HALEY ALDRICH

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PERIODIC REVIEW REPORT FOR PERIOD ENDING 13 DECEMBER 2023

TARRYTOWN FORMER MGP SITE
BROWNFIELD CLEANUP AGREEMENT NO. C3600064
TARRYTOWN, NEW YORK

by
Haley & Aldrich of New York
213 West 35th Street
7th Floor
New York, New York

for
New York State Department of Environmental Conservation
Albany, New York

File No. 134976-002
December 2023

Haley & Aldrich of New York
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27 December 2023
File No. 134976-002

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, New York 12233-7014

Attention: Michael Squire
Project Manager

Subject: Tarrytown Former MGP Site
Periodic Review Report Period Ending 13 December 2023
Brownfield Cleanup Agreement No. C3600064

Ladies and Gentlemen:

On behalf of Ferry Landings, LLC, Haley & Aldrich has prepared this Site Management Periodic Review Report (PRR) for the period ending 13 December 2023. During the period for this PRR, the revised *Site Management Plan - Tarrytown Former MGP Site, Tarrytown, NY*, dated August 2010 and accepted by the NYSDEC on 26 August 2010, was in force.

Based on ongoing site monitoring data and inspections, the remedial action continues to perform and is effective.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

Scott A. Underhill, P.E.
Principal Consultant

James M. Bellew
Principal

Mari C. Conlon, P.G.
Associate

Enclosures

C: NYSDEC; Attn: Amen Omorogbe
Ferry Landings, LLC, Attn: Carl Monheit
Con Edison: Attn: Yelena Skorobogatov

Executive Summary

This Site Management Periodic Review Report (PRR) for the period ending 13 December 2023 was prepared by Haley & Aldrich of New York on behalf of Ferry Landings, LLC. During the period covered by this PRR, the revised "Site Management Plan Tarrytown Former MGP Site, Tarrytown, NY," dated August 2010 and accepted by the NYSDEC on 26 August 2010 (the SMP), was in force.

This PRR provides a summary of the pre-remediation and post-remediation site conditions, and provides a synopsis of site activities conducted under the SMP during the reporting period, as follows:

- Based on monitoring events results and inspection performed during this and prior reporting periods, the remedial action remains functional and is effective as required by the SMP. Site monitoring and inspections should continue through the next PRR period per the SMP and the frequency for groundwater monitoring, underwater cap inspection, and DNAPL recovery events as recommended in the 2020 to 2021 period PRR, which was approved by NYSDEC on 07 January 2021.
- Engineering Controls and Institutional Controls for the site are in place and effective.

The current annual schedule for submitting the PRR itself is satisfactory. The next PRR required to be submitted to NYSDEC, covering the year between 14 December 2023 and 13 December 2024, will be submitted following the closure of that period, and within the time frame required.

During the reporting period, the DNAPL system was monitored and DNAPL extracted on October 30, 2023; November 15, 2023; and on 13 December 2023. The triennial groundwater sampling event took place on 16 November 2023, and the annual site inspection was conducted on 13 December 2022.

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1. Overview

This Periodic Review Summary Report (PRR) for the Tarrytown Former Manufactured Gas Plant (MGP) Site is for the period 12 December 2022 through 13 December 2023. The Periodic Review Report Form for this period is provided in Appendix A. This report provides:

- Summary of the site and nature of contamination prior to remedial actions;
- Summary of the remedial actions completed;
- Description of the ongoing operations, maintenance, and monitoring;
- Description of site activities during the reporting period;
- Statements regarding satisfactory compliance with the SMP and recommendations for continued future monitoring of site remedy elements; and,
- Comments about the information entered on the PRR form.

2. Introduction

This section presents a brief summary of site history, past and current conditions, remedial actions, and post-remediation operations, maintenance, and monitoring based on the following reports prepared by Haley & Aldrich of New York (Haley & Aldrich):

- Final Engineering Report Tarrytown Former MGP Site, Tarrytown, NY, 2005.
- Final Engineering Report Addendum Tarrytown Former MGP Site, Tarrytown, NY, 2006.
- Site Management Plan Tarrytown Former MGP Site, Westchester County, NY, August 2010 (Approved by NYSDEC 26 August 2010).
- Periodic Review Report Tarrytown Former MGP site, 31 August 2011.
- Periodic Review Report Tarrytown Former MGP site, 31 August 2014.
- Periodic Review Report Tarrytown Former MGP site, 31 August 2015.
- Periodic Review Report Tarrytown Former MGP site, 27 October 2016.
- Periodic Review Report Tarrytown Former MGP site, 27 November 2017.
- Periodic Review Report Tarrytown Former MGP site, 14 December 2018.
- Periodic Review Report Tarrytown Former MGP site, 15 January 2020[1].
- Periodic Review Report Tarrytown Former MGP site, 23 December 2020[2].
- Periodic Review Report Tarrytown Former MGP site, 21 December 2021.
- Periodic Review Report Tarrytown Former MGP site, 12 December 2022.

2.1 SUMMARY OF SITE, NATURE OF CONTAMINATION AND REMEDIAL ACTIONS

2.1.1 Site

A site locus showing the project location is provided as Figure 1 and site details (historic and current) are shown on plans provided in Figures 2 and 3. The site is located on the east side of the Hudson River north of the Governor Mario M. Cuomo (Tappan Zee) Bridge in the Village of Tarrytown, New York. The site is bound by Division and River Streets on the north, Railroad Avenue to the east, West Main Street on the south, and the Hudson River to the west. The site encompasses approximately 20 acres and was primarily used for industrial-commercial purposes prior to remediation. Remediation was performed between June 2004 and January 2005.

Prior to remediation, an asphalt plant was in the northwest portion of the site and a truck terminal and maintenance facility was located in the southeast portion of the site. The central portion of the site included a former manufactured gas plant (MGP), reportedly operated between 1873 and 1938. The MGP was last operated by the Westchester Lighting Company, which was succeeded in ownership by Con Edison.

[1] Note that this PRR report was for reporting period ending 13 December 2023 and the final PRR report was dated December 2023.

[2] Note that the PRR reporting periods have tracked the timeframes required by the NYSDEC in its tracking system and annual PRR reminder notice letters. Accordingly, each PRR may cover a different period of time from the prior PRR reporting period.

2.1.2 Nature of Contamination

This section presents a summary of the nature of contamination and objectives of the remedial actions performed for the contamination by area of interest, organized according to four areas of the site (Figure 2):

- Former Holder and Tar Well Area;
- Former Light Non-Aqueous Phase Liquid (LNAPL) Area;
- Northern Dense Non-Aqueous Phase Liquid (DNAPL) Area; and,
- Western DNAPL and Former River Sediment Area.

Remedial actions for these areas are described in Section 2.1.3.

2.1.2.1 Former Holder and Tar Well Area

During site investigations in 2003, some flowing MGP DNAPL was present in Holders A, B, and C, but not in Holder D. Soils in the "Tar Well Area", located south of Holder A, contained zones with MGP DNAPL.

2.1.2.2 Former LNAPL Area

Measurements in 1998 and 1999 by Handex Group, Inc. identified a zone of free floating LNAPL (primarily diesel fuel) in an approximately triangular-shaped area defined by MW-2, MW-3, and MW-6. Additionally, residual contamination, due to historic LNAPL releases, was evident between the free-floating LNAPL and West Main Street. Investigations in 2003 confirmed previous data regarding residual contamination in that area. No petroleum-related contamination was observed in the top four feet of soil in this area.

2.1.2.3 Northern DNAPL Area

The Northern DNAPL Area is located in the north-central portion of the site, partially underneath an existing office building (former County Asphalt office) and was observed at the time to be about 500 ft long (east-west) and 200 ft wide (north-south). The primary affected media in this area was observed to be soil containing discrete zones of MGP DNAPL (apparently derived from coal tar), as observed during site investigation prior to remediation. The subject zones are located 12 to 15 ft below ground surface (bgs) on the west side of the building and 9 to 13 ft bgs on the east side. The zone was observed during site investigations to be at the bottom of a layer of fill and exhibits limited penetration into the underlying natural soil.

2.1.2.4 Western DNAPL and Former River Sediment Area

Western DNAPL and Former River Sediment Area is located in the west-central portion of the site. The Western DNAPL Area was observed at the time to be about 240 feet long (east-west) by 40 ft wide (north-south). The primary affected media in this area was observed to be soil containing discrete zones of DNAPL (apparently derived from coal tar). These soils are located 22 to 26 feet bgs. The zone was observed during site investigations to be at the bottom of the fill and exhibits limited penetration into the underlying natural soil. DNAPL-contaminated river sediment was also identified prior to remediation west of the Western DNAPL Area within the adjacent portion of the Hudson River. Contamination extended about 160 ft along the existing sea wall, and outward into the river varying

distances, up to about 120 ft. DNAPL contamination in the form of blebs and heavy sheens was also identified in river borings. The depth of the observed DNAPL ranged from one foot up to 8 feet below the top of sediment.

2.1.3 Remedial Actions

The following is a summary of the Remedial Actions performed at the site.

2.1.3.1 Former Holder and Tar Well Area

The remediation consisted of removing the contents, walls and floor of three former MGP holders and excavation of contaminated soils adjacent to the holders, including an area believed to be associated with the former MGP tar wells. Contaminated soil and debris were taken off site to a permitted facility for disposal and the excavations were backfilled with a combination of on-site and imported fill meeting quality standards established for the project.

2.1.3.2 Former LNAPL Area

The remediation consisted of two parts, excavation of contaminated soil and installation of a recovery trench and skimmer system for residual floating petroleum product. Contaminated soil was taken off site to a permitted facility for disposal and the excavation was backfilled with a combination of on-site and imported fill meeting quality standards established for the project. The LNAPL recovery system was operated April 2005 through September 2007. The monitoring results through August 2007 supported a request to NYSDEC for approval to discontinue operation and to dismantle the system. In response, the NYSDEC agreed with the recommendation to discontinue operation of the LNAPL recovery system in its letter dated 10 September 2007. The system was subsequently dismantled.

2.1.3.3 Northern DNAPL Area

The remediation consisted of installing a 360-foot long sheet pile barrier extending from about 3 feet below the ground surface, downward through the fill soils into the native clayey soils to a depth of about 22 feet bgs. The barrier prevents westward migration of residual DNAPL contained in a two to three-foot-thick zone generally found at the bottom of fill (9 to 15 feet bgs). Underlying clay soils impede downward migration of the DNAPL. The Northern DNAPL recovery trench is 360-ft long, located adjacent to the sheet pile barrier, and contains six DNAPL recovery wells. An observation well is located near each end of the recovery trench.

During remediation, contaminated soil at the south end of the barrier was excavated and taken off site for disposal. The excavation was backfilled with a combination of on-site and imported fill meeting quality standards established for the project.

The recovery trench allows removal of DNAPL to the extent it accumulates on the east (upgradient) side of the barrier.

As reported in the 2017 PRR, in conjunction with the construction of the Lighthouse Building and Garage, two of the six recovery wells (RW-4N and RW-5N) were closed per an NYSDEC approval letter dated 17 May 2017. Since the system began operation in 2005, DNAPL had not been observed in either well.

In addition, the well head for RW-6N was modified by adding lateral riser piping connected to a new offset well head located outside the Lighthouse Building perimeter to facilitate future extraction operations.

2.1.3.4 Western DNAPL and Former River Sediment Area

The remediation consisted of installing a 160-foot long sheet pile barrier extending from the river bottom at the face of the relieving platform down to bedrock. The barrier prevents westward migration of residual DNAPL contained in a two to three-foot-thick zone generally found at the bottom of fill (22 to 26 feet bgs).

The Western DNAPL recovery trench is 60-ft long, about 26 to 28 feet deep, is situated about 65 feet inland (east) from the sheet pile barrier and contains two DNAPL recovery wells (RW-1 and RW-2). An observation well is located near each end of the recovery trench.

The Former River Sediment Area included the area beneath the relieving platform (about 160 feet by 20 feet by 4 feet deep) and an area of the river bottom along the sheet pile barrier and extending into the river, with a maximum extent of about 120 ft. Sediment was removed to depths ranging from about 3 to 8 feet below the river bottom.

Containment of residual DNAPL was completed with the construction of a 4-foot thick, 20-foot wide underwater cap over the sediments found under the relieving platform. The underwater cap is located between the steel sheet pile barrier at the western side of the relieving platform and the timber retaining wall at the eastern side of the relieving platform.

2.1.3.5 Cover System

A clean soil cover was placed in areas that are not beneath structures, roads, paved walks, etc. The clean soil cover is a minimum two feet thick and was placed over a demarcation layer, consisting of an orange geotextile, or equivalent. The cover system was completed in December 2006. NYSDEC's 9 January 2007 letter stated that NYSDEC had performed a site inspection on 28 December 2006 and found that "the clean soil cover was installed as required in the approved Work Plan." The cover system was disturbed between January 2010 and August 2014 for site development; cover was restored with the development by a new combination of cover elements (i.e., in places soil cover was replaced by new building and/or pavement and otherwise restored by replacement of the demarcation layer, soil cover and landscaping that meets cover thickness and material criteria). The cover system remained in place except for the minor cover disturbances for development activities between August 2014 and March 2016 and between April 2017 and July 2017. Those cover disturbances were restored as reported to NYSDEC in previous PRR Summary Reports.

During the current reporting period, the cover was not disturbed to the extent underlying soils were exposed – see Section 3 of this report for more information.

2.1.3.6 Sub-Slab Soil Vapor Intrusion Management Systems

Per the SMP, new buildings have been and will be constructed with passive sub-slab soil vapor intrusion management systems (VIMS) which are designed to be converted to active systems, if required by the NYSDEC or NYSDOH. Refer to Sections 6.3.4 and 6.3.5 for the summary of VIMS activities performed.

2.2 EFFECTIVENESS OF THE REMEDIAL PROGRAM

The remedial action, with the exception of periodically required replacement of site cover following construction activities, was completed in January 2005. Site cover placement was originally completed in October 2006. The 2005 Final Engineering Report and 2006 Final Engineering Report Addendum concluded that the remedial actions were performed in accordance with the Work Plans (and approved deviations). The Final Engineering Report was accepted by NYSDEC in its letter dated 25 May 2005 and the Final Engineering Report Addendum was accepted by NYSDEC in its letter dated 09 January 2007.

2.3 COMPLIANCE

The engineering controls are in place and effective.

2.4 RECOMMENDATIONS

The use of the SMP and Periodic Review Reports should continue. The SMP was revised during 2010; the August 2010 Revised SMP was accepted by the NYSDEC on 26 August 2010 and remains applicable to the site during the next reporting period. The next PRR reporting period will be 14 December 2023 through 13 December 2024.

3. Site Overview

3.1 SITE LOCATION AND SIGNIFICANT FEATURES

Refer to Section 2.1, above.

3.2 CHRONOLOGY, CLEANUP GOALS, AND MAIN FEATURES OF THE REMEDIAL PROGRAMS

For chronology of the remedial program, refer to Section 2.1, above. In terms of cleanup goals, as given in the August 2010 SMP, the criteria for soil to remain on site and be re-used (if excavated) below site cover are:

- Total benzene, toluene, ethylbenzene, and xylenes (BTEX) less than 10 ppm, and
- Total polycyclic aromatic hydrocarbons (PAHs) less than 500 ppm.

Criteria for clean soil cover are presented in 6 NYCRR Part 375 Table 367-6.8(b) for Restricted Residential use.

The main features of the remedial program are provided in Section 2.1, above. The only change to the site remedy since the remedy was selected in the approved Work Plans is the closure of the LNAPL recovery system. Refer to Section 2.1.3, above.

3.3 SITE ACTIVITIES DURING THE REPORTING PERIOD

During the reporting period, the DNAPL system was monitored and operated. Further details are summarized in Section 6.3.2. Annual site inspection was conducted on 13 December 2023.

4. Remedy Performance, Effectiveness, and Protectiveness

The remedy performance and effectiveness has been previously reported to NYSDEC in annual reports and PRRs. The most recent prior PRR was for the period ending 12 December 2022. During the current reporting period, the remedy continued to perform effectively and be protective of human health and the environment. A synopsis of the remedy performance follows:

- The LNAPL system successfully removed practically-recoverable floating product. The system was dismantled, following NYSDEC approval on 10 September 2007.
- The DNAPL recovery systems continue to operate as intended. Thickness of DNAPL in the recovery wells continues to be monitored and recovery is ongoing. The thickness of DNAPL in recovery wells continued to decrease through the monitoring period, as described in Section 6.
- The underwater cap in the Hudson River was inspected in December 2019. The condition of the cap was satisfactory. Cap integrity has remained stable over the last ~15 years and three intervals of inspection.

Sub-slab Vapor Intrusion Management Systems (VIMS) are in place and functional, as reported in previous PRRs. The site VIMS may be summarized as follows:

- Lookout Building South – one VIMS with seven risers for the entire building.
- Lookout Building North – a separate VIMS for each of two ground floor residential units, and one VIMS with nine risers for the garage space occupying the rest of the ground floor.
- Carriage Houses South – a separate VIMS for each of 14 residential units.
- Carriage Houses North – a separate VIMS for each of 13 residential units.
- Clubhouse – one VIMS with four risers for the entire building.
- Lighthouse Building and Garage – a separate VIMS for each of 9 ground-level residential units and one VIMS with six risers for the area encompassed by the Garage and lobby of the Lighthouse Building.

VIMS post-installation testing (i.e., indoor air quality and sub-slab soil vapor sampling) was completed during prior reporting periods. The results were submitted to NYSDEC and NYSDOH.

5. Institutional Controls/Engineering Controls Plan Compliance Report

5.1 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS REQUIREMENTS AND COMPLIANCE

The ICs and ECs are listed and described in tabular format in Box 3 and Box 4 of the attached Institutional and Engineering Controls Certification Form (Appendix A).

5.2 INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS CERTIFICATION

Based on the data collected, the remedial actions are effective. Please refer to Section 6 for additional details.

5.3 COVER DISTURBANCE

NYSDEC will be notified of future construction which disturbs the site cover per the SMP.

6. Monitoring Plan Compliance Report

6.1 COMPONENTS OF THE MONITORING PLAN

Monitoring requirements under the SMP and NYSDEC-approved modifications include:

- Groundwater monitoring at intervals of once every 3 years.
- Monitoring of DNAPL observation and recovery wells during DNAPL extraction events, currently at a frequency of 3 events a year.
- Inspection of the underwater cap at intervals of once every 7 years.
- Annual site inspection.

The previous list incorporates modifications to the frequency for groundwater monitoring, underwater cap inspection, and DNAPL recovery events which were recommended in the PRR for the period ending 30 November 2020, which was approved by NYSDEC on 7 January 2021 (see Appendix B for pertinent correspondence).

6.2 SUMMARY OF MONITORING

Monitoring was performed per the SMP during the reporting period, as described below.

6.3 COMPARISON WITH REMEDIAL OBJECTIVES

6.3.1 Groundwater

Groundwater monitoring was performed in 2023 in accordance with the previously implemented triennial schedule. The current frequency monitoring schedule would require the next round of groundwater monitoring to take place in 2026.

Results of the most recent groundwater monitoring are presented in the report: *Tarrytown Former MGP Site Post-Remediation Groundwater Monitoring 2023 Data Tarrytown, Site No. C360069 Brownfield Cleanup*, 22 December 2023 (Appendix C). The report concluded that results over the period of monitoring were consistent with past monitoring, and the comparison of down-gradient versus up-gradient water quality also remained consistent, indicating the remedy continues to be effective.

6.3.1.1 MW-29 (up-gradient)

Iron and manganese concentrations were greater than the comparison criteria; however, these concentrations were consistent with previous results. Three PAH compounds were detected at concentrations greater than the comparison criteria. Compared to historical data, the levels measured for the three PAHs appear to be greater than the previous sampling event. Because both metals and PAHs are elevated, this is believed to be attributed to a higher turbidity in the sample than historically observed. No volatile organic compounds (VOCs) detected at concentrations greater than the comparison criteria.

6.3.1.2 MW-12 (up-gradient)

Iron concentration was greater than the comparison criteria; however, the concentration was consistent with previous results. Manganese was detected at a concentration less than the comparison criterion. Two VOC compounds were detected above the method detection limit but at concentrations less than the comparison criteria. Two PAH compounds were detected at concentrations greater than the comparison criteria; these PAH concentrations were consistent with previous results. Six PAH compounds were detected at concentrations above method detection limits but less than the comparison criteria.

6.3.1.3 MW-20 (down-gradient)

Iron concentration was greater than the comparison criteria; however, the concentration was lower than previous results. Manganese was detected at a concentration above the method detection limit but less than the comparison criterion. No VOC or PAH compounds were detected.

6.3.1.4 MW-21 (down-gradient)

Iron and manganese were detected at concentrations greater than the comparison criterion; however, the iron concentration was higher than previous results, while the manganese concentration was consistent with previous results. No VOC compounds were detected at concentrations greater than the comparison criteria. Three PAH compounds were detected at a concentration greater than the comparison criteria; however, the PAH concentrations were consistent with previous results.

6.3.1.5 MW-24 (down-gradient)

Iron and manganese were detected at concentrations above the method detection limits but less than the comparison criterion. No VOCs or PAH compounds were detected.

6.3.1.6 COMPARISON OF UP-GRADIENT TO DOWN-GRADIENT WELLS

In general, concentrations of parameters in the down-gradient wells were less than or equal to the up-gradient concentrations, specifically:

- BTEX compound concentrations were not detected above comparison criterion in up-gradient nor down-gradient wells.
- Concentrations of detected PAH compounds in up-gradient wells were equivalent to down-gradient wells for all locations except MW-12, where Naphthalene was detected at concentrations greater than the comparison criteria, but consistent with previous results.
- Iron and Manganese concentrations in up-gradient wells were greater than or equivalent to down gradient wells except MW-24, which is believed to have had greater turbidity than past sampling events.

6.3.1.7 GROUNDWATER DATA SUMMARY

Based on the results, while there were some exceedances of groundwater standards and guidance values in the sample data, the consistency of results over the period of monitoring and consistency of down-gradient versus up-gradient water quality indicate the remedy continues to be effective. There

continues to be no groundwater use at the Site. Given the monitoring results to date, and without the potential exposure pathway of groundwater use, the remedy at the site remains protective of human health with respect to groundwater quality. Groundwater monitoring at this site has now accumulated a database spanning 17 years and results in both upgradient and downgradient wells have remained consistent over that period.

6.3.2 DNAPL

6.3.2.1 DNAPL System Operation

Vacuum Enhanced Fluid Recovery (VEFR) is used to remove DNAPL from wells in the Northern and Western DNAPL Recovery Systems. During DNAPL extraction, some water is also removed; however, based on visual observation, the majority of the volume removed is DNAPL. During the reporting period, a total of 697.02 gallons of DNAPL and water was extracted by Enviro Waste Oil Recovery, LLC and transported to their facility in Mahopac, New York. DNAPL monitoring and extraction forms and copies of the non-hazardous waste manifests are provided in Appendix D.

The following table presents the amounts (gallons) extracted per well and per event. DNAPL was not observed in the other DNAPL wells at the site. These results are consistent with past observations and extraction activities.

