Periodic Review Report

Austin Avenue Landfill BCP Site (#C360066) September 27, 2020 to September 27, 2021 Reporting Period

Morris Westchester Junior Retail Associates, LLC

November 11, 2021

→ The Power of Commitment

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Executive Summary

The Austin Avenue Landfill Brownfield Cleanup Program (BCP) Site (BCP Site #C360066) consists of approximately 14.1 acres of land located at 323 Sprain Road in the City of Yonkers, Westchester County, New York (the 'Site'). This Periodic Review Report (PRR) is being submitted to the New York State Department of Environmental Conservation (NYSDEC) in accordance with the Site Management Plan (SMP) for the Site.

Site soil and groundwater were historically determined to have detectable concentrations of polychlorinated biphenyls (PCBs), metals, and semi-volatile organic compounds (SVOCs). In addition, Site soil vapor was considered to have the potential for accumulation of explosive gases associated with the historic landfill operations, which would require the assessment of the potential for soil vapor intrusion in any future buildings constructed on-Site. The Site was remediated to restricted-residential use cleanup standards and received a Certificate of Completion (COC) from the NYSDEC on June 10, 2015.

Since the issuance of the COC, the Property has been divided into three (3) parcels, which are currently owned by: Morris Westchester Retail Associates, LLC (a portion of Parcel 3-3244-4); Morris Westchester Junior Retail Associates, LLC (Parcel 3-3244-7); and the City of Yonkers, New York (Parcel 3-3244-1). The parcels and the COC were transferred to the new owners in June 2016 as described in previous reports. The Site Remedial Party is Austin Avenue Brownfield Redevelopment, LLC.

In accordance with the NYSDEC-approved revised SMP (April 2019), Site monitoring currently includes annual groundwater sampling and an annual Site inspection. Annual groundwater monitoring and Site inspection is currently being conducted on behalf of one of the Site owners, Morris Westchester Junior Retail Associates, LLC, in May and September, respectively, of each year. The annual Site inspection corresponds with the closure of the PRR certification period. The institutional and engineering controls certification form, as issued by NYSDEC, has been completed and is included as Appendix A.

Included in the SMP is a Soil Management Plan outlining the requirements for implementing any excavation activities that may occur at the Site. No intrusive activities that would have required implementation of the Soil Management Plan occurred on the Site during this PRR's reporting period.

Based on the Site inspection conducted on September 22, 2021, the institutional controls and engineering controls for the Site remain in place and effective for protecting human health and the environment. The soil cover engineering controls remain in place, and no structures have been built on-Site. The Site is currently in the monitoring stage with groundwater samples being taken from on-Site groundwater monitoring wells on an annual basis. In general, stable or decreasing groundwater concentrations appear to be observed at the Site.

The requirements necessary to discontinue Site monitoring and Site engineering and institutional controls have not been met at this time. However, based on the groundwater monitoring data, reduction in the frequency of groundwater monitoring events to once every other year (biennially) should be considered, as discussed in Sections 4 and 5. Proposed revisions to the monitoring plan and annual PRR should continue to be assessed annually and requests submitted to the NYSDEC and NYSDOH for review and approval as appropriate.

This report is subject to, and must be read in conjunction with, the limitations set out in this report and the assumptions and qualifications contained throughout this report.

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1. Introduction

1.1 Purpose of this Report

This Periodic Review Report (PRR) is being submitted for the Austin Avenue Landfill Brownfield Cleanup Program (BCP) Site (BCP Site No. C360066) (Site) located at 323 Sprain Road, City of Yonkers, Westchester County, New York (Figure 1), on behalf of one of the Site Owners, Morris Westchester Junior Retail Associates, LLC. The purpose of this PRR and attached documents is to document that institutional and engineering controls, as described in the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) and Environmental Easement (EE), are in place in accordance with 6NYCRR Part 375-3. The following elements are included in this report:

– A description of all institutional and/or engineering controls employed at the Site.
– An evaluation of the plans developed for implementation of the engineering and institutional controls, regarding the continued effectiveness of any institutional and/or engineering controls required by the decision document for the Site.
– A certification prepared by a professional engineer or qualified environmental professional that the institutional controls and/or engineering controls employed at the Site during the period are:
    - Unchanged from the previous certification, unless approved by NYSDEC.
    - Consistent with the current NYSDEC-approved SMP.
    - In place and effective.
    - Performing as designed, and that nothing has occurred that would (1) impair the ability of the controls to protect public health and the environment, or (2) constitute a violation or failure to comply with any operation and maintenance plan for such controls.
– The institutional and engineering controls certification form, as issued by NYSDEC, has been completed and is included as Appendix A.
– Data tables and figures depicting results of annual groundwater monitoring activities conducted on-Site.

1.2 Certification Period

NYSDEC requested that this Periodic Review Report (PRR) cover the period between September 27, 2020 and September 27, 2021. During this period, one of the parcel owners, Morris Westchester Junior Retail Associates, LLC, has opted to conduct the groundwater monitoring, Site inspection, and prepare the annual PRR as required by the SMP. Morris Westchester Junior Retail Associates, LLC retained GHD Consulting Services Inc. (GHD) to perform these tasks on their behalf.

1.3 Scope and Limitations

This report has been prepared by GHD for Morris Westchester Junior Retail Associates, LLC and may only be used and relied on by Morris Westchester Junior Retail Associates, LLC for the purpose agreed between GHD and Morris Westchester Junior Retail Associates, LLC as set out in this report.

GHD otherwise disclaims responsibility to any person other than Morris Westchester Junior Retail Associates, LLC arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions, and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions, and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

The opinions, conclusions, and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the Site may be different from the Site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular Site conditions, such as the location of buildings, services, and vegetation. As a result, not all relevant Site features and conditions may have been identified in this report.

Site conditions (including the presence of hazardous substances and/or Site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the Site conditions. GHD is also not responsible for updating this report if the Site conditions change.

GHD has prepared this report on the basis of information provided by Morris Westchester Junior Retail Associates, LLC and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. Site Overview

The Site is located in the City of Yonkers, Westchester County, New York and is a part of multiple tax parcels of land (Property). After issuance of the Certificate of Completion, the Property was subdivided into three (3) parcels to accommodate potential future development and establish designated park land. The parcels are identified as Parcel 3-3244-1, Parcel 3-3244-4, and Parcel 3-3244-7 on the NYSDEC Institutional and Engineering Controls Certification Form. The three parcels are further described as follows:

– Parcel 3-3244-1 – Approximately 9.89 acres of land reportedly owned/operated by the City of Yonkers, New York.
– Parcel 3-3244-4 – Approximately 3.24 acres of land, which is part of the larger overall approximately 13.17 acre parcel, reportedly owned/operated by Morris Westchester Retail Associates, LLC.
– Parcel 3-3244-7 – Approximately 5.13 acres of land reportedly owned/operated by Morris Westchester Junior Retail Associates, LLC.

The Property, as a whole, is approximately 18.26 acres and was investigated with approximately 14.1 acres being remediated to a Track 4 Restricted Residential Use, which represents the area of the BCP Site. Figure 2 depicts the extents of the Property, the location and extent of each parcel, and the extents of the BCP Site and engineering controls. The Site is bound by Austin Avenue to the north, Home Depot's back parking lot to the south, Sprain Brook and Sprain Road to the east, and an unimproved road and similar vacant land (Lot 4 – Austin Avenue and Prior Place BCP Site, Site #C360116), to the west (Figure 2).

The Site is currently undeveloped with a minimum of a 2-foot thick soil cover system covering its entirety. The soil cover system consists of clean off-site fill placed over a geotextile demarcation layer with established vegetation at the surface.

The Remedial Investigation (RI), which was conducted under Brownfield Cleanup Agreement (BCA Index #A3-0542-0306) and BCP Site #C360066 during 2006 and 2007, as well as previous investigations conducted by others, characterized the nature and extent of contamination at the Site. The results of the RI, as reported in the *Remedial Investigation Report* (S&W Redevelopment of North America, LLC, August 2007) determined that contaminants of

potential concern are present in Site soil/historic fill and groundwater. It was determined that Site surface and subsurface soil/historic fill contains metals, specifically cadmium, chromium, copper, lead, and mercury at concentrations that exceed the Residential Use Soil Cleanup Objectives (SCOs). Analytical results of Site groundwater samples identified one polychlorinated biphenyl (PCB, Aroclor 1260); one pesticide (dieldrin); and multiple metals, including arsenic, barium, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and zinc at concentrations that exceed the Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA groundwater standards or guidance values. In addition, there was little to no evidence of explosive gas associated with the former landfill operations detected at the Site.

A *Remedial Work Plan* (RWP) was prepared by S&W Redevelopment of North America, LLC (November 2009). The remedial goals for the Site included:

– Eliminate or mitigate, to the extent practicable, on-Site environmental or public health exposures to on-Site metals contamination that may remain in soil/historic fill or groundwater.
– Eliminate or mitigate, to the extent practicable, the potential for concentrations of soil gases (i.e., explosive gases) to enter future Site buildings, if any.

The proposed remedial approach was to remediate the Site to a Track 4 Restricted Residential Use by implementing engineering/institutional controls at the Site, including: placing a minimum of 2 feet of clean fill, underlain by a geotextile demarcation layer, across the entirety of the Site; requiring the evaluation and mitigation, if necessary, of soil vapor intrusion in any future buildings constructed on-Site; and implementing an Environmental Easement for the Site, which included Site use and groundwater use restrictions. Remedial activities were completed at the Site between October 2010 and February 2011 and included the placement of approximately 141,500 cubic yards of clean fill, underlain by a demarcation layer, to act as a soil cover engineering control.

The engineering controls for the Site consist of maintaining the soil cover system and evaluating the potential for vapor intrusion for any building(s) developed on-Site, with any potential impacts that are identified being monitored or mitigated. The institutional controls include a Site groundwater use restriction, a Site use restriction of restricted residential use or higher uses (i.e., commercial or industrial uses, subject to local zoning), and evaluating the potential for soil vapor intrusion in any future building(s) constructed on-Site.

An EE for the Site was filed with the Westchester County Clerk's Office on April 22, 2015. A SMP, which outlines Site restrictions and requirements of future maintenance and monitoring, was completed in May 2011 and revised in April 2015 and April 2019. A Certificate of Completion allowing for restricted residential, commercial, and industrial use of the Site was received from the NYSDEC on June 10, 2015.

