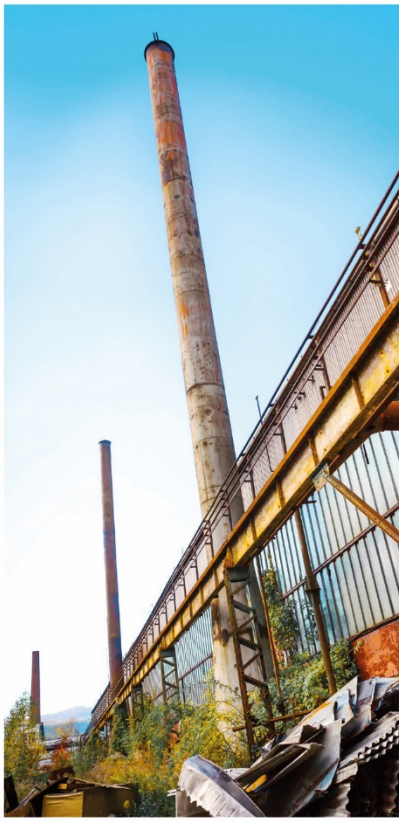
2020 Annual Periodic Review Report

Hyde Park Landfill
Niagara Falls, New York
NYSDEC Site No. 932021

Glenn Springs Holdings, Inc.



Executive Summary

The following report describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2020 at the Hyde Park Landfill Site (Site) located at 4825 Hyde Park Boulevard, Niagara Falls, Town of Niagara, Niagara County, New York. The Site is approximately 30 acres in size and is comprised of two parcels owned by Occidental Chemical Corporation (OCC) and one parcel owned by National Grid (formerly Niagara Mohawk Power Corporation). These parcels contain the landfill (28.1 acres) and the treatment system and associated buildings (1.9 acres). OCC owns another 30 parcels that are located to the west and north of the Site that encompass a total area of approximately 29 acres. These parcels were purchased to act as a buffer to the Site or to facilitate remediation. Management of the Site is performed on behalf of OCC by Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. Since October 1, 2008, GHD, formerly Conestoga-Rovers & Associates (CRA), has performed OM&M and reporting activities for the Site under contract to and direct management of GSH.

During 2020, the remedial system components at the Site performed as designed. The Source Control (SC), Overburden Requisite Remedial Technology (RRT), and Bedrock RRT Systems removed 25.1 million gallons of groundwater from the Site and surrounding formations. The RRT systems continued to provide containment, and Flow Zone 9 remained dewatered between the Site and the face of the Niagara River Gorge (Gorge). All aqueous phase liquid (APL) analytes were found below reporting levels in APL Flux Monitoring, indicating no chemical loading to the Gorge seeps. Non-aqueous phase liquid (NAPL) continues to be contained by the Overburden RRT System, with no NAPL being found in overburden monitoring wells (OMWs) outside of the system. The community continues to be protected by the Site remedial systems. In 2020, 2,488 pounds of NAPL were shipped off Site for disposal.

The 2020 data indicate that there has been no significant change in chemical and hydrogeological conditions at the Site.

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1. Introduction

The following Periodic Review Report (PRR) describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2020 at the Hyde Park Landfill Site (Site) located at 4825 Hyde Park Boulevard, Niagara Falls, Town of Niagara, Niagara County, New York (Figure 1.1). Management of the Site is performed on behalf of Occidental Chemical Corporation (OCC) by Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. Since October 1, 2008, GHD, formerly Conestoga-Rovers & Associates (CRA), has performed OM&M and reporting activities for the Site under contract to and direct management of GSH.

1.1 Site Location

The Site is located in the northwest corner of the Town of Niagara, New York, adjacent to the Town of Lewiston to the north and the City of Niagara Falls to the west. The location of the Site is shown on Figure 1.1. The Site is bounded by Hyde Park Boulevard to the west, the Power Authority Service Road (a New York Power Authority [NYPA] access road) to the north, Ferro Electronic Materials, Inc. (formerly TAM Ceramics) to the south, and vacant property owned by Armand Cerrone, Inc. to the east. The Site is located approximately 2,000 feet east of the Niagara River Gorge (Gorge).

The Site is approximately 30 acres in size and is comprised of two parcels owned by OCC and one parcel owned by National Grid (formerly Niagara Mohawk Power Corporation). These parcels contain the landfill (28.1 acres) and the treatment system and associated buildings (1.9 acres). OCC owns another 30 parcels that are located to the west and north of the Site that encompass a total area of approximately 29 acres. These parcels were purchased to act as a buffer to the Site or to facilitate remediation.

1.2 Site History

The Site is a closed disposal facility where Hooker Chemical placed liquid, sludge, and solid production waste from 1953 until 1975 when the landfill was closed. In 1978, OCC capped the landfill with clay. In 1981, OCC, the State of New York representing the New York State Department of Environmental Conservation (NYSDEC), and the United States of America representing the United States Environmental Protection Agency (USEPA) entered into a "Stipulation and Judgment Approving Settlement Agreement" (Settlement Agreement). Investigations as part of the approved Settlement Agreement indicated significant chemical migration into the bedrock, including the presence of non-aqueous phase liquid (NAPL). The USEPA added the Site to the National Priorities List in September 1983. Further negotiations among OCC, NYSDEC, and USEPA resulted in a second court agreement; the "Stipulation on Requisite Remedial Technology Program" (November 1985) (RRT Stipulation). In August 2010, OCC issued a "Declaration of Restrictive Covenants and Environmental Easement" (Environmental Easement) granting an easement on the portion of the Site owned by OCC to the Town of Niagara, guaranteeing that the institutional and engineering components of the Remedial Action (RA) will be maintained and transferred with ownership of the property.

In July 2011, NYSDEC reclassified the Site on the Registry of Inactive Hazardous Waste Disposal Sites to a Class 4 site, indicating that it no longer presents a significant threat to public health and/or

the environment. Effective October 23, 2013, USEPA deleted the Site from the National Priorities List. As published in the Federal Register, Vol. 78, No. 205, Pg. 63099, "The EPA and the State of New York, through the Department of Environmental Conservation, have determined that all appropriate response actions under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) other than operation, maintenance, and 5-year reviews, have been completed".

1.3 Remedial Goals

The original monitoring and remedial performance requirements for the Site were defined in the 1985 RRT Stipulation. Extensive remediation, investigation, and evaluation of the Site have been completed and documented in previous reports to the NYSDEC and USEPA since the RRT Stipulation was approved. The current monitoring and reporting requirements are detailed in the NYSDEC and USEPA-approved 2006 Performance Monitoring Plan (PMP). A checklist of all tasks required by the PMP and subsequent NYSDEC-approved changes in monitoring requirements is provided in Table 1.1. Action levels specified in the PMP are shown in the applicable analytical data tables.

1.4 Remedial Components and Monitoring

Site remedial components consist of the following:

- Source Control (SC) System, shown on Figure 1.2
    - Six SC wells installed within the landfill; only five are currently active
- Overburden RRT System, shown on Figure 1.3
    - Existing barrier collection system (EBCS) surrounding the original landfill
    - Overburden barrier collection system (OBCS) outside and to the north, west, and south of the original landfill
- Bedrock RRT System, shown on Figure 1.4
    - NAPL containment system (17 purge wells)
    - Aqueous Phase Liquids (APL) plume containment system (two purge wells)

All groundwater collected by these components is treated in an on-Site granular activated carbon treatment system before discharge to the publicly owned treatment works (POTW) under Niagara Falls Water Board Significant Industrial User (SIU) Permit #49. NAPL decanted from the groundwater is stored on Site until a sufficient quantity is available for transport to an approved hazardous waste disposal facility.

The PMP requires annual evaluation of the effectiveness of these components using the following three monitoring programs:

- Overburden Monitoring Program (OMP), locations shown on Figure 1.5
- Bedrock Monitoring Program (BMP), locations shown on Figure 1.6
- Community Monitoring Program (CMP), locations shown on Figure 1.7

2. Institutional and Engineering Controls

The required Institutional and Engineering Controls are listed in the completed Institutional and Engineering Controls Certification Form included as Appendix A. Institutional controls include restrictions on uses of Site land, buildings, groundwater, and surface water, and require the implementation of both a Monitoring Plan and an Operation and Maintenance (O&M) Plan. The most recent versions of these documents are the NYSDEC and USEPA approved 2006 PMP and the 2019 Operation and Maintenance Manual (O&M Manual). Engineering controls include groundwater containment through a leachate collection system, collected groundwater treated on Site, a maintained cover system on the landfill, and restricted Site access controlled through perimeter fencing.

3. Site Monitoring Programs and Results

3.1 Overburden Monitoring Program

The OMP involves the monitoring of the SC wells and the Overburden RRT System. The SC wells are a series of production wells installed within the landfill to recover NAPL, while the Overburden RRT System is comprised of two collection systems designed to control the lateral migration of APL and NAPL in the overburden.

The 2020 performance monitoring data for the overburden systems are presented as follows:

SC System Well Locations	Figure 1.2
2020 SC Well Pumping Summary	Table 3.1
Overburden RRT System	Figure 1.3
2020 Overburden Quarterly Groundwater Elevation Summary	Table 3.2
2020 Overburden NAPL Presence Monitoring	Table 3.3
2020 Overburden Collection Systems Monthly Average Flow Summary	Table 3.4

3.2 Bedrock Monitoring Program

The BMP includes the Lockport Bedrock APL and NAPL Plume Containment Systems and the Bloody Run Creek Monitoring Program. The Lockport Bedrock APL and NAPL Plume Containment Systems consist of 19 purge wells that control lateral migration of dissolved phase constituents and NAPL in the bedrock, while the Bloody Run Creek Monitoring Program ensures that Site-related parameters are not adversely impacting groundwater in the upper bedrock subsequent to the remediation of Bloody Run Creek. The Group B Bedrock Piezometers are sampled on a quarterly basis. Piezometers associated with the Lockport Bedrock APL and NAPL Plume Containment Systems are sampled on a routine basis in two groups. The Group A Bedrock Piezometers are sampled every fifth quarter, which occurred in the second quarter of 2020. The Bloody Run monitoring wells are sampled every 5 years, which occurred in July 2016, with the next event planned for 2021.

The 2020 performance monitoring data for the bedrock systems are presented as follows:

BMP Locations	Figure 1.4
2020 Bedrock Quarterly Water Level Elevation Summary - Piezometers	Table 3.5
2020 Bedrock Purge Well Monthly Flow Rate Summary	Table 3.6
Analytical Results Summary: Quarterly Group B Bedrock Piezometer Sampling	Tables 3.7a-d
Analytical Results Summary: Fifth Quarter Group A Bedrock Piezometer Sampling, Second Quarter 2020	Table 3.8
2020 Analytical Results Summary: Annual Bedrock Open Catch Basin	Table 3.9

The PMP also specifies water level setpoints for each of the purge wells in the Bedrock RRT System. Only major issues associated with achieving these setpoints are discussed in this PRR, while the day-to-day maintenance of these setpoints was previously presented in the 2020 Quarterly Operations Reports.

In addition to maintaining water levels within target setpoint ranges in the purge wells, the water level in flow zone FZ-09 in the area between the landfill and the APL purge wells (APW-1 and APW-2) is to be maintained at an elevation of 526 feet above mean sea level (AMSL) or lower. This level ensures that the FZ-09 outcrop along the NYPA access road remains unsaturated. Piezometer PMW-1M-09 is used to monitor the FZ-09 water level elevation in this area. A pressure transducer installed in PMW-1M-09 has been programmed to collect water level data at 1-hour intervals. These continuous water level elevation data were reported in the 2020 Quarterly Operation Reports.

3.3 Community Monitoring Program

The CMP was developed to ensure that the public is not being adversely exposed to Site-related parameters. The CMP includes the Gorge Face Seep Program, the APL Flux Monitoring Program, and the Residential CMP. The Gorge Face Seep Program involves biennial inspections of the Gorge to ensure that Site-specific parameters are not discharging to a publicly accessible area. The APL Flux Monitoring Program involves annual sampling and ensures that the mass loading via groundwater discharged to the Gorge is less than the defined Flux Action Level. The Residential CMP involves annual vapor monitoring and ensures that residents in the area are not adversely exposed to Site-related constituents in the groundwater or from soil vapors above the groundwater.

The 2020 performance monitoring data for the community monitoring are presented as follows:

APL Flux Well Locations	Figure 3.2
2020 Analytical Results Summary: Annual AFW Composite	Table 3.10
Community Monitoring Locations	Figure 1.7
2020 Quarterly Hydraulic Gradient Summary	Table 3.11
2020 Community Monitoring Well Soil Vapor Monitoring	Table 3.12

4. Site Operation and Maintenance

Maintaining the Site remedial elements is critical to the Site's remedial performance. Therefore, inspections of hydraulic and chemical monitoring points, the landfill cap, and the security fence surrounding the landfill have been included in the PMP and O&M Manual. Although not required by

the PMP, the monitoring program for the Site groundwater treatment system is discussed briefly in this report. Full details on Site O&M activities are presented in the 2019 O&M Manual.

Analytical results from the treatment system monitoring program have been presented previously in the 2020 Quarterly Operations Reports. These include the following:

- Daily treated effluent total water flows and pH
- Weekly treated effluent APL sampling
- Quarterly treated effluent APL sampling

The following treatment system monitoring was also conducted in 2020:

Quarterly NAPL Decanter Volume Monitoring	Table 4.1
Weekly Carbon Interstage APL Sampling	Table 4.2
Quarterly Leachate Feed APL Sampling	Table 4.3
Quarterly Sac Bed Interstage APL Sampling	Table 4.4

The 2006 PMP also requires weekly fence inspections, annual well and piezometer inspections, and annual landfill cap inspections. All of the required inspections were performed in 2020. The inspections did not identify any issues of concern beyond routine maintenance items. Records of these inspections are maintained at the Site and are available upon request, in accordance with the 2006 PMP.

5. Evaluation and Conclusions

5.1 Overburden Monitoring Program

There were no deviations from the OMP in 2020, and monitoring was conducted in accordance with the 2006 PMP. The results of the OMP are discussed below and summarized in Tables 3.1 through 3.4.

5.1.1 Source Control System

The SC wells (SC-2 to SC-6) were historically operated on a monthly basis to pump down the APL/NAPL level to approximately the top of the pump in each well. The 2014 Annual Periodic Review Report recommended that monthly purging of the SC wells and subsequent water level and NAPL thickness measurements be discontinued; however in order to provide additional data to support discontinuation, it also recommended that the frequency be changed to quarterly for 1 year. After 1 year, the original recommendation to discontinue would be reevaluated. NYSDEC approved the quarterly frequency of SC water level and NAPL thickness measurements in a letter dated May 5, 2015; however, GSH maintained monthly water level and NAPL thickness measurements throughout 2015. Starting in 2016, the SC water levels and NAPL thickness were measured quarterly.

In an effort to further demonstrate that the SC wells do not produce significant amounts of NAPL, monthly manual NAPL removal from SC-6 was implemented in April 2015. The NAPL thickness in SC-6 prior to removal in April 2015 was approximately 10 feet. Approximately 18 gallons of NAPL were removed. In subsequent months, the volume of NAPL removed decreased from 8 gallons in

May to 3 gallons in October 2015 when manual removal of NAPL ceased due to cold temperatures. Based on the declining amount of NAPL removed, the frequency was revised to quarterly.

Based on the results of manual NAPL removal from SC-6, quarterly manual NAPL removal was implemented at SC-2, SC-3, SC-4, and SC-5 in October 2016. The volume of NAPL recovered from these wells was 5.5 gallons, 33.25 gallons, 15.25 gallons, and 1.5 gallons, respectively. Based on the volumes of NAPL recovered, it was recommended in the 2016 PRR that quarterly manual NAPL removal from the SC wells continue in 2017 except at SC-3 where removal would be performed on an approximate monthly basis. This change was implemented in 2017.

Based on the low amounts of NAPL recovered each year from SC-5 and SC-6 since 2016, the 2019 PPR recommended that the frequency of manual NAPL at these two wells be changed to semiannual. This recommendation was approved by the NYSDEC in its 2019 PRR acceptance letter dated July 29, 2020. Manual NAPL removal will continue on an approximate monthly basis at SC-3 and on a quarterly basis at SC-2 and SC-4. The first semiannual manual NAPL removal event at SC-5 and SC-6 was completed in October 2020.

The 2020 SC well NAPL thickness and recovery data are summarized in Table 3.1. The amounts of NAPL recovered in 2020 from SC-2, SC-3, SC-4, SC-5, and SC-6 were 3.3 gallons, 165.5 gallons, 26.0 gallons, 0 gallons, and 0 gallons, respectively.