Area	Well ID	10/30/23	11/15/23	12/13/23	Totals
Western Wells	OW-1	71.63	80.18	60.27	212.08
	RW-1	34.80	37.23	40.18	112.21
	RW-2	49.11	51.55	57.59	158.25
Northern Wells	RW-3N	28.65	38.66	29.46	96.77
	RW-6N	35.82	44.39	37.50	117.71
TOTALS	**Gallons**	**220.01**	**252.01**	**225.00**	**697.02**

Figures showing DNAPL thickness and fluid recovery volume over time are provided in Appendix D. Least-squares linear regression was used to determine the trend lines for the DNAPL thickness over time. The trend lines show DNAPL thickness continues to decrease over time. Trend lines may not, on their own, predict future DNAPL thickness.

6.3.2.2 DNAPL DATA SUMMARY

System operation is summarized as follows:

- The thickness of DNAPL in wells RW-1 and RW-2 in the Western DNAPL System shows a consistent decreasing trend since system inception of operation (2005) to the present.
- The thickness of DNAPL in wells RW-3N and RW-6N in the Northern DNAPL System shows a consistent decreasing trend since system inception of operation (2005) to the present.
- Data continues to show that DNAPL is not migrating around the DNAPL barriers.

- The DNAPL systems are being operated in general accordance with the approved SMP, continue to be effective in containing DNAPL, and the systems remain protective of human health and the environment.

6.3.3 Underwater Cap

Past underwater cap inspections were in 2007, 2014, and 2019. The current frequency of monitoring is 7 years, which would require the next underwater cap inspection to take place in 2026.

Results of the most recent underwater cap inspection are presented in the *Periodic Review Report Tarrytown Former MGP site, 15 January 2020*. The report concluded the cap was found to be in satisfactory condition and performing its intended function and has done so over the 14 years represented by the three inspections to date.

6.3.4 Indoor Air Quality and Sub-slab Vapor Sampling

The indoor air (IA) quality sampling and sub-slab soil vapor (SS) for newly constructed buildings was completed in previous reporting periods.

6.3.5 VIMS

Vapor Intrusion Management Systems (VIMS) have been installed for the newly constructed buildings on the site, as summarized in Section 4. Post-installation testing required by the SMP for the VIMS on the site is complete and has been previously reported to NYSDEC and NYSDOH.

No new VIMS construction was performed during this reporting period.

6.3.6 Soil Management

There was no soil disturbance activities performed during this reporting period.

6.3.7 Site Inspection

Overall annual inspection was completed and documented (see Appendix C). As a result of the inspection and other site documentation reviewed and provided herein, we have determined that the Engineering Controls and Site Controls are in place and operating as intended. We recommend that site inspections continue on an annual basis.

6.4 MONITORING DEFICIENCIES

No deficiencies in the monitoring program were identified during the reporting period.

6.5 CONCLUSIONS AND RECOMMENDATIONS FOR CHANGES

Based on the data collected, the remedial actions are effective and site monitoring data of selected media (groundwater) and controls (DNAPL system, underwater cap) appear to be maintaining integrity over several years of accumulated data, therefore no changes in the monitoring program are recommended.

7. Operation and Maintenance Plan Compliance Report

With the closure of the LNAPL recovery system, there are no mechanical systems operated or maintained at the site. Recovery of DNAPL is performed using a vacuum truck.

8. Overall PRR Conclusions and Recommendations

8.1 COMPLIANCE WITH THE SMP

Site Engineering and Institutional Controls are in place and effective, as described in this report. Site monitoring and construction activities have been performed in conformance with the SMP.

8.2 PERFORMANCE AND EFFECTIVENESS OF THE REMEDY

Based on site monitoring data and our annual inspection, the remedial action continues to perform and is effective as required by the SMP.

8.3 FUTURE PRR SUBMITTALS

The current annual schedule for submitting the PRR is satisfactory. The next PRR will cover the year between 14 December 2023 and 13 December 2024, assuming the same PRR ending date is maintained by NYSDEC.

9. Commentary for the Periodic Review Report Form

The PRR Form is contained in Appendix A to this report. The following commentary is organized according to the PRR Form.

9.1 BOX 1 SITE DETAILS

1. The site information is correct, however the Reporting Period should be 12 December 2022 through 13 December 2023.
2. Property ownership for the subject site did not change during the reporting period.
3. There was no change of use during the reporting period.

9.2 BOX 2

1. The site use (residential, commercial, and park) is consistent with restricted residential, commercial, and industrial uses.
2. The ICs and ECs are in place.

9.3 BOX 2A

1. The validity of the Qualitative Exposure Assessment remains uncompromised.
2. The assumptions in the Qualitative Exposure Assessment remain valid.

9.4 BOX 3 DESCRIPTION OF INSTITUTIONAL CONTROLS

The Institutional Controls each of the seven parcels in Box 3 are in place.

9.5 BOX 4 DESCRIPTION OF ENGINEERING CONTROLS.

A summary of the status of the Engineering Controls at the site is presented in this report and below. Note that for Parcel 1-P-20, the LNAPL Recovery System was dismantled with NYSDEC approval in 2007 (see Section 4 of this report).

9.6 ENGINEERING CONTROL – COVER SYSTEM

Site cover, as required by the SMP, is currently in place.

9.7 ENGINEERING CONTROL – VAPOR MITIGATION

This Engineering Control refers to the soil vapor intrusion management systems (VIMS) for buildings required in the SMP. The buildings constructed on this site under the SMP have VIMS installed.

9.8 ENGINEERING CONTROL – "LEACHATE COLLECTION"

For parcels 1-P-22, 1-P-23, and 1-P-24, "Leachate Collection" refers to the Northern DNAPL Recovery System. For parcel 1-P-21, "Leachate Collection" refers to the Western DNAPL Recovery System. Both of these systems are in place and functioning per the SMP.

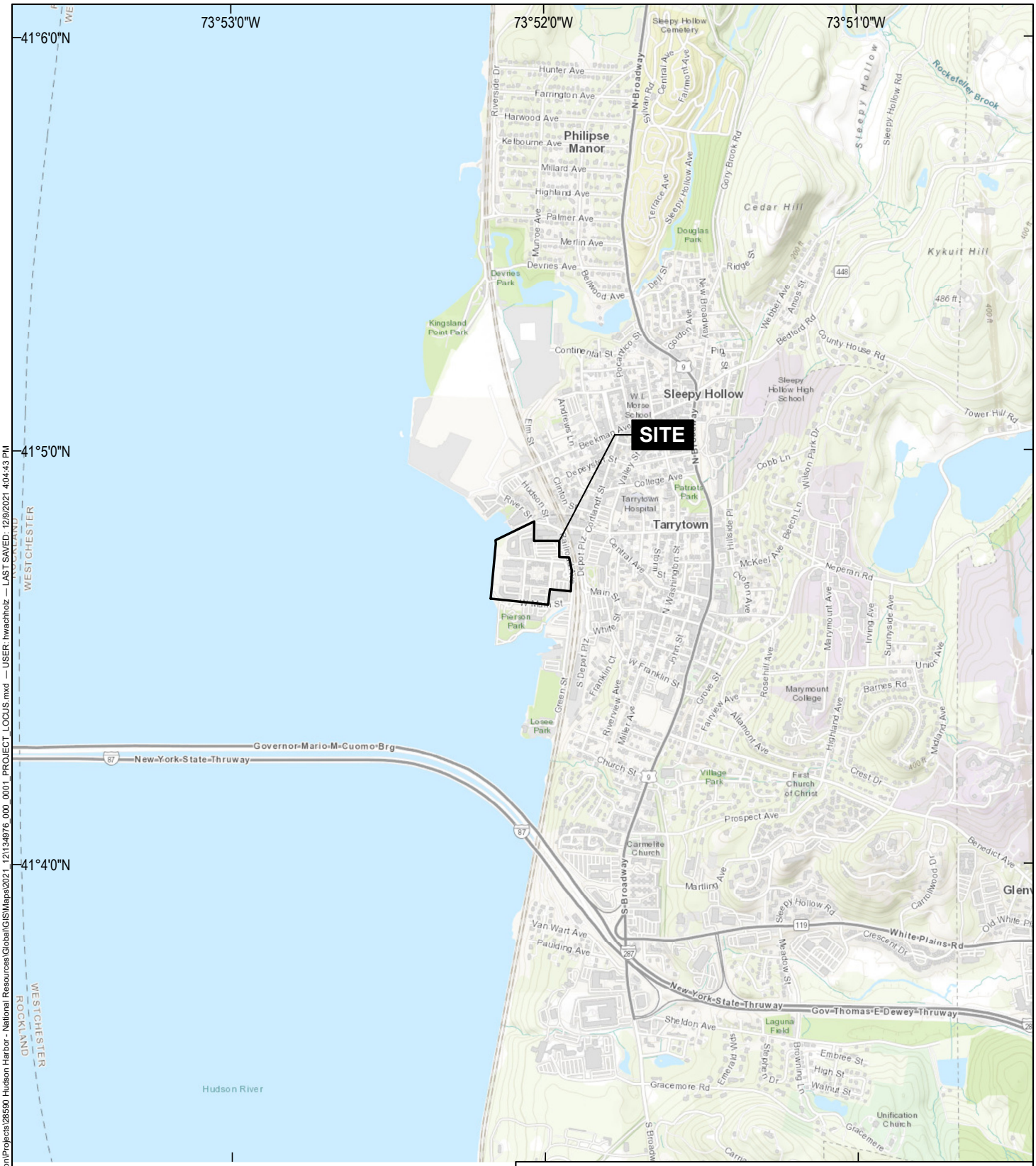
9.9 BOX 5 PERIODIC REVIEW REPORT (PRR) CERTIFICATION STATEMENTS

1. The response is "Yes." Both statements are true.
2. The response is "Yes." Statement 'e' does not apply; there is no financial assurance mechanism required.

9.10 BOXES 6 AND 7 IC/EC CERTIFICATIONS

Signatures are provided for the certifications.

FIGURES



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HALEY ALDRICH

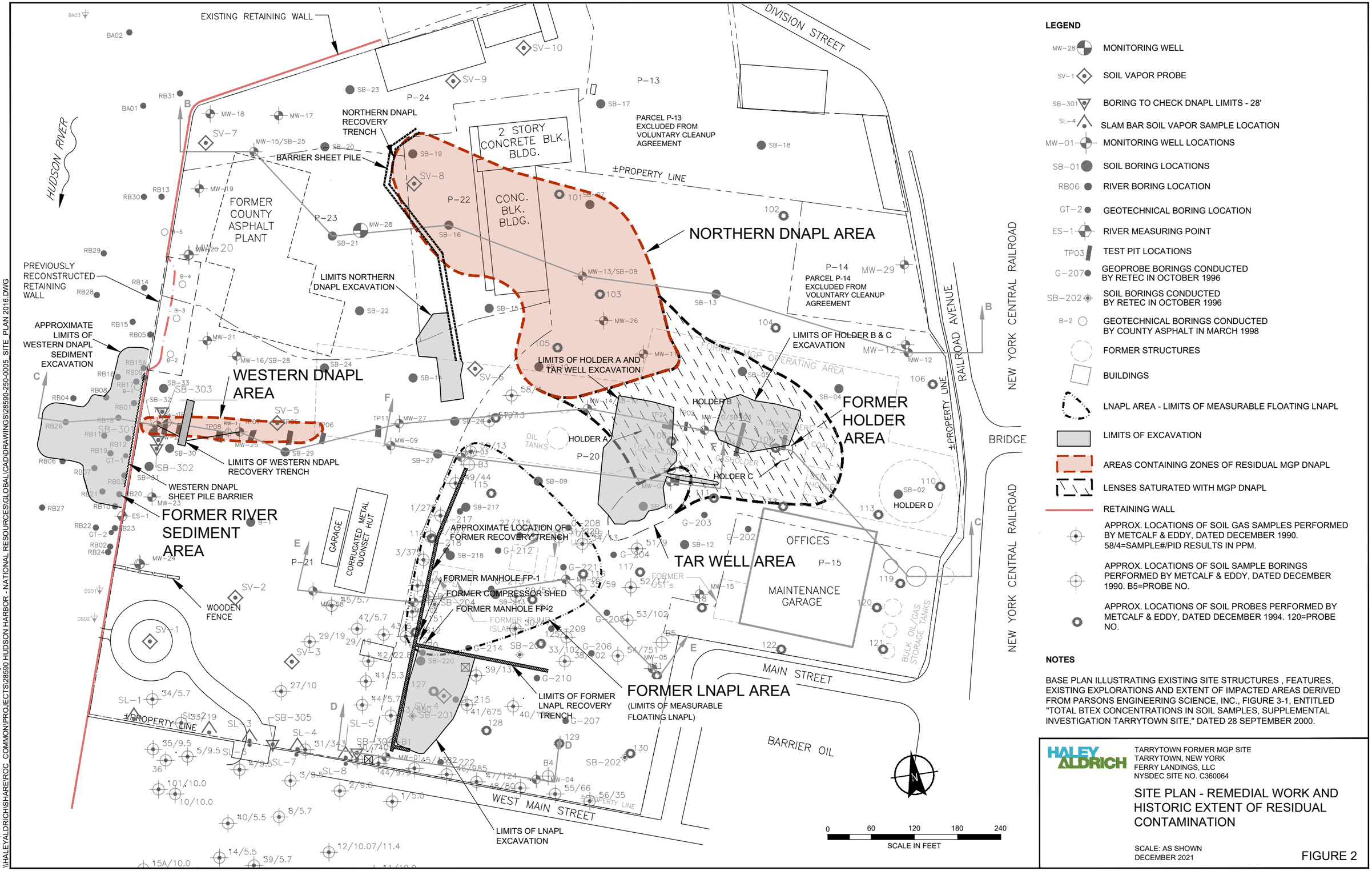
TARRYTOWN FORMER MGP SITE
TARRYTOWN, NEW YORK
FERRY LANDINGS, LLC
NYSDEC SITE NO. C360064

PROJECT LOCUS

MAP SOURCE: ESRI
SITE COORDINATES: 73°52'2"N, 41°4'42"W

APPROXIMATE SCALE: 1 IN = 2000 FT
DECEMBER 2021

FIGURE 1



LEGEND

- MW-28 — MONITORING WELL
- SV-1 — SOIL VAPOR PROBE
- SB-301 — BORING TO CHECK DNAPL LIMITS - 28'
- SL-4 — SLAM BAR SOIL VAPOR SAMPLE LOCATION
- MW-01 — MONITORING WELL LOCATIONS
- SB-01 — SOIL BORING LOCATIONS
- RB06 — RIVER BORING LOCATION
- GT-2 — GEOTECHNICAL BORING LOCATION
- ES-1 — RIVER MEASURING POINT
- TP03 — TEST PIT LOCATIONS
- G-207 — GEOPROBE BORINGS CONDUCTED BY RETEC IN OCTOBER 1996
- SB-202 — SOIL BORINGS CONDUCTED BY RETEC IN OCTOBER 1996
- B-2 — GEOTECHNICAL BORINGS CONDUCTED BY COUNTY ASPHALT IN MARCH 1998
- FORMER STRUCTURES
- BUILDINGS
- LNAPL AREA - LIMITS OF MEASURABLE FLOATING LNAPL
- LIMITS OF EXCAVATION
- AREAS CONTAINING ZONES OF RESIDUAL MGP DNAPL
- LENSES SATURATED WITH MGP DNAPL
- RETAINING WALL
- APPROX. LOCATIONS OF SOIL GAS SAMPLES PERFORMED BY METCALF & EDDY, DATED DECEMBER 1990. 58/4=SAMPLE#/PID RESULTS IN PPM.
- APPROX. LOCATIONS OF SOIL SAMPLE BORINGS PERFORMED BY METCALF & EDDY, DATED DECEMBER 1990. B5=PROBE NO.
- APPROX. LOCATIONS OF SOIL PROBES PERFORMED BY METCALF & EDDY, DATED DECEMBER 1994. 120=PROBE NO.

NOTES

BASE PLAN ILLUSTRATING EXISTING SITE STRUCTURES , FEATURES, EXISTING EXPLORATIONS AND EXTENT OF IMPACTED AREAS DERIVED FROM PARSONS ENGINEERING SCIENCE, INC., FIGURE 3-1, ENTITLED "TOTAL BTEX CONCENTRATIONS IN SOIL SAMPLES, SUPPLEMENTAL INVESTIGATION TARRYTOWN SITE," DATED 28 SEPTEMBER 2000.

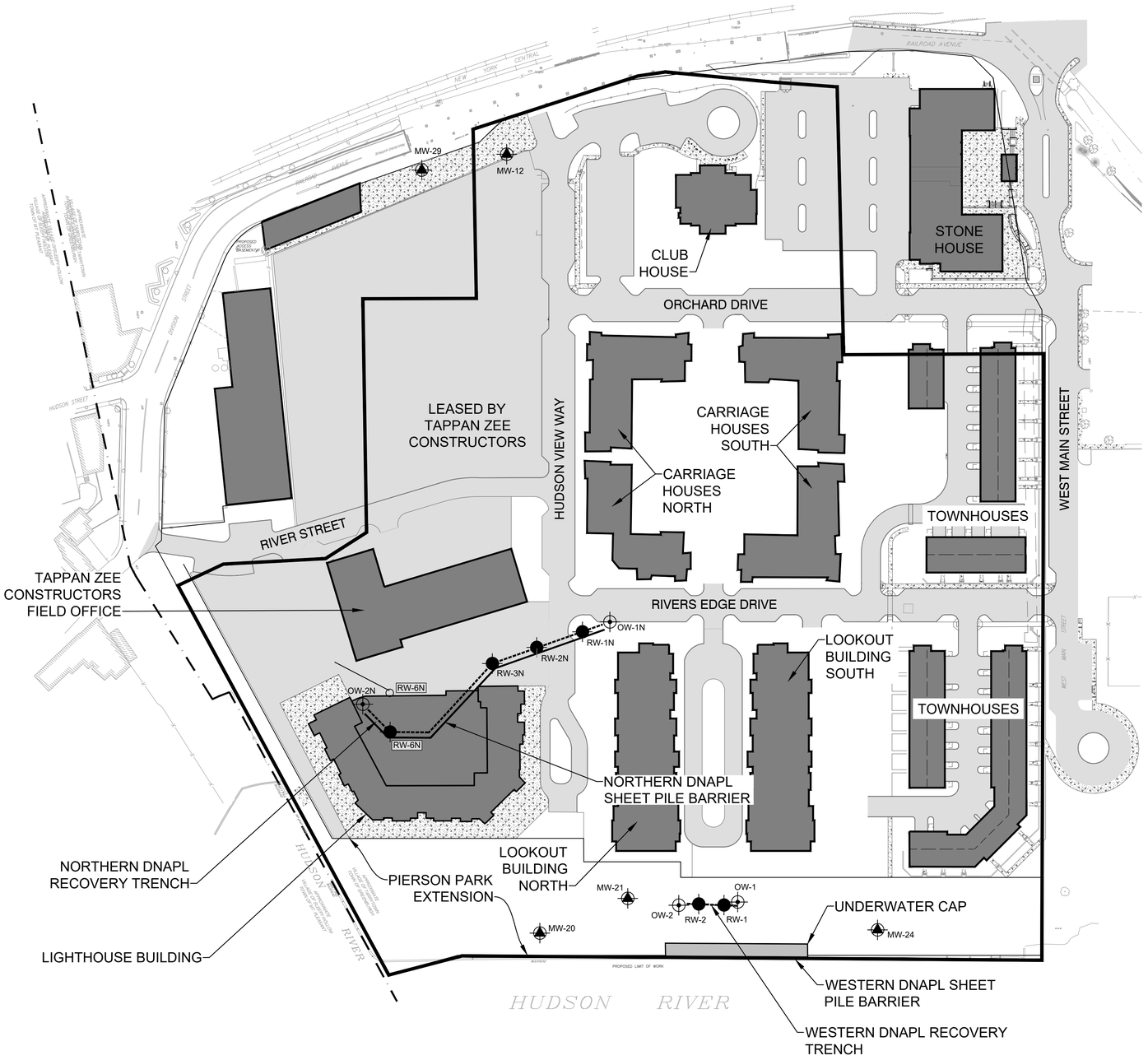
HALEY ALDRICH

TARRYTOWN FORMER MGP SITE
TARRYTOWN, NEW YORK
FERRY LANDINGS, LLC
NYSDEC SITE NO. C360064

SITE PLAN - REMEDIAL WORK AND HISTORIC EXTENT OF RESIDUAL CONTAMINATION

SCALE: AS SHOWN
DECEMBER 2021

FIGURE 2



LEGEND

- GROUNDWATER MONITORING WELL
- DNAPL RECOVERY WELL
- DNAPL OBSERVATION WELL
- APPROXIMATE AREA ENCOMPASSED BY THE BROWNFIELD CLEAN-UP AGREEMENT #C36OO64
- LANDSCAPED AREAS (THESE AREAS CONTAIN DEMARCATION LAYER BELOW CLEAN FILL AND LANDSCAPING)
- PAVED WALKS, PATIOS, OR COURTYARDS
- EXISTING BUILDINGS
- ROADS AND PARKING AREAS

NOTES

1. BASE MAP IS BASED ON CAD DRAWING ENTTILED "PH1_10399-08_PHASE.DWG," DATED 1 JULY 2009 FROM CHAZEN COMPANIES OF GLENN FALLS, NEW YORK AND "PARKING ALLOCATION DIAGRAM," DATED 7 MARCH 2013 FROM LESSARD GROUP, INC., VIENNA, VIRGINIA.

N

0 80 160 240 320

SCALE IN FEET

HALEY ALDRICH

TARRYTOWN FORMER MGP SITE
TARRYTOWN, NEW YORK
FERRY LANDINGS, LLC
NYSDEC SITE NO. C360064

SITE COVER PLAN

SCALE: AS SHOWN
DECEMBER 2021

FIGURE 3

HENSEN, KRISTIN Printed: 12/9/2021 1:19 PM Layout: COVER PLAN
\\HALEYALDRICH\SHARE\NEW_COMMON\28590\GLOBAL\CAD\DRAWINGS\28590-250-0020_SITE_COVER 2018.DWG

APPENDIX A

Periodic Review Report Form

HALEY ALDRICH

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. C360064

Site Name CE - Tarrytown MGP

Site Address: 129 West Main Street Zip Code: 10591
City/Town: Tarrytown
County: Westchester
Site Acreage: 20.000

Reporting Period: ~~November 30, 2022 to November 30, 2023~~
December 12, 2022 to December 13, 2023

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

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 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.

Signature of Owner, Remedial Party or Designated Representative Date

	Box 2A	
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C360064 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
1-P-20	Ferry Investments, LLC	Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P-22	Westchester Industries, Inc.	O&M Plan Site Management Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P-23	Westchester Industries	Site Management Plan O&M Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P-24	Ferry Landings, LLC	Site Management Plan O&M Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P15	Ferry Investments, LLC	O&M Plan Site Management Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls: (i)Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance.
(ii)The use of untreated groundwater for any purpose is not permitted.

1-P21 Westchester Industries

Site Management Plan
Ground Water Use Restriction
O&M Plan
Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance.(ii) The use of untreated groundwater for any purpose is not permitted.

1-P24A Ferry Landings, LLC

Site Management Plan
O&M Plan
Ground Water Use Restriction
Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
1-P-20	Cover System Vapor Mitigation

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the LNAPL Recovery System depicted in Figure 2 as set forth in Section 3 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P-22	Vapor Mitigation Cover System Leachate Collection Subsurface Barriers

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected

Parcel	Engineering Control

within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted in Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P-23

Vapor Mitigation
Cover System
Leachate Collection

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P-24

Vapor Mitigation
Cover System
Leachate Collection
Subsurface Barriers

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P15

Vapor Mitigation
Cover System

Eng. Controls: (i)In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of theapproved Site Management Plan , must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii)A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained.

