15	13.58	428.01	12/02/15	13.74	428.05
09/16/15	12.55	427.19	09/16/15	10.75	427.58	09/16/15	11.85	427.59	09/16/15	13.73	427.86	09/16/15	14.67	427.12
06/03/15	11.21	428.53	06/03/15	9.55	428.78	06/03/15	10.72	428.72	06/03/15	12.68	428.91	06/03/15	12.86	428.93
04/08/15	11.06	428.68	04/08/15	9.49	428.84	04/08/15	11.65	427.79	04/08/15	12.65	428.94	04/08/15	12.81	428.98
12/01/14	11.55	428.19	12/01/14	9.79	428.54	12/01/14	10.92	428.52	12/01/14	12.91	428.68	12/01/14	13.09	428.70
09/10/14	11.62	428.12	09/10/14	9.91	428.42	09/10/14	11.10	428.34	09/10/14	13.14	428.45	09/10/14	13.31	428.48
06/12/14	11.94	427.80	06/12/14	10.28	428.05	06/12/14	11.45	427.99	06/12/14	13.48	428.11	06/12/14	13.63	428.16
03/25/14	11.69	428.05	03/25/14	10.01	428.32	03/25/14	11.17	428.27	03/25/14	13.32	428.27	03/25/14	13.35	428.44
12/12/13	10.91	428.83	12/12/13	9.31	429.02	12/12/13	10.46	428.98	12/12/13	12.51	429.08	12/12/13	12.56	429.23
09/23/13	12.19	427.55	09/23/13	10.63	427.70	09/23/13	11.79	427.65	09/23/13	15.75	425.84	09/23/13	13.91	427.88
06/10/13	10.45	429.29	06/10/13	8.75	429.58	06/10/13	9.98	429.46	06/10/13	12.08	429.51	06/10/13	13.16	428.63
03/27/13	11.83	427.91	03/27/13	10.82	427.51	03/27/13	11.48	427.96	03/27/13	13.51	428.08	03/27/13	13.69	428.10
12/03/12	12.31	427.43	12/03/12	10.82	427.51	12/03/12	11.98	427.46	12/03/12	13.84	427.75	12/03/12	14.06	427.73
06/18/12	12.01	427.73	06/18/12	10.46	427.87	06/18/12	11.66	427.78	06/18/12	13.70	427.89	06/18/12	13.89	427.90
03/19/12	11.49	428.25	03/19/12	9.91	428.42	03/19/12	11.11	428.33	03/19/12	13.16	428.43	03/19/12	13.33	428.46
12/05/11	12.01	427.73	12/05/11	10.48	427.85	12/05/11	11.62	427.82	12/05/11	13.61	427.98	12/05/11	13.81	427.98
09/26/11	11.95	427.79	09/26/11	10.41	427.92	09/26/11	11.61	427.83	09/26/11	13.66	427.93	09/26/11	13.82	427.97
06/13/11	11.74	428.00	06/13/11	10.15	428.18	06/13/11	11.32	428.12	06/13/11	13.39	428.20	06/13/11	13.59	428.20
03/29/11	11.02	428.72	03/29/11	9.48	428.85	03/29/11	10.65	428.79	03/29/11	12.81	428.78	03/29/11	12.97	428.82

Notes:
TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet
El. = Elevation in Feet

Table 3

Historical Groundwater Data
Operable Unit 1 Wells

Well	LTMW-D01		LTMW-S01		LTMW-D02		LTMW-S02		LTMW-D03		LTMW-S03		LTMW-D04		LTMW-S04	
	TOC =	434.90	TOC =	435.52	TOC =	436.74	TOC =	436.79	TOC =	431.27	TOC =	431.43	TOC =	437.18	TOC =	437.24
Date	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.
12/05/18	7.54	427.36	7.54	427.98	9.29	427.45	8.95	427.84	5.75	425.52	2.40	429.03	8.64	428.54	7.78	429.46
09/13/18	8.81	426.09	8.67	426.85	10.60	426.14	10.36	426.43	5.48	425.79	4.18	427.25	10.02	427.16	9.35	427.89
06/07/18	8.55	426.35	8.70	426.82	10.35	426.39	10.32	426.47	5.14	426.13	4.11	427.32	9.78	427.40	9.48	427.76
03/22/18	8.22	426.68	9.41	426.11	10.21	426.53	9.98	426.81	5.65	425.62	3.60	427.83	9.35	427.83	9.05	428.19
12/06/17	8.17	426.73	8.16	427.36	10.07	426.67	9.61	427.18	4.76	426.51	3.30	428.13	9.35	427.83	8.35	428.89
09/01/17	8.75	426.15	8.74	426.78	10.64	426.10	10.31	426.48	5.23	426.04	4.15	427.28	9.99	427.19	9.50	427.74
06/23/17	8.30	426.60	8.53	426.99	10.45	426.29	10.27	426.52	4.91	426.36	4.05	427.38	9.58	427.60	9.45	427.79
03/08/17	8.13	426.77	8.27	427.25	10.11	426.63	9.79	427.00	4.48	426.79	3.53	427.90	9.00	428.18	8.79	428.45
12/15/16	8.11	426.79	8.02	427.50	10.03	426.71	9.73	427.06	4.55	426.72	3.28	428.15	9.32	427.86	8.41	428.83
09/19/16	8.78	426.12	8.73	426.79	10.70	426.04	10.41	426.38	5.26	426.01	4.25	427.18	10.03	427.15	9.61	427.63
06/07/16	8.56	426.34	7.85	427.67	10.16	426.58	10.21	426.58	4.75	426.52	4.07	427.36	9.47	427.71	9.38	427.86
03/07/16	7.75	427.15	7.18	428.34	9.05	427.69	9.15	427.64	3.69	427.58	2.45	428.98	8.55	428.63	7.85	429.39
12/03/15	7.71	427.19	8.29	427.23	9.85	426.89	9.74	427.05	4.38	426.89	3.51	427.92	9.63	427.55	8.65	428.59
09/16/15	8.30	426.60	8.76	426.76	10.29	426.45	10.32	426.47	4.91	426.36	4.15	427.28	9.69	427.49	9.52	427.72
06/03/15	8.07	426.83	8.03	427.49	10.02	426.72	10.13	426.66	4.45	426.82	3.92	427.51	9.35	427.83	9.27	427.97
04/08/15	7.34	427.56	7.99	427.53	9.58	427.16	9.71	427.08	4.01	427.26	3.54	427.89	8.85	428.33	8.75	428.49
12/01/14	7.94	426.96	8.15	427.37	9.75	426.99	9.64	427.15	4.11	427.16	3.13	428.30	9.09	428.09	8.57	428.67
09/10/14	8.14	426.76	8.12	427.40	9.99	426.75	9.64	427.15	4.58	426.69	3.19	428.24	9.30	427.88	8.70	428.54
06/12/14	8.68	426.22	8.24	427.28	10.57	426.17	10.26	426.53	4.71	426.56	4.11	427.32	9.60	427.58	9.42	427.82
03/25/14	8.22	426.68	8.50	427.02	10.11	426.63	10.19	426.60	4.71	426.56	4.09	427.34	9.56	427.62	9.43	427.81
12/12/13	7.61	427.29	7.64	427.88	9.19	427.55	8.75	428.04	3.97	427.30	1.99	429.44	8.57	428.61	7.45	429.79
09/23/13	8.36	426.54	8.75	426.77	10.28	426.46	10.28	426.51	5.11	426.16	4.05	427.38	9.84	427.34	9.52	427.72
06/10/13	7.17	427.73	7.52	428.00	9.09	427.65	8.73	428.06	3.52	427.75	2.18	429.25	7.99	429.19	6.99	430.25
03/27/13	8.27	426.63	8.64	426.88	10.28	426.46	9.98	426.81	4.84	426.43	3.87	427.56	9.61	427.57	9.36	427.88
12/03/12	8.65	426.25	8.60	426.92	10.42	426.32	9.90	426.89	5.08	426.19	3.80	427.63	9.85	427.33	9.91	427.33
09/12/12	8.84	426.06	8.91	426.61	10.76	425.98	10.35	426.44	5.39	425.88	4.17	427.26	10.20	426.98	9.62	427.62
06/18/12	8.35	426.55	8.61	426.91	10.35	426.39	10.26	426.53	5.10	426.17	4.08	427.35	8.76	428.42	9.48	427.76
03/19/12	8.01	426.89	8.11	427.41	9.92	426.82	9.46	427.33	4.50	426.77	3.04	428.39	9.24	427.94	8.29	428.95
12/05/11	8.16	426.74	8.31	427.21	10.12	426.62	9.61	427.18	4.63	426.64	3.35	428.08	9.39	427.79	8.81	428.43
09/26/11	8.38	426.52	8.45	427.07	10.45	426.29	10.18	426.61	4.71	426.56	3.93	427.50	9.45	427.73	9.44	427.80
06/13/11	7.61	427.29	8.36	427.16	10.27	426.47	9.95	426.84	4.78	426.49	3.75	427.68	9.42	427.76	9.17	428.07
03/28/11	7.83	427.07	7.85	427.67	9.68	427.06	9.43	427.36	4.41	426.86	3.34	428.09	9.07	428.11	8.91	428.33

Notes:
TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet
El. = Elevation in Feet