Manual NAPL recovery will continue to be performed on an approximate monthly basis at SC-3, quarterly basis at SC-2 and SC-4, and semiannual basis at SC-5 and SC-6 in 2021.

The total amount of NAPL recovered in 2020 was 194.8 gallons. The APL/NAPL volumes removed from the SC wells from 2006 through 2020 are as follows:

Year	Gallons Purged from SC Wells
2006	799
2007	287
2008	236
2009	173
2010	155
2011	262
2012	339
2013	316
2014	265
2015	120
2016	65.5
2017	531.1
2018	430.3
2019	208.6
2020	194.8

5.1.2 Overburden Groundwater Elevations

The overburden groundwater elevation data provided in Table 3.2 were used to generate potentiometric surface maps that were presented in the 2020 Quarterly Operations Reports. These potentiometric surface maps indicated hydraulic containment for each quarter of 2020.

5.1.3 Overburden NAPL Presence Monitoring

NAPL presence checks are to be completed annually in the OBCS, Overburden Monitoring Wells (OMWs), and the OBCS manholes. The NAPL presence monitoring data from the OMWs and manholes are presented in Table 3.3. The data indicate that NAPL was present in 4 of the 17 manholes monitored (MH-29, MH-30, MH-31, and MH-32) and in 1 of the 2 wet wells (Wet Well D). These four manholes are located at the southwest corner of the landfill and all flow to Wet Well D. The data also indicate that NAPL is not present in any of the OMWs. These wells are located outside of the OBCS to the south, west, and northwest of the four manholes and one wet well where NAPL was present (see Figure 1.3). The lack of NAPL presence in these OMWs indicates that overburden NAPL is contained within the boundaries of the OBCS and is not bypassing the OBCS.

5.1.4 Overburden RRT System Flow Rates

The OBCS and EBCS monthly average flow rates, presented in Table 3.4, indicate seasonal fluctuations in flow rates with the highest average flow rates occurring during the spring months of 2020.

5.1.5 Overburden Monitoring Conclusions

Based on the overburden data collected in 2020, as shown in Tables 3.1 through 3.4 and the potentiometric surface maps that were presented in the 2020 Quarterly Operations Reports, the SC and Overburden RRT Systems are operating as designed, and overburden containment is being achieved.

5.2 Bedrock Monitoring Program

There were no deviations from the BMP in 2020, and monitoring was conducted in accordance with the 2006 PMP. The results of the BMP in 2020 are discussed below and summarized in Tables 3.5 through 3.9.

5.2.1 Bedrock Groundwater Elevations

The bedrock flow zone groundwater elevation data, presented in Table 3.5, were used to generate groundwater potentiometric surface maps for each of the monitored flow zones. These maps have been presented previously in the 2020 Quarterly Operations Reports. The potentiometric surface maps for each monitored flow zone during each quarter of 2020 indicated containment.

5.2.2 Bedrock RRT System Flow Rates and Setpoints

The 2020 bedrock purge well monthly average flow rate data, presented in Table 3.6, are consistent with historical flow rates.

Maintenance of operating water level setpoints by each of the purge wells has been discussed in the 2020 Quarterly Operations Reports. These reports indicate that, with the exception of minor operational and setpoint issues which were investigated and resolved, the water levels were maintained within target setpoint ranges at each of the purge wells throughout 2020.

Well PW-4M was formally decommissioned in 2020 in accordance with the NYSDEC's *CP-43: Groundwater Monitoring Well Decommissioning Policy* (November 2009).

Wells PW-1L and PW-2M were redeveloped on December 22, 2020. Well PW-1L returned to service on January 22, 2021. Well PW-2M will be returned to service in the first quarter of 2021 following redesign of the pumping system, including replacement of the variable frequency drive (VFD) and pump.

Based on the hourly data from the PMW-1M-09 pressure transducer, the water level elevation in this area of FZ-09 was maintained at an average elevation of516.70 feet AMSL throughout 2020, with a maximum elevation observed of 521.05 feet AMSL. The average and maximum elevations were below the 526 feet AMSL action elevation setpoint, which ensures that the FZ-09 outcrop along the NYPA access road remains unsaturated. The data were corroborated by the quarterly hand water level measurements of PMW-1M-09 presented in Table 3.5, which show an average water level of 517.36 feet AMSL in 2020.

5.2.3 Bedrock Analytical Results

In accordance with the 2006 PMP, quarterly groundwater samples were collected from the Group B Bedrock piezometers in 2020. The quarterly groundwater sampling events were performed during February 2020, May and June 2020, August 2020, and November 2020. The annual (fifth quarter Group A Bedrock piezometer sampling) event, as defined in the PMP, was performed during May and June 2020.

The 2020 quarterly Group B Bedrock piezometer sampling results are presented in Tables 3.7a through 3.7d. Samples were analyzed for the Site-specific list of organic acids. Site-specific screening levels (SLs) presented in the PMP have been included in these tables and exceedances of these values have been highlighted.

The 5th quarter sampling results for the Group A Bedrock piezometers are presented in Table 3.8. Analyses include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organic acids, and sulfate. The SLs presented in the PMP have been added to this table and exceedances of these values have been highlighted.

The 2020 data for the quarterly Group B Bedrock piezometer and the 5th quarter Group A Bedrock piezometer sampling events indicate that samples from a number of locations exhibited concentrations of Site Organic Indicators (SOIs) that exceeded the SLs, as summarized below:

Site Organic Indicators	Location Exceeding Site-Specific Screening Level
Chlorendic Acid	ABP-7-09, AGW-1M-09, AGW-1U-06, B2L-11, D1M-09, D1U-05, D2M-09, D2U-05, F2U-02, F2U-04, G6-04, G6-05, H2U-02, H5-09, I1-07
Trichloroethene (TCE)	G6-01, G6-02, G6-04, G6-05, H2M-06
Tetrachloroethene (PCE)	G6-01, G6-02, G6-04
Cis-1,2-Dichloroethene (cis-1,2-DCE)	G6-05
1,1,2,2-Tetrachloroethane (1,1,2,2-PCA)	G6-01, G6-02, G6-04, G6-05, H2M-06
Bis(2-Ethylhexyl)phthalate	E6-04
Vinyl Chloride	G6-04, G6-05, H2M-06, H5-09
Benzene	B2L-11, D1L-11, E6-09, E6-11, F2L-11, F6-11, G1L-11, G6-04, G6-05, G6-11, H2M-09, H5-09, J6-11
Methylene Chloride	No exceedances

The above exceedances are generally consistent with results from the quarterly Group B piezometer and 5th quarter Group A Bedrock piezometer sampling events conducted in previous years.

In a letter dated July 19, 2018 providing comment on the 2017 PRR for the Site, the NYSDEC indicated that while the primary remedial objective of keeping the flow zones dewatered is being achieved, SOIs continue to exceed SLs in many Group A and Group B bedrock piezometers. The NYSDEC requested that the concentrations of these SOIs (nine parameters per the PMP) be quantified and set to trend to better understand the results of the remedial efforts.

In response to the NYSDEC's request, GSH submitted "Site Organic Indicators Trends Analysis" for the Site, dated July 30, 2019, to the NYSDEC. This letter report presented the results of a two-part analysis of concentrations of organic compounds detected in the Group A and Group B bedrock wells from 2006 through the second quarter of 2019. All of the organic compounds currently included in the Group A and Group B bedrock sampling program were included in the analysis, instead of only the nine SOIs defined for the Site. Based on the analysis conducted, only two organic compounds were identified in wells downgradient of the Site that have been detected at concentrations above the SLs and have exhibited sustained increases in concentration. These organic compounds were benzene in D1L-11 and bis(2-ethylhexyl)phthalate (DEHP) in E6-04. Concentrations of benzene in D1L-11 have been above the SL since 2006, but benzene is naturally occurring in flow zone 11 and as such is not associated with the Site. Concentrations of DEHP have been consistently above the SL since 2015, but have been decreasing since 2016.

NYSDEC provided two comments on the above in a letter dated October 24, 2019. NYSDEC indicated that recent increases in concentrations of the SOIs 1,1,2,2-PCA, benzene, vinyl chloride, TCE, and cis-1,2-DCE, along with the non-SOI compounds chloroform, 1,1,2-trichloroethane (1,1,2-TCA), trans-1,2-DCE, and chlorobenzene have been noted for piezometer G6-05, suggesting that the groundwater plume had further migrated from the Site towards G6-05. Based on this, NYSDEC requested that a groundwater evaluation be completed in the area of G6-05. In addition, the NYSDEC indicated that wells removed from the initial data analysis due to their positions hydraulically upgradient or cross-gradient of the Site needed to be included in the trend analysis.

In response to the above NYSDEC's comments, GSH submitted "Response to Comments on Site Organic Indicators Trend Analysis Report" for the Site, dated January 24, 2020. Regarding the

increasing concentrations of the nine above-referenced organic compounds in G6-05, there was no evidence found to suggest that the groundwater plume would be expanding toward this well. The increasing concentrations are related to minor changes in the groundwater flow and the resulting redistribution of contaminant mass, and are not considered evidence of an expanding plume. In addition, groundwater flow in the area of G6-05 has consistently been demonstrated to be towards the Site. GSH recommended continued monitoring and provision of updated graphs of the concentrations of these nine organic compounds detected in G6-05 on an annual basis as an appendix in the PRR. The NYSDEC approved this recommendation in its 2019 PRR acceptance letter dated July 29, 2020. G6-05 is sampled every fifth quarter as part of the Group A Bedrock piezometer sampling event. Figures B.1 and B.2 in Appendix B provide concentrations of these nine organic compounds detected in G6-05 through the second quarter of 2020.

To address NYSDEC's second comment, the original trend analysis was updated to include the hydraulically upgradient or cross-gradient wells. Based on the updated analysis performed, two organic compounds were detected in the bedrock wells that have been detected at concentrations above the SLs and have exhibited sustained increases in concentration as follows:

- Benzene in wells D1L-11, E6-11, J6-11, and G6-04. Benzene in flow zone 11 appears to be naturally occurring due to the presence of natural gas. In addition, benzene concentrations in G6-04 appear to be stabilizing based on the 2016 through 2019 data.
- Vinyl chloride in wells H2M-06 and G6-04. Concentrations of vinyl chloride appear to be stabilizing in H2M-06 and have been relatively low in both H2M-06 and G6-04.

Based on the above, concentrations of benzene and vinyl chloride will continue to be monitored as part of the current Group A bedrock sampling program with no modifications in the current sampling or reporting requirements. The next statistical evaluation of chemistry data generated from groundwater quality monitoring efforts performed at the Site will be conducted in 2022 for monitoring results obtained from 2006 through 2021. Any continued increasing trends associated with the identified wells and compounds will be quantified and further evaluated at that time.

The catch basin on the north side of the Greif Brothers' warehouse is sampled annually for NAPL organic acids. The analytical results for 2020 are presented in Table 3.9.

The bedrock groundwater data collected in 2020 demonstrate that the APL and NAPL purge well systems are operating properly and containment is being maintained in each of the flow zones. No changes to the bedrock purge or monitoring systems are recommended at this time.

5.2.4 Bedrock Monitoring Conclusions

The bedrock monitoring data collected in 2020 demonstrate that the APL and NAPL purge well systems are operating properly, and bedrock containment is being achieved in each of the flow zones.

5.3 Community Monitoring Program

5.3.1 APL Flux Monitoring Program

The APL plume flux composite sampling results are presented in Table 3.10. None of the APL plume flux parameters were detected above their respective reporting levels. As a result, calculation of the flux to the Gorge is not required.

5.3.2 Quarterly Hydraulic Gradient Summary

Table 3.11 presents a summary of groundwater elevations and vertical hydraulic gradients at the paired community monitoring wells for each quarter of 2020. Downward vertical hydraulic gradients, as demonstrated by a higher groundwater elevation in the overburden monitoring well than in the corresponding bedrock groundwater monitoring well, were maintained at each of the well pairs throughout the year with the exception of a slight upward gradient (0.1 ft/ft) at well pair CMW-5OB/SH during the first quarter.

5.3.3 Soil Vapor Monitoring

Results of community monitoring well soil vapor monitoring are presented in Table 3.12. None of the six locations monitored exhibited any recordable concentrations of VOCs during the September 2020 monitoring event, with the exception of CMW-8OB. VOC readings measured in CMW-8OB ranged from 31 parts per million volume (ppmv) to 451 ppmv over the 10-minute monitoring event. In an email dated September 11, 2020, the NYSDEC indicated that it was present for the vapor monitoring event and requested that groundwater be sampled from this well and analyzed for the Group A Bedrock piezometer sampling parameter list. In an email dated September 23, 2020, GSH indicated that CMW-8OB was dry, and therefore proposed to collect an air sample from CMW-8OB and analyze it for the Community Early Warning Parameters per the RRT Stipulation. GSH also indicated that the vapor in both CMW-8OB and CMW-8SH were remeasured on September 23 with both a photoionization detector (PID) and flame ionization detector (PID). PID readings were 0 ppm in both wells, and FID readings were below ambient air background levels in both wells. NYSDEC approval of the proposed sampling plan for CMW-8OB is pending.

5.3.4 Gorge Face Seep Survey

The Gorge Face Seep Survey was last conducted on October 11, 2019.In over 25 years of performing the Seep Survey (annually then biennially), no issues have been identified that required further action. Based on preliminary discussions with the NYSDEC and USEPA, it is proposed to change the frequency of the Gorge Face Seep Survey to every five years to coincide with the USEPA Five-Year review of the Site. In its 2019 PRR approval letter, NYSDEC indicated that this change in acceptable pending approval from the USEPA. USEPA indicated in the “Sixth Five-Year Review Report for the Hyde Park Landfill Superfund Site”, dated March 31, 2021, that they are considering this request. Currently, the next Gorge Face Seep Survey is scheduled for the fall of 2021.

5.3.5 Community Monitoring Conclusions

The community monitoring data collected in 2020 demonstrate that the community is being properly protected by Site remedial systems.

5.4 Site Operations and Maintenance

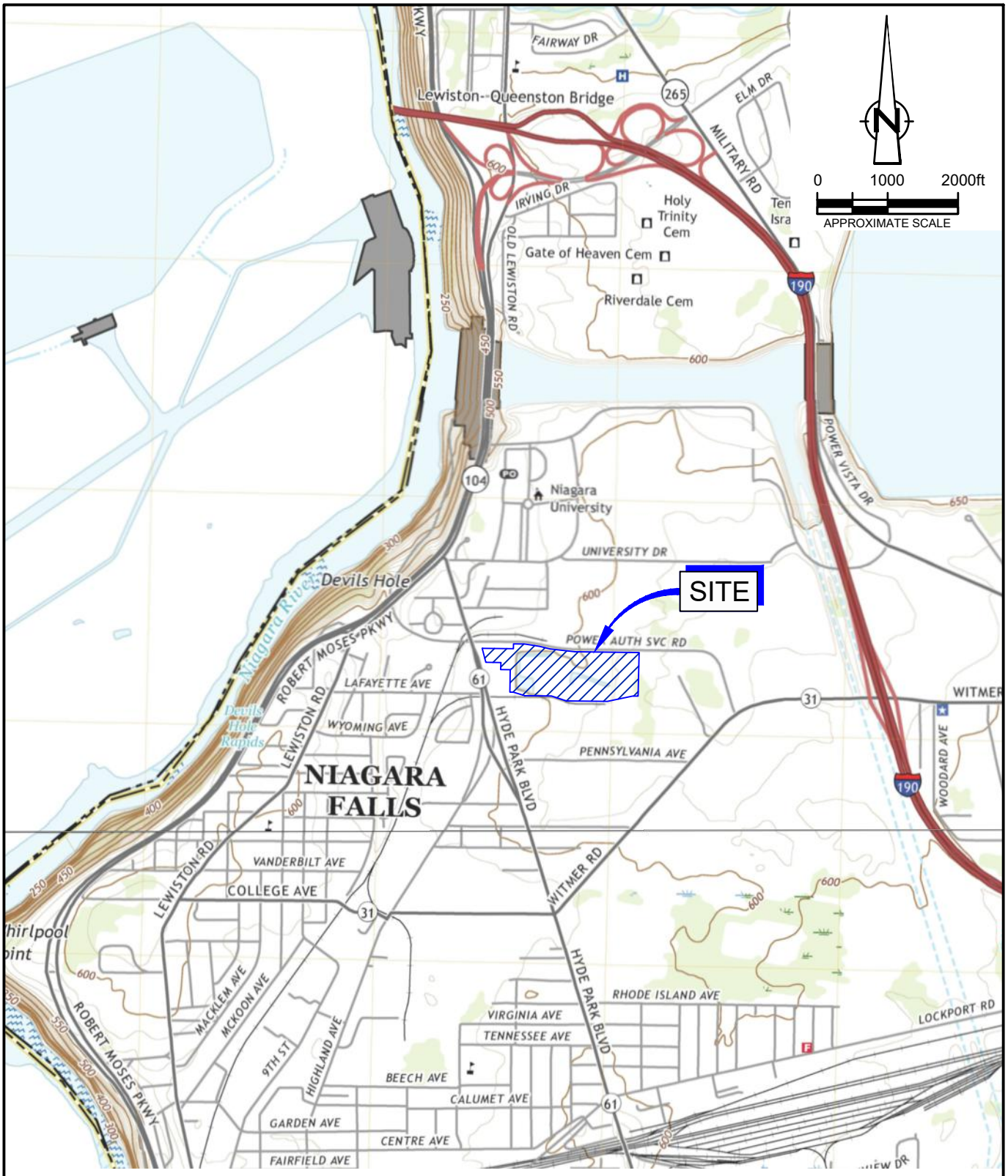
There were no deviations in 2020 from the treatment system monitoring specified in the 2006 PMP. Ongoing O&M issues are discussed in the 2020 Quarterly Operations Reports.

