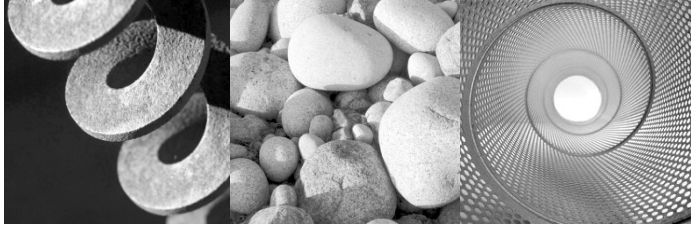

GEI Consultants

Consulting
Engineers and
Scientists

2017 Annual Report
Site Management Plan

Nyack Former Manufactured Gas Plant Site
Village of Nyack, Rockland County, New York

NYSDEC Site Number: 344046
Index # D3-001-98-08

Prepared For:
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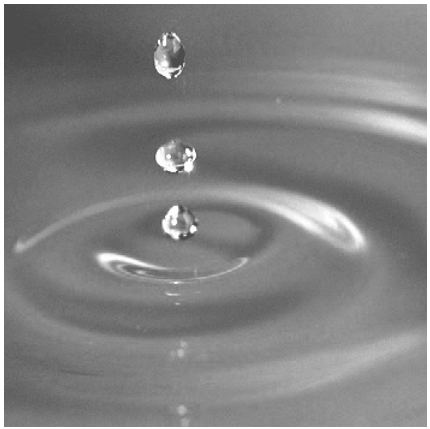
March 23, 2018
Project 1701486



James Edwards, P.G.
Project Manager

Daniel Kopcow, P.E., PMP
Senior Engineer

Engineer's Certification

I, Daniel Kopcow, P.E., certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375, and that this Annual Report was prepared in accordance with the Site Management Plan (SMP) for the Nyack Former Manufactured Gas Plant (MGP) site, and all applicable statutes and regulations, and in substantial conformance with the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

March 23, 2018
Date

Engineer's Seal
GEI Consultants, Inc., P.C.

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

Table of Contents

Tables

Figures

Appendices

JE:mlr

M:\Tech\Project\Orange and Rockland\Nyack MGP\1701486 Nyack SMP Tasks\Report\Text\Nyack 2017 SMP Annual Report 3.23.18.docx

1. Introduction

This Site Management Plan (SMP) Annual Report for monitoring and inspection is required as an element of the post-remedial program at the Nyack Former Manufactured Gas Plant (MGP) site under the New York State Inactive Hazardous Waste Disposal Site Remedial Program administered by the New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Order on Consent Index # D3-0001-98-08, Site #344046, which was executed on March 11, 1999.

1.1 General

Orange and Rockland Utilities, Inc. (O&R) entered into the above-referenced Order on Consent with the NYSDEC to remediate the former Nyack MGP site located along Gedney Street in the Village of Nyack, Rockland County, New York. The Order on Consent required the Remedial Party (O&R) to investigate and remediate impacted media at the site.

The remediation of the site has been performed, and the NYSDEC has approved the Final Engineering Report (FER) [GEI, 2016a]. Also approved by the NYSDEC was the SMP prepared by GEI in April 2016 [GEI, 2016b].

The SMP identifies the required post-remedial tasks, including: non-aqueous phase liquid (NAPL) gauging (and removal if identified), monitoring well decommissioning and new well installation, annual groundwater sampling, and an annual inspection of post-remedial engineering controls.

The ownership of the site has changed to TZ Vista LLC ("TZ Visa"). TZ Vista is redeveloping the MGP site, together with the Hudson Vista parcel immediately to the south of the site. From discussions with the new Site Owner, it is GEI's understanding that TZ Vista's construction of the new residential and commercial facility will likely take place over a two-year period. Phase 1 construction includes construction activities predominately on the Hudson Vista parcel and is scheduled for 2018. Phase 2 construction is planned for the MGP site, following completion of the Phase 1 activities. It is GEI's understanding that the Site Owner is corresponding directly with the NYSDEC Division of Environmental Remediation (DER) regarding some of the elements identified in the MGP site SMP which are not the responsibility of the Remedial Party (O&R). Several of these elements are further discussed below.

1.2 Site Location and Description

The location of the site is shown on Figure 1. The current site plan is shown on Figure 2. The site was divided into two operable units (OUs) by the NYSDEC, for implementation of the remedy [NYSDEC, 2011]. The operable units include:

- **OU1** - The portion of the site above the 100-year flood line, including the Hudson Vista Associates Parcel lower parking lot.
- **OU2** - Land below the 100-year flood line, and above the mean high water mark of the Hudson River, and the Hudson River sediment which was impacted by MGP site-related residuals.

The remedial areas of the site located within the operable units are shown on Figure 3.

Eastern Parcel

The street address of the area of the former MGP operations is 55 Gedney Street, Nyack, New York (the "Eastern Parcel"). The Tax ID for the Eastern Parcel is 66.39-01-01.

The Eastern Parcel occupies an approximately 4-acre area in total, which includes about 2.17 acres of land, and 1.8 acres of submerged land in the Hudson River. It is bounded by the Nyack Boat Club to the north, the Hudson Vista Parcel to the south, the Hudson River to the east, and Gedney Street to the west.

The Eastern Parcel consists of an upper area along Gedney Street (the "Upper Terrace") separated by a steep slope from a lower area along the Hudson River (the "Lower Terrace").

Impacted soil and former MGP subsurface foundations in the Upper Terrace were addressed by excavation and off-site disposal. MGP-related constituents of concern (COC) remain in groundwater in the bedrock unit that is present approximately 20 feet below the ground surface of the Upper Terrace Area. A soil cover system was installed during implementation of the remedy in the Upper Terrace.

Impacted soil in the Lower Terrace and the Shoreline Area along the Hudson River were addressed by in-situ solidification (ISS). MGP-related COC remain in these areas; however, the ISS process has created a low permeability mass which has encapsulated the COC, which eliminates the potential for further NAPL mobility and continued contaminant migration to groundwater or the river. A soil cover system was installed during implementation of the remedy in the Lower Terrace. Riprap was installed to protect the shoreline from erosion for the Shoreline Area.

The Eastern Parcel is fenced to prevent trespassing. The Eastern Parcel, including the shoreline and off-shore portion of the Eastern Parcel, is subject to control under this SMP, as shown on Figure 3. It is GEI's understanding that the Eastern Parcel will be redeveloped as a residential / commercial facility by the Site Owner.

Western Parcel

A single gas holder was formerly located on the parking lot parcel to the west of the Eastern Parcel (across Gedney Street). The Western Parcel has a Tax ID of 66.38-02-14, and a street address of 26 Lydecker Street, Nyack, New York.

The absence of MGP-related impact at the Western Parcel was demonstrated during the Remedial Investigation (RI), and remedial activities were not required for this parcel. SMP activities are not required at the Western Parcel, other than the well decommissioning task for MW1D described in this report.

Hudson Vista

Impacted soil in the lower parking lot area of the Hudson Vista Parcel located immediately south of the Lower Terrace of the Eastern Parcel has been remediated through ISS of soils as a part of the OU1 remedial action. MGP-related COC remain in the subsurface of this area; however, the ISS process has encapsulated the COC within a low permeability mass. The ISS process eliminates the treated area as a source for future groundwater impact. The cover system in the Hudson Vista remedial area consists of the parking lot pavement, which was restored following the remedial action. The Hudson Vista Parcel's lower parking lot area is considered an off-site area, but is subject to the requirements of the SMP because MGP-related COC remain within the solidified soils in subsurface in parking lot area.

2. 2017 SMP Field Activities and Results

As specified in the SMP, the annual field activities required for the site include:

- The assessment of the presence or absence of light phase non-aqueous phase liquid (LNAPL), and dense phase non-aqueous phase liquid (DNAPL) at identified site well locations.
- The monitoring of the extent of groundwater impact.
- The collection of data to assess changes in the concentration of COC in groundwater.

The field activities performed in 2017 also included the decommissioning of one well on the Western Parcel, and the installation of two new wells on the Upper Terrace of the Eastern parcel. A survey of the new wells was also performed.

2.1 2017 Site Management Plan Implementation Work Plan

To present the proposed scope of work for the 2017 SMP field activities to the NYSDEC, GEI (on behalf of O&R) prepared the work plan document entitled "*2017 Site Management Plan Implementation Work Plan, Nyack Former MGP Site, NYSDEC Site # 3-44-046,*" dated May 16, 2017 [GEI, 2017]. The NYSDEC indicated approval of the work plan in email correspondence to O&R dated July 13, 2017.

2.2 Reconnaissance and Well Observed Conditions

Details for the wells at the site are summarized on Table 1, and the well locations are shown on Figure 4. A reconnaissance was performed at the site in September 2017 to confirm the location and condition of each of the monitoring wells identified in the SMP. The conditions observed at each well, and also the activities performed at each location in 2017 are summarized as follows:

- **MW1D** – The well was located in the Western Parcel. The well was abandoned as required in the SMP.
- **MW33D** – The well was located in September 2017. A depth to water measurement was obtained, and a groundwater sample collected. The Site Owner has performed excavation work in the area immediately to the south of (within 10 feet of) MW3D, as part of the Hudson Vista Phase 1 redevelopment (subsurface parking garage) construction.
- **MW41** – An attempt was made to locate the well; however, the flush-mount surface cover for the well could not be found. It appears the well surface cover was removed by soil placement and grading activities performed in the area. Based on the survey

performed in December 2017, the current ground surface is approximately 2 feet lower now than it was at the time of the well installation. Because the well could not be located, NAPL gauging and groundwater sampling was not performed at this location.

- **MW43 –** The well was located and sampled in September 2017. The ground surface around the well has been raised by the addition of soil in the Lower Terrace. Also, the PVC well riser was extended higher to accommodate the added soil thickness. The ground surface of the well, and the new PVC riser elevation was surveyed in December 2017. The new elevation data is provided in Table 1.
- **MW44 –** The well was located and gauged in September 2017. A measurable thickness (1.5 inches) of LNAPL was identified at this location. The LNAPL was removed, and a groundwater sample was collected after the well had stabilized.
- **MW45 –** MW45 was found to be covered by a pile of soil which is estimated at 7-10 feet in height. Therefore, NAPL gauging and groundwater sampling was not possible at this well location.

2.3 NAPL Monitoring and Removal

Table 2 summarizes the NAPL monitoring performed in 2017, and also for the event performed in 2015. For the gauging performed in 2017, only one of the wells (MW44) was found to contain a measurable thickness of LNAPL. As shown on Table 2, the NAPL was removed in September 2017, and a groundwater sample collected in December 2017.

2.4 New Well Installation

Two new wells were installed in the Upper Terrace. An up-gradient well (MW47), and a cross-gradient well (MW46), was installed at the locations shown on Figure 4. At each location, a steel isolation casing was advanced in the overburden soil, and then grouted in a bedrock socket. After the grout had cured, bedrock coring was performed, and a PVC well riser and screen was installed in the bedrock borehole. The wells were developed and sampled in December 2017. The ground surface elevations and the PVC riser elevations (groundwater reference points) were surveyed in December 2017 by Thew Associates PLS. The results of the survey are provided in Table 1, and are included in the construction logs for the new wells in Appendix A.

2.5 Monitoring Well Decommissioning

The SMP identified one well for abandonment (MW1D). This well was located in the Western Parcel (Figure 4). A drill rig was used to over-drill the steel isolation casing. The casing and the inner PVC well screen and riser were then pulled from the borehole. The borehole was then grouted. A completed NYSDEC well abandonment form is included in Appendix B.

2.6 Groundwater Elevation Monitoring

Following installation, development, and stabilization of new wells, a round of groundwater elevation monitoring was performed. The results of the monitoring are provided in Table 1.

The elevation of groundwater (piezometric surface) was highest at well MW47 (11.60 feet NAVD88), which was installed along Gedney Street. The elevation of groundwater (water table) was found to be lowest at MW43 (1.29 feet NAVD88). The difference in elevation across the site was 10.31 feet. The results indicate that, consistent with the results of the RI, that groundwater flow is from the west to the east, across the site, towards the Hudson River.

2.7 Groundwater Sampling

Three existing wells (MW33D, MW43, and MW44), and two new wells (MW46 and MW47) were purged and sampled according to the methods described in the SMP.

2.7.1 Groundwater Analyses and Results

Groundwater samples were analyzed by Test America (TA) Laboratory for benzene, toluene, ethyl benzene and xylenes (BTEX) by EPA Method 8260C, and polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270D. The results of the analyses are presented in Table 3, and also on chemical summary boxes included on Figure 5. Also included on the figure to evaluate potential increasing or decreasing trends for COC concentrations are the results of the first post-remedial sampling performed for these wells in 2015. The laboratory chain-of-custody record and the Form I laboratory report sheets are included in Appendix C.

As shown on Table 3, and on Figure 5, there appears to be a slight increasing trend for BTEX and PAHs at MW33D, and a decreasing trend for BTEX and PAHs at MW44. The concentrations of BTEX and PAHs at MW43, located adjacent to the Hudson River, were similar for the events performed in 2015 and 2017. The annual monitoring required at these well locations, and at new wells MW46 and MW47, will continue to evaluate increasing or decreasing trends for COC at the site.

2.8 Soil Vapor Intrusion

Post-remedial soil vapor intrusion (SVI) monitoring has not been performed at the site. It is GEI's understanding that the site is being redeveloped by the Site Owner, and the Site Owner will provide the NYSDEC with a Soil Vapor Intrusion Monitoring Plan, and will collect any samples required in the SMP and plan. It is GEI's understanding that the building to be constructed at the site by the Site Owner includes controls to address the potential for vapor intrusion of MGP-related COC to indoor air.

3. Environmental Controls / Institutional Controls and Site Inspection

3.1 General

Because COC in soil, bedrock, groundwater, and sediment remain in the subsurface of the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment.

3.2 Engineering Controls

The ECs identified in the SMP, and the results of the inspection performed by GEI, are discussed below. The 2017 SMP Annual Inspection Form is included in Appendix D.

3.2.1 Cover System Monitoring

An annual site inspection was performed on December 21, 2017 to observe the condition of the cover systems at: the Upper Terrace, the ISS mass in the Lower Terrace, and the ISS area on the Hudson Vista Associates Parcel. The locations of each of these remedial areas are shown on Figure 6.

As indicated in the form, the cover system in each of the identified remedial areas remains in place, and continues to be effective at preventing direct exposure to COC present in the subsurface.