Table 3

Historical Groundwater Data
Operable Unit 1 Wells

Well	LTMW-D05		LTMW-S05		LTMW-D06		LTMW-S06		LTMW-S07		LTMW-S08		LTMW-S09		LTMW-S10	
	TOC =	437.78	TOC =	437.92	TOC =	441.70	TOC =	441.64	TOC =	439.70	TOC =	443.81	TOC =	439.79	TOC =	439.67
Date	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.	DTW	Water El.
12/05/18	8.18	429.60	7.30	430.62	11.10	430.60	11.55	430.09	8.55	431.15	13.90	429.91	8.70	431.09	9.20	430.47
09/13/18	9.67	428.11	9.68	428.24	12.70	429.00	13.35	428.29	11.55	428.15	15.80	428.01	10.23	429.56	10.75	428.92
06/07/18	9.47	428.31	9.64	428.28	12.42	429.28	13.26	428.38	11.06	428.64	15.70	428.11	10.10	429.69	10.64	429.03
03/22/18	8.95	428.83	8.80	429.12	12.10	429.60	12.92	428.72	10.40	429.30	15.30	428.51	9.50	430.29	10.15	429.52
12/06/17	9.02	428.76	9.16	428.76	12.00	429.70	12.25	429.39	10.67	429.03	15.10	428.71	9.58	430.21	10.10	429.57
09/01/17	9.51	428.27	9.60	428.32	12.62	429.08	13.50	428.14	12.60	427.10	15.78	428.03	10.38	429.41	10.96	428.71
06/23/17	9.14	428.64	9.60	428.32	12.07	429.63	12.88	428.76	10.73	428.97	15.22	428.59	12.88	426.91	10.18	429.49
03/08/17	8.26	429.52	7.54	430.38	11.52	430.18	11.78	429.86	10.39	429.31	14.69	429.12	9.21	430.58	9.98	429.69
12/15/16	8.80	428.98	9.00	428.92	12.28	429.42	11.70	429.94	9.89	429.81	14.50	429.31	8.60	431.19	9.30	430.37
09/19/16	9.63	428.15	9.65	428.27	12.61	429.09	13.24	428.40	11.44	428.26	15.59	428.22	9.82	429.97	10.68	428.99
06/07/16	8.82	428.96	9.53	428.39	11.98	429.72	13.03	428.61	11.01	428.69	15.36	428.45	9.81	429.98	10.41	429.26
03/07/16	7.85	429.93	8.27	429.65	11.16	430.54	12.13	429.51	9.94	429.76	14.48	429.33	9.05	430.74	9.65	430.02
12/02/15	8.77	429.01	9.21	428.71	12.31	429.39	13.20	428.44	11.55	428.15	15.67	428.14	10.40	429.39	10.95	428.72
09/16/15	8.97	428.81	9.51	428.41	12.58	429.12	13.25	428.39	11.54	428.16	15.65	428.16	9.89	429.90	10.65	429.02
06/03/15	9.25	428.53	9.41	428.51	12.15	429.55	12.93	428.71	10.81	428.89	15.21	428.60	9.15	430.64	9.93	429.74
04/08/15	8.74	429.04	9.36	428.56	11.67	430.03	12.55	429.09	10.06	429.64	14.85	428.96	8.89	430.90	9.54	430.13
12/01/14	8.28	429.50	8.91	429.01	11.77	429.93	12.49	429.15	10.97	428.73	14.78	429.03	9.31	430.48	9.93	429.74
09/10/14	8.85	428.93	8.97	428.95	11.91	429.79	12.68	428.96	10.96	428.74	15.34	428.47	9.35	430.44	10.29	429.38
06/12/14	9.02	428.76	9.52	428.40	12.28	429.42	13.08	428.56	11.14	428.56	15.34	428.47	9.63	430.16	10.46	429.21
03/25/14	9.03	428.75	8.50	429.42	11.95	429.75	12.81	428.83	10.85	428.85	15.03	428.78	9.11	430.68	9.93	429.74
12/12/13	7.96	429.82	7.85	430.07	11.20	430.50	11.87	429.77	10.16	429.54	14.11	429.70	8.95	430.84	9.63	430.04
09/23/13	8.94	428.84	9.52	428.40	12.36	429.34	13.21	428.43	11.39	428.31	15.46	428.35	9.86	429.93	10.64	429.03
06/10/13	7.55	430.23	7.48	430.44	11.15	430.55	11.78	429.86	10.27	429.43	14.12	429.69	9.43	430.36	10.17	429.50
03/27/13	9.13	428.65	9.45	428.47	12.16	429.54	13.10	428.54	10.92	428.78	15.27	428.54	9.55	430.24	10.31	429.36
12/03/12	9.51	428.27	9.48	428.44	13.43	428.27	12.78	428.86	11.59	428.11	15.72	428.09	10.25	429.54	10.91	428.76
09/12/12	9.76	428.02	9.64	428.28	12.81	428.89	13.69	427.95	11.97	427.73	15.95	427.86	10.58	429.21	11.27	428.40
06/18/12	9.26	428.52	9.51	428.41	12.41	429.29	13.23	428.41	11.31	428.39	15.40	428.41	9.81	429.98	10.56	429.11
03/19/12	8.79	428.99	9.04	428.88	12.12	429.58	12.99	428.65	11.05	428.65	15.19	428.62	9.73	430.06	10.43	429.24
12/05/11	9.02	428.76	9.08	428.84	12.22	429.48	13.04	428.60	10.97	428.73	15.19	428.62	9.58	430.21	10.34	429.33
09/26/11	9.32	428.46	9.53	428.39	12.40	429.30	13.20	428.44	11.01	428.69	15.21	428.60	9.55	430.24	10.31	429.36
06/13/11	8.91	428.87	9.34	428.58	11.99	429.71	12.88	428.76	10.79	428.91	15.03	428.78	9.49	430.30	10.29	429.38
03/28/11	8.08	429.70	9.12	428.80	11.62	430.08	12.41	429.23	10.08	429.62	14.46	429.35	10.14	429.65	9.75	429.92

Notes:
TOC = Top of Inner Well Casing Elevation in Feet
DTW = Depth to Water from Top of Casing in Feet
El. = Elevation in Feet

Table 4

Groundwater Analytical Data
LTMW-D01

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	**2,800**	**1,100**	**540**	**5,100**	**1,700**	**1,500**	**4,800**	**1,700**	**5,310**	**8,990**	**5,800**	**5,290**	**2,470**	**4,250**	**5,460**	**3,440**	**3,900**	**1,410**
Toluene	1,000	5	1	**580**	**240**	**300**	**1,300**	**430**	**340**	**1,100**	**340**	**1,090**	**2,080**	**1,320**	**1,470**	**809**	**1,230**	**1,140**	**992**	**1,080**	**1,740**
Ethylbenzene	700	5	1	ND	**7.8**	**26**	**84**	**53**	**54**	**82**	ND	**167**	**241**	**145**	**137**	**179**	**177**	**95.0**	**119**	**163**	**203**
Xylene (total)	10,000	5	2	ND	**46**	**68**	**160**	ND	ND	**170**	ND	**176**	**254**	**206**	**201**	**157**	**187**	**135**	**155**	**164**	**214.5**
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.59	0.43	0.19	0.10	0.19	0.35	0.18	0.19	0.14	0.40
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	5.0	6.2	0.31	0.11	0.36	7.1	3.1	1.1	1.9	7.1
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	ND	ND	ND	ND	ND	ND	13	ND	ND	14	11	ND	ND	ND	10	ND	ND	15
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	**0.51**	**0.35**	**0.15**	ND	ND	**0.41**	**0.17**	**0.14**	**0.10**	**0.30**
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	**97.1**	**229**	ND	ND	ND	7.2	**94.6**	0.44	0.83	**170**
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**107**	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.9	ND	6.8	9.1	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
NYSDEC = New York State Department of Environmental Conservation
AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S01

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	**3,600**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	**470**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	56 H J	**94**	**70**	**68**	**72**	79 E	**76**	**120**	**125**	**91.2**	**69.4**	**56.4**	**105**	**75.1**	**56.5**	**68.1**	**101**	**64.40**
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	4.7	ND	ND	ND	ND	4.1	3	3.2	2.5	3.6	2.7	2.2	3.3	4.4	2.6
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.44	0.38	0.52	0.28	0.40	0.34	0.27	0.37	0.47	0.35
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	22	ND	23	16	23	20	20	21	ND	13	55	18	12	15	11	17	19	14
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	4.9	4	3.6	2.8	4.8	3.5	2.4	3.7	6.1	3.6
Fluorene	N/A	0.002	4.9	20 H J	**28**	**18**	**26**	**25**	**23**	**21**	**28**	**34.1**	**27.6**	**19.9**	**12.6**	**28.5**	**19.2**	**15.4**	**18.1**	**28.3**	**15.60**
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.38	0.4	0.15	0.24	0.31	ND	0.23	ND	0.31
Phenanthrene	N/A	50	4.9	7.7 H J	10	ND	9.4	ND	ND	ND	ND	0.25	0.74	1.7	ND	0.14	0.20	0.26	0.13	0.20	0.16
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	5.0	4.2	3.6	2.7	4.9	3.7	2.5	3.8	6.6	4.4
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	8.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	ND	ND	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
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AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
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J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-D02

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	3.8 H J	7.4	5.8	ND	ND	ND	ND	ND	3.3	2.2	1.6	ND	2.0	0.97	1.2	1.0	0.91	0.23
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.8	0.43	0.39	ND	0.48	0.22	0.29	0.31	0.24	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	110	ND	130	110	16	ND	93	85	ND	150	200	ND	160	160	160	150	140	10
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.021	ND	22	110	11	13	61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
NYSDEC = New York State Department of Environmental Conservation
AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limit
H = Quantitated using peak height rather than peak are
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S02

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/09/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	160	ND	81	35	190	120	130	150	ND	130	75	73	110	90	60	59	110	10
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.15	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	15	15	5.1	ND	7.7	ND	ND	7.6	ND	7.1	7.2	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
NYSDEC = New York State Department of Environmental Conservation
AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-D03