6. Recommendations

Based on the evaluation of data presented within this PRR, no changes in the OM&M activities for the Site are recommended at this time.

- basis as an appendix in the PRR, starting with the PRR for reporting year 2020.

Change the frequency of the Gorge Face Seep Survey to every five years to coincide with the USEPA Five-Year review of the Site as previously proposed. This recommendation is currently being reviewed by USEPA.



SOURCES:

- USGS QUADRANGLE MAP; NIAGARA FALLS, NY, ON, 2019.
- USGS QUADRANGLE MAP; LEWISTON, NY, ON, 2019.

figure 1.1

SITE LOCATION
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

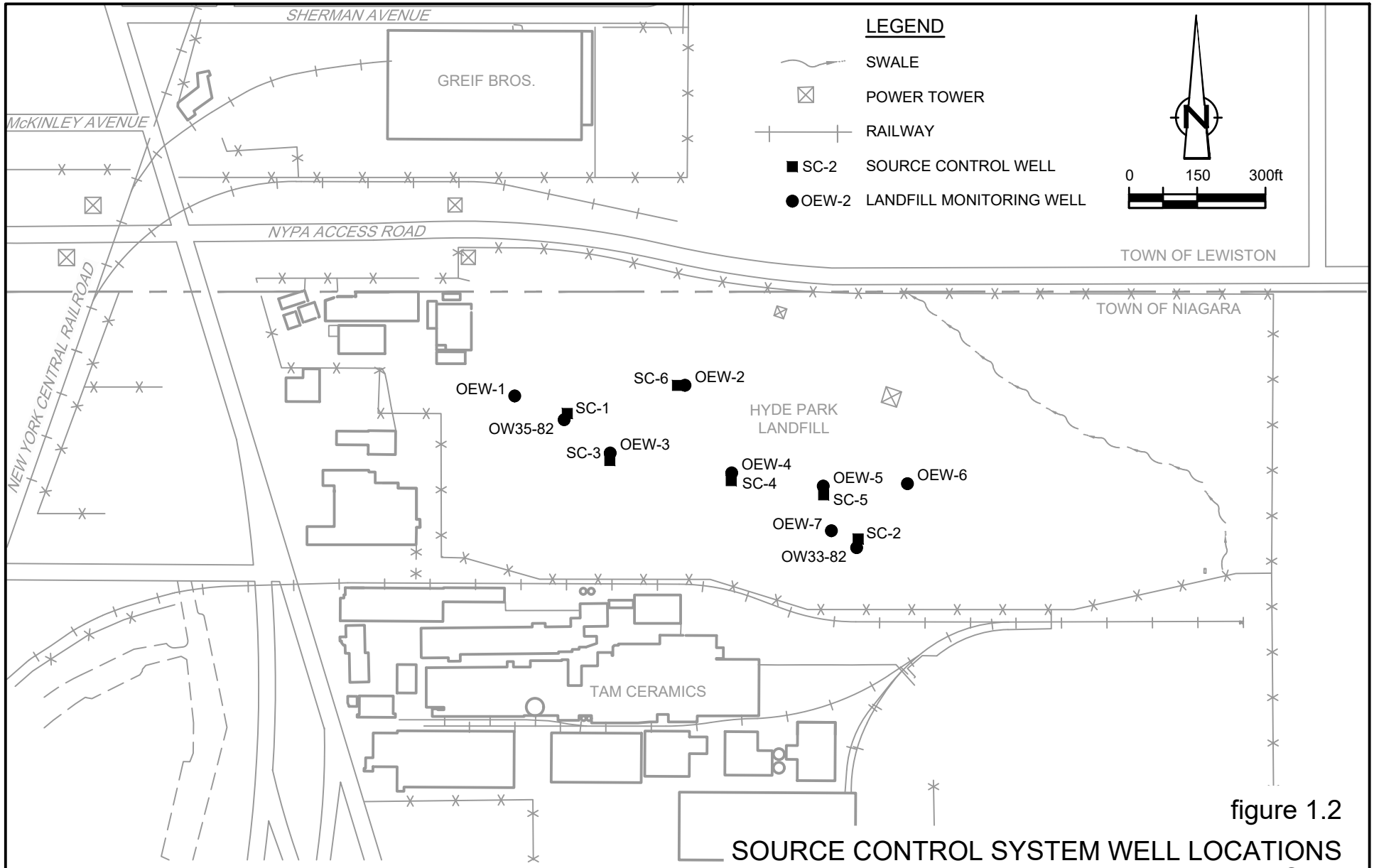


figure 1.2

SOURCE CONTROL SYSTEM WELL LOCATIONS
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

NOTE:
SITE BENCHMARK IS A P.K. NAIL SET IN THE EAST FACE OF A POWER POLE LOCATED AT THE WEST END OF THE EXISTING HYDE PARK LANDFILL, ELEVATION = 612.77. DATUM NOT VERIFIED.

\\ghdnet.internal\ghd\CA\Waterloo\Legacy\CAD\drawings\01000s\01069\01069-REPORTS\01069-31-403(369)\01069-31-403(369)GN\01069-GHD-0000-RPT-EN-0102_WA-369.DWG Plot Date: FEB 23, 2021

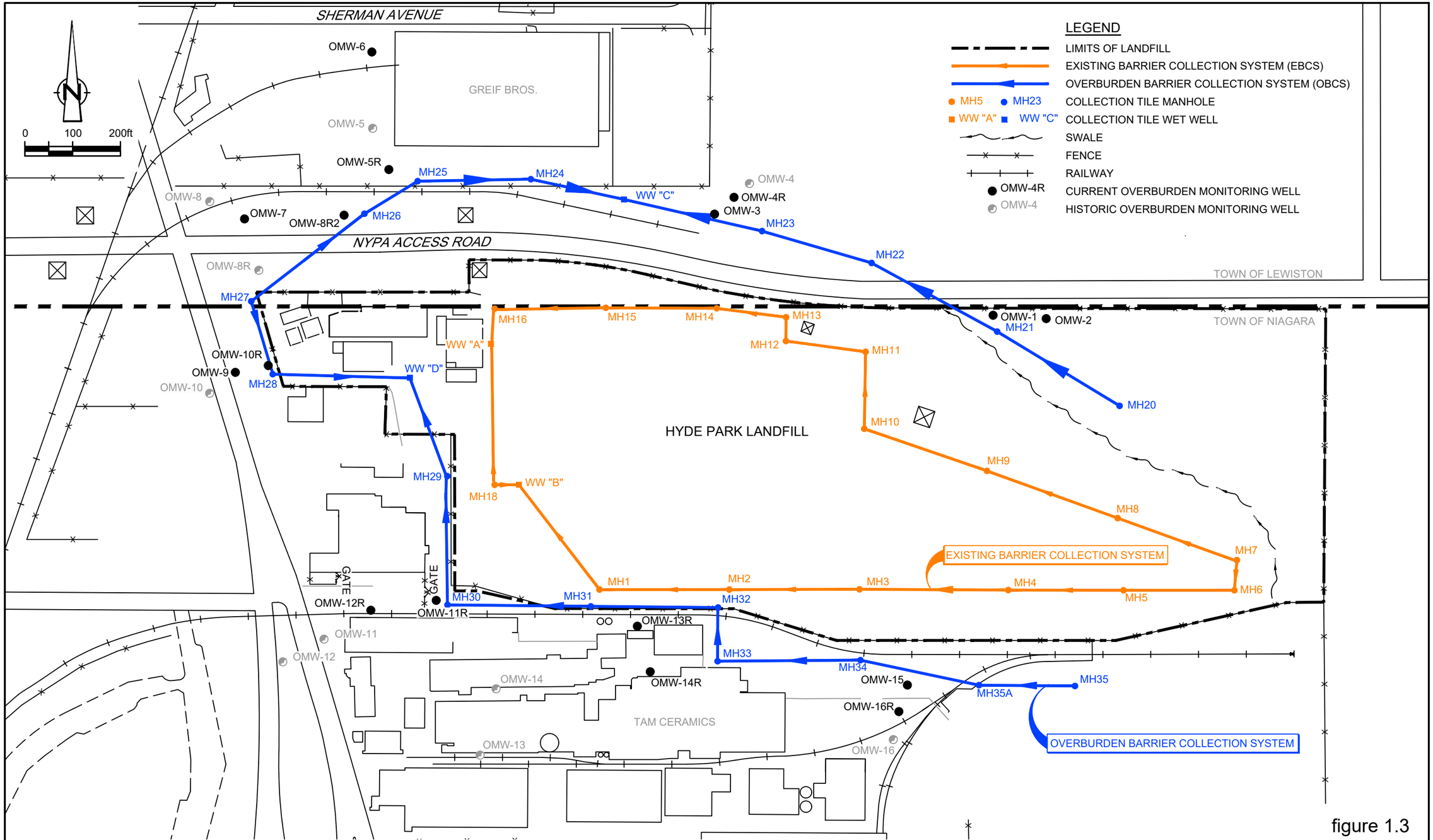


figure 1.3

OVERBURDEN RRT SYSTEM
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

0 300 600ft

LEGEND

APW-2 APL PLUME CONTAINMENT SYSTEM PURGE WELL

PW NAPL PLUME CONTAINMENT SYSTEM PURGE WELL

APW-1
APW-2
PW-9U
PW-8U
PW-10U
PW-7U
PW-1L1
PW-8M
PW-1U
PW-2UR
PW-2L
PW-2M
PW-3M
PW-3L
PW-4M
PW-4U
PW-5UR
PW-6UR
PW-6MR

GREIF BROS.
TOWN OF LEWISTON
TOWN OF NIAGARA
HYDE PARK LANDFILL
NEW YORK CENTRAL RAILROAD
UNIVERSITY AVE.
BELVEDERE AVE
SHERMAN AVE
ROOSEVELT AVE
McKINLEY AVE
ROBERT MOSES PARKWAY
THORNDALE
LAFAYETTE AVE.
RANKINE ROAD
LEWISTON ROAD
WYOMING AVE.
PATRICIA DR.
McKINLEY
HARVARD
HARRISON
DIMMING
JAMES AVE.
MORLEY
WASHINGTON ST.
ROSELLE
PENNSYLVANIA AVE.
DELAWARE ALLEY
DELAWARE AVE.
JAMES ST.
MARYLAND AVE.

figure 1.4

BEDROCK RRT SYSTEM
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

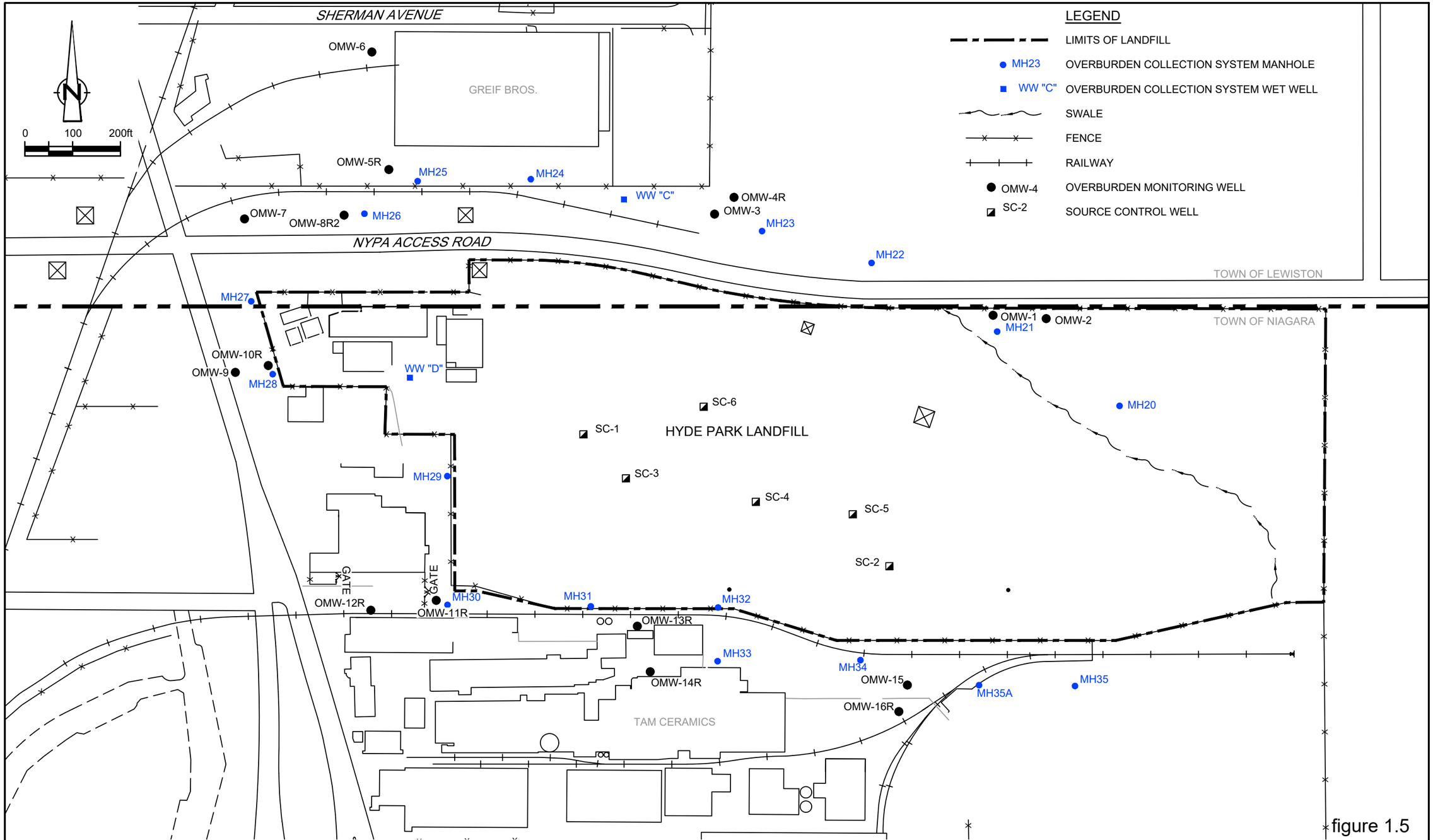


figure 1.5

OVERBURDEN MONITORING PROGRAM
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

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0 300 600ft

LEGEND

F2U — BEDROCK FLOW ZONE PIEZOMETER LOCATION

2,4,5 — FLOW ZONES INSTRUMENTED

C.B. — BEDROCK OPEN CATCHBASIN

ABP-1 7,9
ABP-7 6,7,9
AFW-1L 11
AFW-1M 7,9
AFW-1U 6
AFW-2L 11
AFW-2M 7,9
AFW-2U 4,5,6
AGW-1U 5,6
AGW-1L 11
AGW-1M 7,9
B2M 7,9
B2L 11
B2U 6
C3 6 7,9
D2U 4,5,6
D2L 11
D2M 7,9
D1M 7,9
D1U 4,5,6
D1L 11
E6 4,5,6,7,9,11
F6 4,5,6,7,9,11
F2L 11
F2U 2,4,5
F2M 6,7,9
F4U 2,4,5
F4L 11
F4M 6,7,9
G1L 11
G1M 6,7,9
G1U 1,4
G1 2
G6 1,2,3,4, 5,6,7,9,11
H2U 1,2
H2L 11
H2M 5,6,9
H5 1,2,4,5,6,7,9,11
I1 1,2,4,5,6,7,9,11
J2M 6,9
J2U 2,4,5
J5U 2,4,5
J5L 11
J5M 6,7,9
J6 2,4,5,6,7,9,11
PMW-1U 5,6
PMW-1L 11
PMW-1M 7,9
C.B.