The reader of this PRR may refer to previous reports for more detail, as needed. These reports include:

– DFH Environmental Services, Inc., January 10, 1990, "Project Update Report"
– Leggette, Brashears & Graham, Inc. (LBG), April 5, 1995, "Austin Avenue Landfill Surface and Ground-Water Investigation"
– Leggette, Brashears & Graham, Inc. (LBG), May 1995, "Supplemental Investigation of Bedrock Ground-Water Quality"
– Leggette, Brashears & Graham, Inc. (LBG), November 1996, "Phase I Environmental Site Assessment"
– Leggette, Brashears & Graham, Inc. (LBG), March 4, 1997, "Soil Sampling Letter Report"
– Geraghty & Miller, Inc., June 1997, "Hydrogeologic Investigation of Selected Landfills in Westchester County, New York"
– Leggette, Brashears & Graham, Inc. (LBG), February 19, 1998, "Semi-Annual Surface and Ground-Water Monitoring Letter Report"
– Leggette, Brashears & Graham, Inc. (LBG), August 21, 1998, "Semi-Annual Surface and Ground-Water Monitoring Letter Report"
– Leggette, Brashears & Graham, Inc. (LBG), September 7, 1999, "Update to November 1996 Phase I Environmental Site Assessment"

- Leggette, Brashears & Graham, Inc. (LBG), October 8, 1999, “Semi-Annual Surface and Ground-Water Monitoring Letter Report”
- Leggette, Brashears & Graham, Inc. (LBG), October 3, 2000, “Supplemental Site Characterization Activities, Former Austin Avenue Landfill, Yonkers, New York”
- S&W Redevelopment of North America, LLC, August 2007, “Remedial Investigation Report, Austin Avenue Landfill Brownfield Site, City of Yonkers, Westchester County, NY”
- S&W Redevelopment of North America, LLC, November 2009, “Remedial Work Plan, Austin Avenue Landfill Brownfield Site, City of Yonkers, Westchester County, NY”
- S&W Redevelopment of North America, LLC, May 2011, Revised by: GHD Consulting Engineers, LLC, April 2015, Revised by: GHD Consulting Services Inc., April 2019, “Site Management Plan, Former Austin Avenue Landfill Site, Westchester County, New York”
- S&W Redevelopment of North America, LLC, May 2011, Revised by: GHD Consulting Engineers, LLC, April 2015, “Final Engineering Report, Former Austin Avenue Landfill Site, Westchester County, New York”
- New York State Department of Environmental Conservation, June 10, 2015, “Certificate of Completion, Austin Avenue Landfill Site”
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill Brownfield Cleanup Program Site (Site #C360066), June 10, 2015 to September 27, 2016 Reporting Period, December 21, 2016
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill Brownfield Cleanup Program Site (Site #C360066), September 27, 2016 to September 27, 2017 Reporting Period, October 31, 2017
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill Brownfield Cleanup Program Site (Site #C360066), September 27, 2017 to September 27, 2018 Reporting Period, November 5, 2018
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill Brownfield Cleanup Program Site (Site #C360066), September 27, 2018 to September 27, 2019 Reporting Period, November 12, 2019
- Dynamic Earth, LLC, Geotechnical Investigation Compliance Letter - Former Austin Avenue Landfill BCP Site (Site # C360116 & C360066), September 1, 2020
- GHD Consulting Services Inc., Periodic Review Report, Austin Avenue Landfill BCP Site (BCP Site #C360066), September 27, 2019 to September 27, 2020 Reporting Period, November 9, 2020
- GHD Consulting Services Inc., Lot 1 – Former Austin Avenue Landfill BCP Site (Site #C360066) – Annual Post-Remediation Groundwater Monitoring – 2021, September 29, 2021

3. Institutional and Engineering Controls

Based on identified soil and groundwater contamination, the potential for explosive gases from historic operations, and the Site’s past, present, and reasonably anticipated future use, institutional and engineering controls are utilized at the Site to limit exposure risks. These institutional and engineering controls and their status are described below.

3.1 Institutional Controls

The institutional controls (ICs) for this Site are outlined in the NYSDEC-approved SMP (S&W Redevelopment of North America, LLC, May 2011; Revised by: GHD Consulting Engineers, LLC, April 2015; Revised by: GHD Consulting Services Inc., April 2019), and adherence to these ICs is required by the Environmental Easement. The ICs for the Site include the following:

- The Site may only be used for Track 4 Restricted Residential, Commercial, or Industrial use provided that the long-term engineering and institutional controls included in the SMP are employed and local zoning laws allow the use.

- The Site may not be used for a higher level of use, such as Unrestricted Use or Residential Use, without amendment of the Environmental Easement, and review and approval by the NYSDEC.
- All future activities on-Site that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- The use of groundwater underlying the Site is prohibited without treatment rendering it safe for the intended use and prior written approval from the NYSDEC.
- The potential for vapor intrusion must be evaluated for any building(s) developed on-Site, and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on-Site are prohibited.
- The Site Owner or Remedial Party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitutes a violation or failure to comply with the SMP. NYSDEC retains the right to access the Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

3.1.1 Environmental Easement

The Environmental Easement was filed with the Westchester County Clerk's office and reportedly remains unchanged.

3.1.2 Site Use

Although the Site Ownership has changed, as described above, the Site use has not changed since the NYSDEC issued the COC. The Site is currently vacant and consists of a vegetated soil cover system with associated drainage control features. Equipment associated with Stew Leonard operations continues to be staged at the Site near the entrance from Stew Leonard Drive.

3.1.3 Groundwater Use

Groundwater is not being used at the Site.

3.1.4 Excavations

No excavations occurred on the Site during this PRR's certification period.

3.2 Engineering Controls

The engineering controls (ECs) for this Site are outlined in the NYSDEC-approved SMP (S&W Redevelopment of North America, LLC, May 2011; Revised by: GHD Consulting Engineers, LLC, April 2015; Revised by: GHD Consulting Services Inc., April 2019), and include the following:

3.2.1 Soil Cover System

Direct contact with potentially contaminated soil/historic fill at the Site is mitigated by a soil cover system in place over the entirety of the BCP Site. This soil cover system is comprised of a geotextile demarcation layer overlain by a minimum of 2 feet of clean soil, which was seeded to establish a vegetative cover. The location of the soil cover system is depicted in Figure 3.

There was no record of the soil cover system being breached during this PRR's certification period.

An annual inspection of the Site was completed on September 22, 2021 by GHD personnel. Based on field observations, the soil cover system appeared generally unchanged during this certification period. No maintenance was reportedly required to amend the soil cover system during this certification period. The vegetative cover on-Site is well established, and no erosion was observed.

During the annual inspection it was noted that two plastic 5-gallon containers were left on the Site from unknown sources, one near the Stew Leonard Drive containing what appeared to be residual paint and one near the Austin Avenue gate containing what appeared to be a petroleum product. These containers should be removed and properly disposed of off-site.

In general, the soil cover system should be periodically mowed to discourage woody growth. Based on Site inspection field observations, there was woody growth observed in the rock retaining wall on the eastern perimeter of the Site and in other isolated areas of the soil cover system. The observed woody growth did not appear to be adversely impacting the soil cover system at this time. The woody growth observed in the rock retaining wall and relatively flat surfaces should be removed to maintain the integrity of the wall and cover system. It is noted that the NYSDEC agreed to allowing woody growth on the steep side slopes of the Site that were established as designated City of Yonkers Park land and where mowing would be difficult.

Additional information can be found in the Institutional and Engineering Controls Certification Form (Appendix A) and the Annual Site Inspection Form (Appendix B).

3.2.2 Soil Vapor Mitigation System

The potential for vapor intrusion must be evaluated for any building(s) developed on-Site and any potential impacts that are identified must be monitored or mitigated.

At the time of the annual Site inspection (September 22, 2021), no buildings had been constructed on-Site; therefore, no soil vapor intrusion investigation, monitoring, or mitigation is required at this time.

4. Operations and Monitoring

Based on established groundwater quality trends, the spring 2018 groundwater monitoring report recommended a reduction in groundwater sampling frequency from semi-annual to annual and a reduction in the sample analytical list to include metals analysis only (i.e., remove analysis for SVOCs and PBCs). These requests were approved by NYSDEC on November 30, 2018. The NYSDEC-approved the revised SMP (S&W Redevelopment of North America, LLC, May 2011; Revised by: GHD Consulting Engineers, LLC, April 2015; Revised by GHD Consulting Services Inc., April 2019) which currently requires annual groundwater monitoring and reporting and annual Site inspection, as well as monitoring and reporting requirements for a future soil vapor mitigation or monitoring system, if applicable.

The annual groundwater monitoring is intended to assess the performance of the remedy. Annual groundwater monitoring was completed in accordance with the NYSDEC-approved SMP during this PRR's certification period, on May 19, 2021 (Figure 4 and Tables 1 through 3). In addition to the required groundwater sample analysis, dissolved metals samples were also taken from each of the groundwater monitoring wells and analyzed by the laboratory. An annual groundwater monitoring report was transmitted to the NYSDEC on September 29, 2021. Groundwater monitoring results for the annual 2021 monitoring event were also uploaded in the NYSDEC EQuIS Database, were approved by the EQuIS Team, and are ready for use (Appendix C).

An annual inspection was completed in accordance with the NYSDEC-approved SMP during this PRR's certification period, on September 22, 2021. The Annual Inspection Form is included in Appendix B. The recommendations resulting from the annual inspection are summarized in Section 5.

4.1 Groundwater Monitoring Results

Based on the laboratory analytical results, concentrations of contaminants of potential concern in groundwater have shown decreases over time as a result of the remedial action completed at the Site. The groundwater sample analytical results from this PRR's certification period (May 2021 monitoring event, Tables 1 through 3) indicate:

– Concentrations of various metals were detected above laboratory detection limits in each of the groundwater samples, of which the following exceeded Class GA standards or guidance values:
  - Chromium, Total – SWRMW-5
  - Iron, Total – All samples
  - Iron, Dissolved – SWRMW-1
  - Magnesium, Total – SWRMW-4, SWRMW-5, and Duplicate (SWRMW-4)
  - Magnesium, Dissolved – SWRMW-4 and SWRMW-5
  - Manganese, Total – SWRMW-1, SWRMW-4, SWRMW-5, and Duplicate (SWRMW-4)
  - Manganese, Dissolved – Duplicate (SWRMW-4)
  - Silver, Total – SWRMW-3
  - Sodium, Total – SWRMW-1, SWRMW-4, SWRMW-5, and Duplicate (SWRMW-4)
  - Sodium, Dissolved – SWRMW-3, SWRMW-4, SWRMW-5, and Duplicate (SWRMW-4)

Identified concentrations of metals are highly variable across the Site and over-time, with the most recent round of monitoring generally identifying commonly occurring natural elements in excess of Class GA standards or guidance values. The exception to this is for the chromium and silver concentrations that were identified in excess of the Class GA standards during the May 2021 monitoring event. Each of these exceedances were limited to samples taken from groundwater monitoring wells SWRMW-3 (silver) and SWRMW-5 (chromium). It is noted that in the separate dissolved samples collected, the concentration of chromium (SWRMW-5) was below the applicable Class GA groundwater standard, and identified as an estimated concentration by the laboratory, and the concentration of silver (SWRMW-3) was below the laboratory method detection limit. Data from historic and future monitoring events will be reviewed and assessed to determine if any significant trends can be discerned.

Based on the groundwater data received to date, the qualitative exposure assessment assumptions regarding on-Site and off-Site contamination have not changed and are still valid. The next round of monitoring is tentatively scheduled for May 2022; however, a request for reduction of the frequency of groundwater monitoring events to once every two years (biennially) was submitted with the 2021 annual monitoring report (GHD, September 29, 2021). If the request is approved by NYSDEC, then the next round of monitoring at the Site would occur in May 2023.

A groundwater monitoring well installed during previous geotechnical investigations completed at the Site by others was still present and covered, however, it was not secured with a lock. A well lock should be placed on the cover to prevent unauthorized access or arrangements made to have the well decommissioned.