1-P21

Vapor Mitigation
Cover System
Leachate Collection

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering,

Parcel	Engineering Control
	residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Western DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.
1-P24A	Vapor Mitigation Cover System
	Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained.

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
X	

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

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

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

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

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

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

YES	NO
X	

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C360064

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 Carl Monheit at 485 West Putnam Ave., Greenwich, CT 06830,
print name print business address

am certifying as Designated Representative (Owner or Remedial Party)

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

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

12/22/2023
Date

EC CERTIFICATIONS

Box 7

Professional Engineer 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 Scott A. Underhill (print name) at Haley & Aldrich of New York, 213 West 35th Street, 7th Floor, New York, NY 10001 (print business address),

am certifying as a Professional Engineer for the owner (Owner or Remedial Party)

Scott A. Underhill — Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE) 075332

12-23-23 — Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.
D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations
A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
1. whether all requirements of each plan were met during the reporting period
2. any requirements not met
3. proposed plans and a schedule for coming into full compliance.
B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
C. Future PRR Submittals
1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

APPENDIX B

NYSDEC Correspondence

NEW YORK ST ATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

10/17/2023

Carl Monheit
Ferry Landings, LLC
485 West Putnam Ave.
Greenwich, CT 06830
cmonheit@nationalresources.com

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: CE - Tarrytown MGP
Site No.: C360064
Site Address: 129 West Main Street
Tarrytown, NY 10591

Dear Carl Monheit:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **December 30, 2023**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Michael Squire, the Project Manager, at 518-402-9546 or michael.squire@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway

Albany, NY 12233-7014

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures

Ferry Investments, LLC - cmonheit@nationalresources.com
Ferry Landings, LLC - cmonheit@nationalresources.com
Westchester Industries - cmonheit@nationalresources.com
Westchester Industries, Inc. - cmonheit@nationalresources.com
FERRY INVESTMENT, LLC - Carl Monheit - cmonheit@nationalresources.com

ec: w/ enclosures

Michael Squire, Project Manager

Amen M. Omorogbe, Section Chief
David Pollock, Acting Hazardous Waste Remediation Supervisor, Region 3

Haley & Aldrich - James Bellew - JBellew@haleyaldrich.com
Haley & ALdrich of New York - Mari Conlon - MConlon@haleyaldrich.com

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

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

Site Details **Box 1**

Site No. C360064

Site Name CE - Tarrytown MGP

Site Address: 129 West Main Street Zip Code: 10591
City/Town: Tarrytown
County: Westchester
Site Acreage: 20.000

Reporting Period: November 30, 2022 to November 30, 2023

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

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 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.

Signature of Owner, Remedial Party or Designated Representative Date

	Box 2A	
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☐
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☐	☐
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C360064 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
1-P-20	Ferry Investments, LLC	Ground Water Use Restriction Landuse Restriction O&M Plan Site Management Plan

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P-22	Westchester Industries, Inc.	O&M Plan Site Management Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P-23	Westchester Industries	Site Management Plan O&M Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P-24	Ferry Landings, LLC	Site Management Plan O&M Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

1-P15	Ferry Investments, LLC	O&M Plan Site Management Plan Ground Water Use Restriction Landuse Restriction

Inst. Controls: (i)Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance.
(ii)The use of untreated groundwater for any purpose is not permitted.

1-P21 Westchester Industries

Site Management Plan
Ground Water Use Restriction
O&M Plan
Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance.(ii) The use of untreated groundwater for any purpose is not permitted.

1-P24A Ferry Landings, LLC

Site Management Plan
O&M Plan
Ground Water Use Restriction
Landuse Restriction

Inst. Controls:(i) Any proposed soil excavation on the Controlled Property below the 2 foot cover or below the demarcation layer requires prior notification to the NYSDEC in accordance with the approved Site Management Plan. Excavated soil must be managed, characterized, and properly disposed in accordance with the approved Site Management Plan and applicable regulations and/or guidance. (ii) The use of untreated groundwater for any purpose is not permitted.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
1-P-20	Cover System Vapor Mitigation

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the LNAPL Recovery System depicted in Figure 2 as set forth in Section 3 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P-22	Vapor Mitigation Cover System Leachate Collection Subsurface Barriers

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected

Parcel	Engineering Control

within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted in Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P-23

Vapor Mitigation
Cover System
Leachate Collection

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P-24

Vapor Mitigation
Cover System
Leachate Collection
Subsurface Barriers

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Northern DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.

1-P15

Vapor Mitigation
Cover System

Eng. Controls: (i)In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of theapproved Site Management Plan , must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii)A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained.

1-P21

Vapor Mitigation
Cover System
Leachate Collection

Eng. Controls: (i) In areas not proposed for future building construction or impervious covering,

Parcel	Engineering Control
	residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained. (iii) Operate and maintain the Western DNAPL Recovery System depicted on Figure 2 as set forth in Section 2 of OM&MP which is Appendix A to the approved Site Management Plan.
1-P24A	Vapor Mitigation Cover System
	Eng. Controls: (i) In areas not proposed for future building construction or impervious covering, residually contaminated soils on the Controlled Property that meet backfill criteria as stipulated in Section 3.4 of the approved Site Management Plan, must be covered by a demarcation layer consisting of an orange, non-woven, 4 oz/sy geotextile and must be covered with 2 feet of clean imported fill material. This barrier must be maintained as per the approved Site Management Plan; and (ii) A passive Soil Vapor Management System (SVMS) must be installed in every new building erected within the Controlled Property. Newly constructed buildings within the Controlled Property shall also be subjected to a Soil Vapor Intrusion (SVI) Investigation, conducted in accordance with the applicable guidance in effect at the time of the investigation. If the results of this SVI investigation demonstrate ineffectiveness of the existing passive SVMS, an appropriate active Soil Vapor Management System shall be designed, constructed and maintained.

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
☐	☐

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

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

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

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

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

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

YES	NO
☐	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C360064

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 _____ at _____,
print name print business address

am certifying as _____(Owner or Remedial Party)

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

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

EC CERTIFICATIONS

Box 7

Professional Engineer 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 _____ at _____,
print name print business address

am certifying as a Professional Engineer for the _____
(Owner or Remedial Party)

_____	_____	_____
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.
D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations
A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
1. whether all requirements of each plan were met during the reporting period
2. any requirements not met
3. proposed plans and a schedule for coming into full compliance.
B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
C. Future PRR Submittals
1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

APPENDIX C

Groundwater Monitoring Report

HALEY ALDRICH

Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623
585.359.9000

22 December 2023
File No. 134976-002

Ferry Landings, LLC
485 West Putnam Avenue
Greenwich, CT 06830

Attention: Carl Monheit
Senior Director of Development and Chief Engineer

Subject: Tarrytown Former MGP Site
Post-Remediation Groundwater Monitoring - 2023 Data
Tarrytown, New York
Brownfield Site #C3600069

Ladies and Gentlemen:

We are pleased to submit this report which documents groundwater monitoring at the Tarrytown Former Manufactured Gas Plant (MGP) Site for 2023. Remediation ended and construction of the Hudson Harbor development began in 2005; site development continues to date. See Figure 1 for the site location.

PURPOSE

This report summarizes groundwater monitoring activities, which are requirements of the Site Management Plan (SMP), dated 10 August 2010 and approved by the New York State Department of Environmental Conservation (NYSDEC) on 26 August 2010.

GROUNDWATER MONITORING NETWORK

Five monitoring wells are used for post-remediation monitoring, two up-gradient and three down-gradient. The well locations are shown on Figure 2, as follows:

Up-gradient Wells
- MW-29: near the eastern site property line, northern location, and
- MW-12: near the eastern site property line, southern location.

Down-gradient Wells
- MW-20: near the western site property line (near Hudson River), northern location,
- MW-21: near the western site property line (near Hudson River), central location, and
- MW-24: near the western site property line (near Hudson River), southern location.

In addition, observation and recovery wells associated with the northern DNAPL recovery system and the western DNAPL recovery system are also located on site (see Figure 2 for locations of the recovery systems). These wells are specific to the DNAPL systems (performance and operation), and they are not associated with post remediation site groundwater monitoring.

GROUNDWATER MONITORING

Groundwater monitoring has occurred at the site during and since completion of remediation in 2005. During 2023, groundwater monitoring was performed in accordance with the Groundwater Monitoring Plan included in the SMP. Samples were collected using Operating Procedure OP3013 - Monitored Natural Attenuation Groundwater Sample Collection Procedure, 2003, which is appended to the NYSDEC-approved Groundwater Monitoring Plan.

Samples collected were analyzed for required parameters listed on Table 1, attached (which was derived from Table 2 of the NYSDEC-approved Groundwater Monitoring Plan), including:

- Volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Semi-volatile organic compounds (SVOCs) classified as polycyclic aromatic hydrocarbons (PAHs); and
- Attenuation Indicators iron, manganese, nitrate, nitrite, sulfate, Total Organic Carbon (TOC), Dissolved Organic Carbon (DOC), sulfide, Biochemical Oxygen Demand (BOD), and Chemical Oxygen Demand (COD).

Chemical analyses were performed by Phoenix Environmental Laboratories, Inc. (Phoenix), a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory.

Results for the 2006 through 2023 sampling rounds are on Table 2. Results are compared to the Class GA Groundwater values listed in Division of Water Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, NYSDEC, June 1998 (TOGS 1.1.1). A summary of analytes detected during the three most current sampling rounds at concentrations greater than the TOGS 1.1.1 Class GA Groundwater Standards and Guidance Values (the comparison criteria) are on Table 3. Appendix A contains the laboratory reports for the groundwater sampling analyses. Results on Table 2 that indicate detections above laboratory reporting limits are shown in bold font; results that are higher than applicable standards or guidance values are shaded gray.

As has been the case in past years of reporting, for five PAH compounds (Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, and Indeno(1,2,3-cd)pyrene), the laboratory method detection limit of 0.02 ug/L is greater than the TOGS 1.1.1 Class GA Groundwater comparison criterion (0.002 ug/L). Phoenix reported that concentrations of these PAHs less than the reporting limit of 0.02 ug/L cannot be measured using EPA standard methods.

2023 RESULTS SUMMARY

The 2023 groundwater sampling round was performed on 16 November 2023 using low flow procedures. Well purging, sampling, sample containment, chain of custody and sample shipping procedures, and laboratory analyses were completed as required by the SMP. Results, compared to the TOGS 1.1.1 Class GA Groundwater standards and guidance values are provided in Table 2 and Table 3, and are summarized as follows:

MW-29 (up-gradient): Iron and manganese concentrations were greater than the comparison criteria; Iron detections were greater than historically measured, while manganese detections were consistent with previous results. Three PAH compounds were detected at concentrations greater than the comparison criteria. Compared to historical data, the levels measured for the three PAHs appear to be greater than the previous sampling event. Because both metals and PAHs are elevated, this is believed to be attributed to a higher turbidity in the sample than historically observed. No VOC compounds were detected at concentrations greater than the comparison criteria.

MW-12 (up-gradient): Iron concentration was greater than the comparison criteria; however, the concentration was consistent with previous results. Manganese was detected at a concentration less than the comparison criterion. Two VOC compounds were detected at concentrations above the method detection limit but less than the comparison criteria. Two PAH compounds were detected at concentrations greater than the comparison criteria; these PAH concentrations were consistent with previous results. Six PAH compounds were detected at concentrations above method detection limits but less than the comparison criteria.

MW-20 (down-gradient): Iron concentration was greater than the comparison criteria; however, the concentration was lower than previous results. Manganese was detected at a concentration above hte method detection limit but less than the comparison criterion. No VOC or PAH compounds were detected.

MW-21 (down-gradient): Iron and manganese were detected at concentrations greater than the comparison criterion; however, the iron concentration was higher than previous results, while the manganese concentration was consistent with previous results. No VOC compounds were detected at concentrations greater than the comparison criteria. Three PAH compounds were detected at a concentration greater than the comparison criteria; however, the PAH concentrations were consistent with previous results.

MW-24 (down-gradient): Iron and manganese were detected at concentrations above the method detection limits but less than the comparison criterion. No VOCs or PAH compounds were detected.

COMPARISON OF UP-GRADIENT TO DOWN-GRADIENT WELLS

In general, concentrations of parameters in the down-gradient wells were less than or equal to the up-gradient concentrations, specifically:

- BTEX compound concentrations were not detected above comparison criterion in up-gradient nor down-gradient wells.

- Concentrations of detected PAH compounds in up-gradient wells were equivalent to down-gradient wells for all locations except MW-12, where Naphthalene was detected at concentrations greater than the comparison criteria, but consistent with previous results.

- Iron and Manganese concentrations in up-gradient wells were greater than or equivalent to down gradient wells except MW-24, which is believed to have had greater turbidity than past sampling events.

RECOMMENDATIONS

Based on the 2023 sampling results and analyses completed over several years of groundwater monitoring which consistently indicate the site remedy is effective, we recommend sampling to continue on a triennial basis (once every three years).

SUMMARY

This groundwater monitoring report summarizes the data for 2023. Current and past concentrations of metals, VOCs, and PAHs have trended in a limited range, indicating a general consistent quality of up-gradient groundwater coming onto the site. The pattern of overall groundwater quality continues, such that detected up-gradient concentrations were generally greater for selected compounds than down-gradient concentrations.

The objective of groundwater monitoring is to determine if groundwater quality meets NYS groundwater standards and guidance values, assess achievement of the remedial performance criteria and evaluate site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment. Based on the results, while there are some exceedances of groundwater standards and guidance values, the consistency of results over the period of monitoring and consistency of down-gradient versus up-gradient water quality indicates the remedy continues to be effective.

The SMP and the Environmental Easement specify that the use of untreated groundwater from the Site for any purpose is not permitted. There continue to be no groundwater uses at the Site; given the monitoring results to date, and without the potential exposure pathway of groundwater use, the remedy at the site remains protective of human health with respect to groundwater quality.

CLOSING AND REQUEST FOR MONITORING FREQUENCY CHANGE

In accordance with the request for triennial groundwater sampling as submitted in the December 2020 PRR, groundwater monitoring will continue triennial, until the NYSDEC approves an alternative schedule.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

James M. Bellew
Principal

Mari C. Conlon, P.G.
Associate

Attachments:

Table 1 – Sampling Parameters and Recommended Analytical Methods
Table 2 – 2006 - 2023 Groundwater Monitoring Results
Table 3 – 2013 - 2023 Groundwater Monitoring Results Summary
Figure 1 – Project Locus
Figure 2 – Site Plan
Appendix A – Laboratory Reports for the Groundwater Analyses

\\haleyaldrich.com\share\roc_common\Projects\28590 Hudson Harbor - National Resources\123x 2023 Services\2. GW Sampling\Report\2023_1204 GW Rpt 2023_D1.docx

TABLES

Tarrytown Former MGP Site
Source: Site Management Plan Appendix F - Table 2

Table 1 - Sampling Parameters and Recommended Analytical Methods

Analyte	Analytical Method
BTEX	
Benzene	8260B
Toluene	8260B
Ethlybenzene	8260B
O-Xylene	8260B
M&P-Xylene	8260B
Polycyclic Aromatic Hydrocarbons (PAH)	
Acenaphthene	8270C
Acenapthylene	8270C
Anthracene	8270C
Benz(a)anthracene	8270C
Benzo(a)pyrene	8270C
Benzo(b)fluoranthene	8270C
Benzo(ghi)fluoranthene	8270C
Benzo(k)fluoranthene	8270C
Chysene	8270C
Dibenz(a,h)anthracene	8270C
Fluoranthene	8270C
Fluorene	8270C
Indeno(1,2,3-cd)pyrene	8270C
Napthalene	8270C
Phenanthrene	8270C
Pyrene	8270C
Attenuation Indicators	
FIELD PARAMETERS	
Dissolved Oxygen	Field Probe
Oxygen-Reduction Potential	Field Probe
pH	Field Probe
Specific Conductance	Field Probe
Temperature	Field Probe
Ferrous Iron (Fe^{+2})	Field Probe
Carbon Dioxide	Field Probe
Alkalinity	Field Probe
Turbidity	Field Probe
Laboratory Parameters	
Biochemical Oxygen Demand	5210B
Chemical Oxygen Demand	5520C, 5520D
Dissolved Organic Carbon	415.1
Total Organic Carbon	9060
Sulfate	375.4
Sulfide	376.1, 376.2
Nitrate	353.2
Nitrite	353.2
Total Iron	6010
Manganese	6010

TABLE 2
2006-2023 GROUNDWATER MONITORING RESULTS
Tarrytown Former MGP Site Groundwater Samples
Tarrytown, New York

Parameter	NYSDEC TOGS 1.1.1 Class GA Groundwater[1]	MW-29 (Up-Gradient)												
	Date Sampled	8/17/2006	12/17/2007	7/28/2008	12/8/2009	12/21/2010	12/20/2011	5/29/2013	11/19/2013	11/10/2014	11/15/2016	2/13/2018	10/29/2020	11/16/2023
BTEX	**(ug/L)**													
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 0.70	< 0.70	< 0.70	< 0.70
Toluene	5	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethyl Benzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
p&m-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0
Xylene (Total)	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether (MTBE)	10[6]	<2.0	**3**	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0
PAH	**(ug/L)**													
Acenaphthene	20	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	**0.1**	< 0.10	< 0.10	< 0.47	< 0.47
Acenaphthylene	N/A[8,11]	<10	<10	<10	<0.3	<0.3	<0.3	<0.1	<0.1	**0.33**	< 0.10	**0.10**	< 0.47	< 0.47
Anthracene	50	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	**0.23**	**0.12**	**0.11**	< 0.47	< 0.47
Benz(a)anthracene	0.002	<10	<10	<10	<0.06	<0.02	<0.02	**0.06**	**0.02**	**0.25**	**0.03**	**0.07**	< 0.02	**0.04**
Benzo(a)pyrene	ND	<10	<10	<10	<0.2	<0.02	<0.02	**0.05**	<0.02	**0.4**	< 0.02	**0.09**	< 0.02	**0.02**
Benzo(b)fluoranthene	0.002	<10	<10	<10	<0.08	<0.02	<0.02	<0.02	<0.02	**0.51**	< 0.02	**0.07**	< 0.02	< 0.02
Benzo(g,h,i)perylene	N/A[8,11]	<10	<10	<10	<4	<2.5	<2.5	<0.1	<0.1	**0.29**	< 0.10	< 0.10	< 0.47	< 0.47
Benzo(k)fluoranthene	0.002	<10	<10	<10	<0.3	<0.02	<0.02	<0.02	<0.02	**0.22**	< 0.02	**0.06**	< 0.02	< 0.02
Chrysene	0.002	<10	<10	<10	<2	<0.02	<0.02	**0.05**	<0.02	**0.3**	**0.02**	**0.06**	< 0.02	**0.03**
Dibenz(a,h)anthracene	N/A[8,11]	<10	<10	<10	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	**0.02**	< 0.47	< 0.47
Fluoranthene	50	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	**0.63**	< 0.10	< 0.10	< 0.47	< 0.47
Fluorene	50	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	**0.13**	< 0.10	< 0.10	< 0.47	< 0.47
Indeno(1,2,3-cd)pyrene	0.002	<10	<10	<10	<0.2	<0.02	<0.02	**0.05**	<0.02	**0.23**	< 0.02	**0.06**	< 0.02	< 0.02
Naphthalene	10	<10	<10	<10	<10	<2.5	<2.5	**0.13**	<0.1	<0.1	< 0.10	< 0.10	< 0.47	< 0.47
Phenanthrene	50	<10	<10	<10	<0.07	<0.07	<0.07	<0.07	<0.07	**0.35**	< 0.07	< 0.07	< 0.47	< 0.47
Pyrene	50	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	**0.96**	< 0.10	**0.11**	< 0.47	< 0.47
ATTENUATION INDICATORS														
Field Parameters														
Dissolved Oxygen (mg/L)	N/A[10,11]							0.46	0.81	0.00	0.00	9.70	6.29	0.05
Oxygen-Reduction Potential (mV)	N/A[11]							-102	-22	-68	-89	-65	-156	-17
pH (Standard)	6.5 - 8.5[10]							7.0	7.0	7.2	7.5	7.8	7.1	7.58
Specific Conductance (mS/cm)	N/A[11]							5.93	5.80	10.30	5.6	5.2	0.502	14.5
Temperature (°C)	N/A[11]							20.5	16.2	18.8	16.8	16.8	17.6	17.43
Turbidity (NTU)	5[10]							22.7	6.5	129.0	14.8	69.4	92.4	19.8
Laboratory Parameters	**(mg/L)**													
Nitrate as Nitrogen	10	**0.06**	<0.05	**0.06**	**0.54**	<0.05	**0.14**	<0.05	<0.05	<0.05	< 0.004	< 0.004	**0.10**	< 0.25
Nitrite as Nitrogen	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**7.35**	< 0.05	< 0.05	< 0.200	**0.04**
Nitrate and Nitrite as Nitrogen (Total)	10	**0.06**	ND	**0.06**	**0.54**	ND	**0.14**	ND	ND	**7.35**	ND	ND	**0.10**	**0.04**
Sulfate	250	**30**	**30**	**37**	**210**	**51**	**47.4**	**54**	**113**	780	**102**	**48.9**	**56.9**	**56.9**
Total Organic Carbon	N/A[11]	**4.2**	**31**	**5.0**	**3.2**	**3.4**	**2.8**	**3.4**	**12**	**7.0**	**8.2**	**3.7**	**4.2**	**4.9**
Dissolved Organic Carbon	N/A[11]	**2.8**	**20**	**2.9**	**3.1**	**3.2**	**2.8**	**2.9**	**12**	**7.0**	**8.0**	**3.4**	**4.1**	**4.9**
Sulfide	1	<0.05	<0.2	<0.1	<0.1	NR	NR	<0.1	<0.1	<0.1	< 0.05	< 0.05	< 0.05	**0.09**
B.O.D./5 day	N/A[11]	<2.0	**7.4**	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	< 4.0	< 4.0	< 4.0
C.O.D.	N/A[11]	**12**	**45**	**54**	**76**	**75**	**52**	**53**	**72**	**104**	**103**	**142**	**171**	**95**
Total Iron	0.3	**1.05**	**12.8**	**7.14**	**15.7**	**5.97**	**9.40**	**4.92**	**5.39**	**9.46**	**4.63**	**9.38**	**8.02**	**21.5**
Manganese	0.3	**1.01**	**0.71**	**1.25**	**1.45**	**1.17**	**1.10**	**1.01**	**0.93**	**2.05**	**0.95**	**0.82**	**1.52**	**1.42**
Iron and Manganese (Total)	0.5	**2.06**	**13.51**	**8.39**	**17.15**	**7.14**	**10.50**	**5.93**	**6.32**	**11.51**	**5.58**	**10.20**	**9.54**	**22.92**