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	**11**	**12**	**6.7**	**9.3**	**9.3**	**10**	**8.9**	**20**	**15.9**	**27.1**	**10.2**	**8.5**	**8.9**	**9.5**	**4.7**	**6.4**	**5.4**	**8.4**
Toluene	1,000	5	1	ND	4.2	2	3.4	2.2	ND	ND	**20**	**13.9**	**55**	**5.9**	1.9	1.9	**5.4**	ND	1.2	2.0	3.9
Ethylbenzene	700	5	1	**150**	**190**	**73**	**100**	**87**	**76**	**86**	**58**	**69.6**	**23.9**	**63.7**	**44**	**49.0**	**40.2**	**26.0**	**34.1**	**23.6**	**22.2**
Xylene (total)	10,000	5	2	**28**	**41**	**15**	**22**	**16**	**16**	**14**	**42**	**30.1**	**25.7**	**13.5**	**5.6**	**7.5**	**8.4**	4.0	4.4	**5.5**	**6.2**
Acenaphthene	N/A	20	4.9	4.9 H J	14	10	14	16	12	11	ND	**411.9**	ND	10.7	3.70	10.2	5.9	5.8	8.3	5.7	6.20
Acenaphthylene	N/A	NA	4.9	ND	5.9	ND	ND	ND	ND	ND	ND	34.7	10.6	3.1	2.5	2.2	1.5	1.3	2.0	1.6	2.8
Anthracene	N/A	NA	4.9	ND	5.7	ND	5.6	5.4	ND	ND	ND	5.2	ND	5.6	0.3	3.7	2.4	2.2	2.8	2.1	2
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	**0.43**	ND	**0.42**	ND	**0.40**	**0.26**	**0.30**	**0.34**	**0.29**	**0.28**
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	**0.21**	ND	**0.25**	ND	**0.24**	**0.18**	**0.17**	**0.19**	**0.18**	**0.16**
Cyanide	N/A	200	10	ND	44	64	67	78	71	75	93	77	79	84	76	66	78	64	66	62	62
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	7.1	ND	6.7	6.6	5.6	6.2	ND	6.2	ND	6.1	2.9	5.9	3.7	4.1	4.7	4.0	3.5
Fluorene	N/A	0.002	4.9	4.3 H J	**12**	**6.8**	**11**	**10**	**9.3**	**7.8**	ND	**11.5**	ND	**7.1**	**13.2**	**6.2**	**3.7**	**3.6**	**5.1**	**3.5**	**3.80**
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.4	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	74 H J	**150**	**14**	**47**	**29**	**24**	**13**	**81**	**556**	**284**	**32.2**	0.15	10.0	**16.5**	3.9	3.7	6.9	**12.7**
Phenanthrene	N/A	50	4.9	9.6 H J	31	17	28	30	25	27	25	29.5	1.5	30.3	0.11	24.1	15.2	16.3	18.1	18.1	17.9
Pyrene	N/A	50	4.9	ND	9.8	6	8.9	8.6	7.2	8.3	8.3	8.3	1.2	7.6	2.8	7.6	4.8	5.5	6.0	5.3	5.1
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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J = Estimated Concentration Value
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Table 4

Groundwater Analytical Data
LTMW-S03

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	72 J	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.15**	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.16	0.17	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.3	ND	ND
Lead	N/A	25	5	11	ND	15	**30**	5.9	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	**5,600**	**4,600**	**5,600**	**7,300**	**5,500**	**4,400**	**4,600**	**4,300**	**4,300**	**4,600**	**5,330**	**4,250**	**3,740**	**3,620**	**4,070**	**3,660**	**3,060**	**5,620**

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µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
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J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-D04

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/06/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	12	ND	13	15	14	11.5	10	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**35.3**	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.013	ND	ND	ND	490	490	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S04

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/20/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/06/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	**580**	**680**	**870**	**400**	**800**	170	**450**	**600**	59	**2,000**	**900**	**1,200**	200	**1,300**	**400**	**230**	**220**	**1,300**
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	330	120	180	610	140	ND	510	340	23	618	358	108	128	472	472	267	179	230

EPA = Environmental Protection Agency
NYSDEC = New York State Department of Environmental Conservation
AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-D05

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
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µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S05

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/10/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5,800**	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,320**	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**145**	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**206**	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	150	94	140	190	**220**	160	**450**	**250**	16	**830**	**510**	**570**	**270**	**380**	**430**	120	89	**260**
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.15**	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	5.4	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	11	13	75	ND	27	ND	ND	19	23	ND	27.5	ND	ND	ND	ND	ND	ND	ND

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J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-D06

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/_/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	92	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.1	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	0.64	ND	ND	8.1	8.5	8.0	6.0	12.0	10.4	7.3
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S06

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/_/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	66	17	100	ND	32	19	32	66	31	ND	190	79	14	18	64	55	19	110
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.01	0.01	ND	ND	ND	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S07

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S08

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	**2.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	110	170	**560**	120	100	100	**280**	120	120	140	**240**	16	140	16	200	150	80	**250**
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
NYSDEC = New York State Department of Environmental Conservation
AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S09

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/19/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	11	ND	ND	5.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	66	22	17	45	ND	ND	10	13	23.2	97.6	24.4	ND	15.3	ND	ND	10.7	27.6

EPA = Environmental Protection Agency
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AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limits
H = Quantitated using peak height rather than peak area
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 4

Groundwater Analytical Data
LTMW-S10

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	09/08/14	12/04/14	04/08/15	06/03/15	09/16/15	12/03/15	03/04/16	06/09/16	09/21/16	12/07/16	03/08/17	06/07/17	09/21/17	12/06/17	03/21/18	06/07/18	09/13/18	12/05/18
Benzene	5	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1,000	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	10,000	5	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	N/A	20	4.9	15 H	**26**	**21**	17	**36**	**29**	6.3	6.3	**23**	17.4	3.1	4.30	11.0	6.8	2.3	9.7	11.8	5.70
Acenaphthylene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.9	0.96	0.2	0.23	0.73	0.54	0.20	0.51	0.61	0.39
Anthracene	N/A	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	0.17	0.12	0.12	ND	0.11	ND	ND	ND	0.14	ND
Benzo(a)anthracene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	N/A	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.2	NA	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyanide	N/A	200	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	2.1	1.5	0.5	0.62	2.0	1.4	0.71	1.3	1.8	1.1
Fluorene	N/A	0.002	4.9	ND	ND	ND	ND	ND	ND	ND	ND	**1.5**	**1.1**	**0.17**	**0.35**	**1.1**	**0.73**	**0.25**	**0.71**	**1.0**	**0.66**
Indeno(1,2,3-cd)pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	N/A	10	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.17	ND	ND	0.20	9.1	ND	ND
Phenanthrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	1.4	0.94	ND	0.22	0.73	0.43	0.12	0.32	0.76	0.32
Pyrene	N/A	50	4.9	ND	ND	ND	ND	ND	ND	ND	ND	2.6	1.9	0.45	0.71	2.4	1.7	0.90	1.7	2.3	1.5
Arsenic	N/A	25	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	N/A	25	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	N/A	2,000	10	ND	0.011	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

EPA = Environmental Protection Agency
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AWQS = Ambient Water Quality Standards
µg/L = Micrograms per Liter
ND = Not detected above laboratory reporting limit
H = Quantitated using peak height rather than peak are
J = Estimated Concentration Value
Bolded = values indicate exceedance of the NYSDEC AWQS

Table 5

Discharge Analytical Data
Groundwater Extraction System Effluent Concentrations

Parameter	City of Rome WPCF Permit Max Daily Limit (mg/L)	09/14/15	12/03/15	03/07/16	06/06/16	09/12/16	01/05/17	03/09/17	06/07/17	09/21/17	12/06/17	03/27/18	06/07/18	09/13/18	12/06/18
Benzene	0.13	0.04	0.044	0.037	0.063	0.043	0.0393	0.0536	0.0611	0.0360	0.0200	0.0274	0.0315	0.0239	0.0297
Ethylbenzene	1.59	0.0042	0.003	0.0021	0.0049	0.0042	0.0025	0.0045	0.0050	0.0052	0.0019	0.0024	0.0040	0.0024	0.0024
Toluene	1.35	0.0013	0.0011	0.0038	0.0087	0.0021	0.0019	0.0028	0.0095	ND (<0.001)	0.0017	0.0025	0.0025	0.0037	0.0026
Xylene	1.35	ND (<0.001)	ND (<0.001)	ND (<0.001)	0.0011	ND (<0.001)	ND (<0.001)	ND (<0.0030)	0.0034	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)
Total BTEX	2.87	0.05	0.048	0.043	0.078	0.049	0.0437	0.0609	0.0790	0.0412	0.0236	0.0323	0.0380	0.0300	0.0347
Arsenic	0.1	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.0050)	ND (<0.010)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
Cadmium	0.11	0.0017	ND (<0.001)	ND (<0.001)	ND (<0.001)	ND (<0.0030)	ND (<0.0025)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)
Chromium	2.77	ND (<0.0040)	ND (<0.0040)	ND (<0.0040)	ND (<0.0040)	ND (<0.0050)	ND (<0.010)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
Copper	1.3	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.0050)	ND (<0.025)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
Cyanide	1.2	0.075	0.075	0.11	0.11	0.062	ND (<0.010)	0.090	0.084	0.056	0.074	0.069	0.070	0.059	0.086
Lead	1.1	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)	ND (<0.0050)
Mercury	0.2	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)	ND (<0.00020)
Nickel	1.9	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.04)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)
Silver	0.43	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0030)	ND (<0.0060)	ND (<0.010)	ND (<0.0060)	ND (<0.0060)	ND (<0.0060)	ND (<0.0060)	ND (<0.0060)	ND (<0.0060)	ND (<0.0060)	ND (<0.0060)
Zinc	2.6	ND (<0.010)	0.018	0.018	0.018	ND (<0.010)	0.0241	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)
Oil & Grease	100	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
CBOD5	250	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
pH	5.5 - 11.5 su	6.88	6.98	7.06	6.91	6.8	6.8	6.7	6.9	6.8	6.8	6.8	6.7	6.9	7.1

Results in mg/L.

mg/L = Milligrams per Liter
WPCF = Water Pollution Control Facility
NS = Not Sampled
NA = Not Analyzed