4.2 Soil Vapor Mitigation

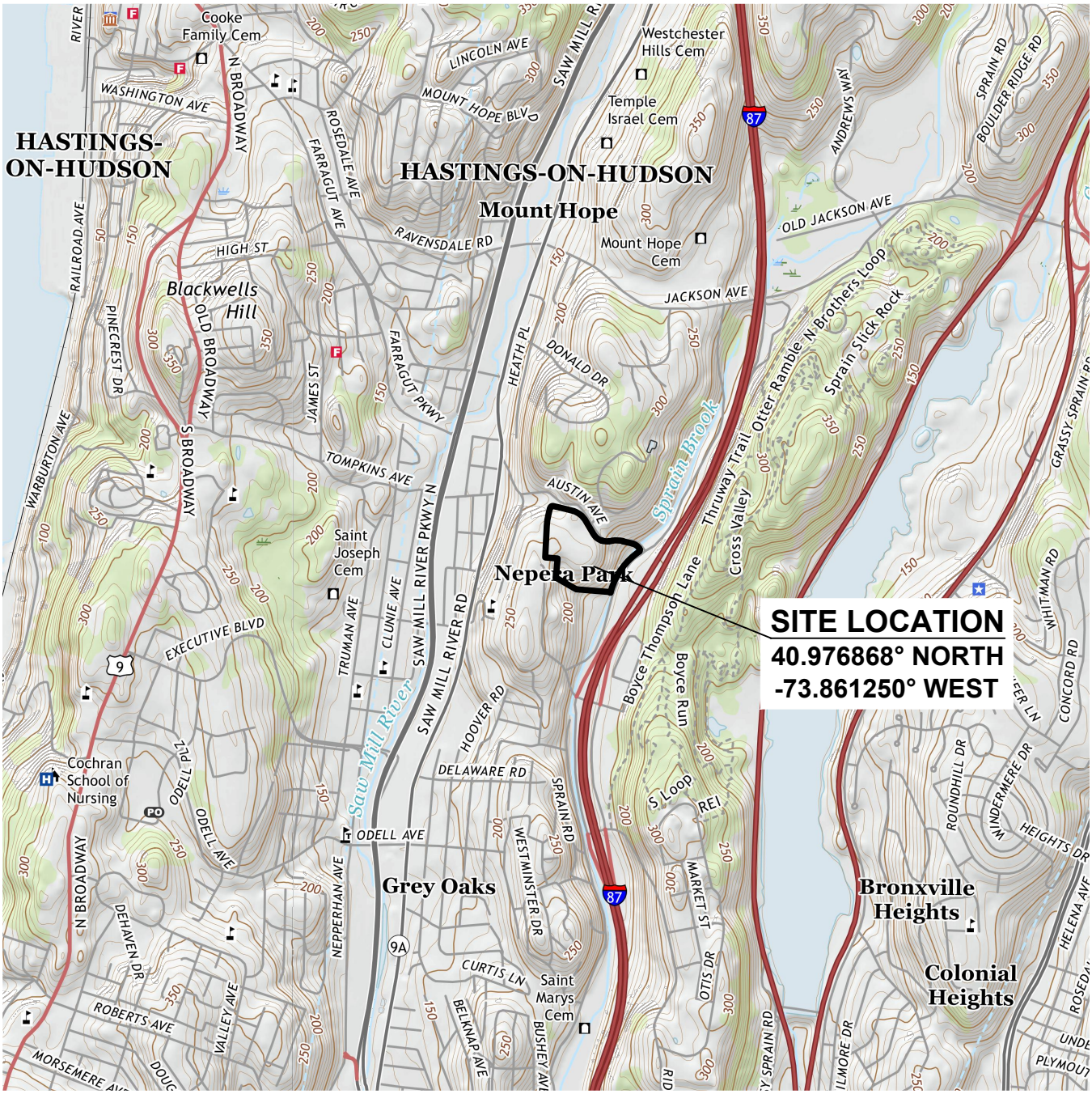
There are currently no structures located on-Site, and, as such, no soil vapor intrusion evaluation, mitigation, or monitoring was conducted. If structures are planned to be built in the future, a soil vapor intrusion evaluation will be conducted and reviewed, appropriate monitoring and/or mitigation measures will be implemented, and inspection of the soil vapor mitigation system and/or monitoring documentation will occur, as appropriate.

5. Recommendations

Based on a review of the annual groundwater data, it is recommended that the ICs and ECs currently in place for the Site remain in place to ensure the continued effectiveness and protectiveness of the remedy. Periodic routine maintenance of the soil cover system and monitoring wells should continue. Based on the annual inspection observations and the groundwater monitoring results, the following recommendations should be implemented:

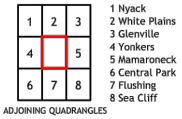
- Mowing/brush hogging should be performed periodically to discourage woody growth on the soil cover system (excluding the steep side slopes designated as park land, as approved by NYSDEC).
- Woody vegetative growth that has become established in the rock retaining wall on the eastern perimeter should be cut and removed to maintain the long-term integrity of the retaining wall.
- Periodic trimming (i.e., annually) should also occur around the groundwater monitoring wells to provide free and easy access during future sampling events and to maintain the integrity of the monitoring points, particularly SWRMW-4 and SWRMW-5, which are outside the limits of the soil cover engineering control. In addition, the location of the monitoring wells should be staked and flagged for ease of identification in the field.
- The piezometer installed by others as part of a previous geotechnical investigation of the Site should either be appropriately decommissioned or should have a lock placed on its cover.
- The two plastic 5-gallon containers observed near the entrance at Stew Leonard Drive and the gate at Austin Avenue should be removed and properly disposed of off-Site.
- Groundwater monitoring frequency is recommended to be reduced to once every other year (biennially), in accordance with the request submitted to NYSDEC previously, as part of the 2021 annual groundwater monitoring report. Analysis during these biennial events should include both total and dissolved (field filtered) metals to assist in evaluating the potential groundwater impacts and trends.

Figures



CONTOUR INTERVAL: 10 FEET

MAP TAKEN FROM: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLES:
MOUNT VERNON, NY (2019) &
YONKERS, NY-NJ (2019)
(U.S. GEOLOGICAL SURVEY WEBSITE)



SCALE 1"=2000' AT ORIGINAL SIZE

GHD

MORRIS WESTCHESTER JUNIOR RETAIL ASSOCIATES, LLC
AUSTIN AVENUE LANDFILL BCP SITE
PERIODIC REVIEW REPORT

Project No. **11134282**
Date **10.19.2021**

SITE LOCATION MAP

FIGURE 1

Filename: G:\Projects\111\11134282 Morris Co Lot 1 BCP Site \Periodic Review Reports\September 27, 2020 to September 27, 2021\Figures\Figure 1 - Site Location.dwg
Plot Date: 19 October 2021 1:18 PM

NOTES:

1. AERIAL PHOTOGRAPHS ARE 6-INCH RESOLUTION AERIAL PHOTOGRAPHS DATED 2016 AND TAKEN FROM THE NYSGIS CLEARINGHOUSE WEBSITE.
2. LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC, MAY 11, 2011.
3. LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.
4. NEW TAX PARCEL SUBDIVISION AREAS TAKEN FROM EXHIBIT MAP OF FORMER TAX LOT 1 COMPLETED BY JMC, JULY 2016.

N

0 35 70 105 140'

SCALE 1"=140' AT ORIGINAL SIZE

GHD

MORRIS WESTCHESTER JUNIOR RETAIL ASSOCIATES, LLC
AUSTIN AVENUE LANDFILL BCP SITE
PERIODIC REVIEW REPORT

SITE LAYOUT

Project No. **11134282**
Date **10.19.2021**

FIGURE 2

Filename: G:\Projects\111\11134282 Morris Co Lot 1 BCP Site \Periodic Review Reports\September 27, 2020 to September 27, 2021\Figures\Figure 2 - Site Layout.dwg
Plot Date: 19 October 2021 1:23 PM

SUBJECT PARCEL DESCRIPTION

(Section 3 Block 3244 Lot 1)

All that certain place or parcel of land, situate, lying and being in the City of Yonkers, County of Westchester and State of New York, known and designated as Lots P6 and P5 (also known as Block 3244, Lot 1) on a composite map of properties for Westchester Corporate Center prepared by Aristotle Bournazos dated 07/10/1989 last revised 11/02/1992 and being more particularly bounded and described as follows:

BEGINNING at a point along the southeasterly corner of Lot P6, said point being on the division line between Lots P6 and P2;

RUNNING THENCE from said point of beginning the following eighteen (18) courses and distances:

North 86 degrees 36 minutes 36 seconds West a distance of 410.08 feet to a point;

North 61 degrees 30 minutes 37 seconds West a distance of 304.00 feet to a point;

North 05 degrees 02 minutes 23 seconds East a distance of 251.76 feet to a point;

North 84 degrees 57 minutes 37 seconds West a distance of 159.18 feet to a point;

North 02 degrees 40 minutes 00 seconds East a distance of 406.19 feet to a point;

Along a curve to the right having a radius of 730.00 feet and an arc length of 140.32 feet to a point;

North 13 degrees 40 minutes 48 seconds East a distance of 89.22 feet to a point;

Along a curve to the right having a radius of 38.74 feet and an arc length of 62.85 feet to a point;

South 76 degrees 19 minutes 11 seconds East a distance of 245.10 feet to a point;
Along a curve to the right having a radius of 270.00 feet and an arc length of 212.91 feet to a point;

South 31 degrees 08 minutes 20 seconds East a distance of 211.14 feet to a point;

Along a curve to the left having a radius of 195.00 feet and an arc length of 229.58 feet to a point;

North 81 degrees 24 minutes 15 seconds East a distance of 42.45 feet to a point;

Along a curve to the right having a radius of 364.12 feet and an arc length of 140.57 feet to a point;

South 76 degrees 28 minutes 37 seconds East a distance of 123.88 feet to a point;

Along a curve to the right having a radius of 145.00 feet and an arc length of 98.41 feet to a point of reverse curve;

Along a curve to the left having a radius of 675.00 feet and an arc length of 401.63 feet to a point;

South 24 degrees 58 minutes 31 seconds West a distance of 293.49 feet to a point, to the point and place of BEGINNING.

The above-described parcel contains 759,552.90 S.F. (17.4389 Acres) more or less.