Notes:
(A) Concentrations shown in bold were detected.
(B) <0.1, for example, means the analyte was not detected and the detection limit was 0.1.
(C) Concentrations greater than the NYSDEC TOGS 1.1.1 standards and guidance values are shaded gray.
Footnotes:
(1)NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
(6) 10 NYCRR Part 5-Subpart 5-1 Public Water Systems - Tables
(8) Not regulated by the Principal Organic Contaminant (POC) Groundwater Standard (TOGS 1.1.1 page 5).
(10) 6 NYCRR 703.3 Water quality standards for pH, dissolved oxygen, dissolved solids, odor, color and turbidity.
(11) N/A - No Class GA groundwater standard or guidance value.
Acronyms:
BTEX = volatile organic compounds: Benzene, Toluene, Ethylbenzene, and Xylene
ND - A non-detectable concentration by the approved analytical methods referenced in 6 NYCRR Part 700.3.
NR = Not Reported
NYSDEC = New York State Department of Environmental Conservation
PAH = semi-volatile organic compounds classified as Polycyclic Aromatic Hydrocarbons.
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

TABLE 2
2006-2023 GROUNDWATER MONITORING RESULTS
Tarrytown Former MGP Site Groundwater Samples
Tarrytown, New York

Parameter	NYSDEC TOGS 1.1.1 Class GA Groundwater[1]	MW-12 (Up-Gradient)												
	Date Sampled	8/17/2006	12/17/2007	12/8/2009	12/20/2010	12/21/2011	5/29/2013	11/19/2013	11/10/2014	11/16/2016	2/13/2018	10/29/2020	10/29/2020 duplicate	11/16/2023
BTEX	**(ug/L)**													
Benzene	1	<1.0	<1.0	<1.0	<10	<1.0	<1.0	< 2.0	<1.0	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70
Toluene	5	**1.6**	<5.0	<1.0	<10	<1.0	<1.0	< 2.0	<1.0	**0.7**	**0.67**	< 2.0	< 2.0	< 2.0
Ethyl Benzene	5	**20**	**9.6**	**2.6**	<10	**1.2**	**4**	< 2.0	**1.2**	**1.6**	**2.5**	< 2.0	< 2.0	< 2.0
o-Xylene	5	**39**	**14**	**16**	<10	**7.9**	<2	**9.4**	**3.8**	**7.9**	**10**	< 2.0	< 2.0	1.3
p&m-Xylene	5	**14**	**6.1**	**4.5**	<10	**2.3**	**5.9**	< 4.0	<2.0	**3.7**	**5.1**	< 2.0	< 2.0	0.9
Xylene (Total)	5	**53**	**20.1**	**20.5**	ND	**10.2**	**5.9**	**9.4**	**3.8**	**11.6**	**15.1**	ND	ND	2.2
Methyl Tert Butyl Ether (MTBE)	10[6]	<2.0	<2.0	<2.0	<10	<2.0	**5.9**	< 4.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
PAH	**(ug/L)**													
Acenaphthene	20	**41**	**18**	**77**	**57**	**51**	<50	**72**	**36**	**54**	**46**	**9.1**	**13**	**19**
Acenaphthylene	N/A[8,11]	<10	<10	5	**8.1**	**7.3**	<50	**4.9**	**3**	< 7.0	**3.6**	< 0.47	**0.61**	**1**
Anthracene	50	<10	<10	<10	<2.5	<2.8	<50	**1.5**	**1.3**	< 7.0	**1.3**	< 0.47	**0.49**	**0.82**
Benz(a)anthracene	0.002	<10	<10	<0.06	**0.084**	**0.089**	<50	**0.06**	**0.04**	< 3.4	**0.14**	**0.04**	**0.05**	**0.03**
Benzo(a)pyrene	ND	<10	<10	<0.2	**0.068**	**0.078**	<50	<0.02	<0.02	< 3.2	**0.16**	< 0.02	**0.05**	< 0.02
Benzo(b)fluoranthene	0.002	<10	<10	<0.08	**0.074**	**0.089**	<50	**0.03**	<0.02	< 3.4	**0.13**	< 0.02	**0.02**	< 0.02
Benzo(g,h,i)perylene	N/A[8,11]	<10	<10	<4	<2.5	<2.8	<50	<0.1	<0.01	< 5.0	**0.10**	< 0.47	< 0.47	< 0.47
Benzo(k)fluoranthene	0.002	<10	<10	<0.3	**0.023**	<0.022	<50	<0.02	<0.02	< 3.4	**0.11**	< 0.02	**0.02**	< 0.02
Chrysene	0.002	<10	<10	<2	**0.067**	**0.078**	<50	**0.04**	**0.03**	< 3.4	**0.12**	**0.03**	**0.05**	< 0.02
Dibenz(a,h)anthracene	N/A[8,11]	<10	<10	<0.2	**0.015**	**<0.011**	<50	<0.01	<0.01	< 7.0	**0.04**	< 0.47	< 0.47	< 0.47
Fluoranthene	50	<10	<10	<10	<2.5	<2.8	<50	**0.2**	**0.19**	< 7.0	**0.3**	< 0.47	< 0.47	< 0.47
Fluorene	50	**13**	<10	<10	**13**	**8.8**	<50	**14**	**8.7**	**13**	**10**	**0.67**	**1.8**	**4.4**
Indeno(1,2,3-cd)pyrene	0.002	<10	<10	<0.2	**0.045**	**0.056**	<50	<0.02	<0.02	< 3.4	**0.09**	< 0.02	**0.04**	< 0.02
Naphthalene	10	**600**	**280**	**400**	**44**	**110**	**290**	**96**	**53**	**88**	**130**	< 0.47	<0.47	**16**
Phenanthrene	50	**11**	<10	**3.9**	**6.4**	**3**	<50	**7**	**4.7**	**11**	**5.7**	< 0.47	< 0.47	**3**
Pyrene	50	<10	<10	<10	<2.5	<2.8	<50	**0.27**	**0.28**	< 7.0	**0.36**	< 0.47	< 0.47	< 0.47
ATTENUATION INDICATORS														
Field Parameters														
Dissolved Oxygen (mg/L)	N/A[10,11]						0.54	0.91	0.00	7.23	9.10	3.84	-	0.22
Oxygen-Reduction Potential (mV)	N/A[11]						-148	-13	-132	-117	-96	-36	-	-88
pH (Standard)	6.5 - 8.5[10]						6.8	6.9	7.3	7.3	7.3	7.1	-	7.9
Specific Conductance (mS/cm)	N/A[11]						1.06	0.95	0.69	2.08	2.80	0.380	-	1.2
Temperature (°C)	N/A[11]						16.4	15.7	19.5	17.5	10.5	16.9	-	15.2
Turbidity (NTU)	5[10]						3.2	0.0	4.8	0.0	34.3	201.0	-	22.1
Laboratory Parameters	**(mg/L)**													
Nitrate as Nitrogen	10	**0.05**	<0.05	<0.05	**0.05**	<0.05	<0.05	<0.05	<0.05	< 0.004	< 0.004	< 0.004	< 0.004	**0.01**
Nitrite as Nitrogen	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.05	< 0.05	< 0.05	< 0.05	< 0.01
Nitrate and Nitrite as Nitrogen (Total)	10	**0.05**	ND	ND	**0.05**	ND	ND	ND	ND	ND	ND	ND	ND	0.01
Sulfate	250	**34**	**110**	<3.0	**7.1**	**13.1**	<3.0	**10.3**	<3.0	< 3.0	< 3.0	**9.9**	10.7	**4.3**
Total Organic Carbon	N/A[11]	**20**	**93**	**17**	**23**	**15**	**20**	**18**	**15**	**18.8**	**19.5**	**5.0**	**5.6**	**13.9**
Dissolved Organic Carbon	N/A[11]	**15**	**90**	**15**	**19**	**14**	**18**	**15**	**12**	**14.9**	**17**	**3.9**	**4.3**	**12.6**
Sulfide	1	<0.05	0.21	<0.1	NR	NR	0.1	<0.1	<0.1	**0.06**	< 0.05	**0.34**	**0.36**	**0.07**
B.O.D./5 day	N/A[11]	**8.7**	**16**	**8.3**	<4.0	<4.0	**12**	**7.6**	**7.8**	**5.8**	< 3.7	< 4.0	< 4.0	< 4.0
C.O.D.	N/A[11]	**51**	**100**	**55**	**68**	**43**	**62**	**52**	**46**	**63**	**149**	**17**	**14**	**34**
Total Iron	0.3	**17.2**	**52.5**	**17.2**	**22.9**	**23.0**	**27.8**	**15.8**	**18.1**	**32.2**	**43.3**	**6.23**	**6.26**	**4.83**
Manganese	0.3	**0.31**	**0.50**	**0.27**	**0.22**	**0.26**	**0.17**	**0.16**	**0.18**	**0.24**	**0.32**	**0.201**	**0.209**	**0.201**
Iron and Manganese (Total)	0.5	**17.51**	**53.00**	**17.47**	**23.12**	**23.26**	**27.97**	**15.96**	**18.28**	**32.44**	**43.62**	**6.431**	**6.469**	**5.031**

Notes:
(A) Concentrations shown in bold were detected.
(B) <0.1, for example, means the analyte was not detected and the detection limit was 0.1.
(C) Concentrations greater than the NYSDEC TOGS 1.1.1 standards and guidance values are shaded gray.
Footnotes:
(1)NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
(6) 10 NYCRR Part 5-Subpart 5-1 Public Water Systems - Tables
(8) Not regulated by the Principal Organic Contaminant (POC) Groundwater Standard (TOGS 1.1.1 page 5).
(10) 6 NYCRR 703.3 Water quality standards for pH, dissolved oxygen, dissolved solids, odor, color and turbidity.
(11) N/A - No Class GA groundwater standard or guidance value.
Acronyms:
BTEX = volatile organic compounds: Benzene, Toluene, Ethylbenzene, and Xylene
ND - A non-detectable concentration by the approved analytical methods referenced in 6 NYCRR Part 700.3.
NR = Not Reported
NYSDEC = New York State Department of Environmental Conservation
PAH = semi-volatile organic compounds classified as Polycyclic Aromatic Hydrocarbons.
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

TABLE 2
2006-2023 GROUNDWATER MONITORING RESULTS
Tarrytown Former MGP Site Groundwater Samples
Tarrytown, New York

Parameter	NYSDEC TOGS 1.1.1 Class GA Groundwater[1]	MW-20 (Down-Gradient)															
	Date Sampled	8/17/2006	12/18/2007	12/18/2007 duplicate	7/29/2008	12/8/2009	12/8/2009 duplicate	12/22/2010	12/19/2011	5/30/2013	11/19/2013	11/19/2013 duplicate	11/11/2014	11/11/2014 duplicate	11/15/2016	2/14/2018	10/29/2020	11/16/2023
BTEX	**(ug/L)**																	
Benzene	1	<1.0	<1.0	<1.0	**3.1**	<1.0	<1.0	<1.0	<1.0	<0.7	<1.0	< 1.0	< 1.0	< 1.0	< 0.70	< 0.70	< 0.70	< 0.70
Toluene	5	<1.0	<3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethyl Benzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
p&m-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0
Xylene (Total)	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether (MTBE)	10[6]	<2.0	**2.8**	2.8	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
PAH	**(ug/L)**																	
Acenaphthene	20	<10	<10	<10	<10	<10	<10	<2.5	<2.5	**0.91**	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	**1.1**	< 0.47
Acenaphthylene	N/A[8,11]	<10	<10	<10	<10	<0.3	<0.3	<0.3	<0.3	**0.29**	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	**0.69**	< 0.47
Anthracene	50	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.47	< 0.47
Benz(a)anthracene	0.002	<10	<10	<10	<10	<0.06	<0.06	**0.023**	**0.09**	**0.06**	**0.02**	<0.02	**0.02**	**0.02**	< 0.02	**0.08**	**0.09**	< 0.02
Benzo(a)pyrene	ND	<10	<10	<10	<10	<0.2	<0.2	<0.02	**0.11**	**0.05**	<0.02	<0.02	<0.02	<0.02	< 0.02	**0.09**	**0.08**	< 0.02
Benzo(b)fluoranthene	0.002	<10	<10	<10	<10	<0.08	<0.08	<0.02	**0.13**	**0.04**	<0.02	<0.02	**0.02**	<0.02	< 0.02	**0.07**	**0.04**	< 0.02
Benzo(g,h,i)perylene	N/A[8,11]	<10	<10	<10	<10	<4	<4.0	<2.5	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.47	< 0.47
Benzo(k)fluoranthene	0.002	<10	<10	<10	<10	<0.3	<0.3	<0.02	**0.05**	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	**0.06**	**0.03**	< 0.02
Chrysene	0.002	<10	<10	<10	<10	<2	<2	<0.02	**0.07**	**0.05**	<0.02	<0.02	<0.02	<0.02	< 0.02	**0.06**	**0.05**	< 0.02
Dibenz(a,h)anthracene	N/A[8,11]	<10	<10	<10	<10	<0.2	<0.2	<0.01	**0.01**	**0.01**	<0.01	<0.01	<0.01	<0.01	< 0.01	**0.02**	< 0.47	< 0.47
Fluoranthene	50	<10	<10	<10	<10	<10	<10	<2.5	<2.5	**0.24**	<0.1	<0.1	<0.1	<0.1	< 0.10	**0.10**	< 0.47	< 0.47
Fluorene	50	<10	<10	<10	<10	<10	<10	<2.5	<2.5	**0.1**	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.47	< 0.47
Indeno(1,2,3-cd)pyrene	0.002	<10	<10	<10	<10	<0.2	<0.2	<0.02	**0.06**	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	**0.05**	**0.05**	< 0.02
Naphthalene	10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.47	< 0.47
Phenanthrene	50	<10	<10	<10	<10	<0.07	<0.07	<0.07	**0.07**	**0.07**	<0.07	<0.07	<0.07	<0.07	< 0.07	< 0.07	< 0.47	< 0.47
Pyrene	50	<10	<10	<10	<10	<10	<10	<2.5	<2.5	**0.17**	<0.1	<0.1	<0.1	<0.1	< 0.10	**0.1**	< 0.47	< 0.47
ATTENUATION INDICATORS																		
Field Parameters																		
Dissolved Oxygen (mg/L)	N/A[10,11]									0.40	1.69	0.00	0.00	0.00	5.56	4.57	7.93	8.42
Oxygen-Reduction Potential (mV)	N/A[11]									-205	92	99	99	99	175	46	159	231
pH (Standard)	6.5 - 8.5[10]									8.1	8.7	8.0	8.0	8.0	8.2	7.9	7.5	9.1
Specific Conductance (mS/cm)	N/A[11]									4.77	8.32	13.30	13.30	13.30	19.5	6.9	0.862	16.800
Temperature (°C)	N/A[11]									21.8	14.0	16.9	16.9	16.9	12.5	10.2	18.5	14.1
Turbidity (NTU)	5[10]									152.0	21.2	5.4	5.4	5.4	15.2	6.6	32.2	29.7
Laboratory Parameters	**(mg/L)**																	
Nitrate as Nitrogen	10	<0.05	<0.05	<0.05	**0.05**	**0.55**	**0.54**	NR	**0.39**	**0.07**	**0.27**	**0.23**	**0.57**	**0.6**	< 0.1	**0.89**	**0.61**	**0.64**
Nitrite as Nitrogen	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.78**	< 0.004	< 0.200	< 0.50
Nitrate and Nitrite as Nitrogen (Total)	10	ND	ND	ND	**0.05**	**0.55**	**0.54**	NR	**0.39**	**0.07**	**0.27**	**0.23**	**0.57**	**0.6**	**0.78**	**0.89**	**0.61**	**0.64**
Sulfate	250	**34**	**240**	**240**	**240**	**210**	**210**	**390**	**60.8**	**173**	**364**	**369**	**523**	**400**	**712**	**251**	**662**	**519**
Total Organic Carbon	N/A[11]	**3.5**	**12**	**5.7**	**4.6**	**3.2**	**3.2**	**3.5**	**4.1**	**3.3**	**2.7**	**2.4**	**2.7**	**2.6**	**2.9**	**3.8**	**4.2**	**3.9**
Dissolved Organic Carbon	N/A[11]	**2.2**	**11**	**4.9**	**3.9**	**3.3**	**3.1**	**3.0**	**3.3**	**3.2**	**2.6**	**2.4**	**2.7**	**2.3**	**2.7**	**3.6**	**4**	**3.5**
Sulfide	1	<0.05	<0.2	<0.2	<0.1	<0.1	<0.1	NR	NR	<0.01	<0.1	<0.1	<0.1	<0.1	< 0.05	< 0.05	**0.46**	< 0.05
B.O.D./5 day	N/A[11]	<2.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<40	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	< 4.0	**5.4**	< 4.0
C.O.D.	N/A[11]	**120**	**58**	**52**	**69**	**67**	**76**	**110**	**28**	**66**	**100**	**100**	**125**	**161**	**228**	**185**	**530**	**87**
Total Iron	0.3	**0.06**	**0.14**	**0.13**	**0.37**	**0.32**	**0.32**	**0.44**	**18.40**	**1.68**	**0.24**	**0.23**	**0.34**	**0.31**	**0.28**	**0.92**	**17.30**	**0.35**
Manganese	0.3	**0.01**	**0.03**	**0.03**	**0.08**	**0.02**	**0.02**	**0.02**	**1.83**	**0.14**	**0.03**	**0.04**	**0.05**	**0.05**	**0.04**	**0.06**	**0.88**	**0.05**
Iron and Manganese (Total)	0.5	**0.06**	**0.17**	**0.16**	**0.44**	**0.34**	**0.34**	**0.46**	**20.23**	**1.82**	**0.27**	**0.26**	**0.39**	**0.35**	**0.32**	**0.98**	**18.18**	**0.40**

Notes:
(A) Concentrations shown in bold were detected.
(B) <0.1, for example, means the analyte was not detected and the detection limit was 0.1.
(C) Concentrations greater than the NYSDEC TOGS 1.1.1 standards and guidance values are shaded gray.
Footnotes:
(1)NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
(6) 10 NYCRR Part 5-Subpart 5-1 Public Water Systems - Tables
(8) Not regulated by the Principal Organic Contaminant (POC) Groundwater Standard (TOGS 1.1.1 page 5).
(10) 6 NYCRR 703.3 Water quality standards for pH, dissolved oxygen, dissolved solids, odor, color and turbidity.
(11) N/A - No Class GA groundwater standard or guidance value.
Acronyms:
BTEX = volatile organic compounds: Benzene, Toluene, Ethylbenzene, and Xylene
ND - A non-detectable concentration by the approved analytical methods referenced in 6 NYCRR Part 700.3.
NR = Not Reported
NYSDEC = New York State Department of Environmental Conservation
PAH = semi-volatile organic compounds classified as Polycyclic Aromatic Hydrocarbons.
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

TABLE 2
2006-2023 GROUNDWATER MONITORING RESULTS
Tarrytown Former MGP Site Groundwater Samples
Tarrytown, New York

Parameter	NYSDEC TOGS 1.1.1 Class GA Groundwater[1]	MW-21 (Down-Gradient)														
	Date Sampled	8/17/2006	12/18/2007	7/30/2008	12/8/2009	12/22/2010	12/19/2011	12/19/2011 duplicate	5/30/2013	5/30/2013 duplicate	11/19/2013	11/11/2014	11/16/2016	2/14/2018	10/29/2020	11/16/2023
BTEX	**(ug/L)**															
Benzene	1	<1.0	<1.0	**1.4**	<1.0	<1.0	<1.0	<1.0	<0.7	<0.7	<1.0	**1.5**	**0.53**	< 0.70	< 0.70	< 0.70
Toluene	5	<1.0	<3.0	<1.0	<1.0	**4.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethyl Benzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0
p&m-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0
Xylene (Total)	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether (MTBE)	10[6]	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	0.62
PAH	**(ug/L)**															
Acenaphthene	20	<11	<10	<10	<10	<50	<2.5	<2.5	<0.1	<0.1	<0.1	**0.6**	**0.27**	**< 0.10**	**0.54**	< 0.48
Acenaphthylene	N/A[8,11]	<11	<10	<10	<0.3	<50	<0.3	<0.3	**0.14**	**0.14**	**0.13**	**0.1**	**0.16**	**0.18**	< 0.47	< 0.48
Anthracene	50	<11	<10	<10	<10	<50	<2.5	<2.5	**0.17**	**0.17**	**0.2**	**0.12**	< 0.10	**0.35**	< 0.47	< 0.48
Benz(a)anthracene	0.002	<11	<10	<10	<0.06	<50	**0.05**	**0.03**	<0.02	<0.02	<0.02	**0.02**	**0.03**	**0.03**	**0.05**	**0.04**
Benzo(a)pyrene	ND	<11	<10	<10	<0.2	<50	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzo(b)fluoranthene	0.002	<11	<10	<10	<0.08	<50	**0.04**	**0.02**	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzo(g,h,i)perylene	N/A[8,11]	<11	<10	<10	<4	<50	<2.5	<2.5	<0.1	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.47	< 0.48
Benzo(k)fluoranthene	0.002	<11	<10	<10	<0.3	<50	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chrysene	0.002	<11	<10	<10	<2	<50	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	**0.03**
Dibenz(a,h)anthracene	N/A[8,11]	<11	<10	<10	<0.2	<50	<0.01	<0.01	0.14	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.47	< 0.48
Fluoranthene	50	<11	<10	<10	<10	<50	<2.5	<2.5	<0.1	**0.33**	**0.12**	**0.15**	**0.43**	**0.36**	**0.62**	< 0.48
Fluorene	50	<11	<10	<10	<10	<50	<2.5	<2.5	<0.1	<0.1	<0.1	<0.1	< 0.10	<0.1	< 0.47	< 0.48
Indeno(1,2,3-cd)pyrene	0.002	<11	<10	<10	<0.2	<50	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	<0.02	< 0.02	**0.03**
Naphthalene	10	<11	<10	<10	<10	<50	<2.5	<2.5	<0.1	**0.15**	<0.1	<0.1	< 0.10	<0.1	< 0.47	< 0.48
Phenanthrene	50	<11	<10	<10	<0.07	<50	0.08	<0.07	<0.07	<0.07	<0.07	<0.07	**0.3**	<0.07	< 0.47	< 0.48
Pyrene	50	<11	<10	<10	<10	<50	<2.5	<2.5	**0.17**	**0.37**	**0.23**	**0.23**	**0.66**	**0.51**	**0.64**	< 0.48
ATTENUATION INDICATORS																
Field Parameters																
Dissolved Oxygen (mg/L)	N/A[10,11]								0.53	0.53	0.74	0.00	0.00	11.76	1.50	0.21
Oxygen-Reduction Potential (mV)	N/A[11]								-310	-310	-119	-340	-260	-237	-216	-227
pH (Standard)	6.5 - 8.5[10]								7.3	7.3	6.6	8.0	7.6	7.1	7.4	10.0
Specific Conductance (mS/cm)	N/A[11]								2.99	2.99	4.29	2.99	3.21	3.37	0.298	3.830
Temperature (°C)	N/A[11]								24.9	24.9	14.0	18.6	15.6	11.2	16.6	17.3
Turbidity (NTU)	5[10]								24.6	24.6	8.2	0.0	0.0	6.6	6.6	19.8
Laboratory Parameters	**(mg/L)**															
Nitrate as Nitrogen	10	**0.05**	<0.05	<0.05	<0.05	NR	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 0.004	<0.05	< 0.05	0.01
Nitrite as Nitrogen	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	< 0.05	< 0.04	< 0.020	< 0.05
Nitrate and Nitrite as Nitrogen (Total)	10	**0.05**	ND	ND	ND	NR	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01
Sulfate	250	**350**	**460**	**360**	**360**	**640**	**474**	**479**	**155**	**163**	**496**	**43.6**	**353**	**298**	**99.5**	**539**
Total Organic Carbon	N/A[11]	**6.0**	**12**	**11**	**11**	**9.1**	**12**	**13**	**14**	**13**	**8.1**	**14**	**15.2**	**14.4**	**13.6**	**13.5**
Dissolved Organic Carbon	N/A[11]	**4.5**	**12**	**9.8**	**9.8**	**9.0**	**12**	**12**	**13**	**13**	**11**	**15**	**14.1**	**13.5**	**12.8**	**12.1**
Sulfide	1	<0.05	<0.2	**0.38**	**0.38**	NR	NR	NR	**3.1**	**3**	<0.1	<0.1	**1.61**	**2.87**	**24.1**	**3.86**
B.O.D./5 day	N/A[11]	<2.0	6.4	<4.0	<4.0	19	<4.0	<4.0	11	11	<4.0	10	**6.5**	< 4.2	**18**	**9.1**
C.O.D.	N/A[11]	**38**	**27**	**54**	**54**	**82**	**82**	**66**	**66**	**64**	**52**	**50**	**54**	**65**	**63**	**61**
Total Iron	0.3	**2.74**	**2.42**	**1.32**	**12.70**	**15.80**	**15.40**	**15.0**	**1.88**	**2.10**	**9.01**	**0.62**	**10.80**	**12.70**	**0.593**	**36.400**
Manganese	0.3	**0.43**	**0.44**	**0.38**	**1.54**	**1.49**	**1.08**	**1.09**	**0.31**	**0.33**	**0.89**	**0.14**	**0.77**	**0.66**	**0.311**	**0.975**
Iron and Manganese (Total)	0.5	**3.17**	**2.86**	**1.70**	**14.24**	**17.29**	**16.48**	**16.09**	**2.19**	**2.43**	**9.90**	**0.76**	**11.57**	**13.36**	**0.904**	**37.375**