UNIVERSITY AVE.
BELVEDERE AVE
SHERMAN AVE
ROOSEVELT AVE
McKINLEY AVE
NYPA ACCESS ROAD
GREIF BROS.
TOWN OF LEWISTON
HYDE PARK LANDFILL
TRW COMMERCE
PENNSYLVANIA AVE.
DELAWARE ALLEY
DELAWARE AVE.
JAMES ST.
MARIETTA AVE.
LAFAYETTE AVE.
RANKINE ROAD
PATRICIA DR.
WYOMING AVE.
HARVARD
HARRISON
ORMOND
JAMES AVE.
MORLEY
ROSELLE
NEW YORK CENTRAL RAILROAD
ROBERT MOSES PARKWAY

figure 1.6

BEDROCK MONITORING PROGRAM
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

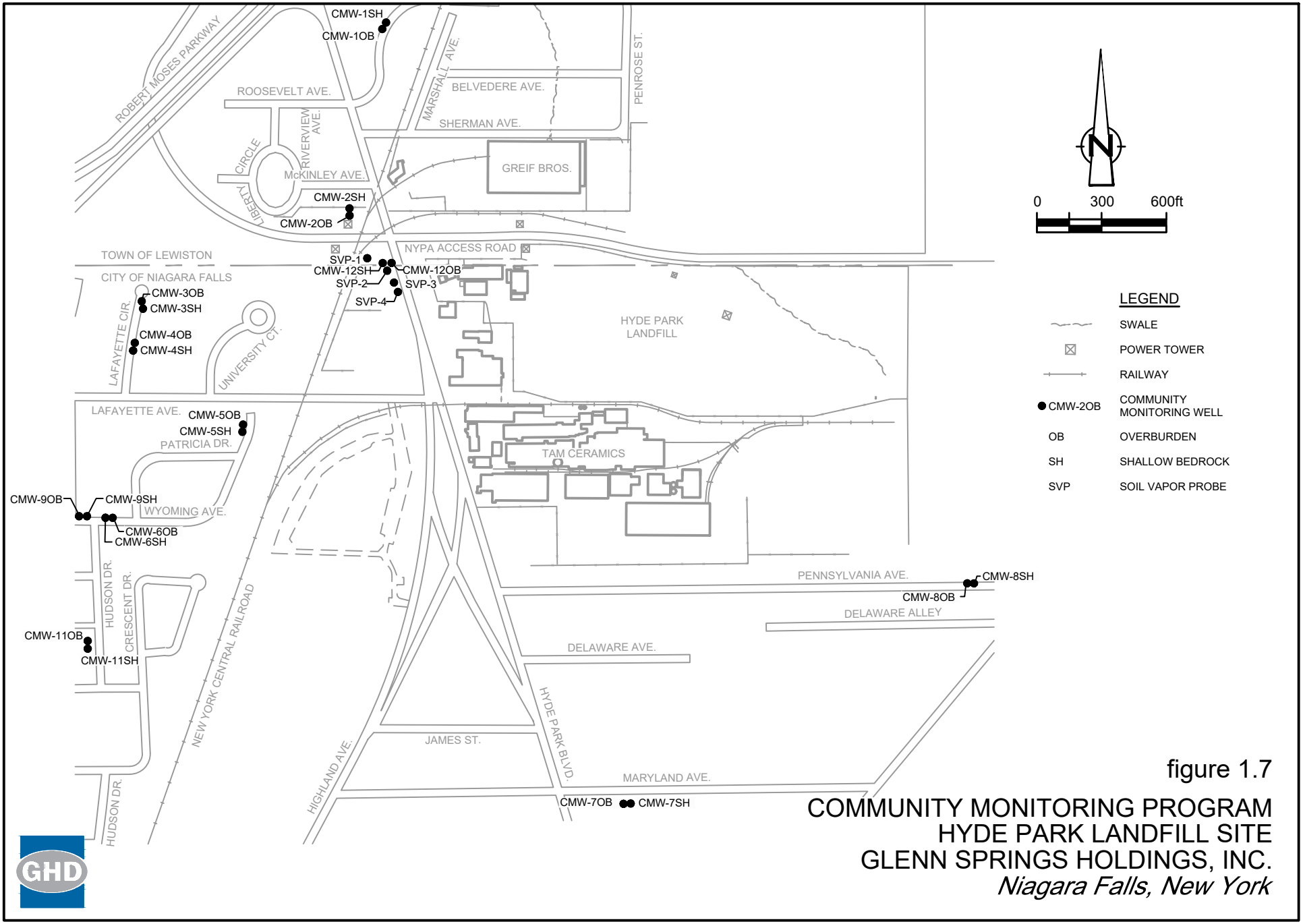

figure 1.7

COMMUNITY MONITORING PROGRAM
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.

Niagara Falls, New York

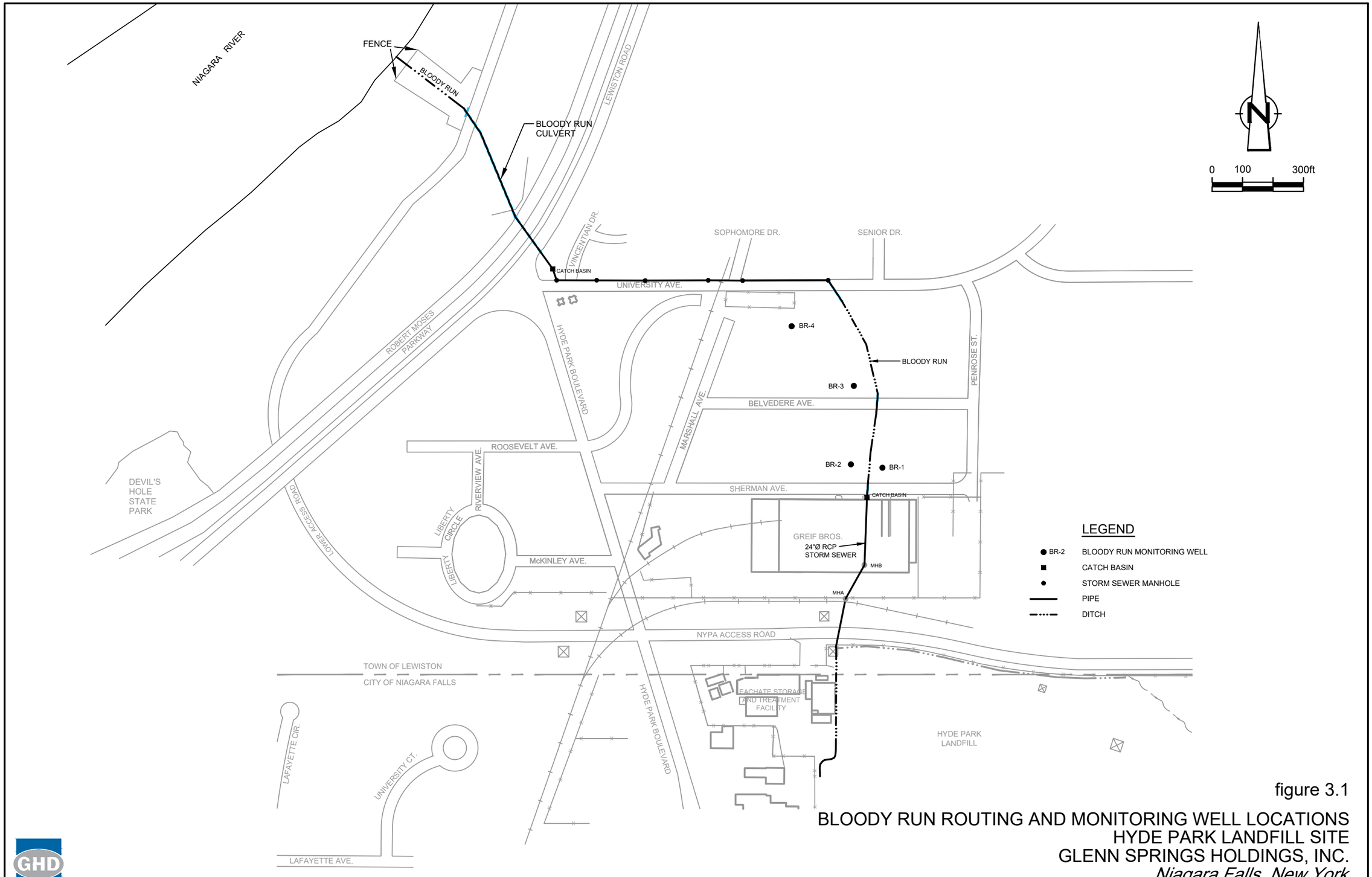

figure 3.1

BLOODY RUN ROUTING AND MONITORING WELL LOCATIONS
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

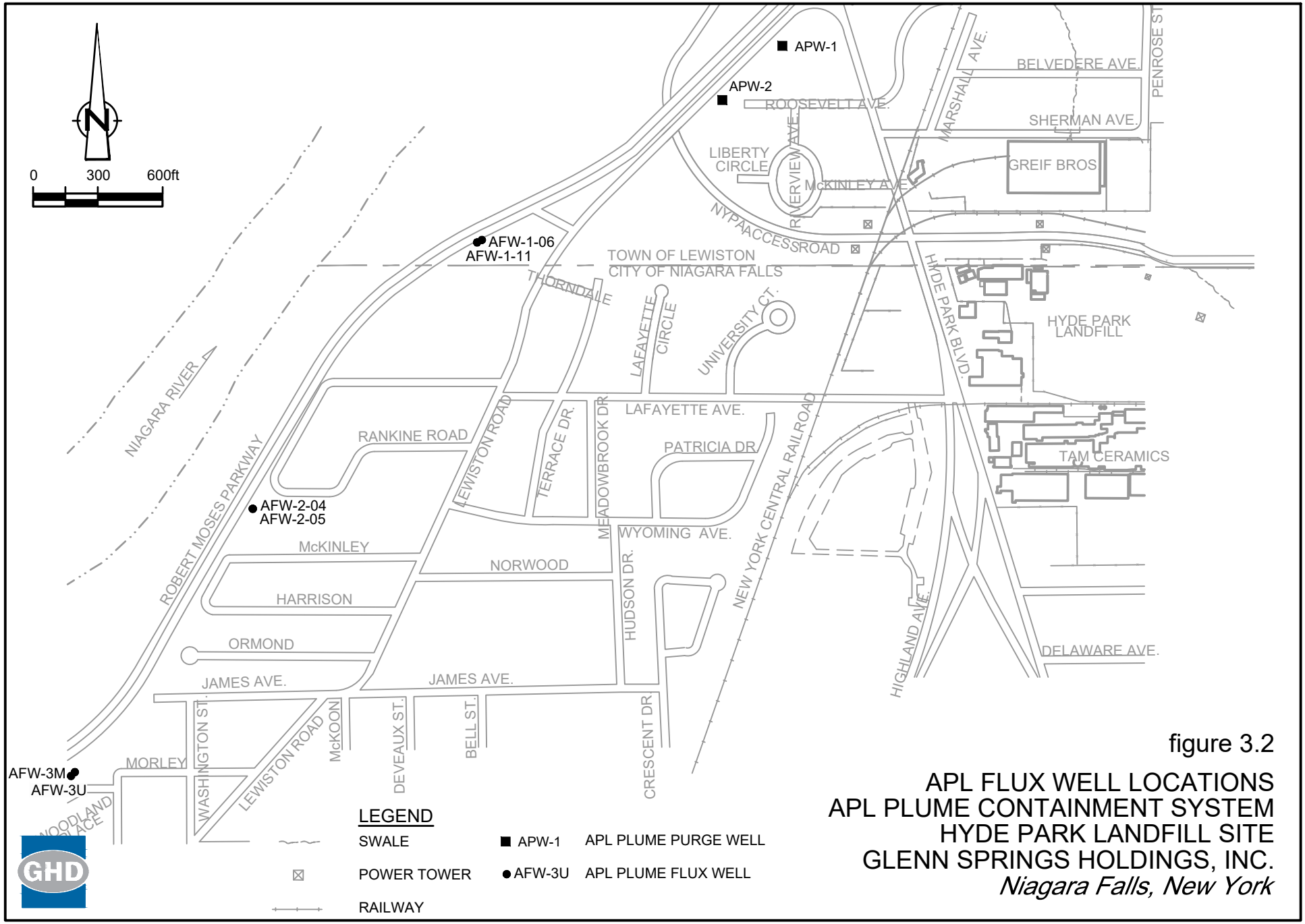

figure 3.2

APL FLUX WELL LOCATIONS
APL PLUME CONTAINMENT SYSTEM
HYDE PARK LANDFILL SITE
GLENN SPRINGS HOLDINGS, INC.

Niagara Falls, New York

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Table 1.1

PMP Monitoring Tasks - 2020
Hyde Park Landfill Site
Town of Niagara, New York

Program	Frequency	Activity	Location/Description	PMP Table Reference	PRR Report Reference	Completed (Yes/No)	Comment
Overburden	Continuous	Water Level Measurement	Wet Wells	-	-	Yes	
	Daily	Total Water Flow	Decanters	-	-	Yes	
	Monthly	Purge NAPL	Source Control NAPL Recovery Well SC-3	Table 3.3	Table 3.1	Yes	
		NAPL Thickness	Source Control NAPL Recovery Well SC-3	Table 3.3	-	Yes	
	Quarterly	Hand Water Level Measurement	Manholes	Table 3.2	Table 3.2	Yes	
		Hand Water Level Measurement	OBCS Overburden Monitoring Wells	Table 3.2	Table 3.2	Yes	
		Hand Water Level Measurement	Source Control Monitoring Wells	Table 3.3	Table 3.2	Yes	
		NAPL Thickness	Source Control Monitoring Wells	Table 3.3	Table 3.1	Yes	
	Annual	NAPL Presence	Manholes	Table 3.2	Table 3.3	Yes	
		NAPL Presence	OBCS Overburden Monitoring Wells	Table 3.2	Table 3.3	Yes	
Bedrock	Continuous	Water Level Measurement	NAPL and APL Purge Wells	Table 4.1	-	Yes	See quarterly reports
	Hourly	Water Level Measurement	Bedrock Piezometer PMW-1M-09	-	-	Yes	See quarterly reports
	Daily	Total Water Flow	Decanters	-	-	Yes	
	Monthly	Total Water Flow	Bedrock Purge Wells	-	Table 3.6	Yes	
	Quarterly	Hand Water Level Measurement	All Bedrock Piezometers	-	Table 3.5	Yes	
		APL Sampling	Group B Bedrock Piezometers	Table 4.2	Tables 3.7 a-d	Yes	
	Every Fifth Quarter	APL Sampling	Group A Bedrock Piezometers	Table 4.2	Table 3.8	Yes	Completed 2nd Quarter 2020
	Annual	APL Sampling	Open Catch Basin	-	Table 3.9	Yes	
		NAPL Presence	Open Catch Basin	-	-	Yes	None present
	Five-Year	APL Sampling	Bloody Run Monitoring Wells	Table 7.1	-	-	Completed in 2016
		APL Sampling	Operating APL and NAPL Purge Wells	Table 7.1	-	-	Completed in 2016
Community	Quarterly	Hand Water Level Measurement	Bedrock Monitoring Wells	Table 5.4	Table 3.11	Yes	
		Hand Water Level Measurement	Overburden Monitoring Wells	Table 5.4	Table 3.11	Yes	
	Annual	APL Plume Flux Composite Sample	APL Flux Piezometers and Purge Wells (APWs and AFWs)	Table 5.3/App D	Table 3.10	Yes	
		Vapor Monitoring	Overburden Monitoring Wells	Table 5.4	Table 3.12	Yes	
	Biennial	Gorge Face Seep Inspection	Seeps	Table 5.2	-	-	Completed in 2019

Table 1.1

PMP Monitoring Tasks - 2020
Hyde Park Landfill Site
Town of Niagara, New York

Program	Frequency	Activity	Location/Description	PMP Table Reference	PRR Report Reference	Completed (Yes/No)	Comment
Treatment	Continuous	APL Sampling	Treated Effluent	Table 6.1	-	Yes	See quarterly reports
		Total Water Flow	Treated Effluent	Table 6.1	-	Yes	See quarterly reports
	Weekly	APL Sampling	Carbon Interstage	Table 6.1	Table 4.2	Yes	
		APL Sampling	Treated Effluent	Table 6.1	-	Yes	See quarterly reports
	Quarterly	NAPL Volumes	Decanters	-	Table 4.1	Yes	
		APL Sampling	Leachate Feed	Table 6.1	Table 4.3	Yes	
		APL Sampling	Sac Bed Interstage	Table 6.1	Table 4.4	Yes	
		APL Sampling	Treated Effluent	Table 6.1	-	Yes	See quarterly reports
Maintenance	Weekly	Fence Inspections	-	App A	-	Yes	Available upon request
	Annual	Well Inspections	-	App A	-	Yes	Available upon request
		Cap Inspection	-	App A	-	Yes	Available upon request
Site-Wide	Quarterly	Report	-	-	-	Yes	Completed in 2020
	Annual	Report	-	-	-	Yes	Completed in 2020
	Five-Year	Report	-	-	-	Yes	Completed in 2017

Notes:

APL - Aqueous Phase Liquid
NAPL - Non-Aqueous Phase Liquid
OBCS - Overburden Barrier Collection System
PMP - Performance Monitoring Plan
PRR - Annual Periodic Review Report
- - Not applicable

Table 3.1

2020 Source Control Well NAPL Pumping Summary
Hyde Park Landfill Site
Town of Niagara, New York

Month	SC-2			SC-3			SC-4			SC-5			SC-6			Total
	NAPL Thickness (feet)	Water Level Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Water Level Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Water Level Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Water Level Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Water Level Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Recovered (gallons)
January - March	0.88	602.97	0.0	2.98	598.14	46.5	2.38	600.13	7.8	0.30	Obstructed	0.0	0.37	613.64	0.0	54.3
April - June	0.93	602.75	0.0	2.65	598.31	36.8	1.38	600.33	5.3	0.38	602.51	0.0	0.44	612.11	0.0	42.0
July - September	1.49	602.58	3.3	2.85	598.27	44.8	1.95	600.23	6.0	0.28	602.41	0.0	0.27	611.03	0.0	54.0
October - December	0.89	602.69	0.0	2.40	598.19	37.5	1.70	600.13	7.0	0.33	602.45	0.0	0.30	611.07	0.0	44.5
Totals			**3.3**			**165.5**			**26.0**			**0.0**			**0.0**	**194.8**

Notes:

ft. AMSL - Feet Above Mean Sea Level
NAPL - Non-Aqueous Phase Liquid
NAPL Thickness and Water Level Elevations indicated are quarterly measurements. Monthly NAPL thickness measured at SC-3 is not shown.