ENVIRONMENTAL EASEMENT DESCRIPTION & CHART

DEMARCATION LAYER (EASEMENT SITE No. C360066)
AREA = 815,072.38 S.F. (14.1201 ACRES)

All that certain place or parcel of land, situate, lying and being in the City of Yonkers, County of Westchester and State of New York, known and designated as Lots P6 and P5 (also known as Block 3244, Lot 1) on a composite map of properties for Westchester Corporate Center prepared by Aristotle Bournazos dated 07/10/1989 last revised 11/02/1992 and being more particularly bounded and described as follows:

FROM a point marking the southeasterly corner of Lot P6, said point being on the division line between Lots P6 and P2;

RUNNING THENCE from said point of beginning the following four (4) courses and distances:

North 86 degrees 36 minutes 36 seconds West a distance of 410.08 feet to a point;

North 61 degrees 30 minutes 37 seconds West a distance of 304.00 feet to a point;

North 05 degrees 02 minutes 23 seconds East a distance of 251.76 feet to a point;

North 84 degrees 57 minutes 37 seconds West a distance of 159.18 feet to the place and point of BEGINNING;

RUNNING THENCE along the following courses and distances in the chart below:

CURVE TABLE		
CURVE	LENGTH	RADIUS
C1	140.32	730.00
C2	62.85	38.74

LINE TABLE		
LINE	LENGTH	BEARING
L1	406.19	N02°40'00"E
L2	89.22	N13°40'48"E
L3	21.49	S73°28'43"E
L4	24.50	S79°25'28"E
L5	24.65	S80°28'24"E
L6	139.80	S78°07'11"E
L7	78.85	N13°41'48"E
L8	3.90	S63°08'03"E
L9	5.71	S81°15'44"E
L10	23.79	S75°06'01"E
L11	14.03	S64°43'26"E
L12	14.82	S53°20'39"E
L13	18.80	N34°53'17"E
L14	9.33	N75°53'34"E
L15	15.63	S82°41'38"E
L16	20.48	S60°08'05"E
L17	15.58	S46°42'45"E
L18	19.38	S33°24'45"E
L19	33.49	S28°54'28"E
L20	25.39	S24°37'26"E
L21	20.85	S28°00'58"E
L22	22.33	S28°21'47"E
L23	65.58	S22°55'23"E
L24	22.85	S25°30'16"E
L25	55.88	S40°56'32"E
L26	21.76	S38°00'38"E
L27	8.63	S41°52'54"E
L28	26.90	S34°55'01"E
L29	24.28	S37°42'31"E
L30	18.63	S17°08'07"E
L31	12.70	S28°51'32"E
L32	27.96	S30°07'47"E
L33	33.64	S33°07'28"E
L34	30.07	S35°08'36"E
L35	20.45	N68°09'08"E
L36	27.29	S31°17'06"E
L37	10.43	S11°00'06"E
L38	11.88	N86°42'51"E
L39	14.18	S26°41'08"E
L40	19.21	N30°02'48"E
L41	14.59	N57°22'28"E
L42	19.70	N67°54'17"E
L43	23.26	S85°45'31"E
L44	11.24	S82°09'36"E
L45	28.68	S73°36'47"E
L46	6.51	S64°23'54"E
L47	8.37	S14°55'30"E
L48	5.39	S55°02'28"E
L49	21.01	S80°14'21"E
L50	24.49	S73°27'47"E
L51	16.50	S38°06'39"E
L52	21.29	S46°09'31"E
L53	18.36	S22°05'28"E
L54	9.69	S61°13'08"E
L55	3.08	S72°05'31"E
L56	4.36	S88°54'47"E
L57	4.35	S63°05'29"E
L58	23.45	S01°23'27"E
L59	23.08	S11°11'47"W
L60	25.63	S04°31'17"W
L61	27.14	S13°23'27"W

LINE TABLE		
LINE	LENGTH	BEARING
L62	25.83	S24°34'26"W
L63	23.58	S08°41'17"W
L64	26.84	S04°38'28"W
L65	23.88	S28°40'28"E
L66	19.57	S17°38'10"E
L67	24.27	S14°28'04"E
L68	23.80	S32°17'46"W
L69	29.79	S24°28'59"W
L70	13.46	S19°47'46"W
L71	28.80	S33°33'19"W
L72	25.10	S33°55'47"W
L73	32.38	S27°47'57"W
L74	26.32	S32°54'59"W
L75	31.06	S25°47'57"W
L76	30.07	S33°58'01"W
L77	24.65	S31°48'28"W
L78	23.23	S22°32'32"W
L79	25.34	S15°08'28"W
L80	22.80	N89°01'05"E
L81	19.57	N89°01'21"E
L82	13.17	N85°31'27"E
L83	26.19	N67°36'39"E
L84	20.50	N81°59'47"E
L85	3.80	N25°09'26"W
L86	24.75	N83°21'24"W
L87	14.10	N83°04'57"W
L88	13.39	N80°39'47"W
L89	27.56	N85°17'46"W
L90	26.68	S89°09'46"W
L91	25.14	N88°13'47"W
L92	39.41	N86°04'40"W
L93	25.55	N72°47'17"W
L94	26.67	N70°23'40"W
L95	25.97	N71°38'06"W
L96	19.05	N62°54'17"W
L97	18.41	N67°28'36"W
L98	39.77	N67°05'53"W
L99	22.14	N65°05'23"W
L100	3.56	N22°05'23"E
L101	29.54	N67°05'36"W
L102	26.87	N69°07'17"W
L103	28.28	N65°05'57"W
L104	20.02	N70°45'17"W
L105	15.88	N73°05'22"W
L106	27.74	N69°05'08"W
L107	22.24	N78°06'39"W
L108	17.78	N67°45'08"W
L109	14.36	N59°05'36"W
L110	20.12	N70°59'05"W
L111	26.21	N69°41'36"W
L112	24.31	N70°42'39"W
L113	15.88	N74°45'45"W
L114	2.84	N88°17'39"W
L115	15.43	N69°09'57"W
L116	13.55	N70°05'26"W
L117	17.52	N67°36'39"W
L118	21.10	N70°17'45"W
L119	19.53	N69°08'48"W
L120	19.54	N67°45'50"W
L121	4.08	N66°36'36"W
L122	159.18	N84°57'37"W

Legend:

- 2.20 Soil Cover Thickness in Feet

Notes:

1. Minimum of 2-feet of clean fill placed over entire BCP Site to the limits of demarcation layer.
2. Survey provided by Contractors Line & Grade South LLC (May, 2011).

FINAL ASBUILT
(LOT 1, BLOCK 3244, SECTION 3)
PREPARED FOR
YONKERS CONTRACTING CO., INC.
PROPERTY SITUATE IN THE
CITY OF YONKERS
COUNTY OF WESTCHESTER
STATE OF NEW YORK
GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

GHD

MORRIS WESTCHESTER JUNIOR RETAIL ASSOCIATES, LLC
AUSTIN AVENUE LANDFILL BCP SITE
PERIODIC REVIEW REPORT

Project No. **11134282**
Date **10.19.2021**

SOIL COVER AREAS

FIGURE 3

Filename: G:\Projects\111\11134282 Morris Co Lot 1 BCP Site \Periodic Review Reports\September 27, 2020 to September 27, 2021\Figures\Figure 3 - Cover Areas.dwg
Plot Date: 19 October 2021 1:30 PM

LEGEND:

- Property Boundary (Approximate)
- Extent of Lot 1 Geotextile Demarcation Layer and BCP Site (Approximate)
- SWR-MW01 — Groundwater Monitoring Well Location and ID (Approximate)
- 195.27' — Groundwater Elevation (May 2021 Sampling Event)
- Groundwater Elevation Contour and Presumed Flow (May 2021 Sampling Event, Approximate)
- CONC. (ug/L) — Detected Concentration in ug/L (May 2021 Sampling Event)

ug/L - micrograms per liter, parts per billion

Only exceedances of the Class GA groundwater standards or guidance values are shown here. For a complete summary of analytical results, refer to the tables.

NOTES:

1. AERIAL PHOTOGRAPHS ARE 6-INCH RESOLUTION AERIAL PHOTOGRAPHS DATED 2016 AND TAKEN FROM THE NYSGIS CLEARINGHOUSE WEBSITE.
2. LOT 1 BASE MAP FROM A FIELD SURVEY CONDUCTED BY CONTRACTORS LINE AND GRADE SOUTH, LLC, MAY 11, 2011.
3. LOT 4 BASE MAP FROM A FIELD SURVEY CONDUCTED BY JOHN MEYER CONSULTING, P.C. JUNE 30, 2011.
4. EXTENT OF ASH FROM EXISTING CONDITIONS, PLATE 1, MORRIS WESTCHESTER CONSTRUCTION COMPANY, L.L.P. HISTORIC AUSTIN AVENUE LANDFILL CLOSURE PLAN, LEGGETTE, BRASHEARS, & GRAHAM ENGINEERING SERVICES, P.C. MARCH 1988. REVISED BY S&W REDEVELOPMENT OF NORTH AMERICA, LLC, MAY 2011. FURTHER REVISED BY GHD CONSULTING ENGINEERS, LLC, DECEMBER 2012.

N

0 35 70 105 140'

SCALE 1"=140' AT ORIGINAL SIZE

GHD

MORRIS WESTCHESTER JUNIOR RETAIL ASSOCIATES, LLC
AUSTIN AVENUE LANDFILL BCP SITE
PERIODIC REVIEW REPORT

GROUNDWATER ELEVATION CONTOURS AND EXCEEDANCES OF GROUNDWATER STANDARDS

Project No. **11134282**
Date **10.19.2021**

FIGURE 4

Filename: G:\Projects\111\11134282 Morris Co Lot 1 BCP Site \Periodic Review Reports\September 27, 2020 to September 27, 2021\Figures\Figure 4 - GW Contours and Exceedances.dwg
Plot Date: 19 October 2021 1:39 PM

Tables

Table 1 (Page 1 of 1): Groundwater Elevation Data. Lot 1 - Austin Avenue Landfill, Yonkers, NY. BCP Site No. C360066.

Monitoring Well I.D.	Date	Reference Point	Reference Elevation (feet)	DTW (feet)	DOW (feet)	Water Elevation (feet)	Volume (gal)
SWRMW-1	Mar-07	Top of PVC	253.54	37.18	44.00	216.36	1.09
	Jun-07			37.48	44.00	216.06	1.04
	Nov-16			-	-	-	-
	May-17			36.92	42.65	216.62	0.92
	Nov-17			39.87	42.90	213.67	0.48
	Jun-18			37.47	42.90	216.07	0.87
	May-19			37.03	42.90	216.51	0.94
	Jun-20			37.90	42.90	215.64	0.80
	May-21			38.10	42.90	215.44	0.77
SWRMW-2	Mar-07	Top of PVC	236.82	39.85	44.00	196.97	0.66
	Jun-07			40.17	44.00	196.65	0.61
	Nov-16			42.12	46.35	194.70	0.68
	May-17			41.18	48.38	195.64	1.15
	Nov-17			-	-	-	-
	Jun-18			41.55	48.38	195.27	1.09
	May-19			40.77	48.38	196.05	1.22
	Jun-20			41.88	48.38	194.94	1.04
	May-21			41.31	48.38	195.51	1.13
SWRMW-3	Mar-07	Top of PVC	235.74	24.10	30.00	211.64	0.94
	Jun-07			24.14	30.00	211.60	0.94
	Nov-16			28.23	31.65	207.51	0.55
	May-17			26.80	35.62	208.94	1.41
	Nov-17			31.05	35.70	204.69	0.74
	Jun-18			26.58	35.70	209.16	1.46
	May-19			26.11	35.70	209.63	1.53
	Jun-20			26.45	35.70	209.29	1.48
	May-21			26.80	35.70	208.94	1.42
SWRMW-4	Mar-07	Top of PVC	134.89	6.61	16.00	128.28	1.50
	Jun-07			6.51	16.00	128.38	1.52
	Nov-16			7.51	18.10	127.38	1.69
	May-17			6.45	18.20	128.44	1.88
	Nov-17			8.05	18.32	126.84	1.64
	Jun-18			6.76	18.32	128.13	1.85
	May-19			6.44	18.32	128.45	1.90
	Jun-20			7.50	18.32	127.39	1.73
	May-21			7.58	18.32	127.31	1.72
SWRMW-5	Mar-07	Top of PVC	156.72	6.75	19.40	149.97	2.02
	Jun-07			8.49	19.40	148.23	1.75
	Nov-16			11.13	20.47	145.59	1.49
	May-17			9.05	22.65	147.67	2.18
	Nov-17			13.22	22.97	143.50	1.56
	Jun-18			10.31	22.97	146.41	2.03
	May-19			9.10	22.97	147.62	2.22
	Jun-20			10.98	22.97	145.74	1.92
	May-21			10.81	22.97	145.91	1.95

DTW - Depth to Water
DOW - Depth of Well
gal - Gallons

Table 2 (Page 1 of 4): Summary of Groundwater Field Parameters. Lot 1 - Austin Avenue Landfill, Yonkers, NY. BCP Site No. C360066.