Notes:
(A) Concentrations shown in bold were detected.
(B) <0.1, for example, means the analyte was not detected and the detection limit was 0.1.
(C) Concentrations greater than the NYSDEC TOGS 1.1.1 standards and guidance values are shaded gray.
Footnotes:
(1)NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
(6) 10 NYCRR Part 5-Subpart 5-1 Public Water Systems - Tables
(8) Not regulated by the Principal Organic Contaminant (POC) Groundwater Standard (TOGS 1.1.1 page 5).
(10) 6 NYCRR 703.3 Water quality standards for pH, dissolved oxygen, dissolved solids, odor, color and turbidity.
(11) N/A - No Class GA groundwater standard or guidance value.
Acronyms:
BTEX = volatile organic compounds: Benzene, Toluene, Ethylbenzene, and Xylene
ND - A non-detectable concentration by the approved analytical methods referenced in 6 NYCRR Part 700.3.
NR = Not Reported
NYSDEC = New York State Department of Environmental Conservation
PAH = semi-volatile organic compounds classified as Polycyclic Aromatic Hydrocarbons.
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

TABLE 2
2006-2023 GROUNDWATER MONITORING RESULTS
Tarrytown Former MGP Site Groundwater Samples
Tarrytown, New York

Parameter	NYSDEC TOGS 1.1.1 Class GA Groundwater[1]	MW-24 (Down-Gradient)															
	Date Sampled	8/17/2006	8/17/2006 duplicate	12/18/2007	7/30/2008	7/30/2008 duplicate	12/8/2009	12/22/2010	12/19/2011	5/30/2013	11/20/2013	11/11/2014	11/16/2016	2/14/2018	10/29/2020	11/16/2023 duplicate	11/16/2023
BTEX	**(ug/L)**																
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.7	<1.0	<1.0	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70
Toluene	5	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethyl Benzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
p&m-Xylene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Xylene (Total)	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Tert Butyl Ether (MTBE)	10[6]	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0
PAH	**(ug/L)**																
Acenaphthene	20	<50	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	< 0.1	< 0.1	< 0.10	< 0.10	**2.9**	< 0.47	< 0.48
Acenaphthylene	N/A[8,11]	<50	<10	<10	<10	<10	<0.3	<0.3	<0.3	<0.1	<0.1	<0.1	< 0.10	< 0.10	**2.1**	< 0.47	< 0.48
Anthracene	50	<50	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.10	< 0.47	< 0.48
Benz(a)anthracene	0.002	<50	<10	<10	<10	<10	<0.06	**0.024**	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	**0.74**	< 0.02	< 0.02
Benzo(a)pyrene	ND	<50	<10	<10	<10	<10	<0.2	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	**0.68**	< 0.02	< 0.02
Benzo(b)fluoranthene	0.002	<50	<10	<10	<10	<10	<0.08	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	**0.34**	< 0.02	< 0.02
Benzo(g,h,i)perylene	N/A[8,11]	<50	<10	<10	<10	<10	<4	<2.5	<2.5	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.10	< 0.47	< 0.48
Benzo(k)fluoranthene	0.002	<50	<10	<10	<10	<10	<0.3	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	**0.28**	< 0.02	< 0.02
Chrysene	0.002	<50	<10	<10	<10	<10	<2	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	**0.45**	< 0.02	< 0.02
Dibenz(a,h)anthracene	N/A[8,11]	<50	<10	<10	<10	<10	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	< 0.01	< 0.47	< 0.48
Fluoranthene	50	<50	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	< 0.10	< 0.10	**0.7**	< 0.47	< 0.48
Fluorene	50	<50	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.10	< 0.47	< 0.48
Indeno(1,2,3-cd)pyrene	0.002	<50	<10	<10	<10	<10	<0.2	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	**0.36**	< 0.02	< 0.02
Naphthalene	10	<50	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	< 0.10	< 0.10	< 0.10	< 0.47	< 0.48
Phenanthrene	50	<50	<10	<10	<10	<10	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	< 0.07	< 0.07	< 0.07	< 0.47	< 0.48
Pyrene	50	<50	<10	<10	<10	<10	<10	<2.5	<2.5	<0.1	<0.1	<0.1	< 0.10	< 0.10	**0.80**	< 0.47	< 0.48
ATTENUATION INDICATORS																	
Field Parameters																	
Dissolved Oxygen (mg/L)	N/A[10,11]									7.47	6.87	4.81	9.33	1.59	5.05	-	9.63
Oxygen-Reduction Potential (mV)	N/A[11]									94	205	64	30	49	48	-	199
pH (Standard)	6.5 - 8.5[10]									7.7	7.7	8.0	8.1	8.0	7.9	-	8.3
Specific Conductance (mS/cm)	N/A[11]									3.41	8.05	13.60	14.77	3.91	0.412	-	17.5
Temperature (°C)	N/A[11]									21.5	11.7	18.1	17.1	11.3	17.9	-	12.9
Turbidity (NTU)	5[10]									17.6	28.1	4.4	26.0	22.7	61.1	-	24.1
Laboratory Parameters	**(mg/L)**																
Nitrate as Nitrogen	10	**0.08**	**0.08**	**0.07**	**0.2**	**0.2**	**0.05**	NR	**0.43**	**0.59**	**0.63**	**0.81**	< 0.004	**0.84**	< 0.50	**0.62**	**0.59**
Nitrite as Nitrogen	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**1.39**	< 0.04	< 0.200	< 0.50	< 0.50
Nitrate and Nitrite as Nitrogen (Total)	10	**0.08**	**0.08**	**0.07**	**0.2**	**0.2**	**0.05**	NR	**0.43**	**0.59**	**0.63**	**0.81**	**1.39**	**0.84**	ND	0.62	0.59
Sulfate	250	**320**	**290**	**280**	**330**	**340**	**240**	**340**	**95**	**141**	**327**	<3.0	**646**	**166**	**615**	**534**	**537**
Total Organic Carbon	N/A[11]	**3.3**	**3.3**	**8.6**	**3.9**	**5.1**	**8.0**	**3.6**	**3.5**	**2.8**	**2.6**	**2.6**	**2.7**	**2.5**	**4.4**	**3.7**	**3.1**
Dissolved Organic Carbon	N/A[11]	**2.2**	**2.8**	**5.7**	**2.6**	**3.0**	**7.9**	**2.9**	**3.5**	**2.2**	**2.6**	**2.4**	**2.5**	**2.8**	**3.9**	**3.1**	**3.1**
Sulfide	1	<0.05	<0.05	<0.2	<0.1	<0.1	<0.1	NR	NR	<0.1	<0.1	<0.1	< 0.05	< 0.05	**0.35**	< 0.05	< 0.05
B.O.D./5 day	N/A[11]	<2.0	<2.0	<4.0	<4.0	<4.0	**4.2**	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	< 4.0	**4.6**	< 4.0	< 4.0
C.O.D.	N/A[11]	**69**	**46**	**70**	**110**	**83**	**37**	**110**	<10	**58**	**89**	**180**	**194**	**237**	**407**	**87**	**76**
Total Iron	0.3	**0.07**	**0.06**	**0.11**	ND	ND	**0.22**	**0.08**	**1.00**	**0.23**	**0.68**	**0.09**	**0.76**	**0.58**	**5.82**	**0.06**	**0.06**
Manganese	0.3	**0.01**	**0.01**	**0.03**	**0.01**	**0.01**	**0.02**	**0.00**	**0.05**	**0.01**	**0.03**	**0.00**	**0.05**	**0.03**	**0.782**	**0.006**	**0.005**
Iron and Manganese (Total)	0.5	**0.08**	**0.07**	**0.14**	**0.01**	**0.01**	**0.24**	**0.08**	**1.04**	**0.23**	**0.72**	**0.10**	**0.81**	**0.61**	**6.602**	**0.067**	**0.064**

Notes:
(A) Concentrations shown in bold were detected.
(B) <0.1, for example, means the analyte was not detected and the detection limit was 0.1.
(C) Concentrations greater than the NYSDEC TOGS 1.1.1 standards and guidance values are shaded gray.
Footnotes:
(1)NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
(6) 10 NYCRR Part 5-Subpart 5-1 Public Water Systems - Tables
(8) Not regulated by the Principal Organic Contaminant (POC) Groundwater Standard (TOGS 1.1.1 page 5).
(10) 6 NYCRR 703.3 Water quality standards for pH, dissolved oxygen, dissolved solids, odor, color and turbidity.
(11) N/A - No Class GA groundwater standard or guidance value.
Acronyms:
BTEX = volatile organic compounds: Benzene, Toluene, Ethylbenzene, and Xylene
ND - A non-detectable concentration by the approved analytical methods referenced in 6 NYCRR Part 700.3.
NR = Not Reported
NYSDEC = New York State Department of Environmental Conservation
PAH = semi-volatile organic compounds classified as Polycyclic Aromatic Hydrocarbons.
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

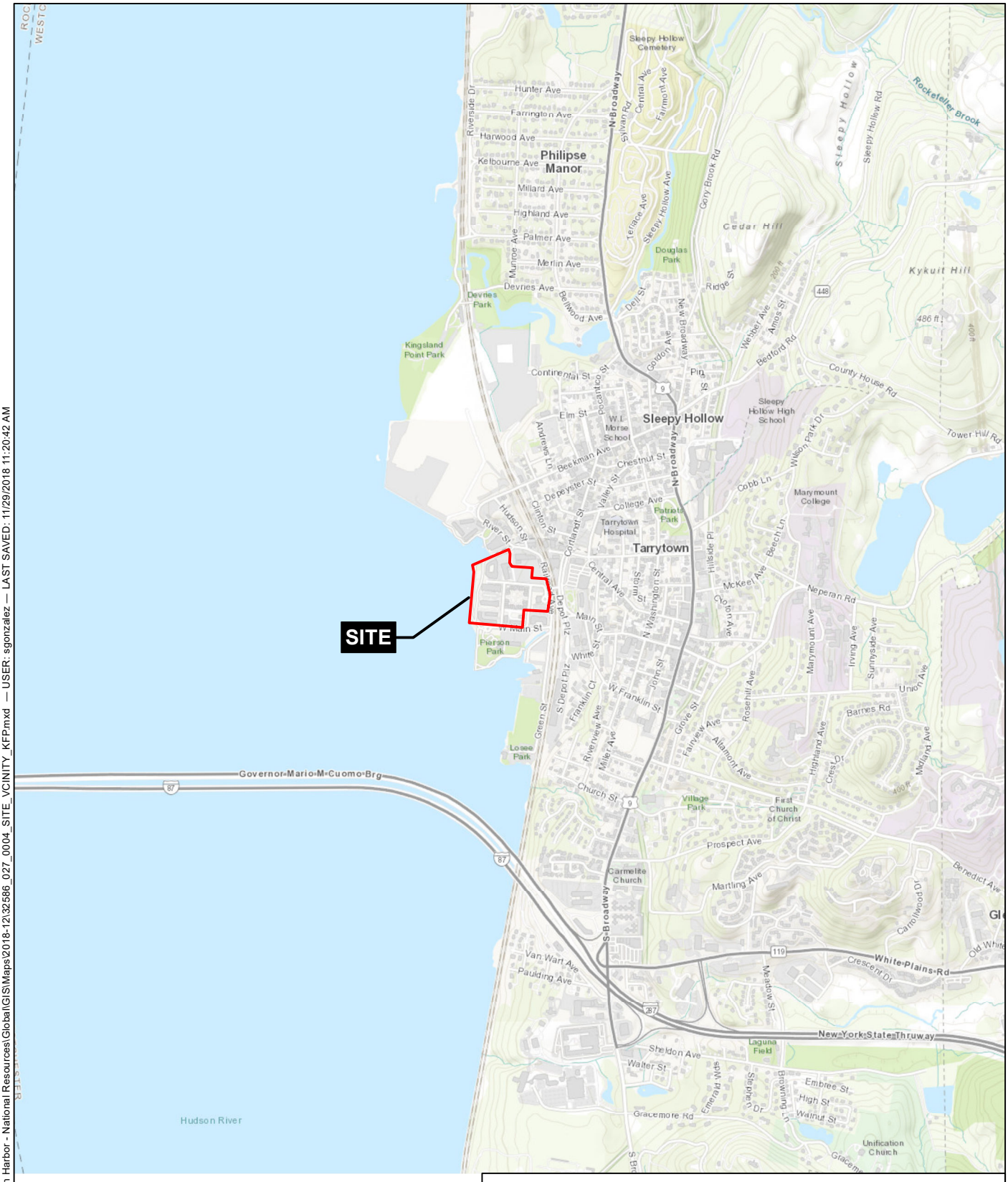
TABLE 3
2014-2020 GROUNDWATER MONITORING RESULTS SUMMARY
Tarrytown Former MGP Site Groundwater Samples
Tarrytown, New York

Parameter	NYSDEC TOGS 1.1.1 Groundwater	MW-29 (Up-Gradient)					MW-12 (Up-Gradient)						MW-20 (Down-Gradient)					MW-21 (Down-Gradient)					MW-24 (Down-Gradient)					
	Date Sampled	11/2014	11/2016	2/2018	10/2020	11/16/2023	11/2014	11/2016	2/2018	10/2020 duplicate	10/2020	11/16/2023	11/2014	11/2016	2/2018	10/2020	11/16/2023	11/2014	11/2016	2/2018	10/2020	11/16/2023	11/2014	11/2016	2/2018	10/2020	11/16/2023 duplicate	11/16/2023
VOCs	**(ug/L)**																										
Benzene	1	<1.0	<0.7	<0.7	<0.7	< 0.70	<1.0	<0.7	<0.7	<0.7	<0.7	< 0.70	< 1.0	<0.7	<0.7	<0.7	< 0.70	**1.5**	**0.53**	<1.0	<0.7	< 0.70	<1.0	<0.7	<0.7	<0.7	< 0.70	< 0.70
o-Xylene	5	<1.0	<2.0	<2.0	<2.0	< 2.0	**3.8**	**7.9**	**10**	<2.0	<2.0	< 2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	< 2.0
p&m-Xylene	5	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	**3.7**	**5.1**	<2.0	<2.0	0.9	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.0	<1.0	<2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0
Xylene (Total)	5	<1.0	<1.0	<1.0	<2.0	< 2.0	**3.8**	**11.6**	**15.1**	<2.0	<2.0	< 2.0	<1.0	<1.0	<1.0	<1.0	< 2.0	<1.0	<1.0	<1.0	<1.0	0.62	<1.0	<1.0	<1.0	<1.0	< 2.0	< 2.0
Toluene	5	<1.0	<2.0	<2.0	<2.0	< 2.0	<1.0	**0.7**	**0.67**	<2.0	<2.0	1.3	<1.0	<2.0	<2.0	<2.0	< 2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	< 2.0
Methyl Tert Butyl Ether (MTBE)	10	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	< 2.0	< 2.0	<2.0	<2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	< 2.0
PAH	**(ug/L)**																										
Acenaphthene	20	**0.1**	<0.1	< 0.1	<0.47	< 0.47	**36**	**54**	**46**	**9.1**	**13**	**19**	<0.1	<0.1	<0.1	**1.1**	< 0.47	**0.6**	**0.27**	<0.1	**0.54**	< 0.48	< 0.1	<0.1	<0.1	**2.9**	< 0.47	< 0.48
Benz(a)anthracene	0.002	**0.25**	**0.03**	**0.07**	<0.02	**0.04**	**0.04**	<3.4	**0.14**	<0.47	**0.61**	**0.03**	**0.02**	<0.02	**0.08**	**0.09**	< 0.02	**0.02**	**0.03**	**0.03**	**0.05**	**0.04**	<0.02	<0.02	<0.02	**0.74**	< 0.02	< 0.02
Benzo(a)pyrene	ND (0.02)	**0.4**	<0.02	**0.09**	<0.02	**0.02**	<0.02	<3.2	**0.16**	<0.47	**0.49**	< 0.02	<0.02	<0.02	**0.09**	**0.09**	< 0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	<0.02	<0.02	<0.02	**0.68**	< 0.02	< 0.02
Benzo(b)fluoranthene	0.002	**0.51**	<0.02	**0.07**	<0.02	< 0.02	<0.02	<3.4	**0.13**	**0.04**	**0.05**	< 0.02	**0.02**	<0.02	**0.07**	**0.08**	< 0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	<0.02	<0.02	<0.02	**0.34**	< 0.02	< 0.02
Benzo(k)fluoranthene	0.002	**0.22**	<0.02	**0.06**	<0.02	< 0.02	<0.02	<3.4	**0.11**	<0.02	**0.05**	< 0.02	<0.02	<0.02	**0.06**	**0.04**	< 0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	<0.02	<0.02	<0.02	**0.28**	< 0.02	< 0.02
Chrysene	0.002	**0.3**	**0.02**	**0.06**	<0.02	**0.03**	**0.03**	<3.4	**0.12**	<0.02	**0.02**	< 0.02	<0.02	<0.02	**0.06**	**0.03**	< 0.02	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02	<0.02	<0.02	**0.45**	< 0.02	< 0.02
Indeno(1,2,3-cd)pyrene	0.002	**0.23**	<0.02	**0.02**	<0.02	< 0.02	<0.02	<3.4	**0.09**	<0.02	**0.02**	< 0.02	<0.02	<0.2	**0.05**	**0.05**	< 0.02	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02	<0.2	<0.2	**0.36**	< 0.02	< 0.02
Naphthalene	10	<0.1	<0.1	< 0.1	<0.47	< 0.47	**53**	**88**	**130**	**0.03**	**0.05**	**16**	<0.1	<0.1	<0.1	<0.47	< 0.47	<0.1	<0.1	<0.1	<0.47	< 0.48	<0.1	<0.1	<0.1	<0.1	< 0.47	< 0.47
Metals	**(mg/L)**																										
Total Iron	0.3	**9.46**	**4.63**	**9.38**	**8.02**	**21.5**	**18.1**	**32.2**	**43.3**	**6.23**	**6.26**	**4.83**	**0.342**	**0.28**	**0.92**	**17.3**	**0.354**	**0.62**	**10.8**	**12.7**	**0.593**	**36.4**	**0.093**	**0.76**	**0.58**	**5.82**	**0.061**	**0.059**
Manganese	0.3	**2.05**	**0.95**	**0.82**	**1.52**	**1.42**	**0.183**	**0.24**	**0.32**	**0.201**	**0.209**	**0.201**	**0.052**	**0.04**	**0.06**	**0.88**	**0.049**	**0.143**	**0.77**	**0.66**	**0.311**	**0.975**	**0.004**	**0.05**	**0.03**	**0.782**	**0.006**	**0.005**
Iron and Manganese (Total)	0.5	**11.51**	**5.58**	**10.2**	**9.54**	**22.92**	**18.283**	**32.44**	**43.62**	**6.431**	**6.469**	**5.031**	**0.394**	**0.32**	**0.98**	**18.18**	**0.403**	**0.763**	**11.57**	**13.36**	**0.904**	**37.375**	**0.097**	**0.81**	**0.61**	**6.602**	**0.067**	**0.064**

Notes:
(A) Reference: NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998.
(B) Concentrations shown in bold were detected.
(C) <0.1, for example, means the analyte was not detected and the detection limit was 0.1.
(D) Concentrations greater than the NYSDEC TOGS 1.1.1 standards and guidance values are shaded gray.
(E) Benzo(a)pyrene ND non-detectable standard of detection is listed by NYSDEC TOGS 1.1.1 at 0.002 which is below lab detection limits.