Table 3.2

2020 Overburden Quarterly Groundwater Elevation Summary
Hyde Park Landfill Site
Town of Niagara, New York

Well	Reference Elevation (ft. AMSL)	Water Level Elevation Quarter 1 3/3/2020 (ft. AMSL)	Water Level Elevation Quarter 2 6/3/2020 (ft. AMSL)	Water Level Elevation Quarter 3 9/1/2020 (ft. AMSL)	Water Level Elevation Quarter 4 12/10/2020 (ft. AMSL)
OMW-1	605.28	601.19	599.19	Dry	599.45
OMW-2	605.99	603.60	602.80	Dry	601.81
OMW-3	598.63	594.58	588.46	586.15	Dry
OMW-4R	601.17	590.35	589.87	587.82	Dry
OMW-5R	591.31	589.27	585.30	579.10	584.98
OMW-6	587.62	586.06	585.83	585.34	585.66
OMW-7	592.74	586.88	586.00	583.36	585.22
OMW-8R2	594.67	588.48	585.90	583.98	585.19
OMW-9	595.52	590.12	587.79	586.59	587.79
OMW-10R	595.13	590.25	586.31	585.95	586.44
OMW-11R	597.52	593.42	592.92	591.00	592.52
OMW-12R	597.20	593.21	593.12	591.11	592.74
OMW-13R	601.50	591.85	591.90	591.91	591.90
OMW-14R	599.64	595.84	594.72	593.14	NM
OMW-15	607.48	603.29	602.99	600.10	600.10
OMW-16R	607.62	603.93	603.82	598.77	603.43
SC-2	625.61	602.97	602.75	602.58	602.69
SC-3	638.72	598.14	598.31	598.27	598.19
SC-4	639.35	600.13	600.33	600.23	600.13
SC-5	634.07	Obstructed	602.51	602.41	602.45
SC-6	631.15	613.64	612.11	611.03	611.07
MH-20	605.87	601.21	601.19	601.18	601.19
MH-21	599.77	593.71	593.67	593.53	593.63
MH-22	593.37	586.75	586.56	Dry	Dry
MH-23	587.05	579.21	574.94	574.75	574.66
MH-24	582.57	581.21	575.02	Dry	572.55
MH-25	583.82	582.83	576.64	Dry	Dry
MH-26	584.48	581.94	Dry	Dry	Dry
MH-27	586.12	580.39	575.44	575.41	Dry
MH-28	585.23	579.55	568.64	568.65	568.34
MH-29	582.90	NM	589.50	Dry	Dry
MH-30	588.37	591.91	589.46	589.40	589.34
MH-31	590.10	581.49	580.53	580.48	580.52
MH-32	592.01	582.42	582.36	582.35	582.39
MH-33	592.51	583.87	583.81	583.76	583.79
MH-34	597.64	591.24	591.21	591.16	591.15
MH-35	605.69	599.14	599.14	599.15	599.16
MH-35A	605.69	598.55	598.54	598.21	598.22

Notes:

Dry - No water present in well
NM - Not measured due to overlying ice and snow
ft. AMSL - Feet Above Mean Sea Level

Table 3.3

2020 Overburden NAPL Presence Monitoring
Hyde Park Landfill Site
Town of Niagara, New York

Well I.D.	February 12 - March 3, 2020 (Yes/No)
OMW-1	No
OMW-2	No
OMW-3	No
OMW-4R	No
OMW-5R	No
OMW-6	No
OMW-7	No
OMW-8R2	No
OMW-9	No
OMW-10R	No
OMW-11	No
OMW-12R	No
OMW-13R	No
OMW-14R	No
OMW-15	No
OMW-16R	No
MH-20	No
MH-21	No
MH-22	No
MH-23	No
MH-24	No
MH-25	No
MH-26	No
MH-27	No
MH-28	No
MH-29	Yes
MH-30	Yes
MH-31	Yes
MH-32	Yes
MH-33	No
MH-34	No
MH-35	No
MH-35A	No
Wet Well C	No
Wet Well D	Yes

Table 3.4

2020 Overburden Collection Systems Monthly Average Flow (gpm) Summary
Hyde Park Landfill Site
Town of Niagara, New York

Month	EBCS WET WELL A	OBCS WET WELL C	OBCS WET WELL D	Total EBCS	Total OBCS
January	0.7	19.8	19.1	0.7	38.9
February	1.0	20.7	13.9	1.0	34.6
March	1.1	26.3	26.0	1.1	52.3
April	0.9	24.1	13.6	0.9	37.7
May	0.6	18.5	11.6	0.6	30.1
June	0.3	7.3	3.7	0.3	11.0
July	0.1	2.3	1.7	0.1	4.0
August	0.0	1.0	1.3	0.0	2.3
September	0.0	0.5	1.0	0.0	1.5
October	0.0	1.6	2.0	0.0	3.6
November	0.0	2.6	2.6	0.0	5.2
December	0.1	9.0	8.0	0.1	17.0
Annual Average	0.4	11.1	8.7	0.4	19.9

Notes:

GPM - Gallons per minute
EBCS - Existing Barrier Collection System
OBCS - Overburden Barrier Collection System

Table 3.5

2020 Bedrock Quarterly Water Level Elevation Summary - Piezometers
Hyde Park Landfill Site
Town of Niagara, New York

Well	Reference Elevation (ft. AMSL)	Water Level Elevation Quarter 1 3/3/2020 (ft. AMSL)	Water Level Elevation Quarter 2 6/3/2020 (ft. AMSL)	Water Level Elevation Quarter 3 9/1/2020 (ft. AMSL)	Water Level Elevation Quarter 4 12/10/2020 (ft. AMSL)
Flow Zone 1					
G1U-01	617.08	606.98	604.27	597.82	597.63
G6-01	609.24	605.50	603.73	597.35	597.64
H2U-01	620.92	614.73	611.77	605.87	607.33
H5-01	617.61	595.79	595.32	592.55	592.52
I1-01	625.58	602.98	602.19	597.50	596.99
Flow Zone 2					
F2U-02	599.89	577.01	576.49	573.90	574.23
F4U-02	602.32	588.04	587.11	584.45	585.24
G1-02	616.86	594.63	593.55	589.64	589.19
G6-02	608.65	593.07	592.41	589.15	590.04
H2U-02	620.88	595.98	595.28	591.31	591.94
H5-02	617.47	595.67	595.16	591.05	591.76
I1-02	625.47	592.57	589.95	584.59	583.92
J2U-02	609.66	600.49	596.88	590.38	594.62
J5U-02	606.21	600.74	597.68	591.88	594.61
J6-02	609.23	603.11	599.27	591.31	596.10
Flow Zone 4					
AFW-2U-04	593.48	578.88	577.94	574.60	574.39
D1U-04	593.77	584.46	582.62	578.15	579.97
D2U-04	590.65	582.97	580.73	576.60	578.28
E6-04	578.23	566.96	567.01	564.75	565.33
F2U-04	599.76	579.91	578.86	575.74	576.32
F4U-04	602.19	587.73	587.08	583.36	584.60
F6-04	588.06	570.75	570.51	569.40	569.46
G1U-04	616.96	594.71	593.38	589.44	589.31
G6-04	609.15	593.43	592.75	589.47	590.57
H5-04	617.40	595.62	595.09	591.03	591.72
I1-04	625.30	586.86	585.04	581.70	582.25
J2U-04	609.42	596.93	593.90	587.62	591.94
J5U-04	606.05	589.21	587.61	583.87	585.77
J6-04	609.12	583.54	581.23	577.31	579.10
Flow Zone 5					
AFW-2U-05	593.33	578.88	578.08	574.33	574.21
AGW-1U-05	591.80	589.40	588.08	581.04	585.14
D1U-05	593.51	582.99	581.11	577.62	579.69
D2U-05	590.56	582.76	581.15	577.36	579.01
E6-05	578.04	567.36	567.32	564.87	565.51
F2U-05	599.64	580.18	579.06	576.11	576.95
F4U-05	602.06	587.59	586.36	580.64	582.36
F6-05	587.85	570.65	570.41	569.33	569.36
G6-05	609.13	593.23	592.41	589.24	590.32
H2M-05	621.59	595.47	594.84	589.35	589.78
H5-05	617.31	594.28	593.62	589.42	590.06
I1-05	625.25	552.81	553.09	552.11	551.67
J2U-05	609.30	581.91	579.99	590.02	578.29
J5U-05	605.87	582.04	579.81	576.21	578.33
J6-05	609.02	583.12	580.85	577.11	578.84
PMW-1U-05	598.00	580.72	579.21	576.89	578.41
Flow Zone 6					
ABP-7-06	575.78	Dry	Dry	Dry	Dry
AFW-1U-06	571.83	558.08	557.61	556.62	557.25
AFW-2U-06	593.22	545.34	545.25	544.99	Dry
AGW-1U-06	591.66	554.55	553.48	551.98	552.14
B2U-06	589.29	555.12	554.29	553.03	553.51
C3-06	585.78	548.59	548.37	Dry	Dry

2020 Bedrock Quarterly Water Level Elevation Summary - Piezometers
Hyde Park Landfill Site
Town of Niagara, New York

Well	Reference Elevation (ft. AMSL)	Water Level Elevation Quarter 1 3/3/2020 (ft. AMSL)	Water Level Elevation Quarter 2 6/3/2020 (ft. AMSL)	Water Level Elevation Quarter 3 9/1/2020 (ft. AMSL)	Water Level Elevation Quarter 4 12/10/2020 (ft. AMSL)
Flow Zone 6 Continued					
D1U-06	593.25	549.53	548.93	546.82	546.88
D2U-06	590.38	550.75	549.68	547.45	547.27
E6-06	577.99	575.03	574.46	572.41	572.39
F2M-06	599.06	552.40	552.18	551.84	551.65
F4M-06	602.05	551.33	550.63	549.65	550.37
F6-06	587.84	574.91	574.33	572.45	572.32
G1M-06	616.75	575.06	574.64	572.56	572.44
G6-06	609.09	577.50	576.31	573.96	573.86
H2M-06	621.42	585.21	584.22	580.38	581.60
H5-06	617.17	590.24	590.79	589.93	588.23
I1-06	625.15	546.24	546.15	545.99	545.85
J2M-06	608.94	552.97	553.35	551.66	552.03
J5M-06	606.22	549.09	548.54	546.41	546.36
J6-06	608.93	554.75	555.04	554.40	554.18
PMW-1U-06	597.92	549.23	548.86	547.43	546.73
Flow Zone 7					
ABP-1-07	576.44	547.02	546.94	546.12	546.77
ABP-7-07	575.73	534.95	534.58	533.06	534.36
AFW-1M-07	571.41	532.63	Dry	Dry	Dry
AFW-2M-07	593.44	526.71	526.68	526.67	526.62
AGW-1M-07	592.91	546.75	544.70	545.54	543.13
B2M-07	589.52	Dry	530.34	530.34	530.54
C3-07	585.62	546.51	545.63	540.63	540.80
D1M-07	594.15	532.07	532.09	532.13	532.07
D2M-07	590.77	524.10	522.52	523.73	523.32
E6-07	577.91	554.82	554.89	554.96	554.82
F2M-07	598.91	517.78	517.00	516.02	519.78
F4M-07	601.91	529.14	525.47	523.12	525.33
F6-07	587.68	567.49	567.50	567.61	567.50
G1M-07	616.68	585.79	584.49	577.60	577.78
G6-07	609.06	585.16	584.36	577.85	578.03
H5-07	617.05	555.26	555.03	554.94	554.67
I1-07	625.14	543.06	541.56	542.61	541.94
J5M-07	606.07	545.66	544.36	543.55	541.99
J6-07	608.85	545.22	543.17	542.56	541.62
PMW-1M-07	598.50	529.63	529.74	529.98	530.23
Flow Zone 9					
ABP-1-09	575.49	534.76	534.63	533.81	534.44
ABP-7-09	575.67	534.75	534.06	529.74	533.35
AFW-1M-09	571.12	526.40	525.59	524.54	524.61
AFW-2M-09	593.32	521.11	521.11	520.91	521.04
AGW-1M-09	592.75	546.56	544.72	545.06	542.97
B2M-09	589.34	Obstructed	530.62	Obstructed	Obstructed
C3-09	585.00	543.76	543.12	539.94	540.06
D1M-09	594.02	517.21	516.20	515.22	519.35
D2M-09	590.66	517.09	516.13	515.16	519.29
E6-09	577.82	553.69	553.19	552.82	552.55
F2M-09	598.71	516.83	515.89	514.96	519.01
F4M-09	601.79	516.85	515.89	514.91	518.94
F6-09	587.53	570.94	572.23	571.13	570.36
G1M-09	616.58	581.94	581.99	578.38	575.52
G6-09	608.98	586.36	585.17	578.30	578.59
H2M-09	621.32	553.32	551.63	550.29	548.32
H5-09	616.93	543.98	542.72	542.12	540.51
I1-09	624.91	563.10	563.48	563.17	563.00

2020 Bedrock Quarterly Water Level Elevation Summary - Piezometers
Hyde Park Landfill Site
Town of Niagara, New York

Well	Reference Elevation (ft. AMSL)	Water Level Elevation Quarter 1 3/3/2020 (ft. AMSL)	Water Level Elevation Quarter 2 6/3/2020 (ft. AMSL)	Water Level Elevation Quarter 3 9/1/2020 (ft. AMSL)	Water Level Elevation Quarter 4 12/10/2020 (ft. AMSL)
Flow Zone 9 Continued					
J2M-09	608.77	545.26	543.53	542.69	541.74
J5M-09	605.82	545.53	544.36	543.29	542.10
J6-09	608.76	566.02	564.92	560.49	563.49
PMW-1M-09	598.34	517.25	516.09	516.65	519.44
Flow Zone 11					
AFW-1L-11	572.10	514.14	509.18	505.57	507.38
AFW-2L-11	593.43	497.14	497.20	495.31	495.27
AGW-1L-11	592.71	584.64	583.63	583.15	583.82
B2L-11	589.65	500.87	501.83	498.93	498.06
D1L-11	593.80	504.00	503.82	502.83	501.91
D2L-11	590.21	523.76	523.58	523.68	523.46
E6-11	577.72	535.10	534.72	531.90	530.94
F2L-11	598.94	554.25	554.43	552.55	553.89
F4L-11	602.22	572.14	571.81	571.31	570.65
F6-11	587.40	530.21	529.81	527.88	526.15
G1L-11	616.84	593.16	590.94	585.46	581.31
G6-11	608.89	594.75	593.36	588.01	574.69
H2L-11	620.73	559.90	560.22	559.63	558.70
H5-11	616.81	542.09	541.99	541.06	539.81
I1-11	624.75	545.23	545.36	545.39	545.52
J5L-11	607.20	556.27	555.81	552.98	551.03
J6-11	608.68	587.26	587.21	585.86	585.50
PMW-1L-11	598.84	514.28	513.51	513.50	513.65