Appendix A – Field Inspection Report

Field Inspection Report
Former MGP Site
Kingsley Avenue
Rome, New York

Date: 12/6/2018 Time: 7:45
Technician: PD Weather: Snow 28

Site Controls					
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS	
Kingsley Ave Gate	GOOD	FAIR	DAMAGED	COMMENTS:	
Padlock-NG/GES	OPERATIONAL	NON-OPERATIONAL	COMMENTS:		
Railroad Ave Gate	GOOD	FAIR	DAMAGED	COMMENTS:	
Padlock-NG/GES	OPERATIONAL	NON-OPERATIONAL	COMMENTS:		

Vegetation (Surface Cover System)				
Condition of Grass	GOOD	FAIR	POOR	COMMENTS:
Site Trees	NONE	MINOR	SIGNIFICANT	COMMENTS:
Surface Erosion	NONE	MINOR	SIGNIFICANT	COMMENTS:

Stoned Areas				
Condition of Main Access Road	GOOD	FAIR	POOR	COMMENTS:
Condition of Main Staging Area	GOOD	FAIR	POOR	COMMENTS:
Condition of Rear Turn Around Area	GOOD	FAIR	POOR	COMMENTS:

Drainage Systems					
Rip Rap Area	Culvert	UNOBSTRUCTED	OBSTRUCTED		
	Flow	NONE	LITTLE	SIGNIFICANT	COMMENTS:
	Outlet Channel	OPERATIONAL	NON-OPERATIONAL	COMMENTS:	

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

General Comments:

Appendix B – Quarterly Gauging and Containment Data

Quarterly Well Data
Kingsley Avenue, Former MGP Site
Utica, New York

WELL ID.	*DTW*	*DTP*	*DTB*	*Comments*
MW-OU2-1	8.90	43.00	45.81	Removed 3 gallons of DNAPL
MW-OU2-2	9.05	46.85	47.53	
MW-OU2-3	5.69	NP	34.18	
MW-OU2-4	5.60	34.98	39.55	Removed 4 gallons of DNAPL
MW-OU2-5	6.26	NP	36.01	
DNAPL-02	8.10	NP	50.40	
DNAPL-03	8.70	51.50	52.32	Removed 1 gallons of DNAPL
DNAPL-04	9.65	NP	51.45	
DNAPL-05	11.75	NP	54.75	
DNAPL-06	10.70	NP	51.45	
DNAPL-07	11.70	NP	53.60	
DNAPL-08	12.10	NP	58.01	
DNAPL-09	13.00	NP	57.58	
VTM-1	10.55	NP	46.37	
VTM-2	8.95	NP	49.47	
VTM-3	10.05	NP	50.91	
VTM-4	12.00	NP	50.62	
VTM-5	12.15	NP	52.52	
LTMW-D01	7.54	NP	46.84	
LTMW-S01	7.54	NP	16.92	
LTMW-D02	9.29	NP	40.29	
LTMW-S02	8.95	NP	17.98	
LTMW-D03	5.75	NP	40.73	
LTMW-S03	2.40	NP	13.70	
LTMW-D04	8.64	NP	46.36	
LTMW-S04	7.78	NP	17.26	
LTMW-D05	8.18	NP	46.53	
LTMW-S05	7.30	NP	16.83	
LTMW-D06	11.10	NP	52.22	
LTMW-S06	11.55	NP	17.60	
LTMW-S07	8.55	NP	17.82	
LTMW-S08	13.90	NP	17.39	
LTMW-S09	8.70	NP	16.92	
LTMW-S10	9.20	NP	17.18	

Containment

Well Id.	*Elevation*	*DTW*	*Water Elevation*	*Positive Delta*
DNAPL-02	436.81	8.10	428.71	5.13
Top Steel Sheet Wall	433.84			
DNAPL-03	437.23	8.70	428.53	2.68
Top Steel Sheet Wall	431.21			
DNAPL-04	438.50	9.65	428.85	3.97
Top Steel Sheet Wall	432.82			
DNAPL-05	440.60	11.75	428.85	1.35
Top Steel Sheet Wall	430.20			
DNAPL-06	439.71	10.70	429.01	4.54
Top Steel Sheet Wall	433.55			
VTM-1	439.74	10.55	429.19	2.63
Top Steel Sheet Wall	431.82			
VTM-2	438.33	8.95	429.38	3.32
Top Steel Sheet Wall	432.70			
VTM-3	439.44	10.05	429.39	7.53
Top Steel Sheet Wall	436.92			
VTM-4	441.59	12.00	429.59	3.95
Top Steel Sheet Wall	433.54			
VTM-5	441.79	12.15	429.64	6.36
Top Steel Sheet Wall	436.00			

Appendix C – Well Sampling Field Data

National Grid
Kingsley Ave, Former MGP Site
Rome, New York

Winter Quarterly Event
December 5-6, 2018

Well ID	Sample ?	Well Size	DTW	DTP	DTB	Comments
MW-OU2-1	No	4"	8.90	43.00	45.81	Removed 3 gallons of DNAPL
MW-OU2-2	No	4"	9.05	46.85	47.53	
MW-OU2-3	No	4"	5.69	NP	34.18	
MW-OU2-4	No	4"	5.60	34.98	39.55	Removed 4 gallons of DNAPL
MW-OU2-5	No	4"	6.26	NP	36.01	
DNAPL-02	No	6"	8.10	NP	50.40	
DNAPL-03	No	6"	8.70	51.50	52.32	Removed 1 gallons of DNAPL
DNAPL-04	No	6"	9.65	NP	51.45	
DNAPL-05	No	6"	11.75	NP	54.75	
DNAPL-06	No	6"	10.70	NP	54.45	
DNAPL-07	No	6"	11.70	NP	53.60	
DNAPL-08	No	6"	12.10	NP	58.01	
DNAPL-09	No	6"	13.00	NP	57.58	
VTM-1	No	6"	10.55	NP	46.37	
VTM-2	No	6"	8.95	NP	49.47	
VTM-3	No	6"	10.05	NP	50.91	
VTM-4	No	6"	12.00	NP	50.62	
VTM-5	No	6"	12.15	NP	52.52	
LTMW-D01	Yes	2"	7.54	NP	46.84	
LTMW-S01	Yes	2"	7.54	NP	16.96	
LTMW-D02	Yes	2"	9.29	NP	40.29	
LTMW-S02	Yes	2"	8.95	NP	17.98	
LTMW-D03	Yes	2"	5.75	NP	40.73	
LTMW-S03	Yes	2"	2.40	NP	13.70	
LTMW-D04	Yes	2"	8.64	NP	46.36	
LTMW-S04	Yes	2"	7.78	NP	17.26	
LTMW-D05	Yes	2"	8.18	NP	46.53	
LTMW-S05	Yes	2"	7.30	NP	16.83	
LTMW-D06	Yes	2"	11.10	NP	52.22	
LTMW-S06	Yes	2"	11.55	NP	17.60	
LTMW-S07	Yes	2"	8.55	NP	17.82	
LTMW-S08	Yes	2"	13.90	NP	17.39	
LTMW-S09	Yes	2"	8.70	NP	16.92	DUP
LTMW-S10	Yes	2"	9.20	NP	17.18	MS/MSD

DTW *-depth to water*
DTP *-depth to product*
DTB *-depth to bottom*
All from top of casing

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AS
Job Number: 06-03040-134400-221
Well Id. **LTMW-D01**

Date: 12/5/18
Weather: 18°F, sunny
Time In: 0755 Time Out: 0835

Well Information

		TOC	Other
Depth to Water:	(feet)	7.54	
Depth to Bottom:	(feet)	46.84	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	39.30	
Volume of Water in Well:	(gal)	6.29	
Three Well Volumes:	(gal)	18.8	

Well Type: Flushmount [ ] Stick-Up [X]
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:	250 (ml/min)				
Duration of Pumping:	35 (min)				
Total Volume Removed:	3 (gal)				

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

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

Conversion Factors

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

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

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0800	8.16	10.96	7.55	-109	0.421	6.3	6.16	0.273
0805	10.10	11.77	7.57	-114	0.426	6.3	3.27	0.277
0810	11.24	10.97	7.88	-125	0.435	6.6	0.29	0.283
0815	12.16	10.97	7.82	-132	0.438	5.6	0.00	0.285
0820	13.66	10.93	7.76	-135	0.439	4.0	0.00	0.285
0825	15.16	10.83	7.87	-142	0.446	3.7	0.00	0.286
0830	15.72	10.70	8.05	-152	0.444	3.4	0.00	0.288
0835	16.31	10.49	8.37	-159	0.475	2.8	0.00	0.309

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-D01-1218** Duplicate? Yes [ ] No [X]
Sample Time: 0835 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AJ
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 21°F, sunny
Well Id. **LTMW-S01**
Time In: 0700 Time Out: 0955

Well Information

		TOC	Other
Depth to Water:	(feet)	7.54	
Depth to Bottom:	(feet)	16.92	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.38	
Volume of Water in Well:	(gal)	1.5	
Three Well Volumes:	(gal)	4.5	

Well Type: Flushmount [ ] Stick-Up [X]
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: 250 (ml/min)					
Duration of Pumping: 30 (min)					
Total Volume Removed: 3 (gal)					

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

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

Conversion Factors

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

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

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0905	7.59	9.97	7.45	-116	0.612	15.0	0.48	0.383
0910	7.59	9.68	6.43	-77	0.835	20.8	0.79	0533
0915	7.59	10.23	6.22	-77	0.865	15.8	0.00	0.554
0920	7.59	10.42	6.21	-78	0.865	14.4	0.00	0.554
0925	7.59	10.58	6.23	-80	0.868	9.5	0.00	0.556
0930	7.59	10.67	6.25	-81	0.870	7.4	0.00	0.557
0935	7.59	10.70	6.26	-82	0.874	6.1	0.00	0.557

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-S01-1218** Duplicate? Yes [ ] No [X]
Sample Time: 0935 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AS
Job Number: 06-03040-134400-221
Well Id. **LTMW-D02**

Date: 12/5/18
Weather: 24°F, sunny
Time In: 1000 Time Out: 1055

Well Information

		TOC	Other
Depth to Water:	(feet)	9.29	
Depth to Bottom:	(feet)	40.29	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	31.00	
Volume of Water in Well:	(gal)	4.96	
Three Well Volumes:	(gal)	14.8	