Well I.D.	Date	Time	Purge Method	Temp (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (gal)	Comments
SWRMW-1	3/14/2007	8:00	Bailer	11.80	0.397	0.99	6.47	56.8	3989.9	-	-
	6/5/2007	12:00	Bailer	18.54	0.343	3.40	6.17	-80.9	1236.8	-	-
	11/17/2016	-	-	-	-	-	-	-	-	-	Well found to be damaged and broken. No sample taken.
	5/23/2017	10:50	Pump	14.90	0.306	0.58	6.84	66.0	14.8	-	Yellowish, sewer odor, some sediment, slightly turbid, no sheen. NOTE: took pesticide sample w/ bailer at 4PM. Sample at 11:01 and 11:13 were below the pump.
		10:56		15.00	0.313	0.42	6.85	69.3	18.1		
		11:01		15.30	0.317	0.34	6.86	74.3	24.7		
		11:13		16.20	0.327	0.57	6.86	58.7	49.7		
	11/14/2017	8:35	Pump	-	-	-	-	-	-	-	Water level was at a level below the meter's ability to read so shut down well to let recharge. MS/MSD and blind field duplicate taken at this location.
		8:50		8.63	1.05	1.62	6.09	59	105		
		8:55		8.96	1.02	0.99	6.08	0.0	87.1		
	6/4/2018	12:50	Pump	12.7	1.96	1.96	6.19	119	823	-	Cloudy brown, no odor
		12:55		12.6	1.98	0.96	6.23	102	811		
		13:00		12.5	1.99	0.19	6.31	100	614		
		13:05		12.3	1.98	0.22	6.31	96	510		
		17:10		12.3	1.96	0.22	6.39	101	410		
		17:15		12.4	1.99	0.21	6.4	96	519		
		17:20		12.5	1.92	0.23	6.42	101	631		
	5/30/2019	16:50	Pump	12.2	2.110	1.99	6.11	100	>999	0.66	Water was cloudy brown with no odor. Well dry after 17:15.
		16:55		12.4	1.980	0.77	6.11	67	>999		
		17:00		12.6	1.950	0.33	6.11	70	899		
		17:05		12.2	1.900	0.24	6.10	77	877		
		17:10		12.2	1.870	0.10	6.10	78	822		
		17:15		12.2	1.880	0.11	6.10	76	816		
	6/11/2020	11:40	Pump	14.1	1.760	1.19	6.69	-119	>999	1	Water was cloudy brown with no odor.
		11:45		13.9	1.670	1.26	6.66	-62	496		
		11:50		13.7	1.620	0.91	6.61	-59	512		
		11:55		13.7	1.620	1.00	6.62	-49	410		
		12:00		14.1	1.610	0.96	6.61	-48	396		
		12:05		13.9	1.600	0.90	6.61	-46	411		
		12:10		13.9	1.550	0.82	6.60	-44	420		
		12:15		13.8	1.590	0.80	6.59	-43	407		
	5/19/2021	10:40	Pump	19.2	1.880	4.29	6.68	-65	50	0.4	Water cloudy brown, no odor
		10:45		19.4	1.879	3.12	6.70	-61	49		
		10:50		20.4	1.892	2.61	6.71	-66	52		
		10:55		21.4	1.903	2.46	6.72	-69	59		
		11:00		21.5	1.901	2.50	6.72	-70	56		
SWRMW-2	3/14/2007	10:22	Bailer	13.04	0.258	4.00	6.90	312.2	3998.2	-	-
	6/5/2007	13:00	Bailer	14.10	0.243	4.27	6.38	-69.4	1193.7	-	-

Table 2 (Page 2 of 4): Summary of Groundwater Field Parameters. Lot 1 - Austin Avenue Landfill, Yonkers, NY. BCP Site No. C360066.

Well I.D.	Date	Time	Purge Method	Temp (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (gal)	Comments
SWRMW-3	3/14/2007	11:02	Bailer	12.11	0.264	5.92	6.68	178.6	3989.9	-	-
	6/5/2007	13:30	Bailer	14.07	0.254	4.88	6.17	23.3	1194.3	-	-
	11/17/2016	-	-	-	-	-	-	-	-	-	Pump clogged by sediment. Tried clearing several times and still could not get it to pump water. No sample taken.
	5/23/2017	14:01	Pump	16.50	0.234	1.51	5.71	63.8	97.7	-	Murky yellow, no odor, no sheen, moderate turbidity. Took Duplicate at SWRMW-3
		14:06		15.80	0.229	1.20	5.67	66.0	67.3		
		14:11		15.50	0.227	1.05	5.69	28.3	62.4		
		14:16		15.70	0.227	0.95	5.70	36.6	53.2		
		14:21		15.90	0.227	0.90	5.69	54.8	55.2		
		14:26		15.80	0.226	0.88	5.69	69.1	57.5		
		14:35		15.00	0.220	0.85	5.67	95.9	52.0		
		14:40		15.20	0.220	0.84	5.67	104.3	50.2		
		14:45		15.50	0.222	0.82	5.67	114.3	55.7		
	11/15/2017	10:40	Pump	10.9	0.320	1.62	5.71	26.7	896	-	-
		10:45		10.9	0.317	1.61	5.63	44	290		
		10:50		10.8	0.309	1.59	5.56	60	112		
		10:55		10.9	0.301	1.91	5.52	79	96		
		11:00		10.9	0.299	2.03	5.51	87	35		
		11:05		10.9	0.293	1.96	5.49	99	17		
		11:10		10.8	0.289	1.90	5.48	18	11		
		11:15		10.8	0.287	1.69	5.47	112	20		
		11:20		10.8	0.285	1.62	5.47	119	20		
		11:25		10.9	0.284	1.60	5.46	121	17		
		11:30		10.9	0.285	1.60	5.46	123	19		
	6/5/2018	15:30	Pump	14.0	0.326	1.11	5.50	96	381	-	Slightly cloudy, light brown, no odor. Took Duplicate at SWRMW-3.
		15:35		13.1	0.305	1.16	5.17	136	167		
		15:40		12.9	0.302	1.11	5.08	161	52		Clear, no odor
		15:45		12.7	0.302	1.02	5.05	170	41		
		15:50		12.4	0.301	0.97	5.03	173	32		
		15:55		12.5	0.301	0.96	5.01	177	31		
		16:00		12.4	0.301	0.93	5.01	181	34		
		16:05		12.5	0.301	0.91	5.01	183	33		
		16:10		12.4	0.300	0.90	5.01	182	30		
		16:15		12.4	0.301	0.89	5.00	184	31		
	5/31/2019	9:30	Pump	13.1	0.296	1.10	6.02	119	119	4.62	9:30-9:35 the water was slightly cloudy, light brown, with no odor. Afetr 9:40 the water was clear with no odor.
		9:35		12.4	0.219	0.17	5.61	100	196		
		9:40		12.3	0.212	0.10	5.50	94	100		
		9:45		12.3	0.210	0.09	5.47	92	90		
		9:50		12.2	0.209	0.09	5.40	100	41		
		9:55		12.2	0.209	0.09	5.40	103	30		
		10:00		12.2	0.208	0.09	5.38	105	24		
		10:05		12.2	0.208	0.09	5.38	107	22		
	6/11/2020	10:25	Pump	17.2	0.239	1.09	6.72	194	225	2	Water was slightly cloudy and light brown to clear with no odor with purge. Duplicate sample taken at this location.
		10:30		13.0	0.211	1.01	6.00	199	126		
		10:35		12.9	0.202	0.76	5.65	205	73		
		10:40		12.7	0.194	0.52	5.59	211	26		
		10:45		12.5	0.192	0.44	5.44	234	19		
		10:50		12.3	0.189	0.39	5.47	240	12		
		10:55		12.3	0.188	0.33	5.51	237	4		
		11:00		12.3	0.187	0.29	5.51	240	6		
	5/19/2021	12:40	Pump	16.0	0.313	1.19	5.65	33	506	0.8	Water cloudy to clear with no odor. Duplicate sample taken at this location.
		12:45		17.5	0.310	1.10	5.61	50	384		
		12:50		17.2	0.308	1.12	5.58	60	312		
		12:55		17.1	0.306	1.19	5.54	64	316		
		13:00		17.0	0.305	1.20	5.54	62	310		

Table 2 (Page 3 of 4): Summary of Groundwater Field Parameters. Lot 1 - Austin Avenue Landfill, Yonkers, NY. BCP Site No. C360066.