During the inspection performed on December 21, 2017, changed conditions were observed on the Lower Terrace of the site. Additional riprap has been added to the Shoreline Area by the Site Owner. It is GEI's understanding that the work was performed according to a plan approved by NYSDEC. Additional soil has been placed on top of the minimum of 2 feet of clean material installed during the remedial action, up to the current riprap wall. It is GEI's understanding that the Site Owner has placed the additional soil on the Lower Terrace, and the origin of the soil is the adjacent parcel to the south of the site (Hudson Vista parcel). It is GEI's understanding that the Site Owner placed the soil in the Lower Terrace in consultation with the NYSDEC DER. Note that in addition to the newly-installed soil cover layer, during the December 2017 inspection GEI observed a soil pile located on the Lower Terrace, which was found to be covering well MW45 (Figure 4).

3.2.2 Storm Sewer and Water Service

Two site utilities were discussed in the 2016 SMP document. An underground Village of Nyack storm sewer line is present near the southern property line of the Eastern Parcel,

terminating at an outfall on the Hudson Vista Associates Parcel. A Village of Nyack water line is present at the fire hydrant located at the western side of the Eastern Parcel. These features were observed to be present, and not disturbed at the time of the December 21, 2017 site inspection.

3.3 Shoreline Area

Along the Lower Terrace shoreline, the ISS materials are protected from contact by site uses and erosion by the installation of riprap during the remedial action, and by the placement of additional riprap at the shoreline by the Site Owner. All riprap areas were observed by GEI to be in good condition. Evidence of movement or undermining was not observed.

It is GEI's understanding that the Site Owner plans to install additional shore protection features during redevelopment, and that the Site Owner has proposed the methods and materials to be utilized to the NYSDEC DER.

3.4 Off-shore Area

The area off-shore (east) from the Lower Terrace protected shoreline is a mix of sandy and silty native sediments. The sediment has been dredged to elevation -6 to -10 feet in accordance with the ROD [NYSDEC, 2011]. As specified in the SMP, to prevent these materials from being exposed at the sediment-water interface, the sediment surface should not be dredged, excavated, or deeply disturbed.

Evidence of dredging, the excavation of sediment, or other activities that may result in the disruption of the sediment remedial area was not observed during the site inspection performed by GEI on December 21, 2017.

3.5 Institutional Controls

The Eastern Parcel has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Eastern Parcel, as defined in the SMP, are:

- The property may only be used for restricted residential use, commercial use and/or industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP.

- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area of the site, and potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the property are prohibited.

Based on the inspection of the site performed by GEI, and on correspondence with O&R, the Site Owner, and the NYSDEC, the ICs, as identified in the SMP, adhere to the requirements of the Environmental Easement, remain in place, and are effective for OU1 and OU2 of the site. The site remedy continues to be protective of public health and the environment as described in the Remedial Action Work Plan (RAWP) and FER.

3.6 Property Transfer and Contact Update

Ownership of the site has changed since the preparation and approval of the 2016 SMP. The site is now owned by TZ Vista LLC. It is GEI's understanding that TZ Vista plans to redevelop the site, and some construction activities (the addition of riprap and a soil layer on the Lower Terrace) were observed to be in progress in late 2017. As required in the SMP, an updated Contact List for the site has been prepared to provide contact and ownership information to the NYSDEC. The information is summarized in Table 4.

4. Conclusions

Conclusions for this 2017 SMP Annual Report are:

- **Site Ownership**: The ownership of the site has been transferred to TZ Vista LLC.
- **Media Monitoring**: Media monitoring tasks identified in the SMP were performed in 2017, including: NAPL gauging and removal, well abandonment, well installation, groundwater sampling, and surveying.
- **Engineering Controls**: The inspection of the site was performed in 2017, as specified in the SMP.
  - The inspection confirmed the effectiveness of the engineering controls required by the remedial program.
  - The engineering controls employed at the Nyack MGP site are unchanged from the date the control was put in place, or last approved by the NYSDEC. Additional materials have been added by the Site Owner, as discussed in this Report.
- **Institutional Controls**: Conclusions for the ICs, based on the inspection of the site performed by GEI, and on correspondence with O&R, the Site Owner, and the NYSDEC include:
  - The institutional controls employed at the Nyack MGP site are unchanged from the date the control was put in place, or last approved by the NYSDEC.
  - Nothing has occurred that would impair the ability of the control to protect the public health and environment.
  - Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control.
  - Access to the site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control.
  - Use of the site is compliant with the environmental easement.

4.1 2018 SMP Implementation

The field activities and annual inspection for the implementation of the SMP that are the responsibility of O&R as the Remedial Party will be proposed and implemented in 2018 in consultation with the NYSDEC DER. An updated schedule for the field activities will be provided to, and discussed with the NYSDEC, following approval of this report by the NYSDEC.

5. References

GEI Consultants, Inc., P.C. (GEI), 2016a. Final Engineering Report, Nyack Manufactured Gas Plant Site, Rockland County, New York, NYSDEC Site Number 344046, May 2016.

GEI, 2016b. Site Management Plan, Nyack Former Manufactured Gas Plant Site, Rockland County, New York, NYSDEC Site Number 344046, April 2016.

GEI, 2017. 2017 Site Management Plan Implementation Work Plan, Nyack Former MGP Site, NYSDEC Site # 3-44-046, dated May 16, 2017.

New York State Department of Environmental Conservation (NYSDEC), 2004. Record of Decision, Nyack Gas Plant Site Operable Unit No. 1 Former Plant Site, Nyack, Rockland County, New York, Site Number 344046, March 2004.

NYSDEC, 2011. Record of Decision, OR – Nyack, MGP, Operable Unit Number: 02. Nyack, Rockland County, Site No. 344046, March 2011.

Tables

Table 1
Monitoring Well Construction Summary, and Laboratory Analyses
Site Management Plan
Nyack MGP Site

Well Construction Summary										Laboratory Analyses		
Designation	**Rationale / Zone Monitored**	**Installation Date**	**Ground Surface Elevation (Feet NAVD88)**	**Top of PVC Riser Elevation (Feet NAVD88)**	**Northing (NAD83)**	**Easting (NAD83)**	**Screened Interval (Elevation NAVD88)**	**Depth to Water (Feet)**	**Water Elevation (Feet NAVD88) December 21, 2017**	**Sample Depth**	**BTEX**	**PAHs**
Existing Monitoring Wells												
MW33D	water table along south side of site, cross-gradient to flow	8/31/2004	25.33	25.16	822865.99	653222.97	-0.16 to 15.16	19.20	5.96	Center of saturated screened interval	X	X
MW41	bedrock water table in Upper Terrace	5/19/2008	34.07	33.79	823022.67	653236.45	-0.71 to 14.29	NM	NM	NA	NA	NA
MW43	downgradient groundwater conditions in soil between ISS and bedrock	5/22/2008	8.60	9.04	823061.51	653448.31	-19.22 to -14.22	7.75	1.29	Center of saturated screened interval	X	X
MW44	bedrock water table in Upper Terrace	5/20/2008	33.84	33.55	823072.61	653244.4	1.55 to 16.55	27.44	6.11	Center of saturated screened interval	X	X
MW45	water table in bedrock at upper to Lower Terrace transition	5/23/2008	14.15	13.84	822983.34	653307.75	-13.66 to 1.34	NM	NM	NA	NA	NA
MW46	water table along north side of site, cross-gradient to flow	12/5/2017	27.00	26.73	823178.96	653260.92	16.0 to 8.0	23.27	3.46	Center of saturated screened interval	X	X
MW47	up-gradient sampling and water level	12/6/2017	34.20	33.87	823089.60	653160.11	19.7 to -2.3	22.27	11.60	Center of saturated screened interval	X	X

NM - Not Measured
NA = Not Applicable
Horizontal Coordinates are New York State Plane, Central Zone, NAD83 North American Datum 1983 (NAD83).
Vertical Coordinates are North American Datum 1988 (NAVD88).

Table 2
2015-2017 NAPL Gauging and Removal Summary
Site Management Plan
Nyack MGP Site

Well ID	MW41 (Note 1)												
Date	**2/27/2015**	**3/13/2015**		**3/20/2015**		**3/27/2015**		**4/10/2015**		**5/22/2015**		**7/17/2015**	
Before or After NAPL Pump Out	Before Purging	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After
Depth to LNAPL	21.27	NP	NP	NP	NP	NP	NP	20.46	NP	20.70	NP	20.94	NP
Depth to Water	21.29	20.80	20.92	20.31	20.39	20.36	20.54	20.46	20.63	20.71	21.25	20.95	22.42
Depth to DNAPL	*NA	33.66	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Depth to Bottom of Well	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.24	34.24	34.25	34.25
LNAPL thickness	0.02	NP	NP	NP	NP	NP	NP	<0.01	NP	~0.01	NP	~0.01	NP
DNAPL thickness	*NA	0.59	NP	**	NP	**	NP	blebs	NP	Blebs	NP	Blebs	NP

Well ID	MW44														
Date	**2/27/2015**	**3/13/2015**		**3/20/2015**		**3/27/2015**		**4/10/2015**		**5/22/2015**		**7/17/2015**		**9/20/2017**	
Before or After NAPL Pump Out	Before Purging	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After	Before Purging	After
Depth to LNAPL	26.12	25.13	25.41	24.43	NP	24.53	NP	24.59	NP	25.25	NP	25.52	NP	27.44	NP
Depth to Water	27.35	25.23	25.42	24.57	25.21	24.65	25.38	24.69	25.03	25.35	26.05	25.62	28.06	25.94	25.94
Depth to DNAPL	*NA	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Depth to Bottom of Well	32.33	32.33	32.33	32.33	32.33	32.33	32.33	32.33	32.33	32.30	32.30	32.30	32.30	32.30	32.30
LNAPL thickness	1.23	0.10	0.01	0.14	NP	0.12	NP	0.10	NP	~0.10	NP	~0.10	NP	1.50	NP
DNAPL thickness	*NA	blebs	blebs	blebs	NP	blebs	NP	blebs	NP	NP	NP	NP	NP	NP	NP

All depths are in feet and measured from the top of well casing
NP = Not Present
Note 1: Well MW41 could not be located in 2017.

Table 3
2015 - 2017 Groundwater Sample Results
Site Management Plan
Nyack MGP Site

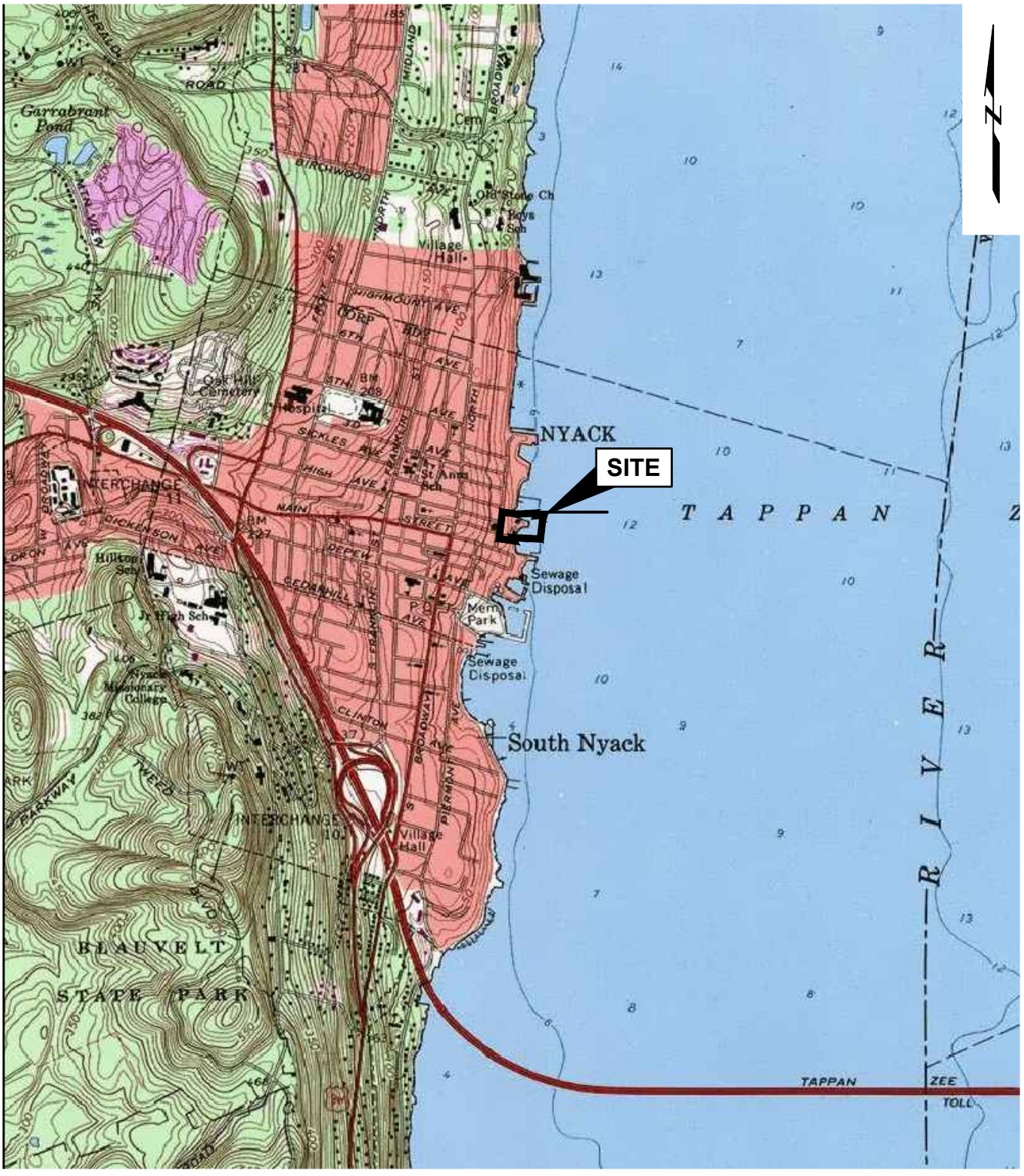
Analyte	Sample Name / Sample Date / Parent Sample / CAS No.	MW33D 7/17/2015	MW33D 9/19/2017	MW41 2/27/2015	MW43 2/27/2015	MW43 9/19/2017	MW44 2/27/2015	MW44 12/20/2017	MW45 2/27/2015	MW46 12/20/2017	MW47 12/20/2017
BTEX (ug/L)											
Benzene	71-43-2	**1.6**	**15**	**2000**	**7.6**	**7.3**	**8900**	**1300**	**1**	**5900**	**410**
Toluene	108-88-3	1 U	**3.1**	**59**	**0.52 J**	**0.51 J**	**460 J**	**32**	0.2 U	**8.3**	**390**
Ethylbenzene	100-41-4	**0.48**	**50**	**1500**	**2.1**	**1.3**	**35200**	**790**	**1.4**	**650**	**290**
Total Xylene	1330-20-7	**2.3**	**33**	**1190**	**1.47**	**0.83 J**	**36200**	**700**	**0.26**	**790**	**540**
Total BTEX	**NA**	**4.38**	**101**	**4,749**	**11.69**	**9.94**	**80,760**	**2,822**	**2.66**	**7,348**	**1,630**
NYSDEC PAH17 (ug/L)											
Acenaphthene	83-32-9	10.1 U	**39**	**620 JD**	**3.3 J**	1.8 U	**22400 D**	**130**	1.2 U	**37**	**47**
Acenaphthylene	208-96-8	10.1 U	**1.4 J**	**98.2 JD**	1.2 U	1.8 U	**5700**	**26**	1.2 U	**4**	**21**
Anthracene	120-12-7	10.1 U	**6.6**	**310 D**	1.2 U	1.8 U	**15100 JD**	**69**	1.2 U	**5.3**	**7.3**
Benzo(a)anthracene	56-55-3	10.1 U	**3**	**210 D**	1.2 U	1.8 U	**9700 D**	**74**	1.2 U	**1.3 J**	**2.2**
Benzo(b)fluoranthene	205-99-2	10.1 U	**1.3 J**	**140 D**	1.2 U	1.8 U	**9300**	**44**	1.2 U	1.9 U	**1 J**
Benzo(k)fluoranthene	207-08-9	10.1 U	1.8 U	**120**	1.2 U	1.8 U	**1700**	**17**	1.2 U	1.9 U	1.9 U
Benzo(g,h,i)perylene	191-24-2	10.1 U	**0.81 J**	**180**	1.2 U	1.8 U	**4500**	**28**	1.2 U	1.9 U	**0.84 J**
Benzo(a)pyrene	50-32-8	10.1 U	**1.8**	**160 D**	1.2 U	1.8 U	**10200**	**58**	1.2 U	1.9 U	**1.6 J**
Chrysene	218-01-9	10.1 U	**2.4**	**170 D**	1.2 U	1.8 U	**10200**	**69**	1.2 U	**1.1 J**	**1.6 J**
Dibenz(a,h)anthracene	53-70-3	10.1 U	1.8 U	**46.4**	1.2 U	1.8 U	**1000 J**	1.9 U	1.2 U	1.9 U	1.9 U
Fluoranthene	206-44-0	10.1 U	**6.7**	**360 D**	1.2 U	1.8 U	**16400 D**	**140**	1.2 U	**3.4**	**5.7**
Fluorene	86-73-7	10.1 U	**13**	**340 D**	1.2 U	1.8 U	**19600 JD**	**77**	1.2 U	**16**	**23**
Indeno(1,2,3-cd)pyrene	193-39-5	10.1 U	1.8 U	**160**	1.2 U	1.8 U	**2900**	**18**	1.2 U	1.9 U	1.9 U
2-Methylnaphthalene	91-57-6	10.1 U	1.8 U	**1100 JD**	1.2 U	1.8 U	**45000 D**	**190**	1.2 U	**100**	**110**
Naphthalene	91-20-3	10.1 U	**19**	**4500 D**	1.2 U	**2.7**	**167900 D**	**1300**	**5 J**	**1100**	**2100**
Phenanthrene	85-01-8	10.1 U	**27**	**1000 JD**	1.2 U	1.8 U	**42900 D**	**300**	1.2 U	**24**	**36**
Pyrene	129-00-0	10.1 U	**10**	**560 D**	1.2 U	1.8 U	**28500 JD**	**170**	1.2 U	**4.6**	**7.8**
Total PAH17	**NA**	**ND**	**132**	**10,075**	**3**	**2.7**	**413,000**	**2,710**	**5**	**1,297**	**2,365**