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

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒		
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Average Pumping Rate:	250 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	3 (gal)				

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ 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	10.17	9.20	6.84	55	0.204	47.9	50.00	0.133
1010	11.27	9.48	7.03	98	0.169	34.8	22.97	0.112
1015	11.45	9.73	7.22	146	0.121	17.2	9.95	0.079
1020	11.63	9.80	7.29	159	0.113	12.4	9.58	0.073
1025	11.63	9.68	7.32	164	0.111	10.7	9.45	0.072
1030	11.66	9.64	7.32	164	0.113	10.5	8.34	0.073
1035	11.63	9.59	7.33	159	0.121	10.4	5.03	0.078

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes ☒	No ☐
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes ☒	No ☐
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes ☒	No ☐
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes ☒	No ☐

Sample ID: **LTMW-D02-1218** Duplicate? Yes ☐ No ☒
Sample Time: 1035 MS/MSD? Yes ☐ No ☒

Shipped: Pace Courier Pickup ☒
Drop-off Albany Service Center ☐

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AJ
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 27°F, sunny
Well Id. **LTMW-S02**
Time In: 1100 Time Out: 1205

Well Information

		TOC	Other
Depth to Water:	(feet)	8.95	
Depth to Bottom:	(feet)	17.98	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.03	
Volume of Water in Well:	(gal)	1.44	
Three Well Volumes:	(gal)	4.33	

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

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:	250 (ml/min)				
Duration of Pumping:	40 (min)				
Total Volume Removed:	4 (gal)				

Did well go dry? Yes [ ] No [X]
Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

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

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1105	8.21	9.40	7.00	-35	0.384	83.8	3.48	0.236
1110	9.12	9.30	6.43	-26	0.632	158	0.97	0403
1115	9.13	9.36	6.26	-43	0.443	51.2	0.00	0.412
1120	9.16	9.41	6.24	-49	0.439	38.9	0.00	0.409
1125	9.15	9.53	6.24	-52	0.436	75.9	0.00	0.407
1130	9.15	9.47	6.24	-54	0.434	83.9	0.00	0.406
1135	9.15	9.44	6.24	-54	0.432	33.0	0.00	0.404
1140	9.15	9.61	6.24	-54	0.432	11.3	0.00	0.405
1145	9.15	9.71	6.25	-55	0.433	8.6	0.00	0.405

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-S02-1218** Duplicate? Yes [ ] No [X]
Sample Time: 1145 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AS
Job Number: 06-03040-134400-221
Well Id. **LTMW-D03**

Date: 12/5/18
Weather: 30°F, cloudy
Time In: 1210 Time Out: 1255

Well Information

		TOC	Other
Depth to Water:	(feet)	5.75	
Depth to Bottom:	(feet)	40.73	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	34.98	
Volume of Water in Well:	(gal)	5.59	
Three Well Volumes:	(gal)	16.7	

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

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒		
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Average Pumping Rate:	250 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	3 (gal)				

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ 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)
1210	7.93	9.95	8.55	-231	0.744	16.8	11.44	0.477
1215	8.15	10.10	8.43	-230	0.756	11.1	11.08	0.493
1220	6.51	10.50	7.93	-204	0.842	3.6	10.40	0.536
1225	6.75	10.32	7.54	-161	0.935	2.4	9.81	0.597
1230	6.82	10.31	7.27	-141	0.985	2.2	9.37	0.630
1235	6.98	10.34	7.23	-132	1.01	2.1	9.82	0.647
1240	7.02	10.39	7.25	-126	1.03	2.1	8.37	0.665

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes ☒	No ☐
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes ☒	No ☐
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes ☒	No ☐
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes ☒	No ☐

Sample ID: **LTMW-D03-1218**
Sample Time: 1240

Duplicate? Yes ☐ No ☒
MS/MSD? Yes ☐ No ☒

Shipped: Pace Courier Pickup ☒
Drop-off Albany Service Center ☐

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AS
Job Number: 06-03040-134400-221
Well Id. **LTMW-S03**

Date: 12/5/18
Weather: 31°F. cloudy
Time In: 1300 Time Out: 1400

Well Information

		TOC	Other
Depth to Water:	(feet)	2.40	
Depth to Bottom:	(feet)	13.70	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	11.3	
Volume of Water in Well:	(gal)	1.8	
Three Well Volumes:	(gal)	5.4	

Well Type: Flushmount [ ] Stick-Up [X]
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:	250 (ml/min)				
Duration of Pumping:	35 (min)				
Total Volume Removed:	3.5 (gal)				

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

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

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

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1300	2.42	9.55	7.00	-52	0.781	117	4.81	0.573
1305	2.41	8.82	6.40	-39	0.725	170	2.28	0.464
1310	2.39	9.30	6.35	-40	0.764	54.0	0.00	0.450
1315	2.40	9.38	6.34	-42	0.770	45.6	0.00	0.453
1320	2.41	9.39	6.34	-43	0.771	48.7	0.00	0.454
1325	2.41	9.42	6.33	-41	0.772	44.0	0.00	0.454
1330	2.41	9.46	6.32	-45	0.774	38.8	0.00	0.495
1335	2.41	9.56	6.32	-45	0.776	32.7	0.00	0.497

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-S03-1218**
Sample Time: 1335
Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AJ
Job Number: 06-03040-134400-221
Well Id. **LTMW-D04**

Date: 12/6/18
Weather: 28°F, snow showers
Time In: 0800 Time Out: 0915

Well Information

		TOC	Other
Depth to Water:	(feet)	8.64	
Depth to Bottom:	(feet)	46.36	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	37.72	
Volume of Water in Well:	(gal)	6.03	
Three Well Volumes:	(gal)	18.1	

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

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐	
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒	
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐	

Average Pumping Rate: 250 (ml/min)
Duration of Pumping: 35 (min)
Total Volume Removed: 3 (gal)

Did well go dry? Yes ☐ No ☐

Horiba U-52 Water Quality Meter Used? Yes ☒ 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)
0825	9.37	13.13	7.39	123	0.597	11.7	4.37	0.382
0830	9.75	12.78	7.38	130	0.580	8.4	2.63	0.372
0835	9.43	11.33	7.35	147	0.554	4.2	0.99	0.356
0840	9.55	9.94	7.32	93	0.576	1.7	0.52	0.367
0845	9.61	9.85	7.31	-29	0.628	1.2	0.00	0.402
0850	9.65	9.88	7.30	-36	0.636	1.2	0.00	0.407
0855	9.65	9.79	7.27	-46	0.649	1.2	0.00	0.415
0900	9.67	9.73	7.25	-52	0.656	1.2	0.00	0.420

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes ☒ No ☐
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes ☒ No ☐
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes ☒ No ☐
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes ☒ No ☐

Sample ID: **LTMW-D04-1218** Duplicate? Yes ☐ No ☒
Sample Time: 0900 MS/MSD? Yes ☐ No ☒

Shipped: Pace Courier Pickup ☒
Drop-off Albany Service Center ☐

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: AS
Job Number: 06-03040-134400-221
Well Id. **LTMW-S04**

Date: 12/5/18
Weather: 30°F, cloudy
Time In: 1405 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	7.78	
Depth to Bottom:	(feet)	17.26	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.48	
Volume of Water in Well:	(gal)	1.51	
Three Well Volumes:	(gal)	4.5	

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

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒		
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Average Pumping Rate:	250 (ml/min)				
Duration of Pumping:	35 (min)				
Total Volume Removed:	4 (gal)				

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ 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)
1410	8.03	7.77	6.40	88	0.540	29.9	5.12	0.345
1415	8.12	7.81	6.17	217	0.522	23.0	2.40	0.335
1420	8.14	7.85	5.97	346	0.457	13.5	0.00	0.322
1425	8.15	7.90	5.96	353	0.498	10.4	0.00	0.323
1430	8.15	7.95	5.95	357	0.500	8.9	0.00	0.325
1435	8.15	7.96	5.95	341	0.501	6.7	0.00	0.324
1440	8.15	7.89	5.94	364	0.503	5.3	0.00	0.322
1445	8.15	7.82	5.94	364	0.505	4.7	0.00	0.323

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes ☒	No ☐
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes ☒	No ☐
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes ☒	No ☐
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes ☒	No ☐

Sample ID: **LTMW-S04-1218** Duplicate? Yes ☐ No ☒
Sample Time: 1445 MS/MSD? Yes ☐ No ☒

Shipped: Pace Courier Pickup ☒
Drop-off Albany Service Center ☐

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 19° - clear
Well Id. **LTMW-S05**
Time In: 1356 Time Out: 1445

Well Information

		TOC	Other
Depth to Water:	(feet)	7.30	
Depth to Bottom:	(feet)	16.83	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.53	
Volume of Water in Well:	(gal)	1.52	
Three Well Volumes:	(gal)	4.57	

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

Purging Information

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

Did well go dry? Yes ☐ No ☐

Horiba U-52 Water Quality Meter Used? Yes ☒ 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)
1400	8.30	10.13	6.95	60	0.366	4.7	0.50	0.237
1405	8.30	9.98	6.57	126	0.374	8.0	0.00	0.243
1410	8.30	9.64	6.57	186	0.406	7.0	0.00	0.265
1415	8.30	9.55	6.58	221	0.435	4.4	0.00	0.283
1420	8.30	9.38	6.58	235	0.455	3.0	0.04	0.296
1425	8.30	9.30	6.60	240	0.486	2.4	0.10	0.316
1430		9.25	6.61	242	0.505	2.1	0.15	0.320

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes ☒ No ☐
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes ☒ No ☐
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes ☒ No ☐
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes ☒ No ☐

Sample ID: **LTMW-S05-1218** Duplicate? Yes ☐ No ☒
Sample Time: 1430 MS/MSD? Yes ☐ No ☒

Shipped: Pace Courier Pickup ☒
Drop-off Albany Service Center ☐

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 19° CLEAR
Well Id. **LTMW-D05**
Time In: 1312 Time Out: 1355