Notes:

Dry - No water present in well
ft. AMSL - Feet Above Mean Sea Level

Table 3.6

2020 Bedrock Purge Well Monthly Flow Rate (GPM) Summary
Hyde Park Landfill Site
Town of Niagara, New York

Month	PW-1U	PW-1L	PW-2UR	PW-2M	PW-2L	PW-3M	PW-3L	PW-4U	PW-4M (1)	PW-5UR	PW-6UR	PW-6MR
January	0.13	1.25	1.03	10.96	0.43	2.81	2.64	0.23	0.00	2.76	0.84	4.19
February	0.11	1.41	1.17	10.17	0.35	3.23	2.87	0.21	0.00	2.76	0.77	3.94
March	0.19	1.21	1.25	11.08	0.33	1.78	3.23	0.19	0.00	3.25	0.86	4.27
April	0.32	1.09	1.11	10.17	0.20	2.08	3.21	0.17	0.00	3.02	0.81	4.26
May	0.57	1.00	1.01	10.08	0.10	1.61	3.19	0.16	0.00	2.61	0.82	4.23
June	0.09	0.87	0.80	9.69	0.05	1.00	2.98	0.13	0.00	2.98	0.70	4.19
July	0.13	0.71	0.68	8.63	0.05	3.62	2.70	0.08	0.00	0.23	0.57	4.07
August	0.07	0.61	0.61	7.25	0.04	2.89	2.62	0.06	0.00	0.75	0.46	3.97
September	0.06	0.57	0.54	6.03	0.03	1.74	2.61	0.02	0.00	1.74	0.33	3.87
October	0.05	1.19	0.56	1.45	0.11	0.94	3.01	0.00	0.00	1.58	0.29	4.19
November	1.09	3.52	0.65	0.00	0.23	1.12	3.93	0.05	0.00	1.53	0.28	4.62
December	0.68	0.62	0.73	0.00	0.45	0.78	4.07	0.07	0.00	1.66	0.35	4.71
Annual Average	0.29	1.17	0.84	7.13	0.20	1.97	3.09	0.11	0.00	2.07	0.59	4.21

Month	PW-7U	PW-8M (1)	PW-8U	PW-9U	PW-10U	APW-1	APW-2
January	0.49	0.00	1.11	1.00	3.85	0.88	0.74
February	0.21	0.00	0.96	0.86	3.62	0.66	0.68
March	0.29	0.07	1.08	0.97	3.60	0.76	0.81
April	0.47	0.00	0.86	0.88	2.84	0.64	0.77
May	0.49	0.00	0.81	0.88	1.22	0.57	0.66
June	0.49	0.00	0.72	0.77	2.71	0.38	0.47
July	0.44	0.00	0.61	0.70	2.52	0.35	0.33
August	0.41	0.00	0.52	0.64	2.27	0.31	0.24
September	0.38	0.00	0.47	0.58	1.02	0.27	0.19
October	0.33	0.00	0.43	0.51	0.55	0.27	0.22
November	0.27	0.00	0.45	0.51	1.98	0.28	0.24
December	0.20	0.00	0.52	0.59	2.22	0.41	0.46
Annual Average	0.37	0.00	0.71	0.74	2.37	0.48	0.48

Notes:

GPM - Gallons per minute
(1) - PW-4M and PW-8M typically run at set point and do not require frequent pumping

Table 3.7a

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
First Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-09	AGW-1U-06	B2L-11
Sample ID:			ABP-7-09-0220	AGW-1M-07-0220	AGW-1M-09-0220	AGW-1U-06-0220	B2L-11-0220
Sample Date:			02/11/2020	02/11/2020	02/11/2020	02/11/2020	02/11/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	230
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	24 J
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**55 J**	250 U	**140 J**	250 U	**160 J**

Sample Location:			C3-07	C3-09	D1M-09	D1U-04	D1U-05
Sample ID:			C3-07-0220	C3-09-0220	D1M-09-0220	D1U-04-0220	D1U-05-0220
Sample Date:			02/11/2020	02/11/2020	02/11/2020	02/11/2020	02/11/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	250 U	**130 J**	37 J	**88 J**

Sample Location:			F2M-09	F2U-02	F2U-04	G1U-01	G6-01
Sample ID:			F2M-09-0220	F2U-02-0220	F2U-04-0220	G1U-01-0220	G6-01-0220
Sample Date:			02/11/2020	02/11/2020	02/11/2020	02/13/2020	02/13/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	**180 J**	**310**	250 U	250 U

Table 3.7a

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
First Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			G6-04	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-04-0220	W7-10-0220	G6-06-0220	H2U-02-0220	H5-09-0220
Sample Date:			02/13/2020	02/13/2020 (Duplicate)	02/13/2020	02/13/2020	02/13/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	2000	2100	30 U	4.2 J	7.8 J
3-Chlorobenzoic acid	µg/L	7,300	420	440	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	3100	3300	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**78 J**	250 U	250 U	**110 J**	**110 J**

Notes:

µg/L - Micrograms per liter
J - Estimated concentration
U - Not detected at the associated reporting limit
310 - Concentration exceeds Screening Level

Table 3.7b

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-09	AGW-1U-06	B2L-11
Sample ID:			ABP-7-09-0520	AGW-1M-07-0520	AGW-1M-09-0520	AGW-1U-06-0520	B2L-11-0520
Sample Date:			05/27/2020	06/09/2020	06/09/2020	06/10/2020	06/10/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	160
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	11 J
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**54 J**	37 J	**120 J**	**140 J**	**170 J**

Sample Location:			C3-07	C3-09	D1M-09	D1U-04	D1U-05
Sample ID:			C3-07-0520	C3-09-0520	D1M-09-0520	D1U-04-0520	D1U-05-0520
Sample Date:			05/27/2020	05/27/2020	05/28/2020	05/28/2020	05/28/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	47 J	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	250 U	**140 J**	250 U	**66 J**

Table 3.7b

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F2M-09	F2U-02	F2U-04	G1U-01	G6-01
Sample ID:			F2M-09-0520	F2U-02-0520	F2U-04-0520	G1U-01-0520	G6-01-0520
Sample Date:			06/11/2020	06/11/2020	06/11/2020	06/10/2020	05/27/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	**200 J**	**350**	250 U	250 U

Sample Location:			G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-04-0520	G6-06-0520	H2U-02-0520	H5-09-0520
Sample Date:			05/27/2020	05/27/2020	06/11/2020	06/15/2020
Organic Acids						
2-Chlorobenzoic acid	µg/L	7,300	2600	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	600	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	3600	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**130 J**	250 U	**110 J**	**190 J**

Notes:

µg/L - Micrograms per liter
J - Estimated concentration
U - Not detected at the associated reporting limit
350 - Concentration exceeds Screening Level

Table 3.7c

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Third Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-07	AGW-1M-09	AGW-1U-06
Sample ID:			ABP-7-09-0820	AGW-1M-07-0820	W7-10-0820	AGW-1M-09-0820	AGW-1U-06-0820
Sample Date:			08/13/2020	08/12/2020	08/13/2020 (Duplicate)	08/12/2020	08/12/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	33 J	250 U	**150 J**	**160 J**

Sample Location:			B2L-11	C3-07	C3-09	D1M-09	D1U-04
Sample ID:			B2L-11-0820	C3-07-0820	C3-09-0820	D1M-09-0820	D1U-04-0820
Sample Date:			08/12/2020	08/12/2020	08/12/2020	08/12/2020	08/11/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	65	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**140 J**	250 U	250 U	**160 J**	250 U

Table 3.7c

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Third Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1U-05	F2M-09	F2U-02	F2U-04	G1U-01
Sample ID:			D1U-05-0820	F2M-09-0820	F2U-02-0820	F2U-04-0820	G1U-01-0820
Sample Date:			08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/12/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**110 J**	250 U	**180 J**	**360**	250 U

Sample Location:			G6-01	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-01-0820	G6-04-0820	G6-06-0820	H2U-02-0820	H5-09-0820
Sample Date:			08/11/2020	08/11/2020	08/11/2020	08/13/2020	08/13/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	3100	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	740	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	4400	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	**160 J**	250 U	**180 J**	250 U

Notes:

µg/L - Micrograms per liter
J - Estimated concentration
U - Not detected at the associated reporting limit
360 - Concentration exceeds Screening Level

Table 3.7d

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Fourth Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-07	AGW-1M-09	AGW-1U-06
Sample ID:			ABP-7-09-1120	AGW-1M-07-1120	W7-10-1120	AGW-1M-09-1120	AGW-1U-06-1120
Sample Date:			11/17/2020	11/18/2020	11/18/2020	11/18/2020	11/18/2020
		Screening			Duplicate		
Parameters	**Units**	**Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**55 J**	250 U	250 U	**130 J**	**160 J**

Sample Location:			B2L-11	C3-07	C3-09	D1M-09	D1U-04
Sample ID:			B2L-11-1120	C3-07-1120	C3-09-1120	D1M-09-1120	D1U-04-1120
Sample Date:			11/18/2020	11/17/2020	11/17/2020	11/17/2020	11/17/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	290 J	30 U	30 U	7.4 J	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**120 J**	250 U	250 U	**190 J**	250 U

Table 3.7d

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Fourth Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1U-05	F2M-09	F2U-02	F2U-04	G1U-01
Sample ID:			D1U-05-1120	F2M-09-1120	F2U-02-1120	F2U-04-1120	G1U-01-1120
Sample Date:			11/17/2020	11/17/2020	11/17/2020	11/17/2020	11/18/2020
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**300**	250 U	**240 J**	**360**	250 U

Sample Location:			G6-01	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-01-1120	G6-04-1120	G6-06-1120	H2U-02-1120	H5-09-1120
Sample Date:			11/17/2020	11/17/2020	11/17/2020	11/18/2020	11/18/2020
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	920	160	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	250	46	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	2300	400	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	39 J	250 U	**120 J**	250 U

Notes:

µg/L - Micrograms per liter
J - Estimated concentration
U - Not detected at the associated reporting limit
360 - Concentration exceeds Screening Level

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-1-09	ABP-7-09	AFW-1L-11	AFW-2U-04	AFW-2U-05	AGW-1M-07	AGW-1M-09	AGW-1U-05	AGW-1U-06	B2L-11	C3-07	C3-09	D1L-11	D1M-09	D1U-04
Sample ID:			ABP-1-09-0520	ABP-7-09-0520	AFW-1L-11-0520	AFW-2U-04-0520	AFW-2U-05-0520	AGW-1M-07-0520	AGW-1M-09-0520	AGW-1U-05-0520	AGW-1U-06-0520	B2L-11-0520	C3-07-0520	C3-09-0520	D1L-11-0520	D1M-09-0520	D1U-04-0520
Sample Date:			6/15/2020	5/27/2020	6/10/2020	5/27/2020	5/27/2020	6/9/2020	6/9/2020	6/10/2020	6/10/2020	6/10/2020	5/27/2020	5/27/2020	5/28/2020	5/28/2020	5/28/2020
Parameters	**Units**	**Screening Level**															
Volatile Organic Compounds																	
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	0.34 J	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	0.33 J	1.0 U	1.0 U	1.0 U	0.43 J	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	0.52 J	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	0.93 J	1.0 U	1.0 U	1.0 U	0.93 J	4.7	1.0 U	1.0 U	0.20 J	1.0 U	1.0 U	2.5 U	4.4	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.1	1.0 U	1.0 U	1.0 U	0.75 J	4.7	1.0 U	1.0 U	0.36 J	1.0 U	1.0 U	2.5 U	1.7	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	4.7	1.0 U	1.0 U	1.0 U	1.6	32	1.0 U	1.0 U	2.5	1.0 U	1.0 U	2.5 U	7.4	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.42 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.37 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	0.26 J	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**19**	1.0 U	1.0 U	**86**	2.2	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	4.4	1.0 U	0.59 J	1.0 U	1.0 U	1.0 U	0.97 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	200	1.5	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	17	1.0 U	1.0 U	1.0 U	6.4	39	1.0 U	1.0 U	9.2	1.0 U	0.27 J	2.5 U	18	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	0.32 J	0.61 J	1.0 U	1.0	1.4	1.0 U	1.0 U	2.5 U	0.45 J	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.7 J	1.0 U	1.0 U
m&p-Xylenes	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.20 J	2.0 U	2.0 U	18	2.0 U	2.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.64 J	4.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	0.48 J	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0	8.3	1.0 U	1.0 U	0.33 J	1.0 U	1.0 U	2.5 U	0.64 J	1.0 U
o-Xylene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U	0.24 J	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0	1.0 U	1.0 U	1.0 U	2.2	12	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U	2.5 U	1.5	1.0 U
Styrene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	0.23 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	1.0 U	1.0 U	0.20 J	1.0 U	1.0 U	1.9 J	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	0.36 J	1.0 U	1.0 U	2.5 U	0.42 J	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	0.49 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J	1.0 U	1.0 U	0.96 J	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Vinyl acetate	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	0.89 J	1.0 U	1.6	1.3	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	1.3 J	3.0 U	3.0 U	0.44 J	3.0 U	3.0 U	18	3.0 U	3.0 U
Semi-volatile Organic Compounds																	
2,4,6-Trichlorophenol	µg/L	6.1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dichlorophenol	µg/L	110	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	1.6 J	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dimethylphenol	µg/L	730	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ	9.1 U	9.1 U	9.1 UJ	9.1 UJ	10 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dinitrophenol	µg/L	73	45 U	47 U	45 U	47 U	47 U	45 U	45 U	45 U	45 U	45 U	52 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Chlorophenol	µg/L	30	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Nitrophenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-1-09	ABP-7-09	AFW-1L-11	AFW-2U-04	AFW-2U-05	AGW-1M-07	AGW-1M-09	AGW-1U-05	AGW-1U-06	B2L-11	C3-07	C3-09	D1L-11	D1M-09	D1U-04
Sample ID:			ABP-1-09-0520	ABP-7-09-0520	AFW-1L-11-0520	AFW-2U-04-0520	AFW-2U-05-0520	AGW-1M-07-0520	AGW-1M-09-0520	AGW-1U-05-0520	AGW-1U-06-0520	B2L-11-0520	C3-07-0520	C3-09-0520	D1L-11-0520	D1M-09-0520	D1U-04-0520
Sample Date:			6/15/2020	5/27/2020	6/10/2020	5/27/2020	5/27/2020	6/9/2020	6/9/2020	6/10/2020	6/10/2020	6/10/2020	5/27/2020	5/27/2020	5/28/2020	5/28/2020	5/28/2020
Parameters	**Units**	**Screening Level**															
Semi-volatile Organic Compounds (Continued)																	
4,6-Dinitro-2-methylphenol	µg/L	3.7	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	50 U	45 U	45 U	45 U	45 U
4-Chloro-3-methylphenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
4-Nitrophenol	µg/L	50	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	50 U	45 U	45 U	45 U	45 U
Acenaphthene	µg/L	370	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Acenaphthylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Anthracene	µg/L	1800	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ	9.1 U	9.1 U	9.1 UJ	9.1 UJ	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(a)anthracene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(a)pyrene	µg/L	0.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(b)fluoranthene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(g,h,i)perylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	1.3 J
bis(2-Chloroethoxy)methane	µg/L	5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	10 U	9.1 U	9.1 U	9.1 U	9.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	5.5 J	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	2.2 J	9.1 U	2.3 J
Butyl benzylphthalate (BBP)	µg/L		9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Chrysene	µg/L	9.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	**1.4 J**
Diethyl phthalate	µg/L	29000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	2.3 J	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Dimethyl phthalate	µg/L	370000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluoranthene	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluorene	µg/L	240	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobenzene	µg/L	1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobutadiene	µg/L	0.86	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorocyclopentadiene	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachloroethane	µg/L	4.8	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Isophorone	µg/L	70	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Naphthalene	µg/L	6.5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Octachlorocyclopentene	µg/L		4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	5.0 U	4.5 U	4.5 U	4.5 U	4.5 U
Pentachlorophenol	µg/L	1	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	50 U	45 U	45 U	45 U	45 U
Phenanthrene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Phenol	µg/L	11000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 J	9.1 U	9.1 U
Pyrene	µg/L	180	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	10 U	9.1 U	9.1 U	9.1 U	9.1 U
Organic Acids																	
2-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	160	30 U	30 U	7 J	4.7 J	30 U
3-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	11 J	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150000	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	**54 J**	250 U	250 U	250 U	37 J	**120 J**	250 U	**140 J**	**170 J**	250 U	250 U	250 U	**140 J**	250 U
General Chemistry																	
Sulfate	µg/L		1720000	228000	139000	89500	199000	1350000	1560000	223000	469000	1660000	175000	169000	1100000	821000	98100