Well I.D.	Date	Time	Purge Method	Temp (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (gal)	Comments
SWRMW-4	3/14/2007	13:00	Bailer	7.55	0.784	3.98	6.98	292.9	2510.9	-	-
	6/6/2007	9:04	Pump	11.68	0.645	3.55	6.19	-163.9	166.4	-	-
		9:08		11.84	0.640	3.33	6.13	-162.3	76.3		
		9:10		12.16	0.641	3.16	6.11	-165.2	26.0		
	11/17/2016	12:48	Pump	13.41	1.357	4.66	7.04	183.9	727.3	5.25	YSI come disconnected and would not re-establish connection. Could not take field parameters to determine when well stabilized. Well was purged of 3 volumes and then sampled. Water turbid brown, no odor, no sheen.
	5/23/2017	17:43	Pump	13.00	1.007	2.25	6.31	105.1	300.1	-	Brown, turbid, no odor, no sheen. Took MS/MSD at SWRMW-4
		17:48		12.10	0.986	0.82	6.27	133.4	186.4		
		17:52		12.10	0.987	0.74	6.27	139.6	172.4		
		17:57		12.00	0.987	0.66	6.28	146.8	89.0		
		18:01		11.90	0.986	0.64	6.29	150.2	89.8		
		18:05		11.90	0.986	0.63	6.29	152	87.2		
	11/15/2017	8:45	Pump	10.06	0.958	5.08	5.89	NR	969	-	-
		8:50		10.70	0.988	4.14	5.92	NR	510		
		8:55		10.47	1.030	4.16	5.85	NR	336		
		9:00		10.29	1.130	4.08	5.90	NR	222		
		9:10		11.17	1.260	3.40	5.92	NR	112		
		9:15		11.31	1.230	3.44	5.91	NR	122		
		9:20		11.24	1.260	3.11	5.93	NR	95.8		
		9:25		11.32	1.250	3.62	5.99	NR	75.7		
		9:30		11.44	1.260	3.34	6.05	NR	60.1		
		9:35		11.40	1.270	3.04	6.01	NR	56.5		
		9:40		11.50	1.280	3.02	6.05	NR	53.7		
		9:45		11.51	1.270	2.96	6.01	NR	48.7		
		9:50		11.55	1.280	2.75	6.01	NR	42.7		
	6/5/2018	10:45	Pump	14.40	1.960	1.90	6.01	190.0	196.0	-	Slightly cloudy, light brown, no odor
		10:50		14.00	1.800	0.96	5.96	182.0	311.0		
		10:55		13.70	1.640	0.94	5.95	181.0	400.0		
		11:00		13.50	1.550	0.90	6.06	180.0	376.0		
		11:05		13.00	1.540	0.98	6.10	179.0	300.0		
		11:10		13.00	1.530	0.82	6.11	179.0	319.0		
		11:15		13.00	1.540	0.80	6.12	176.0	312.0		
		11:20		13.10	1.540	0.79	6.11	179.0	341.0		
		11:25		13.10	1.530	0.79	6.10	180.0	319.0		
		11:30		13.10	1.530	0.76	6.10	177.0	296.0		
	5/30/2019	18:05	Pump	12.9	2.110	2.99	6.33	211	444	3.96	Water was slightly cloudy, light brown, with no odor.
		18:10		12.8	2.090	0.34	6.31	200	342		
		18:15		12.7	1.790	0.45	6.30	199	211		
		18:20		12.7	1.760	0.46	6.31	198	200		
		18:25		12.7	1.760	0.33	6.30	199	123		
		18:30		12.6	1.750	0.48	6.31	200	144		
		18:35		12.7	1.760	0.48	6.31	202	135		
	6/11/2020	10:55	Pump	21.1	1.990	5.56	6.10	190	>999	2.00	Water was slightly cloudy, light brown, with no odor.
		11:00		20.9	1.990	5.19	6.12	191	>999		
		11:05		20.1	2.010	5.09	6.14	199	>999		
		11:10		20.1	2.040	4.96	6.16	214	714		
		11:15		20.1	2.070	4.99	6.17	215	590		
		11:20		20.0	2.060	4.91	6.17	217	670		
		11:25		20.0	2.060	4.11	6.16	219	511		
		11:30		20.0	2.060	4.33	6.17	219	496		
	5/19/2021	14:25	Pump	15.0	1.177	1.52	6.38	142	750	1.10	Water cloudy, light brown, no odor. Collected field duplicate at this location. Collected MS/MSD at this location.
		14:30		15.1	1.166	1.33	6.39	145	805		
		14:35		15.6	1.160	1.20	6.41	150	435		
		14:40		15.7	1.158	1.19	6.42	151	362		
		14:45		15.9	1.157	1.16	6.42	153	351		
		14:50		15.9	1.160	1.16	6.42	153	348		
		14:55		15.6	1.160	1.15	6.42	154	345		

Table 2 (Page 4 of 4): Summary of Groundwater Field Parameters. Lot 1 - Austin Avenue Landfill, Yonkers, NY. BCP Site No. C360066.

Well I.D.	Date	Time	Purge Method	Temp (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (gal)	Comments
SWRMW-5	3/14/2007	12:30	Bailer	10.44	0.558	4.11	6.89	299.7	99.0	-	-
	6/6/2007	7:50	Pump	10.89	0.554	0.80	5.95	-247.1	152.6	-	-
		7:54		10.84	0.543	0.58	5.93	-265.1	68.8		
		7:57		10.80	0.541	0.43	5.94	-279.2	12.8		
	11/17/2016	10:58	Pump	16.25	1.060	8.16	7.87	136.7	317.4	1.25	Water slight brown tint, no sheen, no odor
		11:04		15.95	1.038	7.38	6.90	142.0	260.4		
		11:09		15.80	1.030	5.49	6.68	148.5	198.3		
		11:17		15.79	1.023	2.61	6.56	154.9	97.5		
		11:26		15.82	1.025	2.34	6.52	158.4	52.5		
		11:33		15.80	1.024	2.43	6.50	160.3	44.2		
	5/23/2017	17:00	Pump	-	-	-	-	-	-	-	-
		17:05		13.60	0.681	0.83	6.37	129.8	499.0		
		17:10		12.80	0.667	0.44	6.36	140.6	379.0		
		17:15		12.70	0.664	0.26	6.37	142.3	167.0		
		17:20		12.50	0.660	0.16	6.35	146.4	168.3		
		17:25		12.50	0.655	0.06	6.36	147.2	114.0		
		17:30		12.40	0.659	0.09	6.36	149.1	81.0		
		17:35		12.30	0.657	0.07	6.37	151.5	56.6		
		17:40		12.30	0.657	0.70	6.37	151.7	49.4		
		17:45		12.30	0.657	0.00	6.37	151.9	44.7		
		17:50		12.20	0.657	0.01	6.37	153.3	37.0		
		17:55		12.10	0.656	0.00	6.37	153.3	19.3		
		18:00		12.10	0.656	0.00	6.37	153.2	18.5		
		18:05		12.10	0.655	0.00	6.37	153.1	18.1		
	11/15/2017	13:30	Pump	14.6	1.129	1.35	6.23	122	2100	-	-
		13:35		14.7	1.119	1.20	6.23	119	1740		
		13:40		14.9	1.116	1.02	6.24	111	979		
		13:45		14.9	1.119	0.99	6.24	108	776		
		13:50		14.9	1.121	0.96	6.24	108	568		
		13:55		14.9	1.122	0.89	6.24	107	229		
		14:00		14.9	1.123	0.88	6.24	108	150		
		14:05		14.9	1.127	0.71	6.25	107	77		
		14:10		14.9	1.137	0.68	6.25	109	62		
		14:15		14.9	1.134	0.63	6.24	111	66		
		14:20		14.9	1.133	0.61	6.24	112	64		
	6/5/2018	8:25	Pump	14.4	1.710	2.16	6.17	211	1140	-	Cloudy, Brown
		8:30		14.5	1.190	2.19	6.13	200	960		
		8:35		14.0	1.180	1.31	6.09	160	900		
		8:40		13.3	1.160	1.30	6.08	161	903		
		8:45		13.4	1.150	1.20	6.08	159	710		
		8:50		13.3	1.140	1.19	6.09	158	600		
		8:55		13.3	1.130	1.21	6.08	157	491		
		9:00		13.3	1.120	1.21	6.08	157	239		Slightly Cloudy, Brown
		9:05		13.3	1.120	1.19	6.09	157	247		
		9:10		13.4	1.130	1.17	6.09	158	313		
	5/31/2019	7:45	Pump	13.3	1.990	1.99	6.33	190	>999	3.96	Cloudy, Brown
		7:50		13.0	1.430	1.97	6.32	118	>999		
		7:55		12.9	1.450	2.11	6.31	177	444		
		8:00		13.0	1.420	2.09	6.33	155	511		
		8:05		12.9	1.450	1.98	6.34	150	567		
		8:10		12.8	1.430	1.97	6.23	149	435		
		8:15		12.8	1.430	1.93	6.33	153	499		
	6/11/2020	6:25	Pump	19.6	1.990	1.97	6.22	190	>999	2	Water was cloudy brown, no odor.
		6:30		19.0	1.980	1.09	6.21	188	>999		
		6:35		19.1	1.970	1.11	6.20	180	419		
		6:40		19.0	1.960	1.14	6.19	175	496		
		6:45		19.0	1.990	0.96	6.21	173	311		
		6:50		18.9	1.980	0.91	6.19	170	309		
		6:55		18.9	1.970	0.90	6.22	170	314		
		7:00		18.9	1.960	0.88	6.23	169	340		
	5/19/2021	14:25	Pump	12.9	0.896	1.10	6.30	90	1610	1.8	Water Cloudy, Brown, no odor.
		14:30		12.0	0.879	0.36	6.26	105	860		
		14:35		11.8	0.875	0.25	6.26	116	580		
		14:40		11.7	0.877	0.28	6.26	124	576		

Table 3
Summary of Groundwater Laboratory Analytical Results

Analyte (ug/L)	Class GA Standards	SWRMW-1																			
		3/14/2007		6/5/2007				11/17/2016	5/23/2017		11/14/2017		6/4/2018		5/30/2019		6/11/2020		5/19/2021		
		Total		Total		Dissolved		Total	Total		Total		Total		Total		Total		Total		Dissolved	
Metals by EPA Methods 6020A and 7470A																					
Aluminum		437,000		870	J	130	J	NS	1,260		33		13,600		31,500		9,400		421		7.69	J
Antimony	3		U		U		U	NS	0.69	J		U		U	0.78	J	0.57	J		U		U
Arsenic	25	21	J		U		U	NS	1.51		1.11		3.85		13.12		2.8		1.53			U
Barium	1,000	**5,900**		500		480		NS	67.49		304.7		410.5		841		388.3		206.4		44.3	
Beryllium	3	**9.7**	**J**		U		U	NS		U		U		U	0.96		0.2	J		U		U
Cadmium	5	**29**	**J**		U		U	NS	0.21			U	0.88		2.41		0.47			U		U
Calcium		298,000		302,000		312,000		NS	62,200		197,000		204,000		207,000		158,000		121,000		25,700	
Chromium	50	**950**		2.9	J	1.5	J	NS	3.32		1.95		**54.13**		**318.6**		31.81		3.1			U
Cobalt		290			U		U	NS	4.04		2.15		22.25		42.3		10.67		3.41		0.47	J
Copper	200	**990**		3.2	J		U	NS	11.52		0.59	J	96.06		**206.4**		49.98		3.08			U
Iron	300	**877,000**		**87,600**		**83,800**		NS	**2,760**		**45,700**		**76,300**		**94,000**		**56,900**		**25,000**		**507**	
Lead	25	**820**	**J**		U		U	NS	5.21			U	**33.38**		**120.6**		20.38		1.37			U
Magnesium	35,000 (G)	**258,000**		**112,000**		**114,000**		NS	9,370		**40,300**		**41,400**		**54,800**		**47,200**		34,400		8,800	
Manganese	300	**10,900**		**4,900**		**5,000**		NS	**1,974**		**3,132**		**8,459**		**6,987**		**3,087**		**2,644**		9.84	
Mercury	0.7	0.6	J		U		U	NS		U	0.1	J		U		U		U		U		U
Nickel	100	**590**		2.9	J	2.8	J	NS	10.94		2.17		56.1		**316.2**		30.54		5.28		3.59	
Potassium		403,000		153,000		152,000		NS	11,300		46,100		40,800		65,200		62,600		51,000		5,730	
Selenium	10		U		U		U	NS		U		U		U	8.69		2.42	J		U		U
Silver	50		U		U		U	NS		U		U	1.61		3.2		0.43			U		U
Sodium	20,000	**153,000**		**148,000**		**148,000**		NS	6,550		**116,000**		**62,500**		**109,000**		**156,000**		**138,000**		12,600	
Thallium	0.5		U		U		U	NS		U		U		U	**0.95**		0.38	J		U		U
Vanadium		1,200		2.8	J	0.94	J	NS	3.82	J	1.69	J	42.73		106.5		30.78			U		U
Zinc	2,000	**2,500**			U		U	NS	20.74			U	169.6		425.5		131.3		32.31		5.34	J

*Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

(G) Signifies a NYSDEC guidance value where a standard has not been established.