Table 4
Contact Numbers
Site Management Plan
Nyack MGP Site

Name	Organization	Contact Phone
Douglas MacNeal	NYSDEC DER	(518) 402-9683
Jacqueline Nealon	NYSDOH	(518) 402-7883
Maribeth McCormick	Orange and Rockland Utilities, Inc.	(845) 294-1757
Matt Levinson, P.E.	Orange and Rockland Utilities, Inc.	(845) 577-3309
William F. Helmer	Site Owner – TZ Vista LLC ("TZ Vista") 27 Route 210 Stoney Point, NY 10980	(845) 942-1330

* Note: Contact numbers subject to change and should be updated as necessary

Figures



SOURCE:
U.S.G.S. TOPOGRAPHIC MAP CREATED WITH TOPO! ® ©2004
NATIONAL GEOGRAPHIC (www.nationalgeographic.com/topo)

0 2000' 4000'
SCALE: 1" = 2000'

2017 Site Management Plan Report Nyack Former MGP Site Nyack, New York	GEI Consultants	SITE LOCATION MAP
Orange and Rockland Utilities, Inc. Spring Valley, New York	Project 1701486	March 2018 Fig. 1

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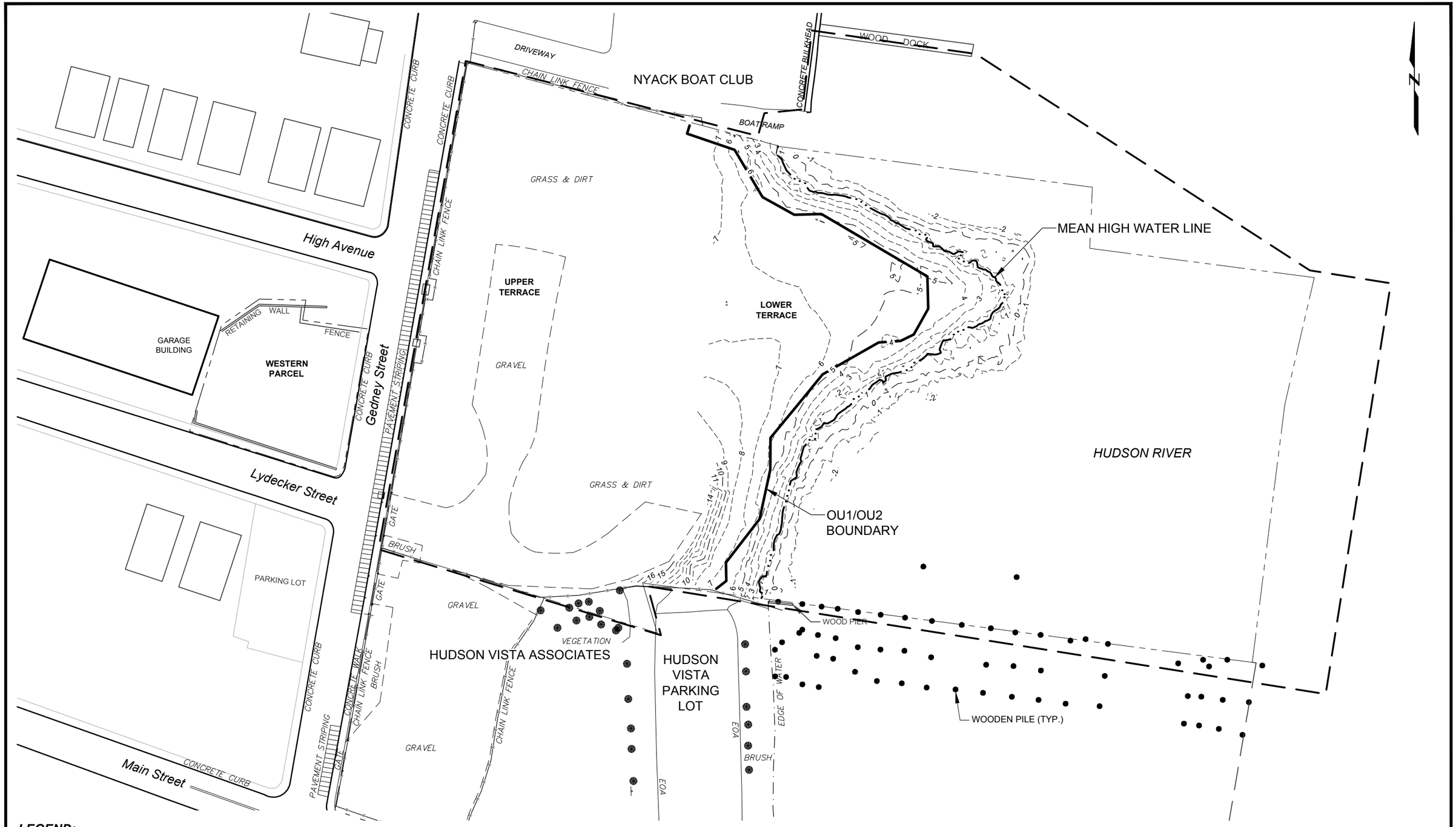

LEGEND:

- PROJECT LIMIT
- 5-FOOT CONTOUR - MAJOR
- 1-FOOT CONTOUR - MINOR

SOURCE:
BASEMAP FROM SURVEY BY THEW ASSOCIATES
LAND SURVEYORS, REV 2: 12/21/2017.

2017 Site Management Plan Report
Nyack Former MGP Site
Nyack, New York

Orange and Rockland Utilities, Inc.
Spring Valley, New York

GEI Consultants

SITE PLAN - TOPOGRAPHY

Project 1701486 | March 2018 | Fig. 2

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NYACK BOAT CLUB

DRIVEWAY

CHAIN LINK FENCE

CONCRETE CURB

CONCRETE BULKHEAD

WOOD DOCK

BOAT RAMP

GRASS & DIRT

UPPER TERRACE

LOWER TERRACE

GRAVEL

OU2 DREDGED AREA

OU2 DREDGED AREA

HUDSON RIVER

High Avenue

Gedney Street

Lydecker Street

GARAGE BUILDING

RETAINING WALL

FENCE

WESTERN PARCEL

CONCRETE CURB

CHAIN LINK FENCE

GATE

BRUSH

PARKING LOT

CONCRETE CURB

LOW RETAINING WALL

CHAIN LINK FENCE

BRUSH

GRAVEL

VEGETATION

HUDSON VISTA ASSOCIATES

HUDSON VISTA PARKING LOT

CHAIN LINK FENCE

EDGE OF WATER

WOOD PIER

WOODEN PILE (TYP.)

BRUSH

LIMITS OF HUDSON VISTA ISS

N

0 60' 120'

SCALE: 1" = 60'

LEGEND:

- PROJECT LIMIT
- BEDROCK INSITU CHEMICAL OXIDATION AREA
- ISS (LOWER TERRACE, OU1)
- ISS (LOWER TERRACE, OU2)
- HUDSON VISTA ISS
- DREDGE AREA (OU2)

2017 Site Management Plan Report
Nyack Former MGP Site
Nyack, New York

Orange and Rockland Utilities, Inc.
Spring Valley, New York

GEI Consultants

REMEDIAL AREAS

Project 1701486 | March 2018 | Fig. 3

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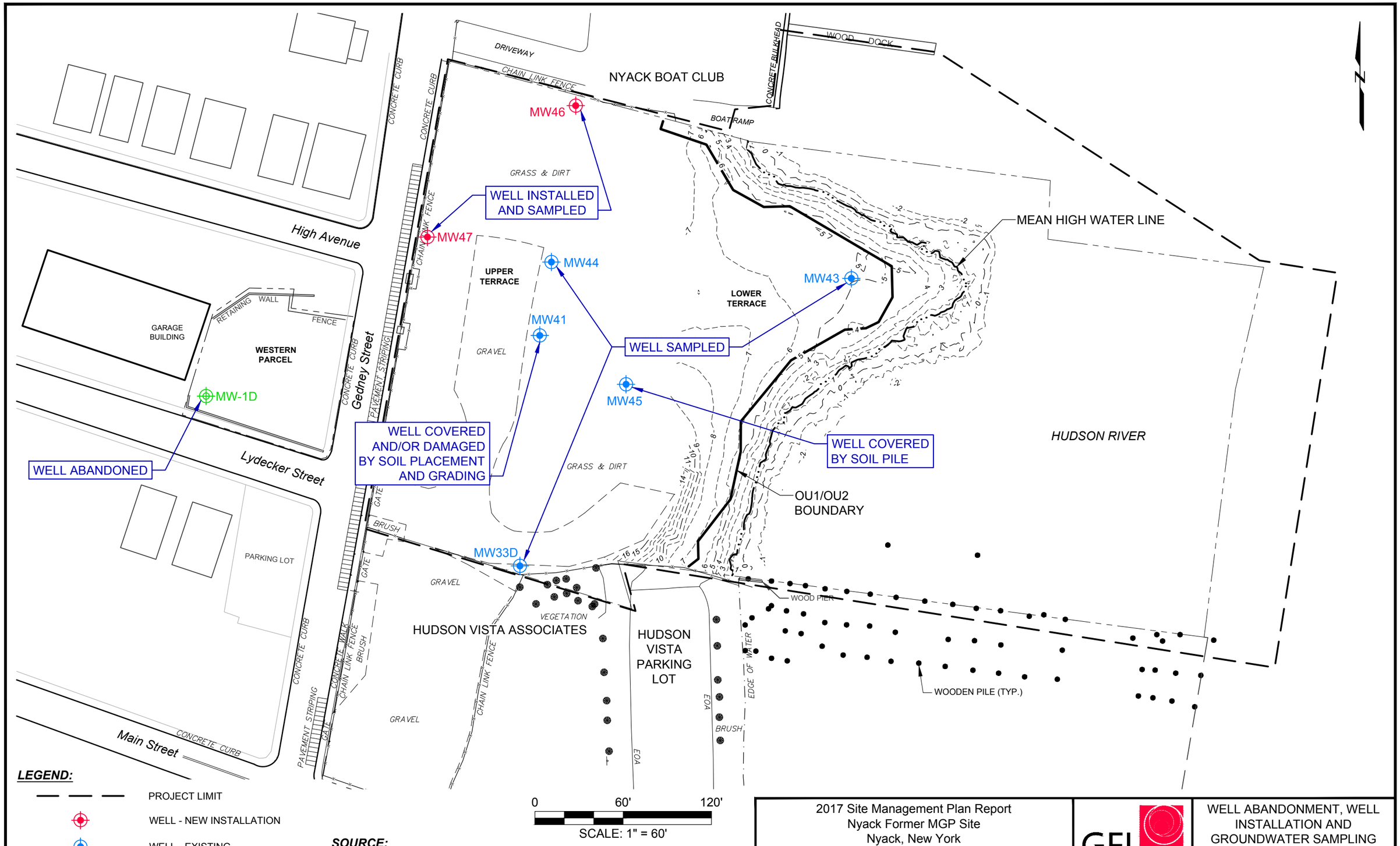

LEGEND:

- PROJECT LIMIT
- WELL - NEW INSTALLATION
- WELL - EXISTING
- WELL - ABANDONED

SOURCE:

BASEMAP FROM SURVEY BY THEW ASSOCIATES LAND SURVEYORS, REV 2: 12/21/2017.