Well Information

		TOC	Other
Depth to Water:	(feet)	8.18	
Depth to Bottom:	(feet)	46.53	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	38.35	
Volume of Water in Well:	(gal)	6.1	
Three Well Volumes:	(gal)	18.4	

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

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒		
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos Pump ☐		
Average Pumping Rate:	(ml/min)	~200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2.5 gal			

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ 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)
1315	9.65	10.70	7.94	-109	0.383	2.0	0.63	0.249
1320	11.20	10.95	8.00	-83	0.367	1.9	0.52	0.238
1325	12.25	11.02	8.00	-62	0.365	1.8	0.51	0.237
1330	13.20	11.03	8.00	-41	0.365	1.7	0.46	0.237
1335	14.20	11.05	8.00	-23	0.365	1.6	0.43	0.237
1340	15.05	11.01	8.04	-12	0.367	1.5	0.44	0.239
1345	15.30	11.01	8.03	-9	0.387	1.5	0.40	0.244

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes ☒	No ☐
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes ☒	No ☐
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes ☒	No ☐
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes ☒	No ☐

Sample ID: **LTMW-D05-1218** Duplicate? Yes ☐ No ☒
Sample Time: ~~1335~~ 1345 MS/MSD? Yes ☐ No ☒

Shipped: Pace Courier Pickup ☒
Drop-off Albany Service Center ☐

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: DD
Job Number: 06-03040-134400-221
Well Id. **LTMW-D06**

Date: 12/5/18
Weather: 19° - CLEAR
Time In: 1222 Time Out: 1305

Well Information

		TOC	Other
Depth to Water:	(feet)	11.10	
Depth to Bottom:	(feet)	52.22	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	41.12	
Volume of Water in Well:	(gal)	6.5	
Three Well Volumes:	(gal)	19.7	

Well Type: Flushmount [ ] Stick-Up [X]
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)	2.5g			

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

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

Conversion Factors

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

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

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1225	11.95	10.67	7.39	-95	0.462	1.9	8.98	0.297
1230	12.00	10.70	7.52	-100	0.418	1.6	8.80	0.272
1235	12.15	10.82	7.80	-126	0.411	1.4	8.70	0.267
1240	12.15	10.80	7.82	-129	0.429	1.3	8.51	0.279
1245	12.15	10.74	7.82	-130	0.444	1.3	8.41	0.289
1250	12.15	10.77	7.80	-132	0.450	1.3	8.07	0.300
1255	12.15	10.75	7.80	-132	0.460	1.2	8.00	0.310

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **LTMW-D06-1218**
Sample Time: 1255

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

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

Comments/Notes: NONE

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 20° - Clear
Well Id. **LTMW-S06**
Time In: 1135 Time Out: 1220

Well Information

		TOC	Other
Depth to Water:	(feet)	11.55	
Depth to Bottom:	(feet)	17.60	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	6.05	
Volume of Water in Well:	(gal)	0.968	
Three Well Volumes:	(gal)	2.90g	

Well Type: Flushmount [ ] Stick-Up [X]
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)	~180-200			
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)
1140	11.60	10.35	6.56	-14	1.10	36.1	3.44	0.713
1145	11.60	10.55	6.48	-16	1.33	30	1.15	1.00
1150	11.60	11.56	6.44	-18	1.73	22	0.00	1.11
1155	11.60	11.60	6.44	-20	1.74	15	0.00	1.12
1200	11.60	11.66	6.44	-21	1.75	7.6	0.00	1.12
1205	11.60	11.65	6.44	-21	1.73	5.0	0.00	1.11
1210	11.60	11.60	6.44	-21	1.70	3.5	0.00	1.09

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-S06-1218** Duplicate? Yes [ ] No [X]
Sample Time: 1210 MS/MSD? Yes [ ] No [X]

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

Comments/Notes: NONE

Laboratory: Pace Analytical Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 19° - clear
Well Id. **LTMW-S07**
Time In: 0845 Time Out: 0930

Well Information

		TOC	Other
Depth to Water:	(feet)	8.55	
Depth to Bottom:	(feet)	17.82	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.27	
Volume of Water in Well:	(gal)	1.48	
Three Well Volumes:	(gal)	4.44	

Well Type: Flushmount [ ] Stick-Up [X]
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)
0850	9.60	9.98	6.66	-48	0.792	17.0	2.98	0.502
0855	10.10	10.08	6.70	-20	0.752	17.0	2.00	0.499
0900	10.50	10.34	6.77	1	0.739	17.8	1.12	0.473
0905	10.70	10.49	6.78	7	0.742	18.5	0.63	0.475
0910	10.80	10.51	6.79	10	0.735	18.7	0.33	0.470
0915	10.85	10.60	6.80	12	0.733	18.4	0.21	0.469
0920	10.90	10.58	6.80	14	0.730	18.0	0.19	0.470

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-S07-1218** Duplicate? Yes [ ] No [X]
Sample Time: 0920 MS/MSD? Yes [ ] No [X]

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

Comments/Notes: NONE

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 19° - clear
Well Id. **LTMW-S08**
Time In: 0932 Time Out: 1020

Well Information

		TOC	Other
Depth to Water:	(feet)	13.90	
Depth to Bottom:	(feet)	17.39	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	3.49	
Volume of Water in Well:	(gal)	0.55	
Three Well Volumes:	(gal)	1.67	

Well Type: Flushmount [ ] Stick-Up [X]
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)	180-200			
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 40	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
~~0935~~	13.95	9.90	6.70	82	0.337	21.2	4.74	0.218
0945	13.92	10.00	6.60	150	0.337	15.8	4.00	0.219
0950	13.90	10.05	6.57	199	0.337	12.8	3.92	0.219
0955	13.92	10.28	6.49	244	0.344	9.9	3.54	0.224
1000	13.92	10.34	6.48	254	0.342	4.4	3.25	0.222
1005	13.92	10.35	6.47	260	0.344	3.2	3.17	0.224
1010	13.92	10.33	6.46	265	0.344	3.0	3.13	0.224

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **LTMW-S08-1218** Duplicate? Yes [ ] No [X]
Sample Time: 1010 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Date: 12/5/18
Job Number: 06-03040-134400-221
Weather: 20°- CLEAR
Well Id. **LTMW-S09**
Time In: 1025 Time Out: 1115

Well Information

		TOC	Other
Depth to Water:	(feet)	8.70	
Depth to Bottom:	(feet)	16.92	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	8.22	
Volume of Water in Well:	(gal)	1.31	
Three Well Volumes:	(gal)	3.94	

Well Type: Flushmount [ ] Stick-Up [X]
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)
1028	8.75	8.90	6.73	233	0.457	5.8	3.37	0.306
1033	8.75	8.85	6.85	218	0.589	3.4	3.44	0.375
1038	8.75	8.92	6.86	208	0.648	2.2	3.51	0.415
1043	8.75	9.00	6.87	200	0.681	2.2	3.51	0.432
1048	8.75	9.02	6.87	199	0.705	2.2	3.51	0.452
1053	8.75	9.08	6.87	196	0.725	1.6	3.21	0.458
1058	8.75	9.00	6.88	195	0.730	1.5	3.25	0.460

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X] No [ ]
EPA Method 335.4	Cyanide	1 - 250 ml plastic	Yes [X] No [ ]
EPA Method 200.7	Metals	1 - 250 ml plastic	Yes [X] No [ ]

Field Duplicate 1218

Sample ID: **LTMW-S09-1218** Duplicate? Yes [X] No [ ]
Sample Time: 1058 MS/MSD? Yes [ ] No [X]

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

Comments/Notes: NONE

Laboratory: Pace Analytical
Greensburg, PA

National Grid
Kingsley Avenue, Rome, New York

Sampling Personnel: PD
Job Number: 06-03040-134400-221
Well Id. **LTMW-S10**

Date: 12/5/18
Weather: 19° - clear
Time In: 0730 Time Out: 0835

Well Information

		TOC	Other
Depth to Water:	(feet)	9.20	
Depth to Bottom:	(feet)	17.18	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	7.98	
Volume of Water in Well:	(gal)	1.27	
Three Well Volumes:	(gal)	3.8	

Well Type: Flushmount [ ] Stick-Up [X]
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)
0745	9.40	11.76	6.25	-34	1.09	63.0	4.58	0.696
0750	9.40	11.95	6.21	-36	1.10	68	3.70	0.702
0755	09.50	11.96	6.22	-44	1.11	42.2	1.54	0.708
0800	9.50	11.95	6.23	-43	1.11	33.6	1.39	0.708
0805	9.50	11.96	6.24	-44	1.10	25.0	1.20	0.707
0810	9.50	11.98	6.25	-45	1.10	21.0	1.20	0.706
0815	9.50	11.97	6.25	-45	1.10	20.5	1.20	0.707

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA Method 335.4 Cyanide
EPA Method 200.7 Metals

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

LTMW-S10-MS-1218 **LTMW-S10-MSD-1218**

Sample ID: **LTMW-S10-1218** Duplicate? Yes [ ] No [X]
Sample Time: 0815 MS/MSD? Yes [X] No [ ]

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

Comments/Notes: NONE

Laboratory: Pace Analytical Greensburg, PA

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

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

Section B
Required Project Information:

Report To: Devin Shay (GES) dshay@gesonline.com
Report To: Tim Beaumont (GES) tbeaumont@gesonline.com
Purchase Order No.:
Project Name: National Grid - Rome Kingsley Ave. Site, Rome, NY
Project Number: 0603040-134400-221-1106

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 #: **GWS**

REGULATORY AGENCY

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

SITE LOCATION ☐ GA ☐ IL ☐ N ☐ I ☐ C ☐ OH ☐ SC ☐ MI ☐ THER___

Section D **Required** Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED GRAB DATE	COLLECTED GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (335.4)	Metals, Total (As, Pb, Zn) (200.7)	Pace Project Number / Lab I.D.
1	LTMW-D01-1218	WT	G			12/5	0835		7	2		1	3	1				3	2	1	1	
2	LTMW-S01-1218	WT	G			12/5	935		7	2		1	3	1				3	2	1	1	
3	LTMW-D02-1218	WT	G			12/5	1035		7	2		1	3	1				3	2	1	1	
4	LTMW-S02-1218	WT	G			12/5	1145		7	2		1	3	1				3	2	1	1	
5	LTMW-D03-1218	WT	G			12/5	1240		7	2		1	3	1				3	2	1	1	
6	LTMW-S03-1218	WT	G			12/5	1935		7	2		1	3	1				3	2	1	1	
7	LTMW-D04-1218	WT	G			12/6	0900		7	2		1	3	1				3	2	1	1	
8	LTMW-S04-1218	WT	G			12/6	1445		7	2		1	3	1				3	2	1	1	
9	LTMW-D05-1218	WT	G			12/5	1345		7	2		1	3	1				3	2	1	1	
10	LTMW-S05-1218	WT	G			12/5	1430		7	2		1	3	1				3	2	1	1	
11	LTMW-D06-1218	WT	G			12/5	1255		7	2		1	3	1				3	2	1	1	
12	LTMW-S06-1218	WT	G			12/5	1210		7	2		1	3	1				3	2	1	1	

Additional Comments:

SAMPLES WILL ARRIVE IN # 5 COOLERS.