Acronyms:
ND - A non-detectable concentration by the approved analytical methods referenced in 6 NYCRR Part 700.3.
NYSDEC = New York State Department of Environmental Conservation
PAH = semi-volatile organic compounds classified as Polycyclic Aromatic Hydrocarbons.
SVOC = Semivolatile Organic Compound
VOC = Volatile Organic Compound

FIGURES



GIS FILE PATH: G:\Projects\28590 Hudson Harbor - National Resources\Global\GIS\Maps\2018-12\32586_027_0004_SITE_VCINITY_KFP.mxd — USER: sgonzalez — LAST SAVED: 11/29/2018 11:20:42 AM

MAP SOURCE: ESRI
USGS QUAD: WHITEPLAINS, NEW YORK
SITE COORDINATES: 41°4'42.9"N, 73°52'3.6"W

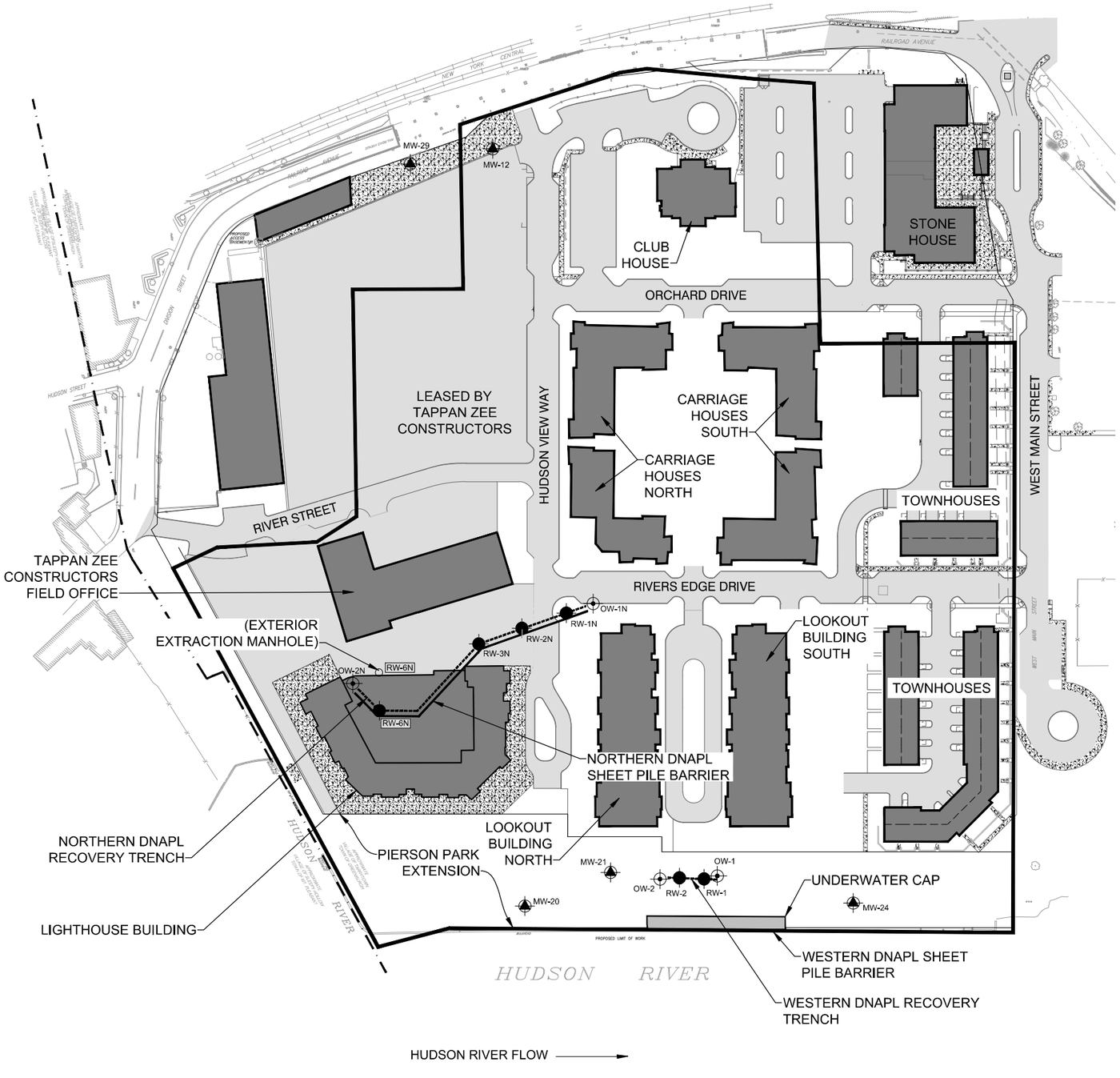
HALEY ALDRICH

TARRYTOWN FORMER MGP SITE
TARRYTOWN, NEW YORK
FERRY LANDINGS, LLC
NYSDEC SITE NO. C360064

SITE LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
DECEMBER 2020

FIGURE 1



LEGEND

- GROUNDWATER MONITORING WELL
- DNAPL RECOVERY WELL
- EXTERIOR EXTRACTION MANHOLE
- DNAPL OBSERVATION WELL
- APPROXIMATE AREA ENCOMPASSED BY THE BROWNFIELD CLEAN-UP AGREEMENT #C36OO64
- LANDSCAPED AREAS (THESE AREAS CONTAIN DEMARCATION LAYER BELOW CLEAN FILL AND LANDSCAPING)
- PAVED WALKS, PATIOS, OR COURTYARDS
- EXISTING BUILDINGS
- ROADS AND PARKING AREAS

NOTES

1. BASE MAP IS BASED ON CAD DRAWING ENTTILED "PH1_10399-08_PHASE.DWG," DATED 1 JULY 2009 FROM CHAZEN COMPANIES OF GLENN FALLS, NEW YORK AND "PARKING ALLOCATION DIAGRAM," DATED 7 MARCH 2013 FROM LESSARD GROUP, INC., VIENNA, VIRGINIA.

N

0 80 160 240 320
SCALE IN FEET

HALEY ALDRICH

TARRYTOWN FORMER MGP SITE
TARRYTOWN, NEW YORK
FERRY LANDINGS, LLC
NYSDEC SITE NO. C360064

SITE COVER PLAN 2020

SCALE: AS SHOWN
DECEMBER 2020

FIGURE 2

APPENDIX A

Laboratory Reports

PHOENIX
Environmental Laboratories, Inc.

Thursday, November 30, 2023

Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Project ID: TARRYTOWN
SDG ID: GCP49910
Sample ID#s: CP49910 - CP49916

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG Comments

November 30, 2023

SDG I.D.: GCP49910

SIM Analysis:
The lowest possible reporting limit under SIM conditions is 0.02 ug/L. The NY TOGS GA criteria for some PAHs is 0.002 ug/L. This level cannot be achieved.

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Sample Id Cross Reference

November 30, 2023

SDG I.D.: GCP49910

Project ID: TARRYTOWN

Client Id	Lab Id	Matrix
MW-12	CP49910	GROUND WATER
MW-29	CP49911	GROUND WATER
MW-20	CP49912	GROUND WATER
MW-24	CP49913	GROUND WATER
MW-21	CP49914	GROUND WATER
DUP-1	CP49915	GROUND WATER
TRIP BLANK	CP49916	GROUND WATER

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	8:30
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49910

Project ID: TARRYTOWN
Client ID: MW-12

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Iron	4.83		0.010	0.01	mg/L	1	11/28/23	TH	SW6010D
Manganese	0.201		0.001	0.001	mg/L	1	11/28/23	TH	SW6010D
B.O.D./5 day	ND		4.0		mg/L	2	11/16/23 18:38	PK/DT	SM 5210B-16
B.O.D./5 day End Incubation							11/21/23 13:43	PK/DT	SM 5210B-16
C.O.D.	34		10	10	mg/L	1	11/21/23	NP	SM 5220D-11
Dissolved Organic Carbon	12.6		1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-11
Nitrite as Nitrogen	ND		0.01	0.004	mg/L	1	11/16/23 20:38	BS/GD	E300.0
Nitrate as Nitrogen	0.01	J	0.05	0.01	mg/L	1	11/16/23 20:38	BS/GD	E300.0
Sulfate	4.3	J	5.0	2.5	mg/L	1	11/16/23	BS/GD	E300.0
Sulfide	0.07		0.05	0.05	mg/L	1	11/17/23	GD	SM4500S-D-11
Total Organic Carbon	13.9		1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-14
Semi-Volatile Extraction	Completed						11/17/23	Z/MQ	SW3520C
Total Metals Digestion	Completed						11/17/23	AG	SW3010A
Aromatic Volatiles									
Benzene	ND		0.70	0.50	ug/L	1	11/17/23	HM	SW8260C
Ethylbenzene	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
m&p-Xylene	0.90	J	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
o-Xylene	1.3	J	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Toluene	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
QA/QC Surrogates									
% 1,2-dichlorobenzene-d4	102				%	1	11/17/23	HM	70 - 130 %
% Bromofluorobenzene	103				%	1	11/17/23	HM	70 - 130 %
% Dibromofluoromethane	98				%	1	11/17/23	HM	70 - 130 %
% Toluene-d8	99				%	1	11/17/23	HM	70 - 130 %

Project ID: TARRYTOWN
Client ID: MW-12

Phoenix I.D.: CP49910

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Semivolatiles by SIM, PAH								
2-Methylnaphthalene	12	0.09	0.09	ug/L	1	11/21/23	MR	SW8270E (SIM)
Acenaphthene	19	0.09	0.09	ug/L	1	11/21/23	MR	SW8270E (SIM)
Acenaphthylene	1.0	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Anthracene	0.82	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benz(a)anthracene	0.03	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(a)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Chrysene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluoranthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluorene	4.4	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Naphthalene	16	0.09	0.09	ug/L	1	11/21/23	MR	SW8270E (SIM)
Phenanthrene	3.0	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Pyrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
QA/QC Surrogates								
% 2-Fluorobiphenyl	58			%	1	11/21/23	MR	30 - 130 %
% Nitrobenzene-d5	62			%	1	11/21/23	MR	30 - 130 %
% Terphenyl-d14	48			%	1	11/21/23	MR	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Semi-Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 30, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	10:00
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49911

Project ID: TARRYTOWN
Client ID: MW-29

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Iron	21.5		0.010	0.01	mg/L	1	11/28/23	TH	SW6010D
Manganese	1.42		0.001	0.001	mg/L	1	11/28/23	TH	SW6010D
B.O.D./5 day	ND		4.0		mg/L	2	11/16/23 18:38	PK/DT	SM 5210B-16
B.O.D./5 day End Incubation							11/21/23 13:43	PK/DT	SM 5210B-16
C.O.D.	95		10	10	mg/L	1	11/21/23	NP	SM 5220D-11
Dissolved Organic Carbon	4.9		1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-11
Nitrite as Nitrogen	ND		0.25	0.100	mg/L	25	11/16/23 22:33	BS/GD	E300.0
Nitrate as Nitrogen	0.04	J	0.05	0.01	mg/L	1	11/16/23 21:26	BS/GD	E300.0
Sulfate	56.9		5.0	2.5	mg/L	1	11/16/23	BS/GD	E300.0
Sulfide	0.09		0.05	0.05	mg/L	1	11/17/23	GD	SM4500S-D-11
Total Organic Carbon	4.9		1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-14
Semi-Volatile Extraction	Completed						11/17/23	Z/MQ	SW3520C
Total Metals Digestion	Completed						11/17/23	AG	SW3010A
Aromatic Volatiles									
Benzene	ND		0.70	0.50	ug/L	1	11/17/23	HM	SW8260C
Ethylbenzene	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
m&p-Xylene	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
o-Xylene	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Toluene	ND		2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
QA/QC Surrogates									
% 1,2-dichlorobenzene-d4	102				%	1	11/17/23	HM	70 - 130 %
% Bromofluorobenzene	103				%	1	11/17/23	HM	70 - 130 %
% Dibromofluoromethane	98				%	1	11/17/23	HM	70 - 130 %
% Toluene-d8	99				%	1	11/17/23	HM	70 - 130 %

Project ID: TARRYTOWN
Client ID: MW-29

Phoenix I.D.: CP49911

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Semivolatiles by SIM, PAH									
2-Methylnaphthalene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Acenaphthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Acenaphthylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Benz(a)anthracene	0.04	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Benzo(a)pyrene	0.02	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Benzo(b)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Benzo(ghi)perylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Benzo(k)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Chrysene	0.03	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Dibenz(a,h)anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Fluoranthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Fluorene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Naphthalene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Phenanthrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
Pyrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)	
QA/QC Surrogates									
% 2-Fluorobiphenyl	60			%	1	11/20/23	MR	30 - 130 %	
% Nitrobenzene-d5	69			%	1	11/20/23	MR	30 - 130 %	
% Terphenyl-d14	26			%	1	11/20/23	MR	30 - 130 %	3

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

Semi-Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
November 30, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	11:35
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49912

Project ID: TARRYTOWN
Client ID: MW-20

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Iron	0.354	0.010	0.01	mg/L	1	11/28/23	TH	SW6010D
Manganese	0.049	0.001	0.001	mg/L	1	11/28/23	TH	SW6010D
B.O.D./5 day	ND	4.0		mg/L	2	11/16/23 18:38	PK/DT	SM 5210B-16
B.O.D./5 day End Incubation						11/21/23 13:43	PK/DT	SM 5210B-16
C.O.D.	87	10	10	mg/L	1	11/21/23	NP	SM 5220D-11
Dissolved Organic Carbon	3.5	1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-11
Nitrite as Nitrogen	ND	0.50	0.200	mg/L	50	11/16/23 23:38	BS/GD	E300.0
Nitrate as Nitrogen	0.64	0.05	0.01	mg/L	1	11/16/23 21:36	BS/GD	E300.0
Sulfate	519	50.0	25.0	mg/L	10	11/16/23	BS/GD	E300.0
Sulfide	ND	0.05	0.05	mg/L	1	11/17/23	GD	SM4500S-D-11
Total Organic Carbon	3.9	1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-14
Semi-Volatile Extraction	Completed					11/17/23	Z/MQ	SW3520C
Total Metals Digestion	Completed					11/17/23	AG	SW3010A
Aromatic Volatiles								
Benzene	ND	0.70	0.50	ug/L	1	11/17/23	HM	SW8260C
Ethylbenzene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
m&p-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
o-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Toluene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	102			%	1	11/17/23	HM	70 - 130 %
% Bromofluorobenzene	102			%	1	11/17/23	HM	70 - 130 %
% Dibromofluoromethane	100			%	1	11/17/23	HM	70 - 130 %
% Toluene-d8	99			%	1	11/17/23	HM	70 - 130 %

Project ID: TARRYTOWN
Client ID: MW-20

Phoenix I.D.: CP49912

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Semivolatiles by SIM, PAH								
2-Methylnaphthalene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Acenaphthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Acenaphthylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benz(a)anthracene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(a)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Chrysene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluoranthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluorene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Naphthalene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Phenanthrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Pyrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
QA/QC Surrogates								
% 2-Fluorobiphenyl	53			%	1	11/20/23	MR	30 - 130 %
% Nitrobenzene-d5	60			%	1	11/20/23	MR	30 - 130 %
% Terphenyl-d14	57			%	1	11/20/23	MR	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Semi-Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
November 30, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	13:45
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49913

Project ID: TARRYTOWN
Client ID: MW-24

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Iron	0.059	0.010	0.01	mg/L	1	11/27/23	TH	SW6010D
Manganese	0.005	0.001	0.001	mg/L	1	11/27/23	TH	SW6010D
B.O.D./5 day	ND	4.0		mg/L	2	11/16/23 18:38	PK/DT	SM 5210B-16
B.O.D./5 day End Incubation						11/21/23 13:43	PK/DT	SM 5210B-16
C.O.D.	76	10	10	mg/L	1	11/21/23	NP	SM 5220D-11
Dissolved Organic Carbon	3.1	1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-11
Nitrite as Nitrogen	ND	0.50	0.200	mg/L	50	11/16/23 23:15	BS/GD	E300.0
Nitrate as Nitrogen	0.59	0.05	0.01	mg/L	1	11/16/23 21:47	BS/GD	E300.0
Sulfate	537	50.0	25.0	mg/L	10	11/16/23	BS/GD	E300.0
Sulfide	ND	0.05	0.05	mg/L	1	11/17/23	GD	SM4500S-D-11
Total Organic Carbon	3.1	1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-14
Semi-Volatile Extraction	Completed					11/17/23	Z/MQ	SW3520C
Total Metals Digestion	Completed					11/17/23	AG	SW3010A
Aromatic Volatiles								
Benzene	ND	0.70	0.50	ug/L	1	11/17/23	HM	SW8260C
Ethylbenzene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
m&p-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
o-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Toluene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101			%	1	11/17/23	HM	70 - 130 %
% Bromofluorobenzene	101			%	1	11/17/23	HM	70 - 130 %
% Dibromofluoromethane	98			%	1	11/17/23	HM	70 - 130 %
% Toluene-d8	99			%	1	11/17/23	HM	70 - 130 %

Project ID: TARRYTOWN
Client ID: MW-24

Phoenix I.D.: CP49913

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Semivolatiles by SIM, PAH								
2-Methylnaphthalene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Acenaphthene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Acenaphthylene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Anthracene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benz(a)anthracene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(a)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Chrysene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluoranthene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluorene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Naphthalene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Phenanthrene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
Pyrene	ND	0.48	0.48	ug/L	1	11/20/23	MR	SW8270E (SIM)
QA/QC Surrogates								
% 2-Fluorobiphenyl	64			%	1	11/20/23	MR	30 - 130 %
% Nitrobenzene-d5	72			%	1	11/20/23	MR	30 - 130 %
% Terphenyl-d14	67			%	1	11/20/23	MR	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Semi-Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
November 30, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	15:20
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49914

Project ID: TARRYTOWN
Client ID: MW-21

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Iron	36.4		0.010	0.01	mg/L	1	11/27/23	CPP	SW6010D
Manganese	0.975		0.001	0.001	mg/L	1	11/27/23	CPP	SW6010D
B.O.D./5 day	9.1		4.0		mg/L	2	11/16/23 18:38	PK/DT	SM 5210B-16
B.O.D./5 day End Incubation							11/21/23 13:43	PK/DT	SM 5210B-16
C.O.D.	61		10	10	mg/L	1	11/21/23	NP	SM 5220D-11
Dissolved Organic Carbon	12.1		1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-11
Nitrite as Nitrogen	ND		0.05	0.020	mg/L	5	11/16/23 23:26	BS/GD	E300.0
Nitrate as Nitrogen	0.01	J	0.05	0.01	mg/L	1	11/16/23 21:58	BS/GD	E300.0
Sulfate	539		50.0	25.0	mg/L	10	11/17/23	BS/GD	E300.0
Sulfide	3.86		0.75	0.75	mg/L	15	11/17/23	GD	SM4500S-D-11
Total Organic Carbon	13.5		1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-14
Client MS/MSD	Completed						11/21/23		
Semi-Volatile Extraction	Completed						11/17/23	Z/MQ	SW3520C
Total Metals Digestion	Completed						11/17/23	AG	SW3010A
Aromatic Volatiles									
Benzene	ND		0.70	0.50	ug/L	1	11/20/23	HM	SW8260C
Ethylbenzene	ND		2.0	0.50	ug/L	1	11/20/23	HM	SW8260C
m&p-Xylene	ND		2.0	0.50	ug/L	1	11/20/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	0.62	J	2.0	0.50	ug/L	1	11/20/23	HM	SW8260C
o-Xylene	ND		2.0	0.50	ug/L	1	11/20/23	HM	SW8260C
Toluene	ND		2.0	0.50	ug/L	1	11/20/23	HM	SW8260C
QA/QC Surrogates									
% 1,2-dichlorobenzene-d4	101				%	1	11/20/23	HM	70 - 130 %
% Bromofluorobenzene	102				%	1	11/20/23	HM	70 - 130 %
% Dibromofluoromethane	100				%	1	11/20/23	HM	70 - 130 %
% Toluene-d8	99				%	1	11/20/23	HM	70 - 130 %

Ver 1

Project ID: TARRYTOWN
Client ID: MW-21

Phoenix I.D.: CP49914

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Semivolatiles by SIM, PAH								
2-Methylnaphthalene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Acenaphthene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Acenaphthylene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Anthracene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Benz(a)anthracene	0.04	0.02	0.02	ug/L	1	11/20/23	AW	SW8270E (SIM)
Benzo(a)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	AW	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	AW	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	AW	SW8270E (SIM)
Chrysene	0.03	0.02	0.02	ug/L	1	11/20/23	AW	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Fluoranthene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Fluorene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	0.03	0.02	0.02	ug/L	1	11/20/23	AW	SW8270E (SIM)
Naphthalene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Phenanthrene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
Pyrene	ND	0.48	0.48	ug/L	1	11/20/23	AW	SW8270E (SIM)
QA/QC Surrogates								
% 2-Fluorobiphenyl	67			%	1	11/20/23	AW	30 - 130 %
% Nitrobenzene-d5	75			%	1	11/20/23	AW	30 - 130 %
% Terphenyl-d14	71			%	1	11/20/23	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Semi-Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 30, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49915

Project ID: TARRYTOWN
Client ID: DUP-1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Iron	0.061	0.010	0.01	mg/L	1	11/28/23	TH	SW6010D
Manganese	0.006	0.001	0.001	mg/L	1	11/28/23	TH	SW6010D
B.O.D./5 day	ND	4.0		mg/L	2	11/16/23 18:38	PK/DT	SM 5210B-16
B.O.D./5 day End Incubation						11/21/23 13:43	PK/DT	SM 5210B-16
C.O.D.	87	10	10	mg/L	1	11/21/23	NP	SM 5220D-11
Dissolved Organic Carbon	3.1	1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-11
Nitrite as Nitrogen	ND	0.50	0.200	mg/L	50	11/17/23 00:52	BS/GD	E300.0
Nitrate as Nitrogen	0.62	0.05	0.01	mg/L	1	11/16/23 22:08	BS/GD	E300.0
Sulfate	534	50.0	25.0	mg/L	10	11/17/23	BS/GD	E300.0
Sulfide	ND	0.05	0.05	mg/L	1	11/17/23	GD	SM4500S-D-11
Total Organic Carbon	3.7	1.0	1.0	mg/L	1	11/17/23	EG	SM5310B-14
Semi-Volatile Extraction	Completed					11/17/23	Z/MQ	SW3520C
Total Metals Digestion	Completed					11/17/23	AG	SW3010A
Aromatic Volatiles								
Benzene	ND	0.70	0.50	ug/L	1	11/17/23	HM	SW8260C
Ethylbenzene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
m&p-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
o-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Toluene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	102			%	1	11/17/23	HM	70 - 130 %
% Bromofluorobenzene	102			%	1	11/17/23	HM	70 - 130 %
% Dibromofluoromethane	96			%	1	11/17/23	HM	70 - 130 %
% Toluene-d8	100			%	1	11/17/23	HM	70 - 130 %

Project ID: TARRYTOWN
Client ID: DUP-1

Phoenix I.D.: CP49915

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Semivolatiles by SIM, PAH								
2-Methylnaphthalene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Acenaphthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Acenaphthylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benz(a)anthracene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(a)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(b)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(ghi)perylene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Benzo(k)fluoranthene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Chrysene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Dibenz(a,h)anthracene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluoranthene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Fluorene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	0.02	ug/L	1	11/20/23	MR	SW8270E (SIM)
Naphthalene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Phenanthrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
Pyrene	ND	0.47	0.47	ug/L	1	11/20/23	MR	SW8270E (SIM)
QA/QC Surrogates								
% 2-Fluorobiphenyl	50			%	1	11/20/23	MR	30 - 130 %
% Nitrobenzene-d5	56			%	1	11/20/23	MR	30 - 130 %
% Terphenyl-d14	55			%	1	11/20/23	MR	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Semi-Volatile Comment:
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Phyllis Shiller, Laboratory Director
November 30, 2023
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

November 30, 2023

FOR: Attn: Cheryl Benmergui
Haley & Aldrich
100 Corporate Place
Suite 105
Rocky Hill, CT 06067-1803

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/16/23	
Location Code:	HALEY-NY	Received by:	CP	11/16/23	18:38
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	0134976				

Laboratory Data

SDG ID: GCP49910
Phoenix ID: CP49916

Project ID: TARRYTOWN
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Aromatic Volatiles								
Benzene	ND	0.70	0.50	ug/L	1	11/17/23	HM	SW8260C
Ethylbenzene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
m&p-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
o-Xylene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
Toluene	ND	2.0	0.50	ug/L	1	11/17/23	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	102			%	1	11/17/23	HM	70 - 130 %
% Bromofluorobenzene	102			%	1	11/17/23	HM	70 - 130 %
% Dibromofluoromethane	97			%	1	11/17/23	HM	70 - 130 %
% Toluene-d8	99			%	1	11/17/23	HM	70 - 130 %

Project ID: TARRYTOWN
Client ID: TRIP BLANK

Phoenix I.D.: CP49916

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Volatile Comment:
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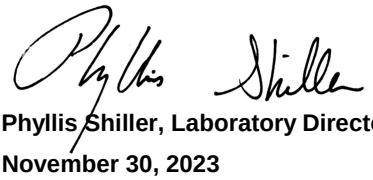