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1U-05	D2M-09	D2U-04	D2U-04	D2U-05	E6-04	E6-05	E6-06	E6-09	E6-11	F2L-11	F2M-09	F2U-02	F2U-04	F6-04
Sample ID:			D1U-05-0520	D2M-09-0520	D2U-04-0520	X7-10-0520	D2U-05-0520	E6-04-0520	E6-05-0520	E6-06-0520	E6-09-0520	E6-11-0520	F2L-11-0520	F2M-09-0520	F2U-02-0520	F2U-04-0520	F6-04-0520
Sample Date:			5/28/2020	5/28/2020	5/28/2020	5/28/2020 (Duplicate)	5/28/2020	5/29/2020	5/29/2020	5/28/2020	5/28/2020	5/28/2020	6/11/2020	6/11/2020	6/11/2020	6/11/2020	5/29/2020
Parameters	**Units**	**Screening Level**															
Volatile Organic Compounds																	
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	0.34 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**120**	**58**	**31**	0.92 J	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	0.27 J	1.0 U	1.0 U	1.8	1.0 U	11	4.6	1.0 U	430	140	8.5	4.8	1.2	0.88 J	3.5
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.2	7.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	0.84 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0	2.5 U	1.0 U	1.0 U	0.75 J	0.47 J	0.34 J	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.6	1.8	1.3	0.42 J	1.0 U	1.0 U	1.0 U
m&p-Xylenes	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	58	21	12	1.2 J	2.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.8	4.0	2.3	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	56	1.9 J+	6.3	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.56 J	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.46 J	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	0.72 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	65	25	15	1.2 J	3.0 U	3.0 U	3.0 U
Semi-volatile Organic Compounds																	
2,4,6-Trichlorophenol	µg/L	6.1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dichlorophenol	µg/L	110	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dimethylphenol	µg/L	730	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	1.7 J	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	45 U	45 U	45 U	45 U	47 U
2-Chloronaphthalene	µg/L	490	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Chlorophenol	µg/L	30	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Nitrophenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1U-05	D2M-09	D2U-04	D2U-04	D2U-05	E6-04	E6-05	E6-06	E6-09	E6-11	F2L-11	F2M-09	F2U-02	F2U-04	F6-04
Sample ID:			D1U-05-0520	D2M-09-0520	D2U-04-0520	X7-10-0520	D2U-05-0520	E6-04-0520	E6-05-0520	E6-06-0520	E6-09-0520	E6-11-0520	F2L-11-0520	F2M-09-0520	F2U-02-0520	F2U-04-0520	F6-04-0520
Sample Date:			5/28/2020	5/28/2020	5/28/2020	5/28/2020 (Duplicate)	5/28/2020	5/29/2020	5/29/2020	5/28/2020	5/28/2020	5/28/2020	6/11/2020	6/11/2020	6/11/2020	6/11/2020	5/29/2020
Parameters	**Units**	**Screening Level**															
Semi-volatile Organic Compounds (Continued)																	
4,6-Dinitro-2-methylphenol	µg/L	3.7	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
4-Chloro-3-methylphenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
4-Nitrophenol	µg/L	50	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Acenaphthene	µg/L	370	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Acenaphthylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Anthracene	µg/L	1800	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(a)anthracene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(a)pyrene	µg/L	0.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(b)fluoranthene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(g,h,i)perylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
bis(2-Chloroethoxy)methane	µg/L	5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	**76**	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Butyl benzylphthalate (BBP)	µg/L		9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Chrysene	µg/L	9.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Diethyl phthalate	µg/L	29000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Dimethyl phthalate	µg/L	370000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluoranthene	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluorene	µg/L	240	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobenzene	µg/L	1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobutadiene	µg/L	0.86	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorocyclopentadiene	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachloroethane	µg/L	4.8	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Isophorone	µg/L	70	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Naphthalene	µg/L	6.5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Octachlorocyclopentene	µg/L		4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Pentachlorophenol	µg/L	1	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Phenanthrene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Phenol	µg/L	11000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	7.9 J	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Pyrene	µg/L	180	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Organic Acids																	
2-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150000	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	**66 J**	**140 J**	33 J	250 U	**120 J**	250 U	250 U	250 U	250 U	250 U	250 U	250 U	**200 J**	**350**	250 U
General Chemistry																	
Sulfate	µg/L		176000	791000	115000	114000	307000	1100000	1510000	1490000	1070000	1630000	745000	1550000	108000	144000	486000

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F6-04	F6-06	F6-11	G1L-11	G1M-06	G1U-01	G6-01	G6-02	G6-04	G6-05	G6-06	G6-07	G6-11	H2M-06	H2M-09
Sample ID:			Z7-10-0520	F6-06-0520	F6-11-0520	G1L-11-0520	G1M-06-0520	G1U-01-0520	G6-01-0520	G6-02-0520	G6-04-0520	G6-05-0520	G6-06-0520	G6-07-0520	G6-11-0520	H2M-06-0520	H2M-09-0520
Sample Date:			5/29/2020 (Duplicate)	5/29/2020	5/29/2020	6/10/2020	6/10/2020	6/10/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	6/11/2020	6/11/2020
Parameters	**Units**	**Screening Level**															
Volatile Organic Compounds																	
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J	3.1 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**2.3**	**2.4 J+**	**9.9**	**140**	1.0 U	1.0 U	1.0 U	**0.22 J**	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.33 J	1.4	**18**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.3	7.8	0.30 J	0.26 J	1.0 U	0.49 J	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	0.62 J	0.70 J	4.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.2 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.60 J
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.81 J
2-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.31 J	0.31 J	0.28 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	0.34 J	0.21 J
Benzene	µg/L	5	1.0 U	1.0 U	**27**	**41**	1.0 U	1.0 U	1.0 U	0.22 J	**56**	**380**	0.44 J	1.0 U	**120**	1.7	**11**
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 J	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	3.1	4.0	8.3	1.3	1.0 U	1.0 U	1.0 U	1.0 U	33	210	0.36 J	0.34 J	63	57 J-	1.9
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	0.54 J	0.75 J	2.4	28	1.0 U	1.0 U	1.0 U	2.0	4.5
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	40	**770**	1.0 U	1.0 U	1.0 U	13	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	37	44	55	**210**	1.4	0.24 J	3.7	9.5	1.1
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	0.32 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.3 J	1.0 U	1.0 U	7.3	0.71 J	1.0 U
m&p-Xylenes	µg/L		2.0 U	0.88 J	2.0 U	0.86 J	2.0 U	2.0 U	2.0 U	2.0 U	0.38 J	6.4 J	2.0 U	2.0 U	44	0.81 J	2.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	1.3	0.97 J	5.0 U	1.0 U	1.0 U	1.0 U	0.26 J	2.2
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0	2.0	1.7	5.0 U	1.0 U	1.0 U	0.27 J	0.62 J	5.4
o-Xylene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.27 J	4.2 J	1.0 U	1.0 U	7.0	0.59 J	0.40 J
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	0.49 J	7.4	7.1	6.5	5.0 U	0.60 J	0.30 J	0.68 J	0.81 J	8.1
Styrene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	**12**	**11**	**6.5**	5.0	0.63 J	0.28 J	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	11	1.0 U	1.0 U	2.3	1.3	1.0 U
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.9	1.0 U	1.0 U	1.0 U	1.0 U	2.4	3.0	14	42	1.0 U	1.0 U	1.0 U	8.6	0.48 J
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	0.60 J	1.0 U	1.0 U	0.35 J	1.0 U	**35**	**41**	**42**	**430**	1.8	0.62 J	2.2	**7.3**	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.41 J	0.57 J	**44**	**160**	1.0 U	1.0 U	1.0 U	**3.3**	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	0.88 J	3.0 U	0.86 J	3.0 U	3.0 U	3.0 U	3.0 U	0.65 J	11 J	3.0 U	3.0 U	51	1.4 J	0.40 J
Semi-volatile Organic Compounds																	
2,4,6-Trichlorophenol	µg/L	6.1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dichlorophenol	µg/L	110	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dimethylphenol	µg/L	730	9.1 U	9.1 U	9.1 U	9.1 UJ	9.1 UJ	9.1 UJ	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	1.4 J	9.1 U	9.1 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	45 U	45 U	45 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	45 U	45 U
2-Chloronaphthalene	µg/L	490	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Chlorophenol	µg/L	30	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	1.0 J	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Nitrophenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F6-04	F6-06	F6-11	G1L-11	G1M-06	G1U-01	G6-01	G6-02	G6-04	G6-05	G6-06	G6-07	G6-11	H2M-06	H2M-09
Sample ID:			Z7-10-0520	F6-06-0520	F6-11-0520	G1L-11-0520	G1M-06-0520	G1U-01-0520	G6-01-0520	G6-02-0520	G6-04-0520	G6-05-0520	G6-06-0520	G6-07-0520	G6-11-0520	H2M-06-0520	H2M-09-0520
Sample Date:			5/29/2020 (Duplicate)	5/29/2020	5/29/2020	6/10/2020	6/10/2020	6/10/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	5/27/2020	6/11/2020	6/11/2020
Parameters	**Units**	**Screening Level**															
Semi-volatile Organic Compounds (Continued)																	
4,6-Dinitro-2-methylphenol	µg/L	3.7	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
4-Chloro-3-methylphenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
4-Nitrophenol	µg/L	50	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Acenaphthene	µg/L	370	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Acenaphthylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Anthracene	µg/L	1800	9.1 U	9.1 U	9.1 U	9.1 UJ	9.1 UJ	9.1 UJ	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(a)anthracene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(a)pyrene	µg/L	0.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(b)fluoranthene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(g,h,i)perylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
bis(2-Chloroethoxy)methane	µg/L	5	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Butyl benzylphthalate (BBP)	µg/L		9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Chrysene	µg/L	9.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Diethyl phthalate	µg/L	29000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluoranthene	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluorene	µg/L	240	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobenzene	µg/L	1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobutadiene	µg/L	0.86	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorocyclopentadiene	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	R	9.1 U
Hexachloroethane	µg/L	4.8	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Isophorone	µg/L	70	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Naphthalene	µg/L	6.5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	2.2 J	9.1 U
Octachlorocyclopentene	µg/L		4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 UJ-	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Pentachlorophenol	µg/L	1	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Phenanthrene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Phenol	µg/L	11000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Pyrene	µg/L	180	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Organic Acids																	
2-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	2600	**9600**	30 U	30 U	30 U	200	30 U
3-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	600	2700	30 U	30 U	30 U	21 J	30 U
4-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	3600	**26000**	30 U	30 U	30 U	13 J	30 U
Benzoic acid	µg/L	150000	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	600 U	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	250 U	250 U	250 U	250 U	250 U	250 U	250 U	**130 J**	**480 J**	250 U	250 U	250 U	250 U	250 U
General Chemistry																	
Sulfate	µg/L		472000	1490000	1880000	1580000	1000000	78600	65200	64100	159000	1030000	274000	287000	1430000	1410000	1590000

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			H2U-01	H2U-02	H5-02	H5-05	H5-05	H5-05	H5-07	H5-09	I1-01	I1-02	I1-04	I1-07	J6-02	J6-04	J6-05	J6-07	J6-11
Sample ID:			H2U-01-0520	H2U-02-0520	H5-02-0520	H5-05-0520	Y7-10-0520	H5-05-0520	H5-07-0520	H5-09-0520	I1-01-0520	I1-02-0520	I1-04-0520	I1-07-0520	J6-02-0520	J6-04-0520	J6-05-0520	J6-07-0520	J6-11-0520
Sample Date:			6/11/2020	6/11/2020	6/12/2020	6/12/2020	6/12/2020 (Duplicate)	6/15/2020	6/15/2020	6/15/2020	6/12/2020	6/12/2020	6/12/2020	6/12/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020
Parameters	**Units**	**Screening Level**																	
Volatile Organic Compounds																			
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.58 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.38 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	42	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.8	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	3.7	1.0 U	1.0 U	1.0 U	1.0 U	0.88 J	**22**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**100**
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	1.2	1.4	1.3	1.2	1.0	1.6	5.5	13	1.0 U	1.0 U	1.0 U	0.82 J	1.0 U	1.0 U	1.0 U	1.0 U	8.3
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	43	1.0 U	1.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U	4.4	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.3
cis-1,2-Dichloroethene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.86 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.48 J	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.90 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.2
m&p-Xylenes	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.28 J	3.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	3.2
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**6.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U
o-Xylene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.31 J	3.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.96 J	1.0 U
Styrene	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	0.61 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**2.3**	1.0 U	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.59 J	6.5	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	11
Semi-volatile Organic Compounds																			
2,4,6-Trichlorophenol	µg/L	6.1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dichlorophenol	µg/L	110	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	3.3 J	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2,4-Dimethylphenol	µg/L	730	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ	9.1 UJ	9.1 UJ	9.1 UJ	9.1 U
2,4-Dinitrophenol	µg/L	73	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
2-Chloronaphthalene	µg/L	490	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Chlorophenol	µg/L	30	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
2-Nitrophenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U

Table 3.8

Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Second Quarter 2020
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			H2U-01	H2U-02	H5-02	H5-05	H5-05	H5-05	H5-07	H5-09	I1-01	I1-02	I1-04	I1-07	J6-02	J6-04	J6-05	J6-07	J6-11
Sample ID:			H2U-01-0520	H2U-02-0520	H5-02-0520	H5-05-0520	Y7-10-0520	H5-05-0520	H5-07-0520	H5-09-0520	I1-01-0520	I1-02-0520	I1-04-0520	I1-07-0520	J6-02-0520	J6-04-0520	J6-05-0520	J6-07-0520	J6-11-0520
Sample Date:			6/11/2020	6/11/2020	6/12/2020	6/12/2020	6/12/2020 (Duplicate)	6/15/2020	6/15/2020	6/15/2020	6/12/2020	6/12/2020	6/12/2020	6/12/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020	6/9/2020
Parameters	**Units**	**Screening Level**																	
Semi-volatile Organic Compounds (Continued)																			
4,6-Dinitro-2-methylphenol	µg/L	3.7	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
4-Chloro-3-methylphenol	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
4-Nitrophenol	µg/L	50	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Acenaphthene	µg/L	370	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Acenaphthylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Anthracene	µg/L	1800	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ	9.1 UJ	9.1 UJ	9.1 UJ	9.1 U
Benzo(a)anthracene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U
Benzo(a)pyrene	µg/L	0.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Benzo(b)fluoranthene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U
Benzo(g,h,i)perylene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
bis(2-Chloroethoxy)methane	µg/L	5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	1.2 J	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	2.3 J	0.91 J	9.1 U	9.1 U	9.1 U
Butyl benzylphthalate (BBP)	µg/L		9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Chrysene	µg/L	9.2	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Diethyl phthalate	µg/L	29000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Dimethyl phthalate	µg/L	370000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Fluoranthene	µg/L	1500	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U
Fluorene	µg/L	240	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobenzene	µg/L	1	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorobutadiene	µg/L	0.86	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachlorocyclopentadiene	µg/L	50	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Hexachloroethane	µg/L	4.8	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U
Isophorone	µg/L	70	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 UJ-	9.1 U
Naphthalene	µg/L	6.5	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Octachlorocyclopentene	µg/L		4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
Pentachlorophenol	µg/L	1	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U	45 U
Phenanthrene	µg/L	310	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Phenol	µg/L	11000	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Pyrene	µg/L	180	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U	9.1 U
Organic Acids																			
2-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150000	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	**110 J**	250 U	250 U	250 U	250 U	250 U	**190 J**	250 U	250 U	250 U	**57 J**	250 U	250 U	250 U	250 U	250 U
General Chemistry																			
Sulfate	µg/L		175000	247000	206000	1480000	1430000	1040000	1800000	1530000	305000	302000	626000	1420000	155000	152000	141000	1490000	1530000

Notes:

U - Not detected at the associated reporting limit
J - Estimated concentration
J+ - Estimated concentration; result may be biased high
UJ - Not detected; associated reporting limit is estimated
19 - Value exceeds associated screening level

Table 3.9

2020 Analytical Results Summary
Annual Bedrock Open Catch Basin
Hyde Park Landfill Site
Town of Niagara, New York

	Sample Location:	**BR-OpenCatchBasin**
	Sample ID:	**HPOPENCB-1020**
	Sample Date:	**10/06/2020**
Parameters	**Units**	
Organic Acids		
2-Chlorobenzoic acid	µg/L	30 U
3-Chlorobenzoic acid	µg/L	30 U
4-Chlorobenzoic acid	µg/L	30 U
Benzoic acid	µg/L	100 U
Chlorendic acid	µg/L	66 J