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

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGRome-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
GES	12/6				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Pat Dugler

SIGNATURE of SAMPLER: Pat

DATE Signed (MM / DD / YY): 12/6/18

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

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 - Rome Kingsley Ave. Site, Rome, NY	
Project Number: 0603040-134400-221-1106	

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 #: GWS	

REGULATORY AGENCY

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

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

Section D Required Client Information

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

Valid Matrix Codes

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G+GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED GRAB DATE	COLLECTED GRAB TIME	SAMPLE TEMP AT COLLECTION	#OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (335.4)	Metals, Total (As, Pb, Zn) (200.7)	Pace Project Number / Lab I.D.
1	LTMW-S07-1218	WT	G			12/5	0920		7	2		1	3	1					3	2	1	1	
2	LTMW-S08-1218	WT	G			12/5	1010		7	2		1	3	1					3	2	1	1	
3	LTMW-S09-1218	WT	G			12/5	1058		7	2		1	3	1					3	2	1	1	
4	LTMW-S10-1218	WT	G			12/5	0815		7	2		1	3	1					3	2	1	1	
5	LTMW-S10-MS-1218	WT	G			12/5	0815		7	2		1	3	1					3	2	1	1	
6	LTMW-S10-MSD-1218	WT	G			12/5	0815		7	2		1	3	1					3	2	1	1	
7	Field Duplicate-1218	WT	G			12/5	—		7	2		1	3	1					3	2	1	1	
8	Trip Blank	WT	Lab						2				2						2				
9	---END OF RECORD---																						
10																							

Additional Comments:

SAMPLES WILL ARRIVE IN # 5 COOLERS.

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

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGRome-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	12/6				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Pat Dwyer

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 12/6/18

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

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CHAIN-OF-CUSTODY / Analytical Request Document

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Required Client Information:

Company: GES - Syracuse
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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 - Rome Kingsley Ave. Site, Rome, NY
Project Number: 0603040-134400-221-1106

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 #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

SITE LOCATION: ☐ GA ☐ IL ☐ IN ☐ MI ☐ NC ☐ 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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis: BTEX (8260C) and Total Toxic Organics	SVOCs (PAHs) (8270D)	Cyanide, Total (335.4)	Metals: Total (As, Cd, Cr, Cu, Pb, Ni, Ag, Zn, Hg) (200.7)	pH (SM4500 H+)	Pace Project Number / Lab I.D.
1	Effluent System 1218	WT	G			12/6	0900		10	5		1	3	1					3	4	1	1	1	
3	Trip Blank	WT	G						3				3						3					
4	---END OF RECORD---																							
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

Additional Comments:

SAMPLES WILL ARRIVE IN # 1 COOLERS.

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

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGRome-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	12/6				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Pat Morgan

SIGNATURE of SAMPLER: _____ DATE Signed (MM / DD / YY): 12/6/18

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

Appendix D – Data Usability Summary Report and Analytical Data

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

January 29, 2019

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

RE: Data Usability Summary Report for National Grid- Rome Kingsley Avenue Site Data Packages Pace Analytical Job Nos. 30265203, 30265204

Groundwater & Environmental Services, Inc. (GES) reviewed two data packages (Laboratory Project Number 30265203, 30265204) from Pace Analytical Services, Inc., for the analysis of an effluent sample and trip blank collected September 13, 2018 as well as groundwater samples collected on September 13, 2018 from monitoring wells located at the National Grid: Rome Kingsley Avenue Site. Sixteen aqueous samples and a field duplicate are analyzed for BTEX, PAHs, arsenic, lead, zinc, and total cyanide. The effluent system sample was processed for TCL volatiles, nine metals, mercury and total cyanide. Methodologies utilized are those of the USEPA 200.7, 245 and 335.4, the USEPA SW846 methods 7470/8260B/8270C with additional QC requirements of the NYSDEC ASP.

The data are reported as part of a complete full deliverable type B data validation. This usability report is generated from review of the following:

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

The items listed above which show deficiencies are discussed within the text of this narrative.

All of the other items are determined to be acceptable for the DUSR level review.

Table 1 – Data Qualifications

Sample ID	Qualifier	Analyte	Reason for qualification
Effluent	UJ	2-Butanone 2-Hexanone 4-Methyl-2-pentanone Bromoform Bromomethane Chloromethane	Continuing calibration verification standard recovered low AND LCS recovered low 2-Butanone and Bromoform
	J	pH	Analyzed after holding time
LTMW-001	UJ-	Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene Pyrene	Internal standard recovered out of specification
LTMW-D01 LTMW-D03 LTMW-D04 LTMW-S07 LTMW-S08 LTMW-S05	Detects: J- Non-Detects: UJ-	Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene	Surrogate and Internals low recovery
LTMW-S10	J+	Acenaphthene	MS/MSD high recovery
GW Samples	Detects: J- Non-Detects: UJ-	2-Butanone Bromoform	Low recovery in the LCS
	Detects: J+	Benzene	High recovery in the LCS

In summary, sample results are usable as reported, with non-compliances in the matrix spike including acenaphthene recovery and the continuing calibration low out-of-specification for some effluent volatiles that have not historically been detected. The result for pH in all samples was qualified by the laboratory as estimated due to the short hold time of 15 minutes. Qualifications are detailed in Table 1.

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 effluent samples and instrumental tune fragmentations are within acceptance ranges. Surrogate and internal standard recoveries are within required limits, with the exception of dichloroethane-d4 recovering low across all samples except the effuent, and dibromodifluoromethane recovering low in the MS/MSD. Analytes reported are not associated with these surrogates, and the low recovery does not affect the data. MS/MSD recoveries of analytes of concern were within specified criteria, and there was no apparent low bias. Calibrations standards show acceptable responses within analytical protocol and validation action limits with the following, low-recovery, exceptions. These analytes were reported only for the effluent sample:

- 2-Butanone
- 2-Hexanone
- 4-Methyl-2-pentanone
- Bromoform
- Bromomethane
- Chloromethane

Low recovery indicates a possible low bias, and the non-detect data reported for these analytes are qualified as estimated non-detects with a possible low bias.

The laboratory control spike recoveries and precision indicate the method is within laboratory control, with the exception of low recoveries for 2-butanone and bromoform, likely due to the preceding calibration issue. The affected data is already qualified.

Matrix spike and matrix spike recoveries were within laboratory specified criteria, with the exception that the acenaphthene was recovered high above criteria. This indicates a possible high bias in the reported concentration of acenapthene for LTMW-S10, with results qualified as estimated. The duplicate correlations of LTMW-S09 fall within guidance limits.

PAHs by EPA8270D/NYSDEC ASP

Holding times are met. Instrumental tune fragmentations are within acceptance ranges. Surrogate recoveries are within analytical and validation guidelines, with the exception that there was a systemic low recovery for terphenyl-d-14. As this low recovery occurred in all samples, along with a low internal recovery, PAH associated analyte recoveries must be considered qualified with a possible low bias. 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. Matrix spike and matrix spike recoveries were within laboratory specified criteria, with the exception that the recovery for acenaphthene was high, out-of-specification. This resulted in uncertainty in the detect reported for LTMW-S10, with acenaphthene results qualified as estimated detect, with a possible high bias. The blind field duplicate correlations of LTMW-S09 fall within guidance limits.

Arsenic, Lead, and Zinc, and Nine Metals by EPA 200.7/EPA 245.3/NYSDEC ASP

The matrix spikes show acceptable accuracy and precision. The blind field duplicate correlations of LTMW-S09 fall within guidance limits. Instrument performance is compliant, and blanks show no contamination above the reporting limit. The recovery on the post digestion spike of mercury was high out of specification, but the associated sample did not report a detection, and no qualification is required.

Wet Chemistry-Total Cyanide by 9012B and pH

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to each procedure. All are acceptable for the validated samples. Calibration standard responses are compliant. Blanks show no detections above the reporting limits.

The pH for the Effluent sample is qualified as estimated due to outlying holding time, as noted in the laboratory case narrative.

All matrix spikes and/or laboratory duplicates of total cyanide show acceptable recoveries and/or correlations.