Phyllis Shiller, Laboratory Director

November 30, 2023

Reviewed and Released by: Rashmi Makol, Project Manager

Thursday, November 30, 2023

Criteria: NY: GW

State: NY

Sample Criteria Exceedances Report

GCP49910 - HALEY-NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP49910	$8100SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.03	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Naphthalene	NY / TAGM - Semi-Volatiles / Groundwater Standards	16	0.09	10	10	ug/L
CP49910	$8100SIMR	Naphthalene	NY / TAGM - Volatile Organics / Groundwater Standards	16	0.09	5	5	ug/L
CP49910	$8100SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	0.03	0.02	0.002	0.002	ug/L
CP49910	$8100SIMR	Naphthalene	NY / TOGS - Water Quality / GA Criteria	16	0.09	10	10	ug/L
CP49910	$8100SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49910	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	4.83	0.010	0.3	0.3	mg/L
CP49911	$8100SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.02	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.04	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.03	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	0.03	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49911	$8100SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	0.04	0.02	0.002	0.002	ug/L
CP49911	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	21.5	0.010	0.3	0.3	mg/L
CP49911	MN-WM	Manganese	NY / TOGS - Water Quality / GA Criteria	1.42	0.001	0.3	0.3	mg/L
CP49912	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49912	$8100SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49912	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	0.354	0.010	0.3	0.3	mg/L

Thursday, November 30, 2023

Criteria: NY: GW

State: NY

Sample Criteria Exceedances Report

GCP49910 - HALEY-NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP49912	SO4-IC	Sulfate	NY / TOGS - Water Quality / GA Criteria	519	50.0	250	250	mg/L
CP49913	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49913	$8100SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49913	SO4-IC	Sulfate	NY / TOGS - Water Quality / GA Criteria	537	50.0	250	250	mg/L
CP49914	$8100SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.03	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.04	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	0.03	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	0.04	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	0.03	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	0.03	0.02	0.002	0.002	ug/L
CP49914	$8100SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49914	FE-WM	Iron	NY / TOGS - Water Quality / GA Criteria	36.4	0.010	0.3	0.3	mg/L
CP49914	MN-WM	Manganese	NY / TOGS - Water Quality / GA Criteria	0.975	0.001	0.3	0.3	mg/L
CP49914	SO4-IC	Sulfate	NY / TOGS - Water Quality / GA Criteria	539	50.0	250	250	mg/L
CP49915	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benz(a)anthracene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benzo(a)pyrene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benzo(b)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benzo(k)fluoranthene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Chrysene	NY / TAGM - Semi-Volatiles / Groundwater Standards	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benz(a)anthracene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benzo(b)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Benzo(k)fluoranthene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Indeno(1,2,3-cd)pyrene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49915	$8100SIMR	Chrysene	NY / TOGS - Water Quality / GA Criteria	ND	0.02	0.002	0.002	ug/L
CP49915	SO4-IC	Sulfate	NY / TOGS - Water Quality / GA Criteria	534	50.0	250	250	mg/L

Thursday, November 30, 2023

Criteria: NY: GW

State: NY

Sample Criteria Exceedances Report

GCP49910 - HALEY-NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

November 30, 2023

SDG I.D.: GCP49910

The samples in this delivery group were received at 2.1°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐

NY/NJ/PA CHAIN OF CUSTODY RECORD

Temp 4.1 °C Pg of

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: Makrina Nolan, makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Contact Options:
☐ Phone:
☐ Fax:
☐ Email:

Customer: H&A of NY
Address: 213 W 35th Street Floor 7 NY NY

Project: Tarrytown
Report to: cbenmergui@haleyaldrich.com
Invoice to:
QUOTE # :

Project P.O: 0134976

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Date: 11/16/23

Client Sample - Information - Identification

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Wastewater
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	*MS/MSD (May be billable at analysis unit rate)	BTEX	PAH	BOD	COD	Total Iron, Manganese	Sulfide	TOC / DOC	Sulfate, Nitrate, Nitrite	GL Amber 8 oz. [ ] w/H_3PO_4 [ ] $NAHSO_4$ [ ] H_2O	Soil VOA Vials [ ] methanol [ ] H_2O	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H_2SO_4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H_2SO_4 [ ] 250ml [ ] 500ml	PL NaOH 250ml	PL HNO_3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is		
12	MW-12	GW	11/16/23	0830		X	X	X	X	X	X	X	X	1		1		3	2	2	1	1	1			499	10
12	MW-29			1000																						499	11
12	MW-20			1135																						499	12
12	MW-24			1345																						499	13
12	MW-21			1520																						499	14
12	DUP-1			-																						499	15
12	MW-21-MS			1525																						499	14
12	MW-21-MSD			1530																						499	14
2	Trip Blank	TB		-														2								499	16

Relinquished by:	Accepted by:	Date:	Time:
		11/16/23	3:40
		11/16/23	18:38

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*
☒ Standard
* SURCHARGE APPLIES

NJ
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ Impact to GW soil screen Criteria
☐ GW Criteria

NY
☒ TOGS GW
☐ CP-51 SOIL
☐ 375SCO Unrestricted Soil
☐ 375SCO Residential Soil
☐ 375SCO Residential Restricted Soil
☐ 375SCO Commercial Soil
☐ 375SCO Industrial Soil
☐ Subpart 5 DW

PA
☐ Clean Fill Limits
☐ PA-GW
☐ Reg Fill Limits
☐ PA Soil Restricted
☐ PA Soil non-restricted

State Samples Collected? ☐

Comments, Special Requirements or Regulations:

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

Data Format:
☐ Phoenix Std Report ☒ EQuIS
☐ Excel ☐ NJ Hazsite EDD
☐ PDF ☐ NY EZ EDD (ASP)
☐ GIS/Key ☐ Other

Data Package:
☐ NJ Reduced Deliv. * ☐ Other
☒ NY Enhanced (ASP B) *

PEL-111 Rev 1/2023

CeCP49910

Tarrytown Former MGP Site
Source: Site Management Plan Appendix F - Table 2

Table 1 - Sampling Parameters and Recommended Analytical Methods

Analyte	Analytical Method
BTEX	
Benzene	8260B
Toluene	8260B
Ethlybenzene	8260B
O-Xylene	8260B
M&P-Xylene	8260B
Polycyclic Aromatic Hydrocarbons (PAH)	
Acenaphthene	8270C
Acenapthylene	8270C
Anthracene	8270C
Benz(a)anthracene	8270C
Benzo(a)pyrene	8270C
Benzo(b)fluoranthene	8270C
Benzo(ghi)fluoranthene	8270C
Benzo(k)fluoranthene	8270C
Chysene	8270C
Dibenz(a,h)anthracene	8270C
Fluoranthene	8270C
Fluorene	8270C
Indeno(1,2,3-cd)pyrene	8270C
Napthalene	8270C
Phenanthrene	8270C
Pyrene	8270C
Attenuation Indicators	
FIELD PARAMETERS	
Dissolved Oxygen	Field Probe
Oxygen-Reduction Potential	Field Probe
pH	Field Probe
Specific Conductance	Field Probe
Temperature	Field Probe
Ferrous Iron (Fe^{+2})	Field Probe
Carbon Dioxide	Field Probe
Alkalinity	Field Probe
Turbidity	Field Probe
Laboratory Parameters	
Biochemical Oxygen Demand	5210B
Chemical Oxygen Demand	5520C, 5520D
Dissolved Organic Carbon	415.1
Total Organic Carbon	9060
Sulfate	375.4
Sulfide	376.1, 376.2
Nitrate	353.2
Nitrite	353.2
Total Iron	6010
Manganese	6010

* include this attachment when Submitting the Chain of Custody

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
Manchester, CT 06040
Please email Krystal Houle with any questions
khoule@phoenixlabs.com

GCP49910

Container Order

Company: **Haley & Aldrich -Site**
2 Hudson View Way
Tarrytown, NY

Project: Tarrytown Former MGP

Contact: **Sebastian Sotomayor**

Deliver: **11.15.23**

Ground Water

Phoenix Requires # Per Set	Your Requested Sets	Total	Container	Preservative	Analysis Being Requested
3	8	24	40ml Vials	HCL	BTEX
2	8	16	Liter Amber	AS IS	PAH
1	8	8	500ml Plastic	AS IS	BOD
1	8	8	250ml Plastic	H2SO4	COD
1	8	8	250ml Plastic	HNO3	Total Iron, Manganese
1	8	8	250ml Plastic	NAOH/Zinc Acetate	Sulfide
1	8	8	8oz Amber Bottle	H3PO4	TOC
1	8	8	500ml Plastic	AS IS	Sulfate, Nitrate, Nitrite
1	8	8	8oz Amber Bottle	AS IS	DOC **(lab to filter)**

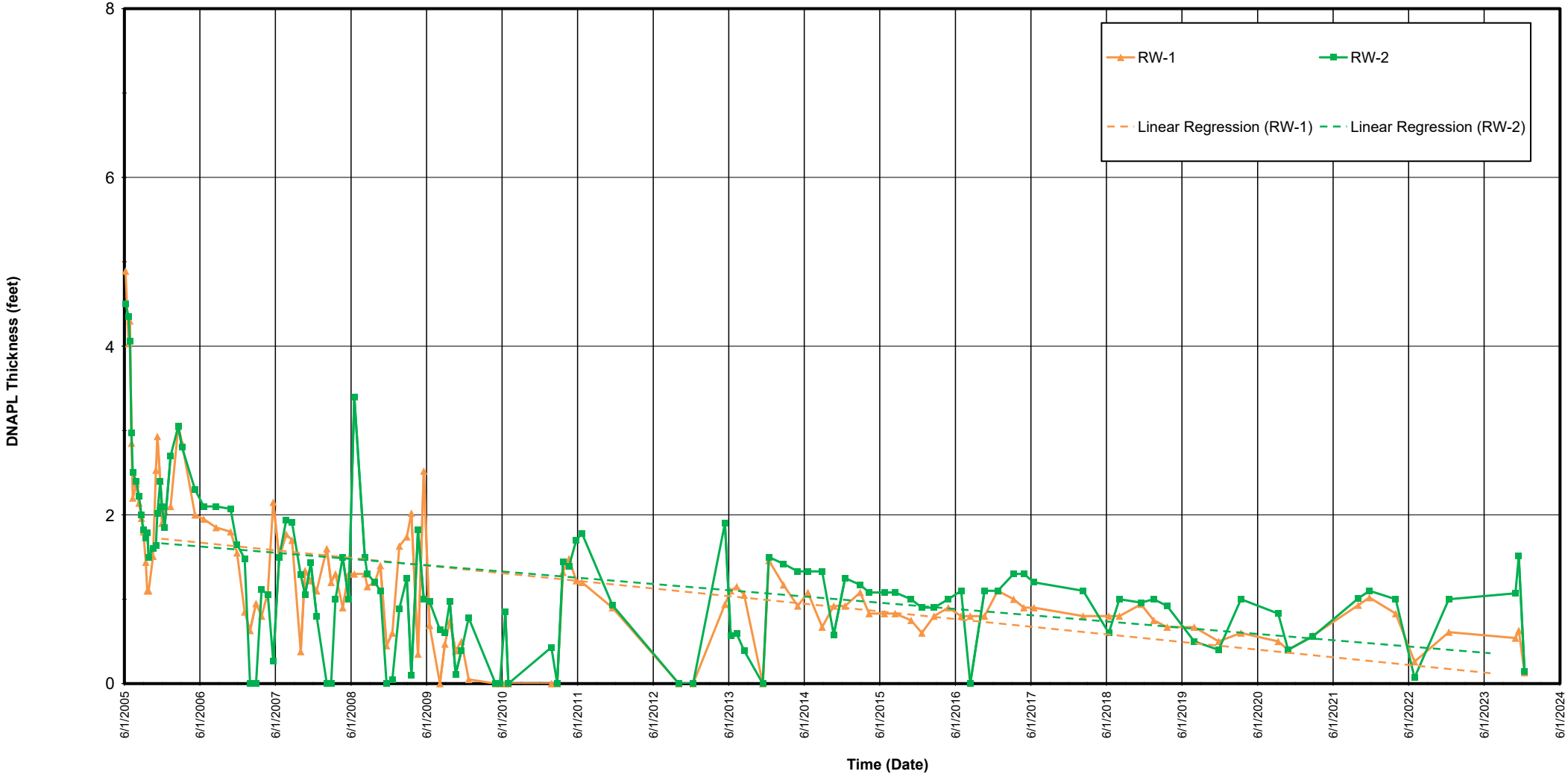
Also Included:
Chains, Labels
VOA Bags
Coolers
2 HCL Vials with Reagent Water Sealed = Trip Blank

APPENDIX D

DNAPL Monitoring and Extraction Summary

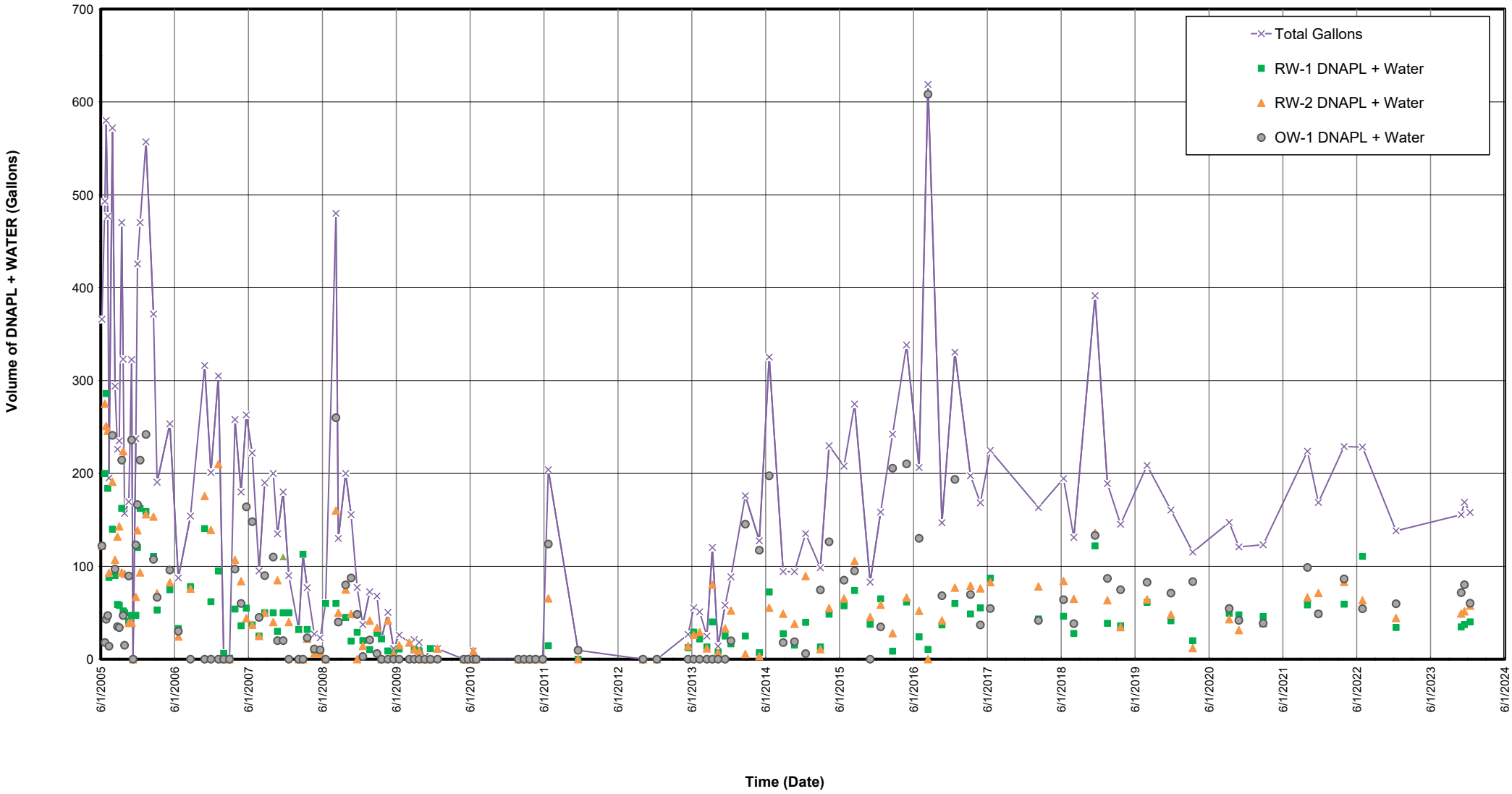
HALEY ALDRICH

FIGURE 1
WESTERN DNAPL RECOVERY SYSTEM
DNAPL THICKNESS



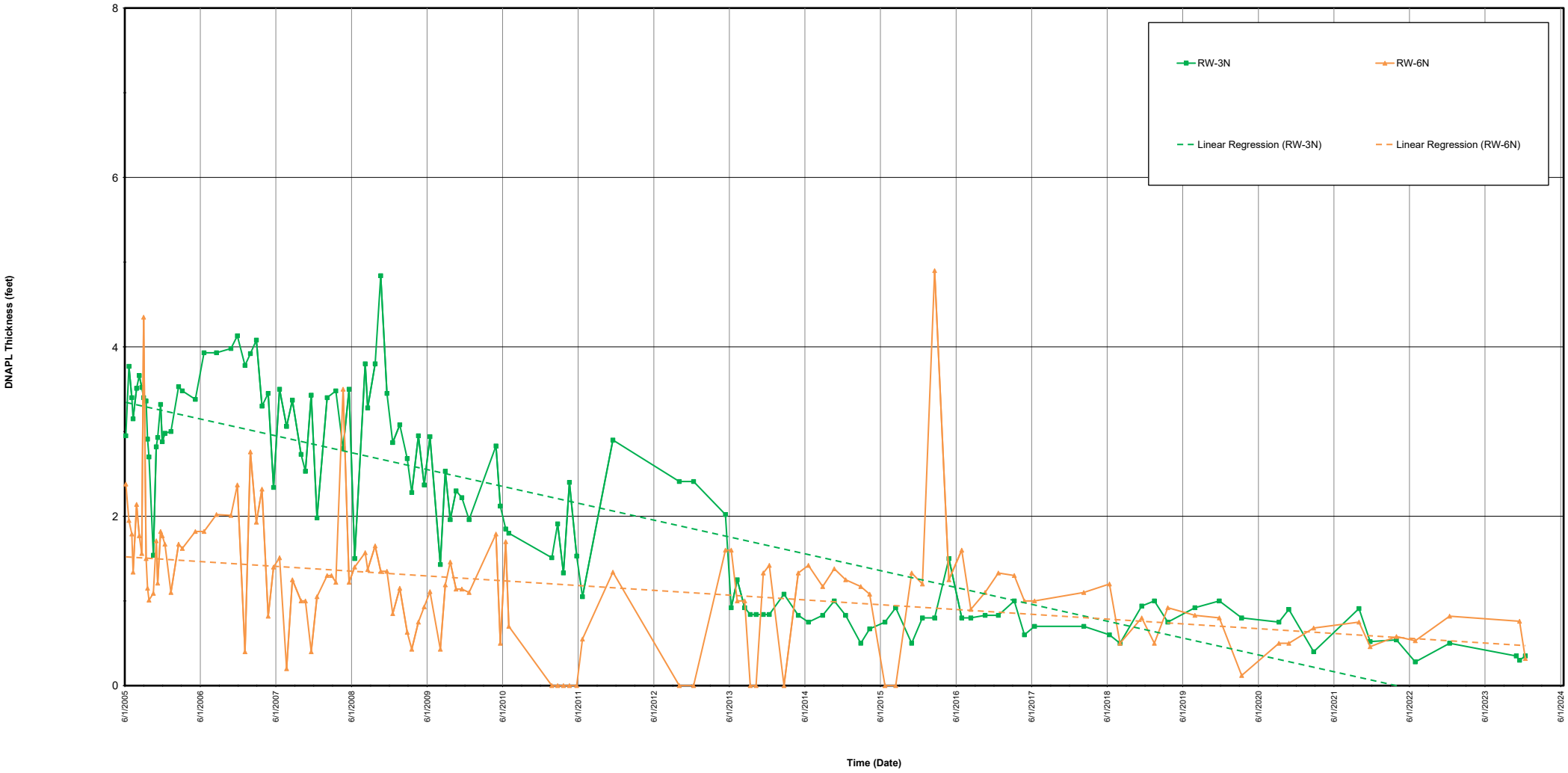
NOTES:
1. Lines illustrate data trends only and should not be used to interpolate data.

FIGURE 2
WESTERN DNAPL RECOVERY SYSTEM
FLUID VOLUME EXTRACTED



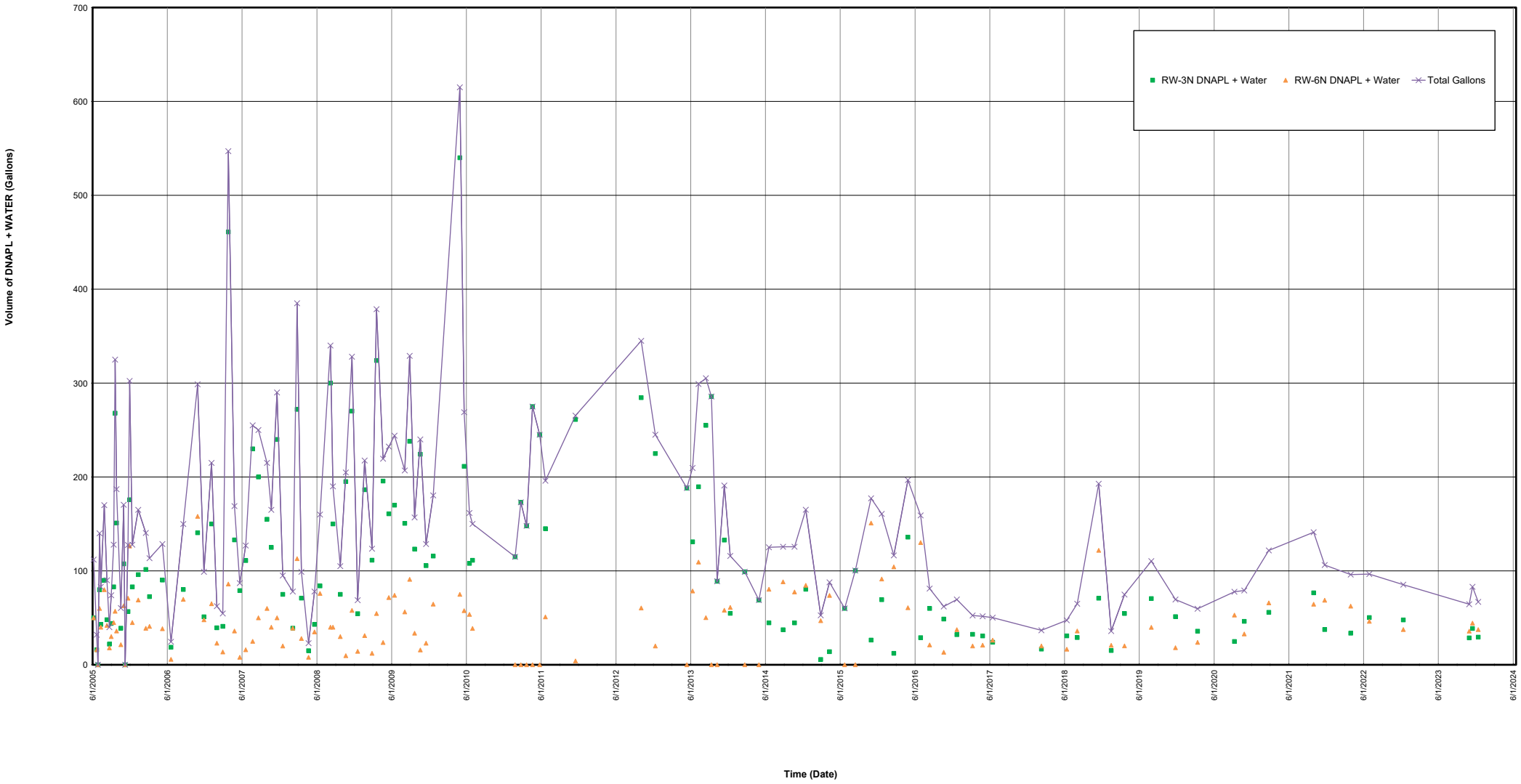
2023-HANY-DNAPL Master Data_updated 12182023.xlsx

FIGURE 3
NORTHERN DNAPL RECOVERY SYSTEM
DNAPL THICKNESS



NOTES:
1. Lines illustrate data trends only and should not be used to interpolate data.