U - The compound was not detected above the laboratory detection limit.

J - Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.

(-) - Indicates analyte was not analyzed for

ND - Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Table 3
Summary of Groundwater Laboratory Analytical Results

Analyte (ug/L)	Class GA Standards	SWRMW-2											
		3/14/2007	6/5/2007		11/17/2016	5/23/2017	11/14/2017	6/4/2018	5/30/2019	6/11/2020	5/19/2021	
		Total	Total	Dissolved	Total	Total	Total	Total	Total	Total	Total	Dissolved
Metals by EPA Methods 6020A and 7470A												
Aluminum		154,000	740 J	500 U	NS	NS	NS	NS	NS	NS	NS	NS
Antimony	3	U	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Arsenic	25	**44 J**	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Barium	1,000	**2,200**	100	120	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	3	**6.2 J**	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	5	**11 J**	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Calcium		40,400	25,500	38,800	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	50	**460**	2.1 J	U	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt		130	2 J	U	NS	NS	NS	NS	NS	NS	NS	NS
Copper	200	**790**	4.5 J	U	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	**320,000**	**2,300**	**570**	NS	NS	NS	NS	NS	NS	NS	NS
Lead	25	**2,400 J**	16	U	NS	NS	NS	NS	NS	NS	NS	NS
Magnesium	35,000 (G)	**52,500**	9,500	14,300	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	300	**7,000**	**320**	**340**	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	0.7	**0.81 J**	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	**290**	1.7 J	U	NS	NS	NS	NS	NS	NS	NS	NS
Potassium		29,100	7,200	9,000	NS	NS	NS	NS	NS	NS	NS	NS
Selenium	10	U	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Silver	50	3.9 J	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	20,000	**22,900**	14,800	16,300	NS	NS	NS	NS	NS	NS	NS	NS
Thallium	0.5	U	U	U	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium		420	1.6 J	U	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	2,000	**2,700**	22 J	U	NS	NS	NS	NS	NS	NS	NS	NS

*Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

(G) Signifies a NYSDEC guidance value where a standard has not been established.

U - The compound was not detected above the laboratory detection limit.

J - Indicates an estimated value detected between the laboratory detection limit and laboratory reporting limit.

(-) - Indicates analyte was not analyzed for

ND - Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Table 3
Summary of Groundwater Laboratory Analytical Results

Analyte (ug/L)	Class GA Standards	SWRMW-3																	
		3/14/2007	6/5/2007		11/17/2016	5/23/2017	11/15/2017	6/4/2018	5/30/2019	6/11/2020	5/19/2021	
		Total	Total	Dissolved	Total	Total	Total	Total	Total	Total	Total	Dissolved
Metals by EPA Methods 6020A and 7470A												
Aluminum		206,000	2,400 J	500 U	NS	751	430	154	405	81.4	1,640	12.6
Antimony	3	U	U	U	NS	U	U	U	U	U	0.57 J	U
Arsenic	25	**90**	U	U	NS	0.75	0.21 J	U	0.26 J	U	0.92	U
Barium	1,000	**1,800**	48	28	NS	45.17	43.95	44.58	37.46	30.04	59.39	74.84
Beryllium	3	**5.5 J**	U	U	NS	U	U	U	U	U	U	U
Cadmium	5	**10 J**	U	U	NS	U	U	U	U	U	U	U
Calcium		55,300	17,900	18,400	NS	20,500	22,700	22,200	17,900	16,300	22,100	73,000
Chromium	50	**620**	6.5 J	10 U	NS	3.18	1.94	1.04	1.93	0.55 J	6.21	U
Cobalt		190	4.1 J	2.5 J	NS	1.09	1.5	0.87	0.83	0.61	1.78	0.7
Copper	200	**460**	6.6 J	U	NS	2.21	1.87	1.46	1.96	0.58 J	4.35	2.36
Iron	300	**353,000**	**4,100**	U	NS	**2,880**	**1,080**	**871**	**1,220**	**672**	**6,230**	48 J
Lead	25	**460 J**	6.9 J	U	NS	4.04	1.04	U	1.33	U	4.39	U
Magnesium	35,000 (G)	**107,000**	7,000	6,100	NS	7,290	7,910	7,950	6,450	5,730	8,720	26,900
Manganese	300	**3,500**	170	**400**	NS	20.32	32.39	21.97	12.68	10.12	21.09	7.23
Mercury	0.7	0.24 J	U	U	NS	U	U	U	U	U	U	U
Nickel	100	**560**	7 J	U	NS	4.26	4.02	2.58	3.78	2.74	10.92	1.01 J
Potassium		78,700	4,500	4,100	NS	6,140	6,030	5,740	5,430	4,710	6,070	20,300
Selenium	10	U	U	U	NS	U	U	U	U	U	U	U
Silver	50	U	U	U	NS	U	U	U	0.66	U	**51.71**	U
Sodium	20,000	**24,600**	8,800	8,500	NS	18,100	17,200	17,100	13,500	12,200	11,700	**64,500**
Thallium	0.5	U	U	U	NS	U	U	U	U	U	U	U
Vanadium		500	5.3	U	NS	2.55 J	U	U	U	U	4.3 J	U
Zinc	2,000	990	11 J	U	NS	U	4.99 J	U	5.44 J	U	23.86	8.7 J

*Class GA Groundwater standards taken from Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA ambient water quality standards or guidance values, New York State Department of Environmental Conservation, June 1998 and subsequent addenda

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ND - Non-Detect

NS - Not Sampled during monitoring round. SWRMW-2 not part of on-going monitoring.

Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Table 3
Summary of Groundwater Laboratory Analytical Results

Analyte (ug/L)	Class GA Standards	SWRMW-4																					
		3/14/2007		6/6/2007			11/17/2016		5/23/2017		11/15/2017		6/4/2018		5/30/2019		6/11/2020		5/19/2021			
		Total		Total		Dissolved	Total		Total		Total		Total		Total		Total		Total		Dissolved	
Metals by EPA Methods 6020A and 7470A																							
Aluminum		101,000		5,000	J	U	7,430		1,990		810		19,200		5,460		24,600		13,400		4.13	J
Antimony	3		U		U	U		U	0.56	J	0.46	J		U		U	0.62	J		U	0.82	J
Arsenic	25		U		U	U	0.8		0.44	J	0.29	J	1.2		1.49		3.19		1.17		0.3	J
Barium	1,000	1,000		90		44	153.7		41.78		90.7		248.7		91.18		280.6		174.3		26.19	
Beryllium	3	**3.3**	**J**		U	U	0.2	J		U		U		U	0.18	J	0.65		0.3	J		U
Cadmium	5	4.8	J		U	U	0.1	J	0.11	J		U	0.69		0.26		1.27		0.23			U
Calcium		99,100		77,400		79,900	154,000		164,000		160,000		72,900		174,000		148,000		152,000		148,000	
Chromium	50	**280**		13		U	21.2		5.79		2.75		**58.14**		18.33		**70.8**		36.86		0.39	J
Cobalt		120		11		U	10.4		3.33		1.5		27.16		7.39		53.75		20.2		0.22	J
Copper	200	**460**		28		3 J	40.2		12.77		7.54		98.51		36.42		137.4		59.84		3.97	
Iron	300	**188,000**		**8,700**		57 J	**14,400**		**3,850**		**1,530**		**36,800**		**9,920**		**50,800**		**24,300**		26.8	J
Lead	25	**62**	**J**	4.4	J	U	4.5		1.21		0.58	J	12.69		6.55		15.65		7.84			U
Magnesium	35,000 (G)	**81,000**		**36,400**		34,800	**49,900**		**58,700**		**58,400**		**36,200**		**72,400**		**71,400**		**64,300**		**50,600**	
Manganese	300	**2,400**		**350**		19	**352.6**		264.7		90.25		**1,146**		**356.7**		**5,633**		**1,115**		22.67	
Mercury	0.7		UJ		U	U		U		U		U		U		U		U		U		U
Nickel	100	**250**		14		3.2 J	24.4		14.59		6.7		62.8		24.85		**141.1**		47.75		5.08	
Potassium		51,300		19,000		19,200	13,000		18,800		19,400		20,800		21,200		28,200		21,400		16,900	
Selenium	10		U		U	U		U		U		U		U	7.31		8.55		3.55	J	2.35	J
Silver	50		U		U	U		U		U		U		U		U		U		U		U
Sodium	20,000	**59,400**		**41,100**		**45,700**	**74,200**		**35,900**		**49,800**		**46,800**		**45,200**		**38,500**		**39,200**		**34,800**	
Thallium	0.5		U		U	U		U		U		U		U		U	**0.51**		0.42	J		U
Vanadium		280		13		U	22.2		6.04		2.71	J	55.08		16.81		72.2		37.89			U
Zinc	2,000	360		19	J	U	50		9.57	J	3.95	J	104.3		42.8		170.8		48.6		3.52	J

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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Table 3
Summary of Groundwater Laboratory Analytical Results

Analyte (ug/L)	Class GA Standards	SWRMW-5																			
		3/14/2007		6/6/2007			11/17/2016		5/23/2017		11/15/2017		6/4/2018		5/30/2019		6/11/2020		5/19/2021		
		Total		Total		Dissolved	Total		Total		Total		Total		Total		Total		Total		Dissolved	
Metals by EPA Methods 6020A and 7470A																					
Aluminum		211,000		950	J	U	1,220		226		2,000		6,070		10,000		103,000		17,900		4.26	J
Antimony	3		U		U	U		U	0.82	J		U	**4.12**			U		U		U	0.49	J
Arsenic	25		U		U	U	0.2	J		U	0.39	J		U	2.04		5.01		0.84		0.26	J
Barium	1,000	**1,700**		77		71	118.5		78.38		130.1		146.8		222.2		**1,116**		266.6		24.92	
Beryllium	3	**5.6**	**J**		U	U		U		U		U		U	0.32	J	2.4		0.47	J		U
Cadmium	5	**8.9**	**J**		U	U		U		U		U		U	0.46		0.16	J		U		U
Calcium		63,100		51,300		53,600	108,000		67,400		106,000		76,600		92,200		84,000		61,800		148,000	
Chromium	50	**740**		3.2	J	U	5.2		0.84	J	7.97		23.01		**51.36**		**362.3**		**72.84**		0.37	J
Cobalt		210		2.1	J	U	1.9		0.78		2.71		6.56		12.83		99.12		19.42		0.22	J
Copper	200	**860**		4.5	J	U	6.5		1.94		9.24		26.79		58.31		**348**		77.04		2.39	
Iron	300	**337,000**		**1,400**		U	**1,880**		**360**		**3,110**		**10,300**		**17,100**		**181,000**		**31,500**		89.5	
Lead	25	**64**	**J**		U	U	0.5	J		U	0.85	J	2.7		**36.52**		**43.22**		8.67			U
Magnesium	35,000 (G)	**138,000**		24,700		24,900	**40,700**		**28,200**		**41,800**		**35,400**		31,800		**94,700**		**38,300**		**53,400**	
Manganese	300	**5,800**		180		180	39		12.76		59.2		160.2		**549.2**		**2,735**		**413.8**		16.51	
Mercury	0.7		UJ		U	U		U		U		U		U		U	0.27			U		U
Nickel	100	**540**		3.4	J	U	4.4		1.35	J	6.27		15.26		47.36		**255.4**		50.68		5.37	
Potassium		88,000		18,100		18,000	30,200		20,300		29,800		22,700		25,500		68,300		25,400		17,300	
Selenium	10		U		U	U		U		U		U		U	2.02	J	**12.2**			U	2.04	J
Silver	50		U		U	U		U		U		U		U		U	1.16		0.31	J		U
Sodium	20,000	**63,400**		**53,000**		**54,000**	**62,800**		**58,800**		**59,300**		**57,000**		**38,100**		**55,000**		**59,000**		**36,800**	
Thallium	0.5		U		U	U		U		U		U		U	0.22	J	**1.87**		0.48	J		U
Vanadium		520		1.7	J	U	3	J		U	5.22		14.87		30.15		221.5		48.23			U
Zinc	2,000	490			U	U	6	J		U	6.63	J	16.08		15.71		324.5		60.84			U