2017 Site Management Plan Report
Nyack Former MGP Site
Nyack, New York

Orange and Rockland Utilities, Inc.
Spring Valley, New York

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Project 1701486

WELL ABANDONMENT, WELL INSTALLATION AND GROUNDWATER SAMPLING SUMMARY

March 2018 Fig. 4

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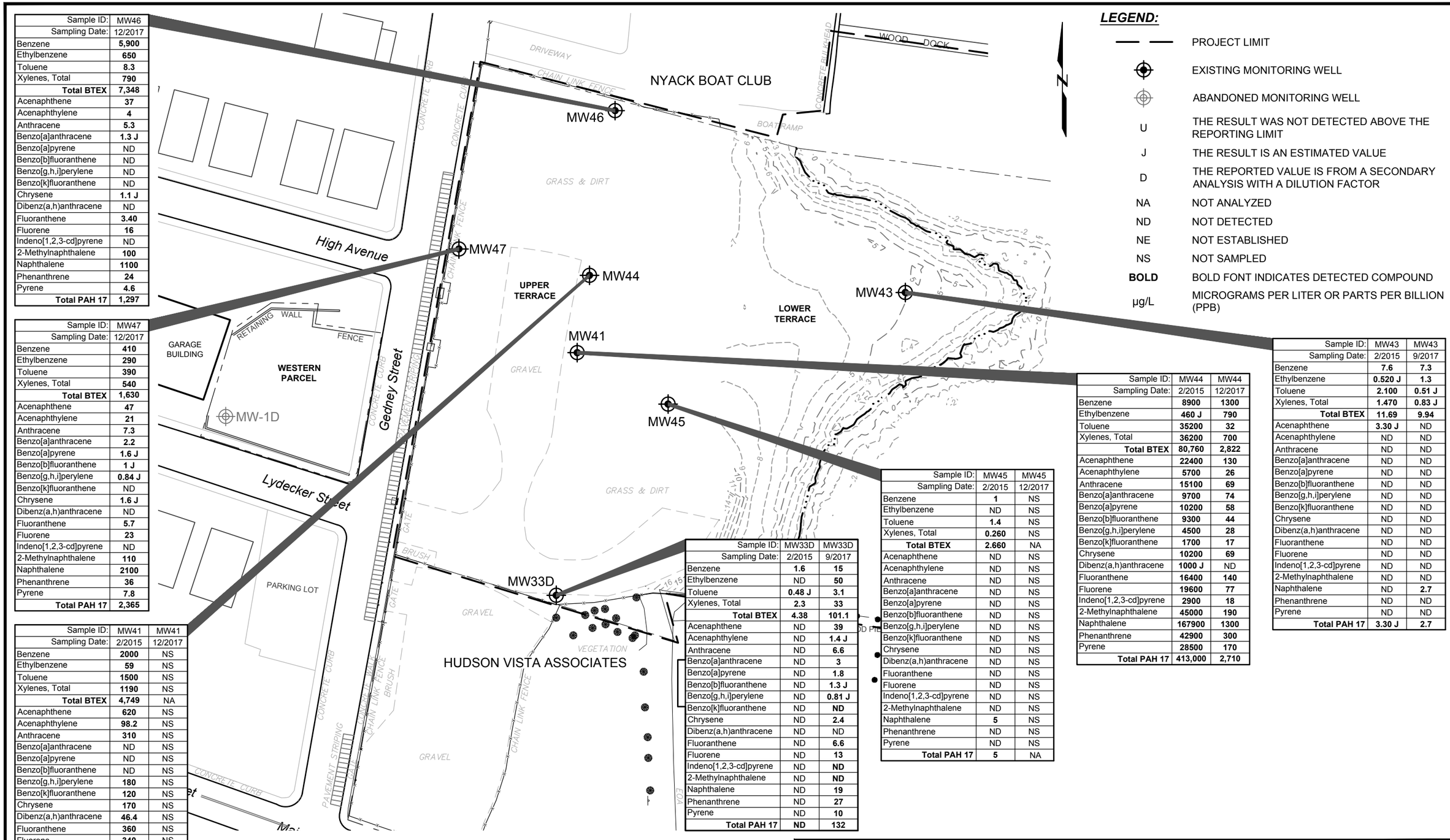

LEGEND:

— —	PROJECT LIMIT
⊕	EXISTING MONITORING WELL
⊕	ABANDONED MONITORING WELL
U	THE RESULT WAS NOT DETECTED ABOVE THE REPORTING LIMIT
J	THE RESULT IS AN ESTIMATED VALUE
D	THE REPORTED VALUE IS FROM A SECONDARY ANALYSIS WITH A DILUTION FACTOR
NA	NOT ANALYZED
ND	NOT DETECTED
NE	NOT ESTABLISHED
NS	NOT SAMPLED
BOLD	BOLD FONT INDICATES DETECTED COMPOUND
µg/L	MICROGRAMS PER LITER OR PARTS PER BILLION (PPB)

Sample ID:	MW46
Sampling Date:	12/2017
Benzene	**5,900**
Ethylbenzene	**650**
Toluene	**8.3**
Xylenes, Total	**790**
Total BTEX	**7,348**
Acenaphthene	**37**
Acenaphthylene	**4**
Anthracene	**5.3**
Benzo[a]anthracene	**1.3 J**
Benzo[a]pyrene	ND
Benzo[b]fluoranthene	ND
Benzo[g,h,i]perylene	ND
Benzo[k]fluoranthene	ND
Chrysene	**1.1 J**
Dibenz(a,h)anthracene	ND
Fluoranthene	**3.40**
Fluorene	**16**
Indeno[1,2,3-cd]pyrene	ND
2-Methylnaphthalene	**100**
Naphthalene	**1100**
Phenanthrene	**24**
Pyrene	**4.6**
Total PAH 17	**1,297**

Sample ID:	MW47
Sampling Date:	12/2017
Benzene	**410**
Ethylbenzene	**290**
Toluene	**390**
Xylenes, Total	**540**
Total BTEX	**1,630**
Acenaphthene	**47**
Acenaphthylene	**21**
Anthracene	**7.3**
Benzo[a]anthracene	**2.2**
Benzo[a]pyrene	**1.6 J**
Benzo[b]fluoranthene	**1 J**
Benzo[g,h,i]perylene	**0.84 J**
Benzo[k]fluoranthene	ND
Chrysene	**1.6 J**
Dibenz(a,h)anthracene	ND
Fluoranthene	**5.7**
Fluorene	**23**
Indeno[1,2,3-cd]pyrene	ND
2-Methylnaphthalene	**110**
Naphthalene	**2100**
Phenanthrene	**36**
Pyrene	**7.8**
Total PAH 17	**2,365**

Sample ID:	MW41	MW41
Sampling Date:	2/2015	12/2017
Benzene	**2000**	NS
Ethylbenzene	**59**	NS
Toluene	**1500**	NS
Xylenes, Total	**1190**	NS
Total BTEX	**4,749**	NA
Acenaphthene	**620**	NS
Acenaphthylene	**98.2**	NS
Anthracene	**310**	NS
Benzo[a]anthracene	ND	NS
Benzo[a]pyrene	ND	NS
Benzo[b]fluoranthene	ND	NS
Benzo[g,h,i]perylene	**180**	NS
Benzo[k]fluoranthene	**120**	NS
Chrysene	**170**	NS
Dibenz(a,h)anthracene	**46.4**	NS
Fluoranthene	**360**	NS
Fluorene	**340**	NS
Indeno[1,2,3-cd]pyrene	**160**	NS
2-Methylnaphthalene	**1100**	NS
Naphthalene	**4500**	NS
Phenanthrene	**1000**	NS
Pyrene	**560**	NS
Total PAH 17	**10,075**	NA

Sample ID:	MW33D	MW33D
Sampling Date:	2/2015	9/2017
Benzene	**1.6**	**15**
Ethylbenzene	ND	**50**
Toluene	**0.48 J**	**3.1**
Xylenes, Total	**2.3**	**33**
Total BTEX	**4.38**	**101.1**
Acenaphthene	ND	**39**
Acenaphthylene	ND	**1.4 J**
Anthracene	ND	**6.6**
Benzo[a]anthracene	ND	**3**
Benzo[a]pyrene	ND	**1.8**
Benzo[b]fluoranthene	ND	**1.3 J**
Benzo[g,h,i]perylene	ND	**0.81 J**
Benzo[k]fluoranthene	ND	**ND**
Chrysene	ND	**2.4**
Dibenz(a,h)anthracene	ND	ND
Fluoranthene	ND	**6.6**
Fluorene	ND	**13**
Indeno[1,2,3-cd]pyrene	ND	**ND**
2-Methylnaphthalene	ND	**ND**
Naphthalene	ND	**19**
Phenanthrene	ND	**27**
Pyrene	ND	**10**
Total PAH 17	**ND**	**132**

Sample ID:	MW45	MW45
Sampling Date:	2/2015	12/2017
Benzene	**1**	NS
Ethylbenzene	ND	NS
Toluene	**1.4**	NS
Xylenes, Total	**0.260**	NS
Total BTEX	**2.660**	NA
Acenaphthene	ND	NS
Acenaphthylene	ND	NS
Anthracene	ND	NS
Benzo[a]anthracene	ND	NS
Benzo[a]pyrene	ND	NS
Benzo[b]fluoranthene	ND	NS
Benzo[g,h,i]perylene	ND	NS
Benzo[k]fluoranthene	ND	NS
Chrysene	ND	NS
Dibenz(a,h)anthracene	ND	NS
Fluoranthene	ND	NS
Fluorene	ND	NS
Indeno[1,2,3-cd]pyrene	ND	NS
2-Methylnaphthalene	ND	NS
Naphthalene	**5**	NS
Phenanthrene	ND	NS
Pyrene	ND	NS
Total PAH 17	**5**	NA

Sample ID:	MW44	MW44
Sampling Date:	2/2015	12/2017
Benzene	**8900**	**1300**
Ethylbenzene	**460 J**	**790**
Toluene	**35200**	**32**
Xylenes, Total	**36200**	**700**
Total BTEX	**80,760**	**2,822**
Acenaphthene	**22400**	**130**
Acenaphthylene	**5700**	**26**
Anthracene	**15100**	**69**
Benzo[a]anthracene	**9700**	**74**
Benzo[a]pyrene	**10200**	**58**
Benzo[b]fluoranthene	**9300**	**44**
Benzo[g,h,i]perylene	**4500**	**28**
Benzo[k]fluoranthene	**1700**	**17**
Chrysene	**10200**	**69**
Dibenz(a,h)anthracene	**1000 J**	ND
Fluoranthene	**16400**	**140**
Fluorene	**19600**	**77**
Indeno[1,2,3-cd]pyrene	**2900**	**18**
2-Methylnaphthalene	**45000**	**190**
Naphthalene	**167900**	**1300**
Phenanthrene	**42900**	**300**
Pyrene	**28500**	**170**
Total PAH 17	**413,000**	**2,710**

Sample ID:	MW43	MW43
Sampling Date:	2/2015	9/2017
Benzene	**7.6**	**7.3**
Ethylbenzene	**0.520 J**	**1.3**
Toluene	**2.100**	**0.51 J**
Xylenes, Total	**1.470**	**0.83 J**
Total BTEX	**11.69**	**9.94**
Acenaphthene	**3.30 J**	ND
Acenaphthylene	ND	ND
Anthracene	ND	ND
Benzo[a]anthracene	ND	ND
Benzo[a]pyrene	ND	ND
Benzo[b]fluoranthene	ND	ND
Benzo[g,h,i]perylene	ND	ND
Benzo[k]fluoranthene	ND	ND
Chrysene	ND	ND
Dibenz(a,h)anthracene	ND	ND
Fluoranthene	ND	ND
Fluorene	ND	ND
Indeno[1,2,3-cd]pyrene	ND	ND
2-Methylnaphthalene	ND	ND
Naphthalene	ND	**2.7**
Phenanthrene	ND	ND
Pyrene	ND	ND
Total PAH 17	**3.30 J**	**2.7**

2017 Site Management Plan Report
Nyack Former MGP Site
Nyack, New York

Orange and Rockland Utilities, Inc.
Spring Valley, New York

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Project 1701486

BASELINE POST-REMEDIATION GROUNDWATER QUALITY

March 2018 Fig. 5

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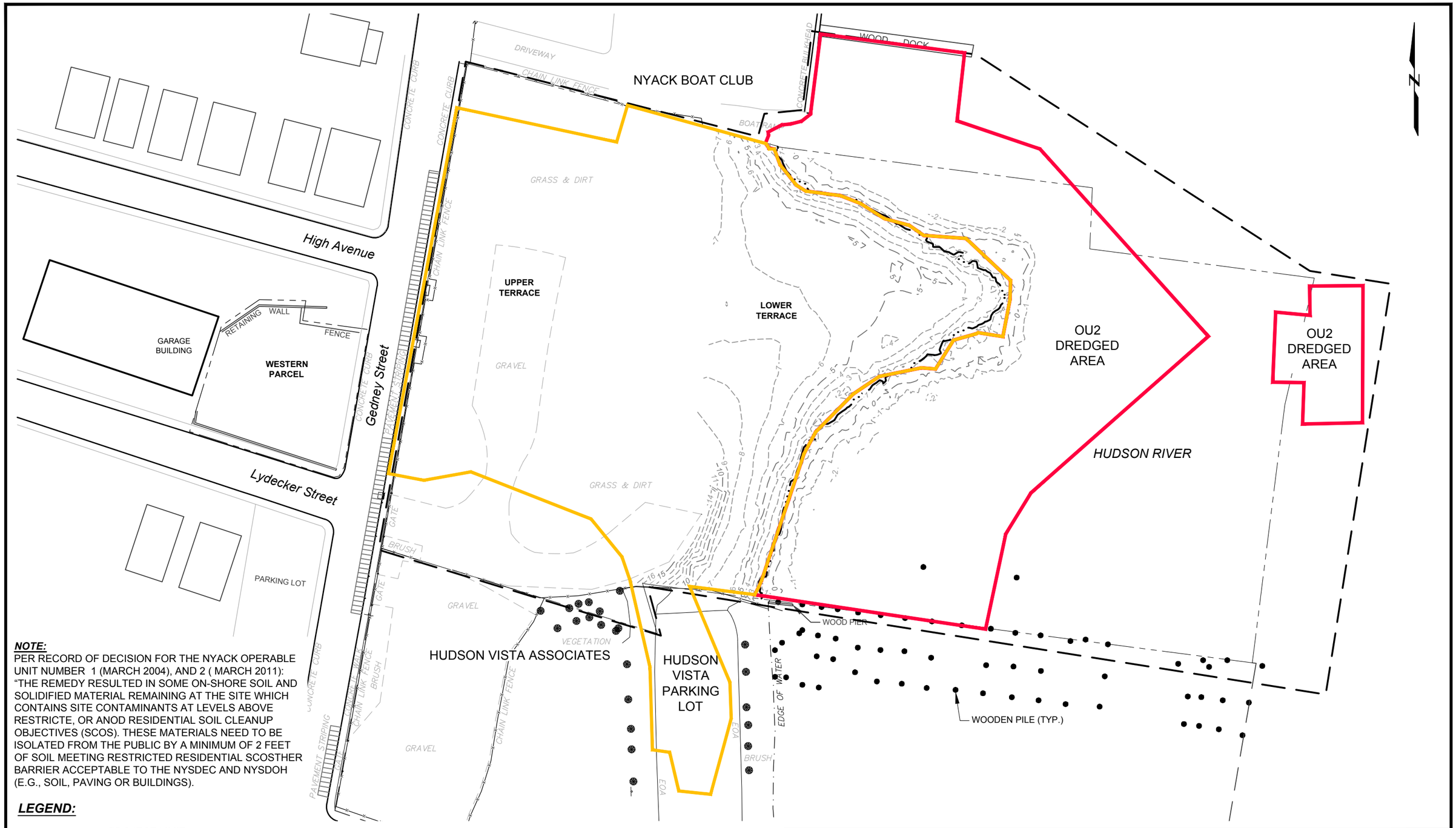