FIGURE 4
NORTHERN DNAPL RECOVERY SYSTEM
FLUID VOLUME EXTRACTED



DNAPL EXTRACTION REPORT

PROJECT Tarrytown Former MGP Site
LOCATION Tarrytown, New York

Well ID#	Date	DNAPLTime (seconds)	Total Time (seconds)	DNAPL Extracted	Total Extracted	Units	Extraction Method	Performed By	
OW-1	10/30/2023	17	20	17.4	20.47	Gallons	vac truck	SS	NM
RW-1	10/30/2023	7	14	7.2	14.33	Gallons	vac truck	SS	NM
RW-2	10/30/2023	18	23	18.4	23.53	Gallons	vac truck	SS	NM
OW-1	10/30/2023	45	50	46.0	51.16	Gallons	vac truck	SS	NM
RW-1	10/30/2023	10	20	10.2	20.47	Gallons	vac truck	SS	NM
RW-2	10/30/2023	15	25	15.3	25.58	Gallons	vac truck	SS	NM
OW-1	-	-	-	-	-	-	-	-	-
RW-1	-	-	-	-	-	-	-	-	-
RW-2	-	-	-	-	-	-	-	-	-
RW-6N	10/30/2023	15	20	15.3	20.47	Gallons	vac truck	SS	NM
RW-3N	10/30/2023	10	15	10.2	15.35	Gallons	vac truck	SS	NM
RW-6N	10/30/2023	10	15	10.2	15.35	Gallons	vac truck	SS	NM
RW-3N	10/30/2023	9	13	9.2	13.30	Gallons	vac truck	SS	NM
Total Time		156	215						
Total Volume Extracted				159.6	220				

Total Volume Removed From Site: 220 gals.

REMARKS: See Section 2 of Operation, Maintenance and Monitoring Plan for DNAPL extraction instructions

All wells producing DNAPL contain 2-inch PVC risers for collection.

DNAPL MONITORING REPORT

PROJECT Tarrytown Former MGP Site
LOCATION Tarrytown, New York

Well ID#	Date	Time	Depth of Water from Stick Down*	Top of LNAPL	Top of DNAPL	Bottom of DNAPL	Thickness of DNAPL	Depth of Well	Thickness of Sediment in Bottom of Well	Read By
Northern DNAPL Area										
OW-1N	10/30/2023	8:30	6.92	N/A	N/A	N/A	0	22.5	0	SS/NM
RW-1N	10/30/2023	8:33	7.45	N/A	N/A	N/A	0	18.55	0	SS/NM
RW-2N	10/30/2023	8:26	6.23	N/A	N/A	N/A	0	18.05	0	SS/NM
RW-3N	10/30/2023	8:22	5.12	N/A	18.35	Bottom of well	0.35	18.7	0	SS/NM
RW-4N	Well decomissioned and grouted closed on 7/14/2017									
RW-5N	Well decomissioned and grouted closed on 7/14/2017									
RW-6N	10/30/2023	-	-	-	-	-	-	23.88	-	SS/NM
OW-2N	10/30/2023	10:12	8.03	N/A	N/A	N/A	0	22.05	0	SS/NM
RW-3N	10/30/2023	12:12	5.13	N/A	18.35	Bottom of well	0.35	18.7	0	SS/NM
RW-6N	10/30/2023	-	-	-	-	-	-	23.88	-	SS/NM
Western DNAPL Area										
OW-1	10/30/2023	9:13	7.3	N/A	27.14	Bottom of well	1.69	28.83	0	SS/NM
RW-1	10/30/2023	9:16	7.15	N/A	27.32	Bottom of well	0.54	27.86	0	SS/NM
RW-2	10/30/2023	9:20	7.44	N/A	27.33	Bottom of well	1.07	28.4	0	SS/NM
OW-2	10/30/2023	9:25	7.71	-	-	-	-	-	-	SS/NM
OW-1	10/30/2023	11:47	7.21	N/A	23.48	Bottom of well	5.35	28.83	0	SS/NM
RW-1	10/30/2023	11:49	7.03	N/A	27.86	Bottom of well	0	27.86	0	SS/NM
RW-2	10/30/2023	11:50	7.3	N/A	28.29	Bottom of well	0.11	28.4	0	SS/NM
OW-2	10/30/2023	11:53	7.7	-	-	-	-	-	-	SS/NM

REMARKS: **Criteria to note in remarks: 1. Thickness of Sediment within the well. 2. Describe any soils on the probe (color, type) 3. Note color of DNAPL on probe or tape.**

* Depth measurements taken from top of riser.

* * New depth of well(s) due to addition of riser installed with new manhole(s). OW-1N NEW STICK-UP = El 9.37. RW-1N NEW STICK-UP = El 10.07.

* * * * Depths of wells RW-4N, RW-5N, RW-6N and OW-2N changed recently due to riser and well head extensions.

RW-4N NEW STICK-UP = EL 11.19 (**CONFIRMED 04/27/2017**). RW-5N NEW STICK-UP = EL 11.23. RW-6N NEW STICK-UP = EL 11.17. OW-2N NEW STICK-UP = EL 11.15.

RW-6N was inaccessible all day due to a car parked on top of monitoring well. Owner was not reached to move vehicle.

See Table I in Operation, Maintenance and Monitoring Plan for frequency of monitoring and inspection.

ANNUAL INSPECTION NOTES:

DNAPL EXTRACTION REPORT

PROJECT Tarrytown Former MGP Site
LOCATION Tarrytown, New York

Well ID#	Date	DNAPLTime (seconds)	Total Time (seconds)	DNAPL Extracted	Total Extracted	Units	Extraction Method	Performed By	
OW-1	11/15/2023	28	30	40.1	42.95	Gallons	vac truck	SS	ZR
RW-1	11/15/2023	13	16	18.6	22.91	Gallons	vac truck	SS	ZR
RW-2	11/15/2023	17	20	24.3	28.64	Gallons	vac truck	SS	ZR
OW-1	11/15/2023	23	26	32.9	37.23	Gallons	vac truck	SS	ZR
RW-1	11/15/2023	8	10	11.5	14.32	Gallons	vac truck	SS	ZR
RW-2	11/15/2023	13	16	18.6	22.91	Gallons	vac truck	SS	ZR
OW-1	-	-	-	-	-	-	-	-	-
RW-1	-	-	-	-	-	-	-	-	-
RW-2	-	-	-	-	-	-	-	-	-
RW-6N	11/15/2023	13	16	18.6	22.91	Gallons	vac truck	SS	ZR
RW-3N	11/15/2023	14	15	20.0	21.48	Gallons	vac truck	SS	ZR
RW-6N	11/15/2023	12	15	17.2	21.48	Gallons	vac truck	SS	ZR
RW-3N	11/15/2023	8	12	11.5	17.18	Gallons	vac truck	SS	ZR
Total Time		149	176						
Total Volume Extracted				213.3	252				

Total Volume Removed From Site: 252 gals.

REMARKS: See Section 2 of Operation, Maintenance and Monitoring Plan for DNAPL extraction instructions

All wells producing DNAPL contain 2-inch PVC risers for collection.

DNAPL MONITORING REPORT

PROJECT Tarrytown Former MGP Site
LOCATION Tarrytown, New York

Well ID#	Date	Time	Depth of Water from Stick Down*	Top of LNAPL	Top of DNAPL	Bottom of DNAPL	Thickness of DNAPL	Depth of Well	Thickness of Sediment in Bottom of Well	Read By
Northern DNAPL Area										
OW-1N	11/15/2023	9:12	6.72	N/A	N/A	N/A	0	22.5	0	SS
RW-1N	11/15/2023	9:16	7.56	N/A	N/A	N/A	0	18.55	0	SS
RW-2N	11/15/2023	9:22	6.34	N/A	N/A	N/A	0	18.05	0	SS
RW-3N	11/15/2023	9:28	5.02	N/A	18.4	Bottom of well	0.3	18.7	0	SS
RW-4N	Well decomissioned and grouted closed on 7/14/2017									
RW-5N	Well decomissioned and grouted closed on 7/14/2017									
RW-6N	11/15/2023	9:31	7.69	N/A	23.12	Bottom of well	0.76	23.88	0	SS
OW-2N	11/15/2023	9:35	8.04	N/A	N/A	N/A	0	22.05	0	SS
RW-3N	11/15/2023	12:14	5.12	N/A	18.4	Bottom of well	0.3	18.7	0	SS
RW-6N	11/15/2023	12:20	7.76	N/A	23.47	Bottom of well	0.41	23.88	0	SS
Western DNAPL Area										
OW-1	11/15/2023	8:23	7.81	N/A	28.72	Bottom of well	0.11	28.83	0	SS
RW-1	11/15/2023	8:26	7.52	N/A	27.23	Bottom of well	0.63	27.86	0	SS
RW-2	11/15/2023	8:30	7.88	N/A	26.89	Bottom of well	1.51	28.4	0	SS
OW-2	11/15/2023	8:33	7.98	-	-	-	-	-	-	SS
OW-1	11/15/2023	11:30	7.69	N/A	27.97	Bottom of well	0.86	28.83	0	SS
RW-1	11/15/2023	11:34	7.33	N/A	26.98	Bottom of well	0.88	27.86	0	SS
RW-2	11/15/2023	11:37	7.59	N/A	27.72	Bottom of well	0.68	28.4	0	SS
OW-2	11/15/2023	11:40	7.97	-	-	-	-	-	-	SS

REMARKS: **Criteria to note in remarks: 1. Thickness of Sediment within the well. 2. Describe any soils on the probe (color, type) 3. Note color of DNAPL on probe or tape.**

* Depth measurements taken from top of riser.

* * New depth of well(s) due to addition of riser installed with new manhole(s). OW-1N NEW STICK-UP = El 9.37. RW-1N NEW STICK-UP = El 10.07.

* * * * Depths of wells RW-4N, RW-5N, RW-6N and OW-2N changed recently due to riser and well head extensions.

RW-4N NEW STICK-UP = EL 11.19 (**CONFIRMED 04/27/2017**). RW-5N NEW STICK-UP = EL 11.23. RW-6N NEW STICK-UP = EL 11.17. OW-2N NEW STICK-UP = EL 11.15.

See Table I in Operation, Maintenance and Monitoring Plan for frequency of monitoring and inspection.

ANNUAL INSPECTION NOTES:

DNAPL EXTRACTION REPORT

PROJECT Tarrytown Former MGP Site
LOCATION Tarrytown, New York

Well ID#	Date	DNAPLTime (seconds)	Total Time (seconds)	DNAPL Extracted	Total Extracted	Units	Extraction Method	Performed By	
OW-1	12/13/2023	17	20	22.8	26.79	Gallons	vac truck	SS	NM
RW-1	12/13/2023	17	20	22.8	26.79	Gallons	vac truck	SS	NM
RW-2	12/13/2023	28	30	37.5	40.18	Gallons	vac truck	SS	NM
OW-1	12/13/2023	22	25	29.5	33.48	Gallons	vac truck	SS	NM
RW-1	12/13/2023	8	10	10.7	13.39	Gallons	vac truck	SS	NM
RW-2	12/13/2023	10	13	13.4	17.41	Gallons	vac truck	SS	NM
OW-1	-	-	-	-	-	-	-	-	-
RW-1	-	-	-	-	-	-	-	-	-
RW-2	-	-	-	-	-	-	-	-	-
RW-6N	12/13/2023	13	16	17.4	21.43	Gallons	vac truck	SS	NM
RW-3N	12/13/2023	9	12	12.1	16.07	Gallons	vac truck	SS	NM
RW-6N	12/13/2023	10	12	13.4	16.07	Gallons	vac truck	SS	NM
RW-3N	12/13/2023	8	10	10.7	13.39	Gallons	vac truck	SS	NM
Total Time		142	168						
Total Volume Extracted				190.2	225				

Total Volume Removed From Site: 225 gals.

REMARKS: See Section 2 of Operation, Maintenance and Monitoring Plan for DNAPL extraction instructions

All wells producing DNAPL contain 2-inch PVC risers for collection.

HALEY ALDRICH

DNAPL MONITORING REPORT

PROJECT Tarrytown Former MGP Site
LOCATION Tarrytown, New York

Well ID#	Date	Time	Depth of Water from Stick Down*	Top of LNAPL	Top of DNAPL	Bottom of DNAPL	Thickness of DNAPL	Depth of Well	Thickness of Sediment in Bottom of Well	Read By
Northern DNAPL Area										
OW-1N	11/15/2023	9:15	6.56	N/A	N/A	N/A	0	22.5	0	SS/NM
RW-1N	11/15/2023	9:19	7.51	N/A	N/A	N/A	0	18.55	0	SS/NM
RW-2N	11/15/2023	9:23	6.29	N/A	N/A	N/A	0	18.05	0	SS/NM
RW-3N	11/15/2023	9:26	5.14	N/A	18.35	Bottom of well	0.35	18.7	0	SS/NM
RW-4N	Well decomissioned and grouted closed on 7/14/2017									
RW-5N	Well decomissioned and grouted closed on 7/14/2017									
RW-6N	11/15/2023	9:31	7.69	N/A	23.56	Bottom of well	0.32	23.88	0	SS/NM
OW-2N	11/15/2023	9:35	8.01	N/A	N/A	N/A	0	22.05	0	SS/NM
RW-3N	11/15/2023	12:14	5.12	N/A	18.35	Bottom of well	0.35	18.7	0	SS/NM
RW-6N	11/15/2023	12:20	7.65	N/A	23.51	Bottom of well	0.37	23.88	0	SS/NM
Western DNAPL Area										
OW-1	12/13/2023	8:41	7.91	N/A	28.62	Bottom of well	0.21	28.83	0	SS/NM
RW-1	12/13/2023	8:46	7.52	N/A	27.73	Bottom of well	0.13	27.86	0	SS/NM
RW-2	12/13/2023	8:50	7.83	N/A	28.26	Bottom of well	0.14	28.4	0	SS/NM
OW-2	12/13/2023	8:54	7.97	-	-	-	-	-	-	SS/NM
OW-1	12/13/2023	11:46	7.85	N/A	28.12	Bottom of well	0.71	28.83	0	SS/NM
RW-1	12/13/2023	11:50	8.49	N/A	27.73	Bottom of well	0.13	27.86	0	SS/NM
RW-2	12/13/2023	11:53	7.77	N/A	28.31	Bottom of well	0.09	28.4	0	SS/NM
OW-2	12/13/2023	11:58	7.97	-	-	-	-	-	-	SS/NM

REMARKS: **Criteria to note in remarks: 1. Thickness of Sediment within the well. 2. Describe any soils on the probe (color, type) 3. Note color of DNAPL on probe or tape.**

* Depth measurements taken from top of riser.

* * New depth of well(s) due to addition of riser installed with new manhole(s). OW-1N NEW STICK-UP = El 9.37. RW-1N NEW STICK-UP = El 10.07.

* * * * Depths of wells RW-4N, RW-5N, RW-6N and OW-2N changed recently due to riser and well head extensions.

RW-4N NEW STICK-UP = EL 11.19 (**CONFIRMED 04/27/2017**). RW-5N NEW STICK-UP = EL 11.23. RW-6N NEW STICK-UP = EL 11.17. OW-2N NEW STICK-UP = EL 11.15.

See Table I in Operation, Maintenance and Monitoring Plan for frequency of monitoring and inspection.

ANNUAL INSPECTION NOTES:

CSG SK – EWM – VAC – 43 Kenyon,William 10 – 30 – 2023 14:53

SHIPPING DOCUMENT

IN THE EVENT OF AN EMERGENCY CALL **24 –Hr –Number** 1 – 800 – 468 – 1760 (SAFETY – KLEEN SYSTEMS, INC.)

REFERENCE NBR.
93054598 – 2305635312

CUSTOMER / GENERATOR: FE18257 Ferry Landings Llc
129 Main Street
Terrytown NY 10591 – 0000
PHONE: 203 – 661 – 0055

GENERATOR USEPA ID:
GENERATOR STATE ID:
MANIFEST#: FORM CD : NR SHIP# 241205264

TRANSPORTER 1 TXR000081205 SAFETY – KLEEN SYSTEMS INC.
Address Transporter1: SAFETY – KLEEN SYSTEMS INC.
1722 COOPER CREEK RD
Ste 100
DENTON , TX,
US PostalCode: 76208
Phone: 800 – 669 – 5840
TRANSPORTER 2

US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID)
OILY WATER
(NOT USDOT OR USEPA REGULATED)(VAC)
FEDERAL WASTE CODES NONE
STATE WASTE CODES
TOTAL CONT 1 TYPE: TT WT/VOL G SKDOT 7008471
CNT# 231018386496 SZ: BULK VOLUME CONTAINER QTY: 220 PROF# 150451

DESIGNATED FACILITY NAME/ADDRESS:
ENVIRO WASTE OIL RECOVERY LLC
279 RTE 6
MAHOPAC
NY 10541
TSD PHONE: 845 – 279 – 0263

FACILITY USEPA ID NO NYD044825636
FACILITY STATE ID NO

GENERATOR STATUS SQG/LQG: Vehicle

11/15 MY

CUSTOMER / GENERATOR: Sebastian

TRANSPORTER: Kenyon,William

CSG SK-EWN-VAC-41 11-15-2023 14:21

SHIPPING DOCUMENT

IN THE EVENT OF AN EMERGENCY CALL **24-Hr-Number** 1-800-468-1760 (SAFETY-KLEEN SYSTEMS, INC.)

REFERENCE NBR.
93055029 - 2305638008

CUSTOMER / GENERATOR: FE18257 Ferry Landings Llc
129 Main Street
Tarrytown NY 10591-0000
PHONE: 203-661-0055

GENERATOR USEPA ID:
GENERATOR STATE ID:
MANIFEST#: FORM CD : NR SHIP# 241206137

TRANSPORTER 1 TXR000081205 SAFETY-KLEEN SYSTEMS INC.
Address Transporter1: SAFETY-KLEEN SYSTEMS INC.
1722 COOPER CREEK RD
Ste 100
DENTON , TX,
US PostalCode: 76208
Phone: 800-669-5840
TRANSPORTER 2

US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID)
OILY WATER
(NOT USDOT OR USEPA REGULATED)(VAC)
FEDERAL WASTE CODES NONE
STATE WASTE CODES
TOTAL CONT 1 TYPE: TT WT/VOL G SKDOT 7008471
CNT# 231018389464 SZ: BULK VOLUME CONTAINER QTY: 252 PROF# 150451

DESIGNATED FACILITY NAME/ADDRESS:
ENVIRO WASTE OIL RECOVERY LLC
279 RTE 6
MAHOPAC
NY 10541
TSD PHONE: 845-279-0263

FACILITY USEPA ID NO NYD044825636
FACILITY STATE ID NO

GENERATOR STATUS CESQG: Vehicle

CUSTOMER / GENERATOR: Sebastian

TRANSPORTER: delaher1

CSG SK – EWN – VAC – 41 Delahanty,Richard B 12 – 13 – 2023 14:26

SHIPPING DOCUMENT

IN THE EVENT OF AN EMERGENCY CALL **24 – Hr – Number** 1 – 800 – 468 – 1760 (SAFETY – KLEEN SYSTEMS, INC.)

REFERENCE NBR.
93055038 – 2305638033

CUSTOMER / GENERATOR: FE18257 Ferry Landings Llc
129 Main Street
Tarrytown NY 10591 – 0000
PHONE: 203 – 661 – 0055

GENERATOR USEPA ID:
GENERATOR STATE ID:
MANIFEST#: FORM CD : NR SHIP# 241206155

TRANSPORTER 1 TXR000081205 SAFETY – KLEEN SYSTEMS INC.
Address Transporter1: SAFETY – KLEEN SYSTEMS INC.
1722 COOPER CREEK RD
Ste 100
DENTON , TX,
US PostalCode: 76208
Phone: 800 – 669 – 5840
TRANSPORTER 2

US DOT DESCRIPTION (INCLUDING PROPER SHIPPING NAME, HAZARD CLASS, AND ID)
OILY WATER
(NOT USDOT OR USEPA REGULATED)(VAC)
FEDERAL WASTE CODES NONE
STATE WASTE CODES
TOTAL CONT 1 TYPE: TT WT/VOL G SKDOT 7008471
CNT# 231018389533 SZ: BULK VOLUME CONTAINER QTY: 225 PROF# 150451

DESIGNATED FACILITY NAME/ADDRESS:
ENVIRO WASTE OIL RECOVERY LLC
279 RTE 6
MAHOPAC
NY 10541
TSD PHONE: 845 – 279 – 0263

FACILITY USEPA ID NO NYD044825636
FACILITY STATE ID NO

GENERATOR STATUS CESQG: Vehicle

HSA

CUSTOMER / GENERATOR: Sebastian

TRANSPORTER: Delahanty,Richard B

APPENDIX E

Annual Site Inspection Form

HALEY ALDRICH

SMP - ANNUAL SITE INSPECTION

PROJECT	Tarrytown Former MGP Site	**Prepared By:** Sebastian Sotomayor	**Routine/Nonroutine Inspection:** Routine Annual
LOCATION	Tarrytown, NY	**Company:** Haley & Aldrich	**Weather:** Partly Cloudy 40s F
DATE(s)	12/13/2023	**Title:** Staff Environmental Engineer	**Other Noteworthy Conditions:** None

Attach sketches and/or photographs, as needed.

1. SITE COVER - SOIL, CONCRETE, ASPHALT, STRUCTURES

A. Visual Inspection and Observations:

During the 12/12/2022 - 12/13/23 reporting period, Haley & Aldrich performed environmental monitoring and other services as needed under the Site Management Plan. The site cover is in place and effective at the time of inspection. There were no changes in the site cover plan.

B. Maintenance, repairs, or changes to site cover completed since previous inspection(s):

None related to site cover.

C. Deficiencies noted, if any:

None related to site cover.

D. Recommended actions:

None related to site engineering controls.

2. OTHER SITE OBSERVATIONS (include any incidents, repairs, maintenance, or other observations affecting site management plan and reporting):

DNAPL monitoring and extractions were performed three times during the reporting period.

3. SITE / OWNER PERSONNEL CONTACTED:

a. Michael Cooney, Ferry Landings, LLC

b. Carlos Jimenez, Ferry Landings, LLC