Data Package Completeness

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

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

Sincerely,

Bonnie Janowiak, Ph.D.
Senior Chemist

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

SAMPLE SUMMARY

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30273676001	**LTMW-D01-1218**	Water	12/05/18 08:35	12/07/18 10:40
30273676002	**LTMW-S01-1218**	Water	12/05/18 09:35	12/07/18 10:40
30273676003	**LTMW-D02-1218**	Water	12/05/18 10:35	12/07/18 10:40
30273676004	**LTMW-S02-1218**	Water	12/05/18 11:45	12/07/18 10:40
30273676005	**LTMW-D03-1218**	Water	12/05/18 12:40	12/07/18 10:40
30273676006	**LTMW-S03-1218**	Water	12/05/18 13:35	12/07/18 10:40
30273676007	**LTMW-D04-1218**	Water	12/06/18 09:00	12/07/18 10:40
30273676008	**LTMW-S04-1218**	Water	12/06/18 14:45	12/07/18 10:40
30273676009	**LTMW-D05-1218**	Water	12/05/18 13:45	12/07/18 10:40
30273676010	**LTMW-S05-1218**	Water	12/05/18 14:30	12/07/18 10:40
30273676011	**LTMW-D06-1218**	Water	12/05/18 12:55	12/07/18 10:40
30273676012	**LTMW-S06-1218**	Water	12/05/18 12:10	12/07/18 10:40
30273676013	**LTMW-S07-1218**	Water	12/05/18 09:20	12/07/18 10:40
30273676014	**LTMW-S08-1218**	Water	12/05/18 10:10	12/07/18 10:40
30273676015	**LTMW-S09-1218**	Water	12/05/18 10:58	12/07/18 10:40
30273676016	**LTMW-S10-1218**	Water	12/05/18 08:15	12/07/18 10:40
30273676017	**LTMW-S10-MS-1218**	Water	12/05/18 08:15	12/07/18 10:40
30273676018	**LTMW-S10-MSD-1218**	Water	12/05/18 08:15	12/07/18 10:40
30273676019	**Field Duplicate-1218**	Water	12/05/18 00:01	12/07/18 10:40
30273676020	**Trip Blank**	Water	12/05/18 00:01	12/07/18 10:40

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **200.7 Rev4.4, 1994**
Description: 200.7 Metals, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

General Information:
19 samples were analyzed for 200.7 Rev4.4, 1994. 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 200.7 Rev4.4, 1994 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.

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

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

ip: Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.
- LTMW-D03-1218 (Lab ID: 30273676005)

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.

QC Batch: 323523

IS: The internal standard response is below criteria. Results may be biased high.
- LTMW-D01-1218 (Lab ID: 30273676001)
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene

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

QC Batch: 323523

S8: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-extraction and/or re-analysis)
- LTMW-D01-1218 (Lab ID: 30273676001)
  - Terphenyl-d14 (S)
- LTMW-D03-1218 (Lab ID: 30273676005)
  - Terphenyl-d14 (S)
- LTMW-D04-1218 (Lab ID: 30273676007)
  - Terphenyl-d14 (S)

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

QC Batch: 323523

S8: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-extraction and/or re-analysis)

- LTMW-S07-1218 (Lab ID: 30273676013)
  - Terphenyl-d14 (S)
- LTMW-S08-1218 (Lab ID: 30273676014)
  - Terphenyl-d14 (S)

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

- LTMW-D01-1218 (Lab ID: 30273676001)
  - Terphenyl-d14 (S)
- LTMW-D03-1218 (Lab ID: 30273676005)
  - Terphenyl-d14 (S)
- LTMW-D04-1218 (Lab ID: 30273676007)
  - Terphenyl-d14 (S)
- LTMW-S05-1218 (Lab ID: 30273676010)
  - Terphenyl-d14 (S)
- LTMW-S07-1218 (Lab ID: 30273676013)
  - Terphenyl-d14 (S)
- LTMW-S08-1218 (Lab ID: 30273676014)
  - 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.

QC Batch: 323523

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30273676016

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

- MS (Lab ID: 1577105)
  - Acenaphthene
- MSD (Lab ID: 1577106)
  - Acenaphthene

Additional Comments:

Analyte Comments:

QC Batch: 323523

1c: De-Chlorinated

- LTMW-S04-1218 (Lab ID: 30273676008)
  - 2-Methylnaphthalene

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

Analyte Comments:

QC Batch: 323523

1c: De-Chlorinated

- LTMW-S04-1218 (Lab ID: 30273676008)
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene
- LTMW-S05-1218 (Lab ID: 30273676010)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene
- LTMW-S08-1218 (Lab ID: 30273676014)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

Analyte Comments:

QC Batch: 323523

1c: De-Chlorinated

- LTMW-S08-1218 (Lab ID: 30273676014)
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene

2c: This sample was re-extracted past the method required holding time. Surrogate recovery in the re-extract was acceptable and the re-extract results were comparable to the original results. The original, in hold, results are reported.

- LTMW-S05-1218 (Lab ID: 30273676010)
  - Terphenyl-d14 (S)

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

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

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

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

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

QC Batch: 323541

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

- BLANK (Lab ID: 1577158)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- LCS (Lab ID: 1577159)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- MS (Lab ID: 1577514)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- MSD (Lab ID: 1577515)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- Trip Blank (Lab ID: 30273676020)
  - 2-Butanone (MEK)

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

QC Batch: 323541

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

- 2-Hexanone
- 4-Methyl-2-pentanone (MIBK)
- Bromoform
- Bromomethane
- Chloromethane

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: 323773

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- LTMW-S10-MS-1218 (Lab ID: 30273676017)
  - 1,2-Dichloroethane-d4 (S)
  - Dibromofluoromethane (S)
- LTMW-S10-MSD-1218 (Lab ID: 30273676018)
  - Dibromofluoromethane (S)
- MS (Lab ID: 1578067)
  - 1,2-Dichloroethane-d4 (S)
  - Dibromofluoromethane (S)
- MSD (Lab ID: 1578068)
  - Dibromofluoromethane (S)

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

- LTMW-S10-MS-1218 (Lab ID: 30273676017)
  - 1,2-Dichloroethane-d4 (S)
  - Dibromofluoromethane (S)
- LTMW-S10-MSD-1218 (Lab ID: 30273676018)
  - Dibromofluoromethane (S)
- MS (Lab ID: 1578067)
  - 1,2-Dichloroethane-d4 (S)
  - Dibromofluoromethane (S)
- MSD (Lab ID: 1578068)
  - Dibromofluoromethane (S)

QC Batch: 323881

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- LTMW-S05-1218 (Lab ID: 30273676010)
  - Dibromofluoromethane (S)
- LTMW-S06-1218 (Lab ID: 30273676012)
  - Dibromofluoromethane (S)

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

QC Batch: 323881

S2: Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

- LTMW-S07-1218 (Lab ID: 30273676013)
  - Toluene-d8 (S)

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

- LTMW-S05-1218 (Lab ID: 30273676010)
  - Dibromofluoromethane (S)
- LTMW-S06-1218 (Lab ID: 30273676012)
  - Dibromofluoromethane (S)
- LTMW-S07-1218 (Lab ID: 30273676013)
  - Toluene-d8 (S)

ST: Surrogate recovery was above laboratory control limits. Results may be biased high.

- LCS (Lab ID: 1578638)
  - Dibromofluoromethane (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.

QC Batch: 323541

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 1577159)
  - 2-Butanone (MEK)
  - Bromoform

QC Batch: 323881

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: 1578638)
  - Benzene

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

QC Batch: 323881

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273676

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 27, 2018

General Information:
19 samples were analyzed for EPA 335.4. 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 335.4 with any exceptions noted below.

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

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

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

Additional Comments:

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

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SAMPLE SUMMARY

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30273688001	**Effluent System 1218**	Water	12/06/18 09:00	12/07/18 10:40
30273688002	**Trip Blank**	Water	12/06/18 00:01	12/07/18 10:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30273688001	**Effluent System 1218**	200.7 Rev4.4, 1994	CTS	8	PASI-PA
		245.1 Rev. 3.0, 1994	KAS	1	PASI-PA
		EPA 8270D by SIM	AJC	18	PASI-PA
		EPA 8260C	JAS	41	PASI-PA
		SM4500H+B-2011	ZMH	1	PASI-PA
		EPA 335.4	LEP	1	PASI-PA
30273688002	**Trip Blank**	EPA 8260C	JAS	41	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **200.7 Rev4.4, 1994**
Description: 200.7 Metals, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

General Information:
1 sample was analyzed for 200.7 Rev4.4, 1994. 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 200.7 Rev4.4, 1994 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.

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **245.1 Rev. 3.0, 1994**
Description: 245.1 Mercury
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

General Information:
1 sample was analyzed for 245.1 Rev. 3.0, 1994. 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 245.1 Rev. 3.0, 1994 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.

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 323639

1c: The PDS recovery was outside of the laboratory control limits. Result may be biased high
- Effluent System 1218 (Lab ID: 30273688001)
  - Mercury

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

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

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

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

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

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

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

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

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

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

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

QC Batch: 323523

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30273676016

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

- MS (Lab ID: 1577105)
  - Acenaphthene
- MSD (Lab ID: 1577106)
  - Acenaphthene

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

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

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

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

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

QC Batch: 323541

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

- BLANK (Lab ID: 1577158)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- Effluent System 1218 (Lab ID: 30273688001)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- LCS (Lab ID: 1577159)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- MS (Lab ID: 1577514)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane
- MSD (Lab ID: 1577515)
  - 2-Butanone (MEK)

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

QC Batch: 323541

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

- 2-Hexanone
- 4-Methyl-2-pentanone (MIBK)
- Bromoform
- Bromomethane
- Chloromethane

- Trip Blank (Lab ID: 30273688002)
  - 2-Butanone (MEK)
  - 2-Hexanone
  - 4-Methyl-2-pentanone (MIBK)
  - Bromoform
  - Bromomethane
  - Chloromethane

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: 323541

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 1577159)
  - 2-Butanone (MEK)
  - Bromoform

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

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **SM4500H+B-2011**
Description: 4500H+ pH, Electrometric
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

General Information:
1 sample was analyzed for SM4500H+B-2011. 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.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- Effluent System 1218 (Lab ID: 30273688001)

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- Effluent System 1218 (Lab ID: 30273688001)

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Rome Kingsley
Pace Project No.: 30273688

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: December 20, 2018

General Information:
1 sample was analyzed for EPA 335.4. 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 335.4 with any exceptions noted below.

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

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

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

Additional Comments:

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