NOTE:
PER RECORD OF DECISION FOR THE NYACK OPERABLE UNIT NUMBER 1 (MARCH 2004), AND 2 (MARCH 2011): "THE REMEDY RESULTED IN SOME ON-SHORE SOIL AND SOLIDIFIED MATERIAL REMAINING AT THE SITE WHICH CONTAINS SITE CONTAMINANTS AT LEVELS ABOVE RESTRICTE, OR ANOD RESIDENTIAL SOIL CLEANUP OBJECTIVES (SCOS). THESE MATERIALS NEED TO BE ISOLATED FROM THE PUBLIC BY A MINIMUM OF 2 FEET OF SOIL MEETING RESTRICTED RESIDENTIAL SCOSTHER BARRIER ACCEPTABLE TO THE NYSDEC AND NYSDOH (E.G., SOIL, PAVING OR BUILDINGS).

LEGEND:

- PROJECT LIMIT
- CLEAN SOIL COVER IN COMPLIANCE WITH RECORD OF DECISION
- DREDGE AREA (OU2)

2017 Site Management Plan Report
Nyack Former MGP Site
Nyack, New York

Orange and Rockland Utilities, Inc.
Spring Valley, New York

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SOIL COVER AREAS

Project 1701486 | March 2018 | Fig. 6

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Appendix A

Well Construction Logs

ENSR | AECOM
1001 West Seneca Street, Suite 204
Ithaca, New York, 14850

Well ID: MW41

Project Name: Nyack OU2 MGP Investigation
Project Number: 05090-022
Date Started/Completed: May 19, 2008
Boring Location: Upper Terrace
Drilling Company: Northstar Drilling Ltd.

Drilling Method: Drive and wash
Sampling Method: HQ core barrel
PVC/Ground Elevation (ft/msl): 25.16 / 34.07
Total Depth: 35.0 ft bgs
Logged By: Jesse Lloyd

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						Over-burden		No soil samples were collected at this location. Four (4) inch casing was driven to bedrock and washed out using a rollerbit.	Flush mounted curb box	
-2										
-4	NA	NA							Cement - bentonite grout from 1-17 ft bgs	
-6										
-8										
-10						Over-burden				
-12										
-14	NA	NA								
-16										
-18									Bentonite seal from 17-18 ft bgs	
-20						Sand-stone		Bedrock was encountered at 20.0 ft bgs.		
-22	2.2	11.3						White and reddish-brown SANDSTONE, fine to medium grained, thin to medium bedding, intensely to moderately fractured.	Sand pack from 18-34.5 ft bgs	
-24	1.8	30.0						White and reddish-brown SANDSTONE, fine to medium grained, thin to medium bedding, intensely to moderately fractured. Little hydrocarbon-like sheen and little black staining in fractures at 23.5 and 24.5 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: No analytical samples were collected at this location

ENSR | AECOM

1001 West Seneca Street, Suite 204
Ithaca, New York, 14850

Well ID: MW41

Project Name: Nyack OU2 MGP Investigation
Project Number: 05090-022
Date Started/Completed: May 19, 2008
Boring Location: Upper Terrace
Drilling Company: Northstar Drilling Ltd.

Drilling Method: Drive and wash
Sampling Method: HQ core barrel
PVC/Ground Elevation (ft/msl): 25.16 / 34.07
Total Depth: 35.0 ft bgs
Logged By: Jesse Lloyd

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
-26										
-28	4.1	71.1						White and reddish-brown SANDSTONE, fine to medium grained, thin to medium bedding, intensely to moderately fractured. Hydrocarbon-like black staining in fractures at 26.7 and 27.6 ft bgs. Slight hydrocarbon-like sheen in fractures from 26.0-30.0 ft bgs.	2", 0.020 slotted PVC screen from 19.5-34.5 ft bgs	
-30										
-32	4.7	68.0						White and reddish-brown SANDSTONE, fine to medium grained, thin to thick bedding, intensely to slightly fractured. Slight hydrocarbon-like sheen in fractures from 26.0-30.0 ft bgs.	Well sump with bentonite seal from 34.5-35 ft bgs.	
-34								Boring terminated at 35.0 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: No analytical samples were collected at this location

ENSR | AECOM
1001 West Seneca Street, Suite 204
Ithaca, New York, 14850

Well ID: MW43

Project Name: Nyack OU2 MGP Investigation
Project Number: 05090-022
Date Started/Completed: May 22, 2008
Boring Location: ISS Area
Drilling Company: Northstar Drilling Ltd.

Drilling Method: Direct Push
Sampling Method: Macro-core
PVC/Ground Elevation (ft/msl): 5.78 / 6.16
Total Depth: 25.0 ft bgs
Logged By: Jesse Lloyd

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
0						ISS		No soil samples were collected at this location. Augered through the In-situ solidified (ISS) material.	Flush mounted curb box	
-2										
-4	NA	NA							Cement bentonite grout from 0-18 ft bgs	
-6										
-8										
-10										
-12								The thickness of the ISS material ranged from 0-20 ft bgs.		
-14	NA	NA								
-16										
-18									Bentonite seal from 18-19 ft bgs	
-20						SM		Brown fine to medium SAND, little silt; wet.	Sand pack from 19-25 ft bgs	
-22	2.6	1.1							2", 0.020 slotted PVC screen from 20-25 ft bgs	
-24	NA	1.3						Boring terminated at 25.0 ft bgs.		
	NA	NA								

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

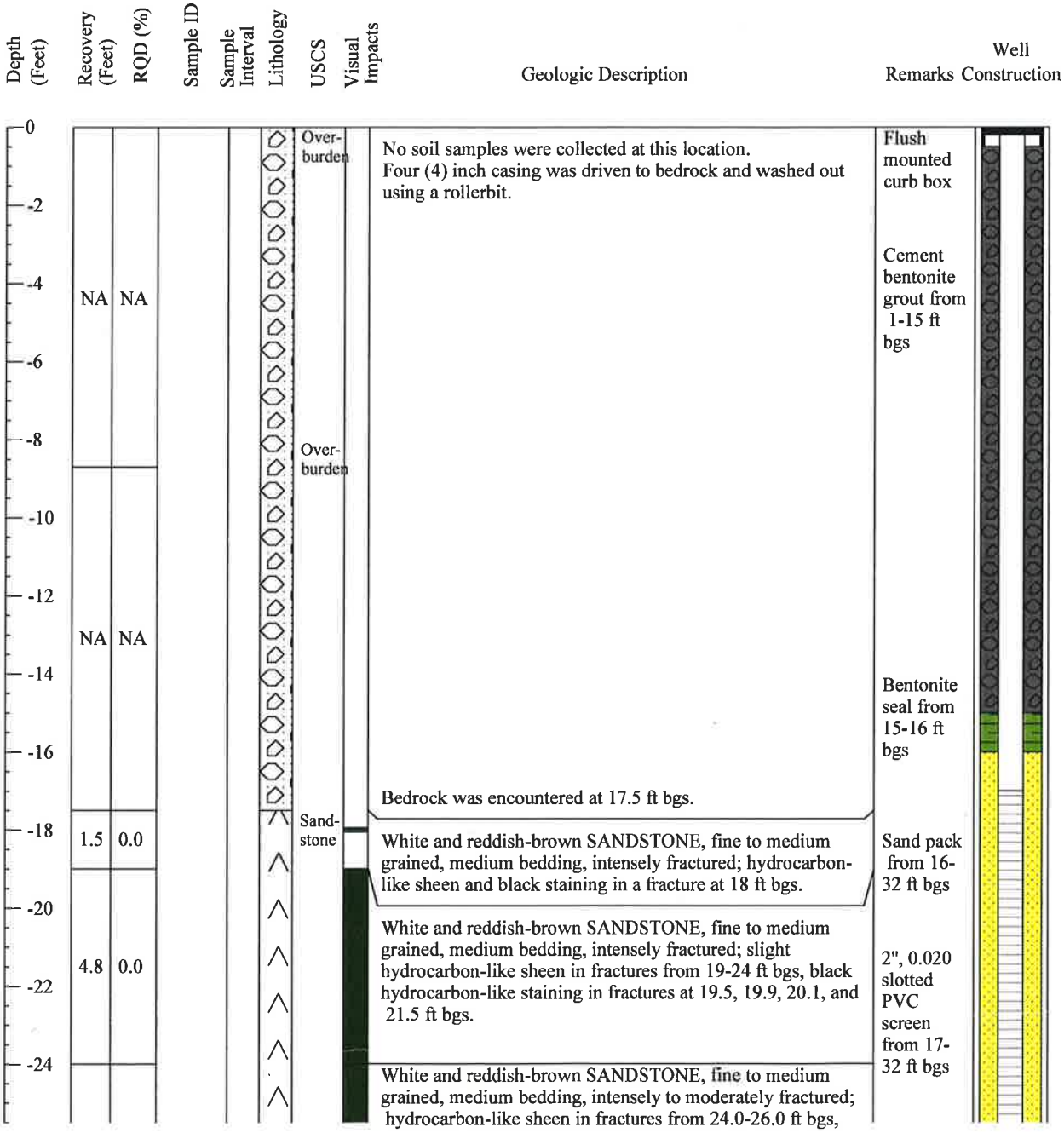
Comments: No samples were collected.

ENSR | AECOM
1001 West Seneca Street, Suite 204
Ithaca, New York, 14850

Well ID: MW44

Project Name: Nyack OU2 MGP Investigation
Project Number: 05090-022
Date Started/Completed: May 20, 2008
Boring Location: Upper Terrace
Drilling Company: Northstar Drilling Ltd.

Drilling Method: Drive and wash
Sampling Method: HQ core barrel
PVC/Ground Elevation (ft/msl): 33.55 / 33.84
Total Depth: 32.5 ft bgs
Logged By: Jesse Lloyd



Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: No analytical samples were collected at this location

ENSR | AECOM

1001 West Seneca Street, Suite 204
Ithaca, New York, 14850

Well ID: MW44

Project Name: Nyack OU2 MGP Investigation
Project Number: 05090-022
Date Started/Completed: May 20, 2008
Boring Location: Upper Terrace
Drilling Company: Northstar Drilling Ltd.

Drilling Method: Drive and wash
Sampling Method: HQ core barrel
PVC/Ground Elevation (ft/msl): 33.55 / 33.84
Total Depth: 32.5 ft bgs
Logged By: Jesse Lloyd

Depth (Feet)	Recovery (Feet)	RQD (%)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Remarks	Well Construction
-26	4.7	68.0						black hydrocarbon-like staining in fractures at 25.0 and 25.5 ft bgs.	Well sump with bentonite seal from 32-32.5 ft bgs	
-28										
-30	3.0	53.3						White and reddish-brown SANDSTONE, fine to medium grained, medium bedding, intensely to moderately fractured; Hydrocarbon-like sheen in fractures from 31.0-32.0 ft bgs.		
-32								Boring terminated at 32.5 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: No analytical samples were collected at this location

ENSR | AECOM

1001 West Seneca Street, Suite 204
Ithaca, New York, 14850

Well ID: MW45

Project Name: Nyack OU2 MGP Investigation
Project Number: 05090-022
Date Started/Completed: May 23, 2008
Boring Location: Bottom of the slope
Drilling Company: Northstar Drilling Ltd.

Drilling Method: Drive and wash
Sampling Method: HQ core barrel
PVC/Ground Elevation (ft/msl): 13.84 / 14.15
Total Depth: 28.5 ft bgs
Logged By: Jesse Lloyd

Depth (Feet)	Recovery (Feet)	PID (ppm)	Sample ID	Sample Interval	Lithology	USCS	Visual Impacts	Geologic Description	Well Remarks	Well Construction
0						Over-burden		No soil samples were collected at this location. Four (4) inch casing was driven to bedrock and washed out using a rollerbit.	Flush mounted curb box	
-2										
-4	NA	NA							Cement bentonite grout from 1-10 ft bgs	
-6										
-8										
-10	NA	NA							Bentonite seal from 10-11 ft bgs	
-12								Bedrock encountered at 13.5 ft bgs.		
-14						Bed-rock		Reddish-brown SANDSTONE, fine to medium grained, thin to medium bedding, intensely to moderately fractured.	Sand pack from 11-27.5 ft bgs	
-16	4.8	75.0								
-18										
-20	1.8	59.0						Reddish-brown SANDSTONE, fine to medium grained, medium bedding, moderately fractured.	2", 0.020 slotted PVC screen from 12.5-27.5 ft bgs	
-22	4.1	83.7						Reddish-brown SILTSTONE, fine to medium grained, thin to thick bedding, moderately to slightly fractured.		
-24										
-26	3.5	19.0						Reddish-brown SILTSTONE, thin to medium bedding, intensely to moderately to fractured.	Well sump with bentonite seal from 27.5-28.5 ft bgs	
-28								Sheen in fracture at 27.0 ft bgs. Boring terminated at 28.5 ft bgs.		