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Bold Thick Outlined Cell indicates an exceedance of applicable NYSDEC Class GA Standard or Guidance Value

All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Table 3
Summary of Groundwater Laboratory Analytical Results

Analyte (ug/L)	Class GA Standards	DUPLICATE							
		11/17/2016 Total	5/23/2017 Total	11/15/2017 Total	6/4/2018 Total	5/30/2019 Total	6/11/2020 Total	5/19/2021 Total	5/19/2021 Dissolved
Metals by EPA Methods 6020A and 7470A		(SWRMW-4)	(SWRMW-3)	(SWRMW-1)	(SWRMW-3)	(SWRMW-3)	(SWRMW-3)	(SWRMW-4)	
Aluminum		7,160	806	37.1	212	412	76.1	7,200	3.9 J
Antimony	3	U	0.92 J	U	U	U	U	U	U
Arsenic	25	0.6	0.83	1.27	U	0.22 J	0.16 J	0.84	U
Barium	1,000	150.4	47.07	314.5	44.11	38.16	30.32	109.9	91.97
Beryllium	3	0.2 J	U	U	U	U	U	0.21 J	U
Cadmium	5	0.1 J	U	U	U	U	U	0.15 J	0.09 J
Calcium		148,000	20,600	206,000	21,400	18,000	16,000	126,000	93,000
Chromium	50	20.1	2.9	2.03	1.21	1.99	0.5 J	22.08	U
Cobalt		9.9	1.12	2.21	1.02	0.87	0.61	12.37	2.72
Copper	200	39.5	2.04	U	1.59	1.72	0.8 J	40.61	3.21
Iron	300	**13,400**	**2,820**	**48,200**	**890**	**1,190**	**416**	**14,000**	41.4 J
Lead	25	4.4	3.94	U	U	1.31	U	5.11	U
Magnesium	35,000 (G)	**48,700**	7,340	**41,600**	7,560	6,500	5,680	**55,700**	19,000
Manganese	300	**341.8**	20.19	**3,271**	22.82	12.93	9.91	**552**	**958.2**
Mercury	0.7	U	U	U	U	U	U	U	U
Nickel	100	24.7	3.95	1.97 J	2.86	3.39	2.84	30.98	2.98
Potassium		12,700	6,100	48,100	5,490	5,480	4,720	18,500	6,410
Selenium	10	U	U	U	U	U	U	2.3 J	7.34
Silver	50	U	U	U	U	0.73	U	U	U
Sodium	20,000	**73,300**	17,900	**120,000**	16,600	13,400	12,200	**33,600**	**92,700**
Thallium	0.5	0.2 J	U	U	U	U	U	0.22 J	U
Vanadium		20.3	2.64 J	1.58 J	U	U	U	21.57	U
Zinc	2,000	47.3	3.67 J	U	U	6.32 J	U	31.87	4.63 J

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All concentrations reported in micrograms per liter (ug/L) - parts per billion (ppb)

Appendices

Appendix A

Institutional and Engineering Controls Certification Form

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

Site Details **Box 1**

Site No. C360066

Site Name Austin Avenue Landfill

Site Address: 323 Sprain Road Zip Code: 10710
City/Town: Yonkers
County: Westchester
Site Acreage: 14.120

Reporting Period: September 27, 2020 to September 27, 2021

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

Box 2

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

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

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

Signature of Owner, Remedial Party or Designated Representative Date

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?	☐	X
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	☐

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

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. C360066 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
3-3244-1	The City of Yonkers	
		Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan Ground Water Use Restriction O&M Plan

Controls at the site include:

1. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of imported clean soil fill that meets the criteria for Track 4 Restricted Residential in order to prevent human exposure to contaminated soil/fill remaining at the Site;

2. End use restrictions at the Site limited to Restricted Residential uses, unless there is an expressed written waiver from an appropriate New York State Department;

3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site;

4. Groundwater use restrictions at the Site, unless it is treated prior to use, and written consent is granted by the NYSDEC/NYSDOH;

5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and

6. Periodic certification of the institutional and engineering controls listed above.

3-3244-4	Morris Westchester Retail Assoc, LLC	
		Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Controls at the site include:

1. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of imported clean soil fill that meets the criteria for Track 4 Restricted Residential in order to prevent human exposure to contaminated soil/fill remaining at the Site;

2. End use restrictions at the Site limited to Restricted Residential uses, unless there is an expressed written waiver from an appropriate New York State Department;

3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site;

4. Groundwater use restrictions at the Site, unless it is treated prior to use, and written consent is granted by the NYSDEC/NYSDOH;

5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and

6. Periodic certification of the institutional and engineering controls listed above.

3-3244-7	Morris Westchester Jr Retail Assoc, LLC	
		Ground Water Use Restriction Soil Management Plan Landuse Restriction

Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

Controls at the site include:

1. Construction and maintenance of a soil cover system consisting of a minimum of 24 inches of imported clean soil fill that meets the criteria for Track 4 Restricted Residential in order to prevent human exposure to contaminated soil/fill remaining at the Site;

2. End use restrictions at the Site limited to Restricted Residential uses, unless there is an expressed written waiver from an appropriate New York State Department;

3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to contamination remaining at the Site;

4. Groundwater use restrictions at the Site, unless it is treated prior to use, and written consent is granted by the NYSDEC/NYSDOH;

5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and

6. Periodic certification of the institutional and engineering controls listed above.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
3-3244-1	Cover System
3-3244-4	Cover System
3-3244-7	Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
X	☐

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

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

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

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

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

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

YES	NO
X	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C360066

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 Keith Morris (print name) at Morris Westchester Junior Retail Associates, LLC 350 Veterans Boulevard, Rutherford, New Jersey 07070 (print business address),

am certifying as Owner and Designated Representative (Owner or Remedial Party)

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

Keith E. Morris
Vice President

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

11/19/2021
Date

IC/EC CERTIFICATIONS

Box 7

Signature

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

I Damian J. Vanetti, P.E. at GHD Consulting Services Inc. 5788 Widewaters Parkway, Syracuse, New York 13214,
print name print business address

am certifying as a for the Owner and Designated Representative
(Owner or Remedial Party)

STATE OF NEW YORK
DAMIAN JAMES VANETTI
No. 068011
LICENSED PROFESSIONAL ENGINEER

Signature of , for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

11-19-21
Date

Appendix B

Annual Site Inspection Form

SITE INSPECTION FORM

Inspections to be conducted annually

SITE: **Former Austin Avenue Site (LOT 1)** **DATE/TIME:** 9/22/2021
BCP # **C360066** **WEATHER:** Partly Sunny, 80F, ground surface dry

INSPECTORS NAME: Damian Vanetti

COMPANY NAME: GHD

GENERAL SITE CONDITIONS:

Site Access Control	Access gate at Stew Leonard Drive open. Access at Austin Ave. locked
Change in Use	None. Stew Leonards still uses access road at entrance for equipment staging
Unauthorized Activities	Two plastic ~5 gallon containers found adjacent to the site (see below comments)

ENGINEERING CONTROLS

SOIL COVER

Soil Cover Condition	Vegetation well established and no observed erosion areas
Vegetative Cover	Vegetation well established
Breach of the Soil Cover	None observed
Woody Growth	Woody growth is present on top surface and side slopes.
Surface Settling	None observed
Burrowing Animals	None observed
Sediment/Erosion Controls	None observed
Surface Erosion	None observed
Off-site Sediment Transport	None observed

SOIL VAPOR MITIGATION — NOT APPLICABLE - NO OCCUPIED STRUCTURES

System In Place	
System Operating	
Component Conditions	
Damaged Equipment	

ENVIRONMENTAL MONITORING

GROUNDWATER MONITORING WELLS

Condition of Monitoring Wells	Lot 1 Monitoring wells were intact, covered and locked - could not find SWR-MW-04 due to thick vegetation
Well Caps In Place	Yes SWR-MW-04 not found
Locks In Place and Secure	Yes SWR-MW-04 not found

Identify Groundwater Samples Taken: NONE

Identify Photos Taken: General site photos included in log

OTHER COMMENTS: Found one 5-gallon plastic bucket with residual paint along access road north of SWR-MW01. Found second 5 gallon plastic container appeared to have petroleum located in proximity to the Austin Ave gate
Monitoring well installed by others during geotechnical assessment still on-site, covered but no lock.

INSPECTOR SIGNATURE: 

Site Photographs

Photo 1 Site entrance from Stew Leonard Drive.

Photo 2 View of central portion of Site.

Photo 3 View of eastern portion of Site from adjacent property.

Photo 4 View of locked Austin Avenue gate.

Photo 5 Typical Site groundwater monitoring well.

Photo 6 Piezometer installed by others during geotechnical investigation. Needs cover to be locked.

Photo 7 Typical material staging from adjacent business.

Photo 8 Remnants of 5-gallon bucket containing apparent petroleum product near Austin Avenue gate.

Photo 9 5-gallon bucket with residual paint near Site entrance from Stew Leonard Drive.

Appendix C

NYSDEC EQuIS Approvals

Ian McNamara

From: Ian McNamara
Sent: Wednesday, September 29, 2021 12:47 PM
To: NYSDEC EQuIS Team (nyenvdata@dec.ny.gov)
Cc: Michael H. Squire (DEC)
Subject: EDDs for Austin Avenue Landfill BCP Site (Site #C360066) - 2021 Monitoring Event
Attachments: 20210929 1246.C360066.NYSDEC_MERGE.zip; 20210929 1243.C360066.NYSDEC_MERGE.zip

CompleteRepository: 011134282
Description: MORRIS WESTCHESTER JUNIOR RETAIL
JobNo: 11342
OperatingCentre: 01
RepoEmail: 011134282@ghd.com
RepoType: Proposal
SubJob: 82

Hello,

Attached are 2 EDDs for the above referenced site, a field measurement EDD and a chemistry results EDD, for the Annual 2021 sampling conducted on-site in May.

Please let me know if revisions are needed for successful upload.

Thanks,
Ian

Ian McNamara (he/him)
Geologist

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