Coal Tar or Coal Tar NAPL Saturated Soil

Hydrocarbon Staining, Hydrocarbon Sheen or NAPL Blebs

Comments: No analytical samples were collected at this location

GEI Consultants, Inc., P.C. 1301 Trumansburg Road Ithaca, NY 14850 (607) 216-8955	CLIENT: Orange and Rockland Utilities PROJECT: Nyack MGP Site - SMP CITY/STATE: Nyack, NY GEI PROJECT NUMBER: 1701486	BORING LOG PAGE 1 of 2	MW46

GROUND SURFACE ELEVATION (FT): 27 LOCATION: Upper Terrace
NORTHING: 823178.96 EASTING: 653260.92 TOTAL DEPTH (FT): 40.00
DRILLED BY: Nothnagle Drilling DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Jerry Peake DATE START / END: 12/12/2017 - 12/12/2017
DRILLING DETAILS: Direct Push / CME 55LC PVC casing 26.73 ft
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0		13.0	0				(0'- 13') No soil samples were collected 0-13' bgs; four (4) inch casing installed in bedrock and grouted. Bedrock encountered at 13.0'.	Flush mounted curb box
5								steel casing and cement bentonite grout from 1-13' bgs
10								
15	S1	5.0	5	0.0 0.0 0.0 0.3 0.0			(13'- 18') BEDROCK, White and reddish-brown sandstone, fine to medium grained, medium bedding, intensely fractured.	Sand pack from 12-38' bgs
20	S2	5.0	4.7	2.3			(18'- 23') BEDROCK, White and reddish-brown sandstone, fine to medium grained, medium bedding, highly fractured; hydrocarbon-like sheens at 18.5', 19.6' and 21.3'. Hydrocarbon-like sheen and black hydrocarbon-like staining in fracture at 21.9'.	

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR
HLO = HYDROCARBON LIKE ODOR
GLO = GASOLINE LIKE ODOR

ENVIRONMENTAL BORING LOG NYACK SMP BORELOGS.GPJ GEI CONSULTANTS.GDT 1/17/18

GEI Consultants

GEI Consultants, Inc., P.C.
1301 Trumansburg Road
Ithaca, NY 14850
(607) 216-8955

CLIENT: Orange and Rockland Utilities
PROJECT: Nyack MGP Site - SMP
CITY/STATE: Nyack, NY
GEI PROJECT NUMBER: 1701486

BORING LOG
PAGE 2 of 2
MW46

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
20				0.0				
				0.0				
				8.0				
	S3	5.0	5	0.0			(23'- 28.5') BEDROCK, White and reddish-brown sandstone, fine to medium grained, medium bedding, moderately fractured.	
				0.0				
25				0.0				2" diam. PVC 0.020" Slot Screen
				0.0				
				0.0				
	S4	5.0	5	0.0			(28.5'- 33') BEDROCK, White and reddish-brown sandstone, fine to medium grained, medium bedding, moderately fractured; hydrocarbon-like sheens at 28.5', 28.7' and 29.8'.	
				2.2				
30				0.4				
				0.0				
				0.0				
	S5	5.0	5	9.2			(33'- 40') BEDROCK, White and reddish-brown sandstone, fine to medium grained, medium bedding, moderately fractured.	
				24.2				
35				1.5				
				1.8				
				1.1				
				1.1				well sump with bentonite seal from 38-40' bgs bentonite
40							Bottom of borehole at 40.0 feet.	

NOTES:

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ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

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OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR
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GLO = GASOLINE LIKE ODOR

ENVIRONMENTAL BORING LOG NYACK SMP BORELOGS.GPJ GEI CONSULTANTS.GDT 1/17/18

GEI Consultants	CLIENT: Orange and Rockland Utilities	BORING LOG
GEI Consultants, Inc., P.C. 1301 Trumansburg Road Ithaca, NY 14850 (607) 216-8955	PROJECT: Nyack MGP Site - SMP CITY/STATE: Nyack, NY GEI PROJECT NUMBER: 1701486	PAGE 1 of 2 — MW47

GROUND SURFACE ELEVATION (FT): 34.2 LOCATION: Upper Terrace
NORTHING: 823089.6 EASTING: 653160.11 TOTAL DEPTH (FT): 38.50
DRILLED BY: Nothnagle Drilling DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Jerry Peake DATE START / END: 12/13/2017 - 12/13/2017
DRILLING DETAILS: Direct Push / CME 55LC PVC casing 26.73 ft
WATER LEVEL DEPTHS (FT):

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0		14.5					(0'- 14.5') No soil samples were collected from 0-14.5' bgs; four (4) inch casing installed in bedrock and grouted.	Flush mounted curb box
5								cement bentonite grout
								4" steel casing 0-16.5' bgs
10								
15							Reddish-brown fine to medium grained sandstone with interbedded white sandstone.	Bentonite seal
	S1	5.0	3.8					Sand pack from 15.5-36.5' bgs
20								

NOTES:

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GLO = GASOLINE LIKE ODOR

ENVIRONMENTAL BORING LOG NYACK SMP BORELOGS.GPJ GEI CONSULTANTS.GDT 1/17/18

GEI Consultants

GEI Consultants, Inc., P.C.
1301 Trumansburg Road
Ithaca, NY 14850
(607) 216-8955

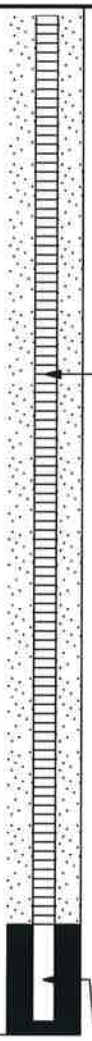
CLIENT: Orange and Rockland Utilities
PROJECT: Nyack MGP Site - SMP
CITY/STATE: Nyack, NY
GEI PROJECT NUMBER: 1701486

BORING LOG

PAGE 2 of 2

MW47

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
20								
	S2	5.0	4.9	0.0			Reddish-brown fine to medium grained sandstone with interbedded white sandstone.	
				0.0			Reddish-brown silt stone, fine to medium grained moderately fractured.	
25				0.1			Reddish-brown fine to medium sandstone with interbedded white sandstone.	
	S3	5.0	4.9	0.0				
				0.6			Reddish-brown white sandstone, fine to medium grained; sheen visible throughout.	
				3.2				
				1.2				
30				1.7				
				1.0				
	S4	5.0	4.7	1.8			Reddish-brown white sandstone, fine to medium grained; sheen visible throughout.	
				1.1				
				2.7				
				3.9				
35				1.0				
				1.3				
				1.5				
				1.3				
							Bottom of borehole at 38.5 feet.	



2" diam. PVC 0.020" Slot Screen

bentonite seal well sump with bentonite seal from 36.5-38.5' bgs

NOTES:

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SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR
HLO = HYDROCARBON LIKE ODOR
GLO = GASOLINE LIKE ODOR

ENVIRONMENTAL BORING LOG NYACK SMP BORELOGS.GPJ GEI CONSULTANTS.GDT 1/17/18

Appendix B

Well Abandonment Records

WELL DECOMMISSIONING RECORD

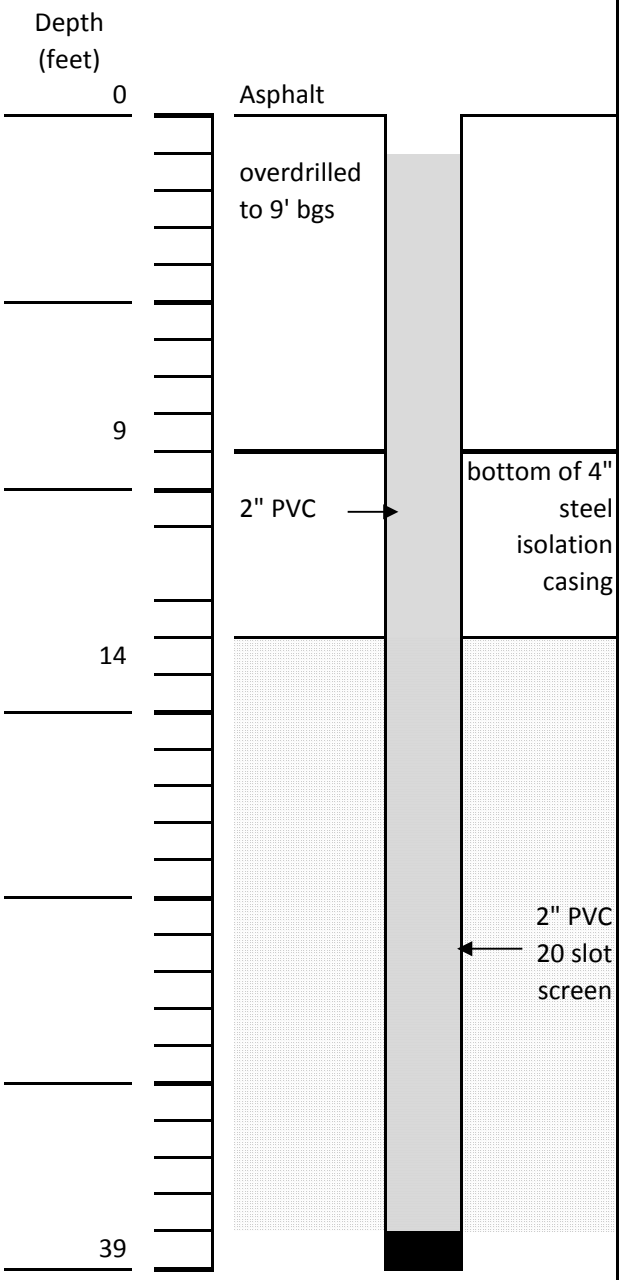
Site Name: Nyack Former MGP Site - NYSDEC #344046	Well I.D.: MW-1D
Site Location: Nyack, NY	Driller: Thom Mangefrida
Drilling Co.: Nothnagle Drilling	Inspector: Jerry Peake
	Date: 12/12/2017

DECOMMISSIONING DATA

(Fill in all that apply)

OVERDRILLING	
Interval Drilled	0.9'
Drilling Method(s)	HSA
Borehole Dia. (in.)	6 1/4"
Temporary Casing Installed? (y/n)	n
Depth temporary casing installed	N/A
Casing type/dia. (in.)	N/A
Method of installing	N/A
CASING PULLING	
Method employed	Drill Rig
Casing retrieved (feet)	39'
Casing type/dia. (in.)	4" steel/ 2" PVC
CASING PERFORATING	
Equipment used	N/A
Number of perforations/foot	N/A
Size of perforations	N/A
Interval perforated	N/A
GROUTING	
Interval grouted (FBLS)	0-39'
# of batches prepared	2
For each batch record:	
Quantity of water used (gal.)	8 gals
Quantity of cement used (lbs.)	94 lbs
Cement type	Portland
Quantity of bentonite used (lbs.)	4 lbs
Quantity of calcium chloride used (lbs.)	N/A
Volume of grout prepared (gal.)	24 gals
Volume of grout used (gal.)	24 gals

WELL SCHEMATIC*



COMMENTS:

All steel casing and PVC well materials removed from borehole.

*Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

James Edwards, P.G.

Drilling Contractor / Consultant

NA

Department Representative

ThermoRetec Corporation
1001 W. Seneca St., Suite 204
Ithaca, NY 14850-3342
(607) 277-5716 Phone
(607) 277-9057 Fax
www.thermoretec.com

WELL INSTALLATION LOG

ID: MW1D

Project Number: ORAN2-04301	**Drilling Co.:** Maxim Technologies Inc.	**Surface Elevation: (MSL)** 37.70
Client: Orange and Rockland Utilities	**Driller:** Walt Ketter	**Water Level During Drilling:** 9.52
Site Location: Nyack MGP	**Casing ID:** 4" Schedule 40 Steel	**Stickup:** Flush Mount Installation
Start Date: 10/23/99	**Method:** 6 1/4" ID HSA/HQ Rock Core	**MP Elevation: (MSL)** 37.27
Completion Date: 10/24/99	**Logged By:** James Edwards	**Total Depth:** 39
Location: Western Parcel		

Depth (ft)	Sample Depth	Blow Counts\6"	Percent Recovery	PID (ppm)	Run Number	Rock Quality Designation	Lithology (symbol)	Description	Well Construction
1	0-2	3 9 15 50\0.1	30	4.1	NA	NA		**Asphalt Pavement** **Fill** Gravel; asphalt fragments; brick and mortar fragments.	Concrete surface seal
2									
3	2-4	8 9 9 9	45	15.5	NA	NA		Concrete slab - 1.8-2.8' bgs.	4" diameter steel isolation casing
4									
5	4-6	13 76 60\0.1	NA	28.5	NA	NA		Fill: sand mixed with sandstone fragments; hydrocarbon-like odor.	
6								**Sandstone Bedrock** Reddish; average hardness; fine grained; broken; thickly bedded;fractures are 0 to 60 degrees; slightly weathered.	Cement/Bentonite Grout
7	6-8	NA	NA	NA	NA	NA			
8									
9	8-9	NA	NA	NA	NA	NA			Bottom of isolation casing
10									Bentonite seal
11	9-14	NA	50	NA	1	7		**Mudstone** Reddish; nodules of grey silt in random pattern; broken; soft; open fractures; 0 to 40 degrees; moist.	Top of sandpack
12									
13								Open 90 degree fracture w/ reddish silt.	
14								**Sandstone** Reddish; average hardness; very fine grained; broken; thickly bedded; nodules of grey silt in random pattern; fractures 0 to 20 degrees; slightly weathered.	2" PVC 20 slot well screen
15									
16									

Remarks: Laboratory Soil Sample
MW1D(4.0-6.0)
MGP Indicators
4" steel Schedule 40 isolation casing
set at 9.0' bgs

ThermoRetec Corporation
1001 W. Seneca St., Suite 204
Ithaca, NY 14850-3342
(607) 277-5716 Phone
(607) 277-9057 Fax
www.thermoretec.com

WELL INSTALLATION LOG

ID: MW1D

Project Number: ORAN2-04301	**Drilling Co.:** Maxim Technologies Inc.	**Surface Elevation: (MSL)** 37.70
Client: Orange and Rockland Utilities	**Driller:** Walt Ketter	**Water Level During Drilling:** 9.52
Site Location: Nyack MGP	**Casing ID:** 4" Schedule 40 Steel	**Stickup:** Flush Mount Installation
Start Date: 10/23/99	**Method:** 6 1/4" ID HSA/HQ Rock Core	**MP Elevation: (MSL)** 37.70
Completion Date: 10/24/99	**Logged By:** James Edwards	**Total Depth:** 39
Location: Western Parcel		

Depth (ft)	Sample Depth	Blow Counts\6"	Percent Recovery	PID (ppm)	Run Number	Rock Quality Designation	Lithology (symbol)	Description	Well Construction
17	14-19	NA	78	NA	2	50		**Sandstone** Reddish; average hardness; very fine grained; broken; thickly bedded; nodules of grey silt in random pattern; fractures 0 to 20 degrees; slightly weathered.	
18									
19								Mudstone layer - 0.5' thick; very broken.	
20									
21	19-24	NA	100	NA	3	84			
22									
23								0.4' sandstone layer - very broken; soft.	
24									Well built inside 4" open bedrock borehole
25								Sandstone; grey and reddish in mottled pattern;	
26								slightly broken; fractures 0 to 80 degrees; trace reddish silt in open fracture.	
27	24-29	NA	99	NA	4	92		Sandstone becomes grey; coarse.	
28									
29									
30									
31			100						
32								Becomes massive.	

Remarks:

ThermoRetec Corporation
1001 W. Seneca St., Suite 204
Ithaca, NY 14850-3342
(607) 277-5716 Phone
(607) 277-9057 Fax
www.thermoretec.com

WELL INSTALLATION LOG

ID: MW1D

Project Number: ORAN2-04301	**Drilling Co.:** Maxim Technologies Inc.	**Surface Elevation: (MSL)** 37.70
Client: Orange and Rockland Utilities	**Driller:** Walt Ketter	**Water Level During Drilling:** 9.52
Site Location: Nyack MGP	**Casing ID:** 4" Schedule 40 Steel	**Stickup:** Flush Mount Installation
Start Date: 10/23/99	**Method:** 6 1/4" ID HSA/HQ Rock Core	**MP Elevation: (MSL)** 37.70
Completion Date: 10/24/99	**Logged By:** James Edwards	**Total Depth:** 39
Location: Western Parcel		

Depth (ft)	Sample Depth	Blow Counts/6"	Percent Recovery	PID (ppm)	Run Number	Rock Quality Designation	Lithology (symbol)	Description	Well Construction
33	29-34	NA	100	NA	5	100			
34									
35									
36	34-39	NA	94	NA	6	80			
37								Becomes slightly broken.	
38									
39								Bottom of Borehole	Bottom of sandpack
40									
41									
42									
43									
44									
45									
46									
47									
48									

Remarks:

Appendix C

Laboratory Chain-of-Custody Record and Form I Reports

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
Phone: 412.963.7058 Fax: 412.963.2478

Chain of Custody Record 196682

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: James Edwards	Site Contact:	Date:	COC No:
Company Name: GEI Consultants	Tel/Fax: jedwards@geiconsultants.com	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1301 Trumansburg Rd. Suite N	Analysis Turnaround Time			Sampler:
City/State/Zip: Ithaca, NY 14850	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below Std.			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: NYACK	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
PO# 1701486-1.1	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	BTEX	PAHs - 2 wtrs!
MW44	12/20/2017	1145	G	W	5			X	X
MW46	↓	1305	G	W	5			X	X
MW47	↓	1355	G	W	5			X	X
TRIP BLANK 12202017		-		W	3			X	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

180-73692 Chain of Custody

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
P. Sharpe	GEI		Pauline Watson	TAP	12-22-17
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 10:20
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW33D
Date Collected: 09/19/17 15:15
Date Received: 09/21/17 08:50

Lab Sample ID: 180-70537-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	15		1.0	0.18	ug/L			09/22/17 10:55	1
Ethylbenzene	50		1.0	0.25	ug/L			09/22/17 10:55	1
Toluene	3.1		1.0	0.16	ug/L			09/22/17 10:55	1
Xylenes, Total	33		2.0	0.27	ug/L			09/22/17 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*80 - 120*		*09/22/17 10:55*	*1*
Dibromofluoromethane (Surr)	*96*		*73 - 120*		*09/22/17 10:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*65 - 121*		*09/22/17 10:55*	*1*
Toluene-d8 (Surr)	*94*		*73 - 120*		*09/22/17 10:55*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: MW33D
Date Collected: 09/19/17 15:15
Date Received: 09/21/17 08:50

Lab Sample ID: 180-70537-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**39**		1.8	0.67	ug/L		09/22/17 11:49	09/26/17 18:55	1
Acenaphthylene	**1.4**	**J**	1.8	0.56	ug/L		09/22/17 11:49	09/26/17 18:55	1
Anthracene	**6.6**		1.8	0.52	ug/L		09/22/17 11:49	09/26/17 18:55	1
Benzo[a]anthracene	**3.0**		1.8	1.1	ug/L		09/22/17 11:49	09/26/17 18:55	1
Benzo[a]pyrene	**1.8**		1.8	0.82	ug/L		09/22/17 11:49	09/26/17 18:55	1
Benzo[b]fluoranthene	**1.3**	**J**	1.8	0.61	ug/L		09/22/17 11:49	09/26/17 18:55	1
Benzo[g,h,i]perylene	**0.81**	**J**	1.8	0.75	ug/L		09/22/17 11:49	09/26/17 18:55	1
Benzo[k]fluoranthene	ND		1.8	1.7	ug/L		09/22/17 11:49	09/26/17 18:55	1
Chrysene	**2.4**		1.8	0.78	ug/L		09/22/17 11:49	09/26/17 18:55	1
Dibenz(a,h)anthracene	ND		1.8	0.72	ug/L		09/22/17 11:49	09/26/17 18:55	1
Fluoranthene	**6.7**		1.8	1.1	ug/L		09/22/17 11:49	09/26/17 18:55	1
Fluorene	**13**		1.8	1.0	ug/L		09/22/17 11:49	09/26/17 18:55	1
Indeno[1,2,3-cd]pyrene	ND		1.8	0.71	ug/L		09/22/17 11:49	09/26/17 18:55	1
2-Methylnaphthalene	ND		1.8	1.1	ug/L		09/22/17 11:49	09/26/17 18:55	1
Naphthalene	**19**		1.8	1.6	ug/L		09/22/17 11:49	09/26/17 18:55	1
Phenanthrene	**27**		1.8	1.2	ug/L		09/22/17 11:49	09/26/17 18:55	1
Pyrene	**10**		1.8	0.85	ug/L		09/22/17 11:49	09/26/17 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*52*		*39 - 100*	*09/22/17 11:49*	*09/26/17 18:55*	*1*
Nitrobenzene-d5 (Surr)	*53*		*36 - 100*	*09/22/17 11:49*	*09/26/17 18:55*	*1*
Terphenyl-d14 (Surr)	*36*		*20 - 102*	*09/22/17 11:49*	*09/26/17 18:55*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW43
Date Collected: 09/19/17 13:45
Date Received: 09/21/17 08:50

Lab Sample ID: 180-70537-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.3		1.0	0.18	ug/L			09/22/17 03:59	1
Ethylbenzene	1.3		1.0	0.25	ug/L			09/22/17 03:59	1
Toluene	0.51	J	1.0	0.16	ug/L			09/22/17 03:59	1
Xylenes, Total	0.83	J	2.0	0.27	ug/L			09/22/17 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*80 - 120*		*09/22/17 03:59*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 120*		*09/22/17 03:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*65 - 121*		*09/22/17 03:59*	*1*
Toluene-d8 (Surr)	*93*		*73 - 120*		*09/22/17 03:59*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: MW43
Date Collected: 09/19/17 13:45
Date Received: 09/21/17 08:50

Lab Sample ID: 180-70537-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1.8	0.70	ug/L		09/22/17 11:44	09/26/17 18:28	1
Acenaphthylene	ND		1.8	0.58	ug/L		09/22/17 11:44	09/26/17 18:28	1
Anthracene	ND		1.8	0.54	ug/L		09/22/17 11:44	09/26/17 18:28	1
Benzo[a]anthracene	ND		1.8	1.1	ug/L		09/22/17 11:44	09/26/17 18:28	1
Benzo[a]pyrene	ND		1.8	0.85	ug/L		09/22/17 11:44	09/26/17 18:28	1
Benzo[b]fluoranthene	ND		1.8	0.63	ug/L		09/22/17 11:44	09/26/17 18:28	1
Benzo[g,h,i]perylene	ND		1.8	0.78	ug/L		09/22/17 11:44	09/26/17 18:28	1
Benzo[k]fluoranthene	ND		1.8	1.8	ug/L		09/22/17 11:44	09/26/17 18:28	1
Chrysene	ND		1.8	0.81	ug/L		09/22/17 11:44	09/26/17 18:28	1
Dibenz(a,h)anthracene	ND		1.8	0.75	ug/L		09/22/17 11:44	09/26/17 18:28	1
Fluoranthene	ND		1.8	1.2	ug/L		09/22/17 11:44	09/26/17 18:28	1
Fluorene	ND		1.8	1.1	ug/L		09/22/17 11:44	09/26/17 18:28	1
Indeno[1,2,3-cd]pyrene	ND		1.8	0.74	ug/L		09/22/17 11:44	09/26/17 18:28	1
2-Methylnaphthalene	ND		1.8	1.1	ug/L		09/22/17 11:44	09/26/17 18:28	1
Naphthalene	**2.7**		1.8	1.7	ug/L		09/22/17 11:44	09/26/17 18:28	1
Phenanthrene	ND		1.8	1.2	ug/L		09/22/17 11:44	09/26/17 18:28	1
Pyrene	ND		1.8	0.88	ug/L		09/22/17 11:44	09/26/17 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*39 - 100*	*09/22/17 11:44*	*09/26/17 18:28*	*1*
Nitrobenzene-d5 (Surr)	*73*		*36 - 100*	*09/22/17 11:44*	*09/26/17 18:28*	*1*
Terphenyl-d14 (Surr)	*31*		*20 - 102*	*09/22/17 11:44*	*09/26/17 18:28*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: MW44
Date Collected: 12/20/17 11:45
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1300		100	60	ug/L			12/27/17 13:48	100
Ethylbenzene	790		100	51	ug/L			12/27/17 13:48	100
Toluene	ND		100	46	ug/L			12/27/17 13:48	100
Xylenes, Total	700		200	89	ug/L			12/27/17 13:48	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*	*X*	*80 - 120*		*12/27/17 13:48*	*100*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*12/27/17 13:48*	*100*
1,2-Dichloroethane-d4 (Surr)	*89*		*65 - 121*		*12/27/17 13:48*	*100*
Toluene-d8 (Surr)	*77*		*73 - 120*		*12/27/17 13:48*	*100*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: MW44
Date Collected: 12/20/17 11:45
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	130		1.9	0.72	ug/L		12/27/17 10:41	12/31/17 15:35	1
Acenaphthylene	26		1.9	0.60	ug/L		12/27/17 10:41	12/31/17 15:35	1
Anthracene	69		1.9	0.56	ug/L		12/27/17 10:41	12/31/17 15:35	1
Benzo[a]anthracene	74		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 15:35	1
Benzo[a]pyrene	58		1.9	0.89	ug/L		12/27/17 10:41	12/31/17 15:35	1
Benzo[b]fluoranthene	44		1.9	0.66	ug/L		12/27/17 10:41	12/31/17 15:35	1
Benzo[g,h,i]perylene	28		1.9	0.82	ug/L		12/27/17 10:41	12/31/17 15:35	1
Benzo[k]fluoranthene	17		1.9	1.8	ug/L		12/27/17 10:41	12/31/17 15:35	1
Chrysene	69		1.9	0.84	ug/L		12/27/17 10:41	12/31/17 15:35	1
Dibenz(a,h)anthracene	ND		1.9	0.78	ug/L		12/27/17 10:41	12/31/17 15:35	1
Fluoranthene	140		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 15:35	1
Fluorene	77		1.9	1.1	ug/L		12/27/17 10:41	12/31/17 15:35	1
Indeno[1,2,3-cd]pyrene	18		1.9	0.77	ug/L		12/27/17 10:41	12/31/17 15:35	1
2-Methylnaphthalene	190		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 15:35	1
Naphthalene	1000	E	1.9	1.8	ug/L		12/27/17 10:41	12/31/17 15:35	1
Phenanthrene	300		1.9	1.3	ug/L		12/27/17 10:41	12/31/17 15:35	1
Pyrene	170		1.9	0.92	ug/L		12/27/17 10:41	12/31/17 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*39 - 100*	*12/27/17 10:41*	*12/31/17 15:35*	*1*
Nitrobenzene-d5 (Surr)	*49*		*36 - 100*	*12/27/17 10:41*	*12/31/17 15:35*	*1*
Terphenyl-d14 (Surr)	*28*		*20 - 102*	*12/27/17 10:41*	*12/31/17 15:35*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW46
Date Collected: 12/20/17 13:05
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5900		250	150	ug/L			12/27/17 15:00	250
Ethylbenzene	650		250	130	ug/L			12/27/17 15:00	250
Toluene	500		250	110	ug/L			12/27/17 15:00	250
Xylenes, Total	790		500	220	ug/L			12/27/17 15:00	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*80 - 120*		*12/27/17 15:00*	*250*
Dibromofluoromethane (Surr)	*96*		*73 - 120*		*12/27/17 15:00*	*250*
1,2-Dichloroethane-d4 (Surr)	*90*		*65 - 121*		*12/27/17 15:00*	*250*
Toluene-d8 (Surr)	*84*		*73 - 120*		*12/27/17 15:00*	*250*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: MW46
Date Collected: 12/20/17 13:05
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	37		1.9	0.72	ug/L		12/27/17 10:41	12/31/17 17:31	1
Acenaphthylene	4.0		1.9	0.60	ug/L		12/27/17 10:41	12/31/17 17:31	1
Anthracene	5.3		1.9	0.56	ug/L		12/27/17 10:41	12/31/17 17:31	1
Benzo[a]anthracene	1.3	J	1.9	1.2	ug/L		12/27/17 10:41	12/31/17 17:31	1
Benzo[a]pyrene	ND		1.9	0.89	ug/L		12/27/17 10:41	12/31/17 17:31	1
Benzo[b]fluoranthene	ND		1.9	0.66	ug/L		12/27/17 10:41	12/31/17 17:31	1
Benzo[g,h,i]perylene	ND		1.9	0.82	ug/L		12/27/17 10:41	12/31/17 17:31	1
Benzo[k]fluoranthene	ND		1.9	1.8	ug/L		12/27/17 10:41	12/31/17 17:31	1
Chrysene	1.1	J	1.9	0.84	ug/L		12/27/17 10:41	12/31/17 17:31	1
Dibenz(a,h)anthracene	ND		1.9	0.78	ug/L		12/27/17 10:41	12/31/17 17:31	1
Fluoranthene	3.4		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 17:31	1
Fluorene	16		1.9	1.1	ug/L		12/27/17 10:41	12/31/17 17:31	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.77	ug/L		12/27/17 10:41	12/31/17 17:31	1
2-Methylnaphthalene	100		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 17:31	1
Naphthalene	960	E	1.9	1.8	ug/L		12/27/17 10:41	12/31/17 17:31	1
Phenanthrene	24		1.9	1.3	ug/L		12/27/17 10:41	12/31/17 17:31	1
Pyrene	4.6		1.9	0.92	ug/L		12/27/17 10:41	12/31/17 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*53*		*39 - 100*	*12/27/17 10:41*	*12/31/17 17:31*	*1*
Nitrobenzene-d5 (Surr)	*45*		*36 - 100*	*12/27/17 10:41*	*12/31/17 17:31*	*1*
Terphenyl-d14 (Surr)	*33*		*20 - 102*	*12/27/17 10:41*	*12/31/17 17:31*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW47
Date Collected: 12/20/17 13:55
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	410		15	8.9	ug/L			12/27/17 14:36	15
Ethylbenzene	290		15	7.6	ug/L			12/27/17 14:36	15
Toluene	390		15	6.9	ug/L			12/27/17 14:36	15
Xylenes, Total	540		30	13	ug/L			12/27/17 14:36	15

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*80 - 120*		*12/27/17 14:36*	*15*
Dibromofluoromethane (Surr)	*90*		*73 - 120*		*12/27/17 14:36*	*15*
1,2-Dichloroethane-d4 (Surr)	*88*		*65 - 121*		*12/27/17 14:36*	*15*
Toluene-d8 (Surr)	*78*		*73 - 120*		*12/27/17 14:36*	*15*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: MW47
Date Collected: 12/20/17 13:55
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	47		1.9	0.72	ug/L		12/27/17 10:41	12/31/17 19:04	1
Acenaphthylene	21		1.9	0.60	ug/L		12/27/17 10:41	12/31/17 19:04	1
Anthracene	7.3		1.9	0.56	ug/L		12/27/17 10:41	12/31/17 19:04	1
Benzo[a]anthracene	2.2		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 19:04	1
Benzo[a]pyrene	1.6	J	1.9	0.89	ug/L		12/27/17 10:41	12/31/17 19:04	1
Benzo[b]fluoranthene	1.0	J	1.9	0.66	ug/L		12/27/17 10:41	12/31/17 19:04	1
Benzo[g,h,i]perylene	0.84	J	1.9	0.82	ug/L		12/27/17 10:41	12/31/17 19:04	1
Benzo[k]fluoranthene	ND		1.9	1.8	ug/L		12/27/17 10:41	12/31/17 19:04	1
Chrysene	1.6	J	1.9	0.84	ug/L		12/27/17 10:41	12/31/17 19:04	1
Dibenz(a,h)anthracene	ND		1.9	0.78	ug/L		12/27/17 10:41	12/31/17 19:04	1
Fluoranthene	5.7		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 19:04	1
Fluorene	23		1.9	1.1	ug/L		12/27/17 10:41	12/31/17 19:04	1
Indeno[1,2,3-cd]pyrene	ND		1.9	0.77	ug/L		12/27/17 10:41	12/31/17 19:04	1
2-Methylnaphthalene	110		1.9	1.2	ug/L		12/27/17 10:41	12/31/17 19:04	1
Naphthalene	1300	E	1.9	1.8	ug/L		12/27/17 10:41	12/31/17 19:04	1
Phenanthrene	36		1.9	1.3	ug/L		12/27/17 10:41	12/31/17 19:04	1
Pyrene	7.8		1.9	0.92	ug/L		12/27/17 10:41	12/31/17 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*39 - 100*	*12/27/17 10:41*	*12/31/17 19:04*	*1*
Nitrobenzene-d5 (Surr)	*54*		*36 - 100*	*12/27/17 10:41*	*12/31/17 19:04*	*1*
Terphenyl-d14 (Surr)	*39*		*20 - 102*	*12/27/17 10:41*	*12/31/17 19:04*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: TRIP BLANK 09192017
Date Collected: 09/19/17 00:00
Date Received: 09/21/17 08:50

Lab Sample ID: 180-70537-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.18	ug/L			09/22/17 05:21	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/22/17 05:21	1
Toluene	ND		1.0	0.16	ug/L			09/22/17 05:21	1
Xylenes, Total	ND		2.0	0.27	ug/L			09/22/17 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/22/17 05:21*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*09/22/17 05:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*65 - 121*		*09/22/17 05:21*	*1*
Toluene-d8 (Surr)	*96*		*73 - 120*		*09/22/17 05:21*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: TRIPBLANK12202017
Date Collected: 12/20/17 00:00
Date Received: 12/22/17 10:20

Lab Sample ID: 180-73692-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.60	ug/L			12/26/17 16:41	1
Ethylbenzene	ND		1.0	0.51	ug/L			12/26/17 16:41	1
Toluene	ND		1.0	0.46	ug/L			12/26/17 16:41	1
Xylenes, Total	ND		2.0	0.89	ug/L			12/26/17 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/26/17 16:41*	*1*
Dibromofluoromethane (Surr)	*109*		*73 - 120*		*12/26/17 16:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*65 - 121*		*12/26/17 16:41*	*1*
Toluene-d8 (Surr)	*83*		*73 - 120*		*12/26/17 16:41*	*1*

Appendix D

2017 SMP Inspection Form

SITE INSPECTION FORM

Nyack Former Manufactured Gas Plant Site

SITE INSPECTION DATE: 12-21-17 **TIME OF ARRIVAL:** 10:30 am

DEPARTURE: 11:30 am

WEATHER: Sunny, 30 F

O&R Representative(s): None

INSPECTION TYPE: **Annual Inspection**

(if emergency indicate event that required an inspection): Annual Inspection for 2017

Are the Institutional Controls in place, performing properly, and remain effective?

(Yes) / No

Does the Site comply with NYSDEC-approved Site Management Plan? (Yes) / No

Has ownership of the property changed since the last inspection? (Yes) / No

(Verify with Real Estate and Survey Departments)

Yes, ownership has changed to TZ Vista LLC.

Are there any changes to intended site use (restricted Residential, Commercial, or Industrial) which would affect the SMP or institutional controls? (Yes) / No

Yes, site is being developed by TZ Vista and is scheduled for development for commercial and residential use. This development has been approved by the City of Nyack and the NYSDEC DER.

Or Industrial

Is site used for agricultural purpose or vegetable gardens? Yes / (No)

Is groundwater used as source of potable or process water onsite Yes / (No)

SITE INSPECTION FORM

Nyack Former Manufactured Gas Plant Site

If yes to the above – does water go through the necessary water quality treatment? NA

Is solidified material visible? Yes / (No)

Is there any evidence of the damage to solidified soil from frost and wave Yes / (No)

Are the Engineering Controls in place, performing properly, and remain effective?

Surface Cover Intact (i.e. no evidence of erosion, excavations)? (Yes) / No

Engineering control cover remains intact and has been supplemented with additional cover as part of the current development. Riprap placed on the jetty shoreline intact. Evidence of disturbance in the offshore area not observed. The utilities identified in the SMP for the site remain in place and are intact.

GENERAL SITE OBSERVATIONS:

Have there been any changes to the property since the last inspection? (Yes) / No

(i.e. new equipment, residential buildings or facilities, changes in site topography, erosion, etc.)

The site is being developed by TZ Vista and is scheduled for development for commercial and residential use. This development has been approved by the City of Nyack and the NYSDEC DER.

NOTE:

Inspections should be made a minimum once a year and within 5 days of an emergency, such as a natural disaster or an unforeseen failure or damage to the building occurs. Inspections will be conducted by National Fuel Gas (or their agent) and results reported to NYSDEC.

COMPLETED BY: Daniel Kopcow, P.E.	**SIGNATURE:**

Enclosure 2

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

Site Details **Box 1**

Site No. 344046

Site Name OR - Nyack MGP

Site Address: 55 Gedney St Zip Code: 10960-
City/Town: Nyack
County: Rockland
Site Acreage: 3.8

Reporting Period: to November 30, 2017

	YES	NO
1. Is the information above correct? Reporting period to December 31, 2017	☐	☒
If NO, include handwritten above or on a separate sheet. Reporting period end modified		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☒	☐
Since SMP finalization parcel ownership transferred to TZ Vista, information shown in Box 3 is correct.		
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
Some redevelopment activities have been performed, however, site use is unchanged.		
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☒	☐
Rockland County Department of Health permits attached		
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
Attached report prepared by GEI Consultants, Inc., P.C.		
5. Is the site currently undergoing development?	☒	☐

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

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

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

Not Applicable

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 344046

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
66.39-1-1	TZ Vista, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
66.39-1-1	Vapor Mitigation **(Note 1)** Cover System

Note 1:

Based on the specifications of the Site Management Plan, a vapor mitigation system is required if new buildings are constructed at the site. The installation of the mitigation system is the responsibility of the Site Owner, not the Remedial Party (Orange and Rockland Utilities, Inc.). It is GEI Consultants, Inc., P.C.'s understanding that the Site Owner is corresponding with the NYSDEC regarding the required system as the property is being redeveloped.

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

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

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

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

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

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

YES	NO
X	☐

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

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

Not Applicable

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. 344046

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Maribeth McCormick (print name) at 390 West Route 59, Spring Valley, New York 10977 (print business address),

am certifying as Orange and Rockland Utilities, Inc. (Owner or Remedial Party)

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

Maribeth McCormick

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

March 23, 2018
Date

IC/EC CERTIFICATIONS

Box 7

Signature

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

I Daniel Kopcow, P.E. at 1301 Trumansburg Road, Suite N, Ithaca, New York 14850
print name print business address

am certifying as a Professional Engineer for the Remedial Party (Orange and Rockland Utilities, Inc.)

Signature of Rendering Certification

Stamp (Required for PE)

March 23, 2018
Date

Rockland County
HEALTH

PERMIT TO DECOMMISSION A WELL

Phone (845) 364-3682 Fax (845) 364-2025

Permit #:	Actual Decommission Date:	Actual Decommission Time:	RCDOH Notification Confirmation #:
WD-17-016			

Location of Well

Section/Block/Lot:	Well Address:	Well Village/City:	Well Town:
66.39-1-1	59 Gedney St	Nyack	Orangetown

Subdivision Name: former MGP site

Lot Number:

Decommissioning Contractor

Nothnagle Drilling, Inc.

RCDOH Registration: RWC-0061

NYSDEC Registration: NYRD 10072

Phone: 585-538-2328

RCDOH Expiration Date: 4/5/2018

NYSDEC Expiration Date: 3/31/2018

Property Owner

Name:	Mailing Address:			
TZ Vista	27 Route 210	Stony Point	NY	10980

Authorized Representative:	Phone:	Fax:
Maribeth McCormick	(845) 294-1757	(845) 294-8906

Conditions of Permit

General Conditions (apply to all parties named on the application)

- Permit is automatically rendered null and void if the application is not true and accurate.
- All work shall be conducted in compliance with applicable federal, state and local laws, rules and regulations, including Article II, Section 2.8.5.4 of the Rockland County Sanitary Code.
- There shall be no deviation from the plans submitted on and with the application without prior approval by the Commissioner (or his/her designee).

Decommissioning Contractor

- Minimum two (2) business days notice required prior to decommissioning well. Call (845) 364-2604, give date and time of decommissioning; record the notification confirmation number provided by RCDOH personnel on the space provided on this permit. No subsequent deviation in date and time allowed without prior notification.
- Submit a signed copy of the RCDOH Decommissiong Report, completed in its entirety, to RCDOH within 60 days of decommissioning the well.

Other Conditions:

Ensure that materials used to seal and decommission the wells are mixed pursuant to Section 2.8.3.5 of Article II of Rockland County Sanitary Code Any waste fluids generated during the decommissioning of the wells must be adequately contained and managed at the site in accordance with federal, state and local laws and regulations.
Casing must be cut 5 feet below grade

Issuance Date:	Expiration Date:	Permit Issuing Official
11/9 /2017	5 /9 /2018	Jeremy Erlich

Rockland County HEALTH

PERMIT TO CONSTRUCT A RESOURCE EVALUATION WELL

Phone (845) 364-3682 Fax (845) 364-2025

Permit #:	Actual Drilling Date:	Actual Drilling Time:	RCDOH Notification Confirmation #:
RE-17-039			

Location of Well

Section/Block/Lot:	Well Address:	Well Village/City:	Well Town:
66.39-1-1	59 Gedney St	Nyack	Orangetown

Subdivision Name: former MGP site

Lot Number:

Wells Installed:

Drilling Contractor

Nothnagle Drilling, Inc.		RCDOH Registration	RWC-0061	NYSDEC Registration	NYRD 10072
Phone:	585-538-2328	RCDOH Expiration Date	4/5/2018	NYSDEC Expiration Date	3/31/2018

Property Owner

Name:	Mailing Address.			
TZ Vista	27 Route 210	Stony Point	NY	10980

Authorized Representative:	Phone:	Fax:
Maribeth McCormick	(845) 294-1757	(845) 294-8906

Conditions of Permit

General Conditions (apply to all parties named on the application)

- Permit is automatically rendered null and void if the application is not true and accurate.
- All work shall be conducted in compliance with applicable federal, state and local laws, rules and regulations.
- There shall be no deviations from the plans submitted on and with the application without prior approval by the Commissioner (or his/her designee).

Drilling Contractor

- **Minimum two (2) business days notice required prior to drilling well.**Call (845) 364-2604; give date, time of maintenance; record the notification confirmation number provided by RCDOH. No subsequent deviation in date and time allowed without prior notification
- Install, develop and secure the well(s) in accordance with the plans submitted with the application or in accordance with any conditions listed below.
- Submit a signed copy of the boring log(s) and well completion report(s), to RCDOH within 60 days of drillings the well(s).

Property Owner

- Submit documentation of appropriate waste disposal pursuant to all federal, state, local laws and regulations to RCDOH within 30 days of drilling.

Other Conditions

- All boreholes must be decommissioned within 48 hours (see Paragraph 2.8.4.10.1 of the Rockland County Sanitary Code). Only boreholes less than 25 ft. that do not intercept groundwater may be decommissioned by backfilling with uncontaminated cuttings and tamping. Otherwise, grout used to seal the borings shall be mixed pursuant to Paragraph 2.8.3.5.1. Ensure that all wastes generated during the drilling operations are properly managed and disposed of in accordance with federal, state and local laws and regulations.
- All monitoring wells must be protected from damage during any construction activities, and must be decommissioned upon completion of the investigation pursuant to Article II of the Rockland County Sanitary Code. Such decommissioning will require removal of the casing and filter pack prior to pressure grouting from the base to ground surface. In the event these wells are damaged or covered prior to being properly decommissioned, the owner will be responsible for any action required to expose the entire depth of the borehole to allow decommissioning.

Issuance Date:	Expiration Date:	Permit Issuing Official
10/24/2017	4/24/2018	Jeremy Erlich