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit

Table 3.10

2020 Analytical Results Summary
Annual AFW Composite
Hyde Park Landfill Site
Town of Niagara, New York

		Sample Location:	**AFWCOMPOSITE**
		Sample ID:	**AFW-C-1120**
		Sample Date:	**11/19/2020**
Parameters	**Units**	**Reporting Level**	
Polychlorinated Biphenyls (PCBs)			
Pentachlorobiphenyl	µg/L	1	0.0098 U
Tetrachlorobiphenyl	µg/L	1	0.0098 U
Trichlorobiphenyl	µg/L	1	0.0034 J
Pesticides			
alpha-BHC	µg/L	1	0.023 J
beta-BHC	µg/L	1	0.045 U
delta-BHC	µg/L	1	0.033 J
gamma-Chlordane	µg/L	1	0.020 J
Mirex	µg/L	1	0.045 U
Dioxin Furans			
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L	500	4.05 U

Notes:

BHC - Benzene Hexachloride
pg/L - Picograms per liter
µg/L - Micrograms per liter
J - Estimated concentration
U - Not detected at the associated reporting limit

Table 3.11

2020 Quarterly Hydraulic Gradient Summary
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York

Gradient Pairing		3/3/2020			6/3/2020			9/1/2020			12/10/2020		
Overburden	Bedrock	Overburden Elevation (ft. AMSL)	Bedrock Elevation (ft. AMSL)	Gradient (ft./ft.)	Overburden Elevation (ft. AMSL)	Bedrock Elevation (ft. AMSL)	Gradient (ft./ft.)	Overburden Elevation (ft. AMSL)	Bedrock Elevation (ft. AMSL)	Gradient (ft./ft.)	Overburden Elevation (ft. AMSL)	Bedrock Elevation (ft. AMSL)	Gradient (ft./ft.)
CMW-1OB	CMW-1SH	571.79	565.55	0.567	571.59	564.68	0.628	570.95	562.89	0.733	571.22	563.11	0.737
CMW-2OB	CMW-2SH	590.97	574.34	1.163	587.76	573.00	1.032	580.77	569.92	0.759	576.57	571.23	0.373
CMW-3OB	CMW-3SH	576.63	555.92	1.479	575.54	554.73	1.486	571.94	551.75	1.442	569.93	553.27	1.190
CMW-4OB	CMW-4SH	574.28	557.64	1.410	574.28	567.46	0.578	572.25	565.89	0.539	572.32	566.23	0.516
CMW-5OB	CMW-5SH	580.73	583.36	-0.166	580.63	576.66	0.251	578.83	573.82	0.317	578.13	574.96	0.201
CMW-6OB	CMW-6SH	571.89	562.78	0.949	571.79	562.35	0.983	571.68	561.35	1.076	571.62	561.55	1.049
CMW-7OB	CMW-7SH	606.74	600.35	0.447	606.13	598.72	0.518	-(2)	596.08	0.705	-(2)	596.04	0.708
CMW-8OB	CMW-8SH	-(1)	612.50	0.030	-(1)	609.86	0.283	-(1)	605.23	0.727	-(1)	606.22	0.636
CMW-9OB	CMW-9SH	569.44	560.94	1.635	569.16	560.35	1.694	569.21	559.73	1.823	-(4)	559.86	1.794
CMW-11OB	CMW-11SH	571.35	565.73	0.585	570.11	565.39	0.492	-(3)	560.42	0.874	570.35	565.17	0.540
CMW-12OB	CMW-12SH	591.03	575.38	0.832	587.41	572.16	0.811	575.94	569.19	0.359	575.47	571.66	0.203

Notes:

ft. AMSL - Feet Above Mean Sea Level
ft./ft. - Feet per foot
NA - Not applicable
- Negative number indicates an upward vertical gradient. Positive number indicates a downward vertical gradient.
* - Well full of water to top of casing (surcharged). Overburden groundwater elevation indicated is the well reference elevation.
-(1) - Well CMW-8OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.
-(2) - Well CMW-7OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.
-(3) - Well CMW-11OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.
-(4) - Well CMW-9OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.

Table 3.12

2020 Community Monitoring Well Soil Vapor Monitoring
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York

September 9, 2020
61°F, Winds NNE 7-9 MPH

Well I.D.	Time Intervals	Sampling Time (hhmm)	VOC Readings (ppmv)
SVP-1	Background	0812	0
	At 1 minute	0813	0
	At 2 minutes	0814	0
	At 3 minutes	0815	0
	At 4 minutes	0816	0
	At 5 minutes	0817	0
	At 6 minutes	0818	0
	At 7 minutes	0819	0
	At 8 minutes	0820	0
	At 9 minutes	0821	0
	At 10 minutes	0822	0
SVP-2	Background	0825	0
	At 1 minute	0826	0
	At 2 minutes	0827	0
	At 3 minutes	0828	0
	At 4 minutes	0829	0
	At 5 minutes	0830	0
	At 6 minutes	0831	0
	At 7 minutes	0832	0
	At 8 minutes	0833	0
	At 9 minutes	0834	0
	At 10 minutes	0835	0
SVP-3	Background	0838	0
	At 1 minute	0839	0
	At 2 minutes	0840	0
	At 3 minutes	0841	0
	At 4 minutes	0842	0
	At 5 minutes	0843	0
	At 6 minutes	0844	0
	At 7 minutes	0845	0
	At 8 minutes	0846	0
	At 9 minutes	0847	0
	At 10 minutes	0848	0
SVP-4	Background	0851	0
	At 1 minute	0852	0
	At 2 minutes	0853	0
	At 3 minutes	0854	0
	At 4 minutes	0855	0
	At 5 minutes	0856	0
	At 6 minutes	0857	0
	At 7 minutes	0858	0
	At 8 minutes	0859	0
	At 9 minutes	0900	0
	At 10 minutes	0901	0

Table 3.12

2020 Community Monitoring Well Soil Vapor Monitoring
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York

September 9, 2020
61°F, Winds NNE 7-9 MPH

Well I.D.	Time Intervals	Sampling Time (hhmm)	VOC Readings (ppmv)
CMW-7OB	Background	0910	0
	At 1 minute	0911	0
	At 2 minutes	0912	0
	At 3 minutes	0913	0
	At 4 minutes	0914	0
	At 5 minutes	0915	0
	At 6 minutes	0916	0
	At 7 minutes	0917	0
	At 8 minutes	0918	0
	At 9 minutes	0919	0
	At 10 minutes	0920	0
CMW-8OB	Background	0935	31
	At 1 minute	0936	98
	At 2 minutes	0937	269
	At 3 minutes	0938	303
	At 4 minutes	0939	326
	At 5 minutes	0940	393
	At 6 minutes	0941	426
	At 7 minutes	0942	428
	At 8 minutes	0943	434
	At 9 minutes	0944	442
	At 10 minutes	0945	451

Notes:

ppmv - Parts per million by volume
VOC - Volatile Organic Compound
MPH - Miles per hour
°F - Degrees Fahrenheit

Table 4.1

2020 NAPL Decanter Volume Monitoring
Hyde Park Landfill Site
Town of Niagara, New York

	Decanter #1	Decanter #2	Decanter #3
First Quarter 2020			
March 3, 2020			
Thickness (feet)	16.90	4.75	4.53
Level (%)	30	34	32
Volume[1] (gallons)	3,360.00	3,808.00	3,584.00
Second Quarter 2020			
June 3, 2020			
Thickness (feet)	18.50	5.25	4.60
Level (%)	34	27	34
Volume[1] (gallons)	3,808.00	3,024.00	3,808.00
Third Quarter 2020			
September 1, 2020			
Thickness (feet)	19.80	6.00	5.48
Level (%)	38	26	34
Volume[1] (gallons)	4,256.00	2,912.00	3,808.00
Fourth Quarter 2020			
December 10, 2020			
Thickness (feet)	21.55	5.85	4.80
Level (%)	42	25	29
Volume[1] (gallons)	4,704.00	2,800.00	3,248.00

Notes:

(1) - Based on level percentage of NAPL in 11,200-gallon decanters
NAPL - Non-Aqueous Phase Liquid

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 1220 INT-D	HP 1820 INT-D	HP 11520 INT-D	HP 12220 INT-D	HP 12920 INT-D	HP 2520 INT-D	HP 21220 INT-D
Sample Date:		01/02/2020	01/08/2020	01/15/2020	01/22/2020	01/29/2020	02/05/2020	02/12/2020
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	0.77 J	1.2	0.74 J	1.1	1.5	2.0	1.7
1,1,2,2-Tetrachloroethane	µg/L	17	24	9.3	17	35	41	39
1,1,2-Trichloroethane	µg/L	1.3	1.7	1.1	1.5	2.7	2.9	2.9
1,1-Dichloroethane	µg/L	1.9	1.6	2.6	2.3	2.1	1.9	2.3 J
1,1-Dichloroethene	µg/L	0.83 J	0.68 J	0.42 J	0.59 J	1.3	1.1	0.68 J
1,2,4-Trichlorobenzene	µg/L	1.0 U	0.41 J	0.26 J	0.54 J	4.9	11	6.5
1,2-Dichlorobenzene	µg/L	1.5	2.3	1.1	2.4	8.3	11	7.7
1,2-Dichloroethane	µg/L	8.7	11	11	11	11	15	14
1,2-Dichloropropane	µg/L	0.74 J	0.89 J	0.92 J	1.1	0.88 J	0.85 J	1.1
1,3-Dichlorobenzene	µg/L	0.25 J	0.58 J	0.22 J	0.49 J	1.7	2.4	1.8
1,4-Dichlorobenzene	µg/L	0.67 J	1.6	0.49 J	1.2	5.0	7.3	5.3
2-Chlorotoluene	µg/L	31	48	20	44	130	170	130
3-Chlorotoluene	µg/L	1.0 U	0.27 J	1.0 U	0.25 J	0.99 J	1.2	1.0
4-Chlorotoluene	µg/L	8.5	15	5.4	14	48	68	54
Benzene	µg/L	110	100	110	120	140	140	150
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	20	4.3	25	29	12	13	33
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	62	79	38	71	130	160	140
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	5.1	20	4.7	5.9	27	46	47
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U
cis-1,2-Dichloroethene	µg/L	63	72	41	73	150	150	120
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	22	31	12	25	55	65	54
m&p-Xylenes	µg/L	42	55	22	50	130	160	130
Methylene chloride	µg/L	0.46 J	6.0	1.0 U	1.0 U	1.9	3.8	3.4

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 1220 INT-D	HP 1820 INT-D	HP 11520 INT-D	HP 12220 INT-D	HP 12920 INT-D	HP 2520 INT-D	HP 21220 INT-D
Sample Date:		01/02/2020	01/08/2020	01/15/2020	01/22/2020	01/29/2020	02/05/2020	02/12/2020
Parameters	**Units**							
Volatile Organic Compounds (Continued)								
m-Monochlorobenzotrifluoride	µg/L	6.8	10	3.6	8.8	24	29	21
o-Monochlorobenzotrifluoride	µg/L	22	33	12	28	73	84	66
o-Xylene	µg/L	39	52	22	46	110	120	100
p-Monochlorobenzotrifluoride	µg/L	20	31	9.8	25	76	93	65
Styrene	µg/L	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	4.8	10	2.5	2.0	5.8	8.7	2.1
Toluene	µg/L	27	29	19	36	110	150	140
trans-1,2-Dichloroethene	µg/L	15	16	16	18	21	19	19
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	49	66	32	36	72	77	50
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.34 J	0.30 J
Vinyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	94	76	79	110	140	120	140
Xylenes (total)	µg/L	81	110	45	96	240	290	240

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 21920 INT-D	HP22820 INT-D	HP 3420 INT-D	HP 31020 INT-D	HP 31720 INT-D	HP 32520 INT-D	HP 4120 INT-D
Sample Date:		02/19/2020	02/28/2020	03/04/2020	03/10/2020	03/17/2020	03/25/2020	04/01/2020
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	1.2	1.1	2.0	1.9	1.7	1.8	1.9
1,1,2,2-Tetrachloroethane	µg/L	20	18	44	45	32	46	48
1,1,2-Trichloroethane	µg/L	2.1	1.9	3.7	3.1	2.4	3.5	3.6
1,1-Dichloroethane	µg/L	3.1 J	3.3	2.1	1.9	2.1	2.2	2.0
1,1-Dichloroethene	µg/L	0.37 J	1.0 U	0.70 J	0.96 J	0.80 J	0.61 J	0.79 J
1,2,4-Trichlorobenzene	µg/L	2.8	1.9	5.8	12	12	14	16
1,2-Dichlorobenzene	µg/L	3.3	2.5	8.3	12	9.9	12	14
1,2-Dichloroethane	µg/L	14	15	17	13	13	13	14
1,2-Dichloropropane	µg/L	1.1	1.3	1.0	0.88 J	0.94 J	1.1	0.97 J
1,3-Dichlorobenzene	µg/L	0.67 J	0.52 J	1.8	2.7	2.2	2.9	3.1
1,4-Dichlorobenzene	µg/L	2.1	1.5	5.9	9.0	7.1	9.4	10
2-Chlorotoluene	µg/L	59	45	140	190	160	190	200
3-Chlorotoluene	µg/L	0.44 J	0.34 J	1.0	1.8	1.2	1.6	1.6
4-Chlorotoluene	µg/L	21	16	56	82	65	87	91
Benzene	µg/L	150	150	170	160	160	160	180
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	47	53	22	9.6	15	34	10
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	79	67	160	180	160	190	200
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	17	15	64	53	27	60	62
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	0.96 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	54	31	110	150	130	130	130
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	28	22	66	77	66	76	82
m&p-Xylenes	µg/L	61	48	160	190	160	200	210
Methylene chloride	µg/L	0.40 J	0.37 J	6.3	4.4	0.72 J	2.9	2.6

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 21920 INT-D	HP22820 INT-D	HP 3420 INT-D	HP 31020 INT-D	HP 31720 INT-D	HP 32520 INT-D	HP 4120 INT-D
Sample Date:		02/19/2020	02/28/2020	03/04/2020	03/10/2020	03/17/2020	03/25/2020	04/01/2020
Parameters	**Units**							
Volatile Organic Compounds (Continued)								
m-Monochlorobenzotrifluoride	µg/L	9.8	7.6	26	31	26	32	33
o-Monochlorobenzotrifluoride	µg/L	30	23	75	88	77	91	97
o-Xylene	µg/L	52	41	120	140	120	140	150
p-Monochlorobenzotrifluoride	µg/L	29	23	83	100	86	110	110
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.2	0.98 J	4.5	15	2.4	2.0	2.2
Toluene	µg/L	60	57	170	180	130	170	190
trans-1,2-Dichloroethene	µg/L	20	21	19	20	22	19	21
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	26	19	49	53	31	50	54
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	0.32 J	0.39 J	1.0 U	0.38 J	0.36 J
Vinyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	110	77	120	120	130	150	130
Xylenes (total)	µg/L	110	89	270	330	280	340	360

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 4820 INT-D	HP 41520 INT-D	HP 42220 INT-D	HP 42920 INT-D	HP 5620 INT-D	HP 51320 INT-D	HP 52020 INT-D
Sample Date:		04/08/2020	04/15/2020	04/22/2020	04/29/2020	05/06/2020	05/13/2020	05/20/2020
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	1.9 J	1.6 J	1.6 J	1.9 J	2.1	2.0 J	1.8 J
1,1,2,2-Tetrachloroethane	µg/L	44	42	49	50	42	56	48
1,1,2-Trichloroethane	µg/L	3.6	3.0	3.9	4.0	2.0 U	3.5	5.2
1,1-Dichloroethane	µg/L	2.1	2.0	2.4	2.7	2.9	2.6	2.5
1,1-Dichloroethene	µg/L	0.61 J	2.0 U	0.54 J	2.0 U	0.92 J	0.67 J	0.52 J
1,2,4-Trichlorobenzene	µg/L	13	10	9.1	6.8	11	10	9.2
1,2-Dichlorobenzene	µg/L	12	9.8	9.2	9.3	11	11	9.8
1,2-Dichloroethane	µg/L	15	17	15	15	14	14	14
1,2-Dichloropropane	µg/L	0.99 J	1.0 J	2.0 U	1.2 J	0.93 J	1.0 J	1.1 J
1,3-Dichlorobenzene	µg/L	2.7	2.1	2.0 J	2.0	2.5	2.4	2.2
1,4-Dichlorobenzene	µg/L	8.6	7.1	6.7	7.1	7.6	8.4	7.2
2-Chlorotoluene	µg/L	170	150	160	150	170	170	140
3-Chlorotoluene	µg/L	1.4 J	1.2 J	1.2 J	1.3 J	1.1 J	1.3 J	1.1 J
4-Chlorotoluene	µg/L	74	65	70	66	78	76	62
Benzene	µg/L	170	170	170	190	170	170	190
Bromodichloromethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon disulfide	µg/L	9.9	8.6	19	20	14	43	17
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	180	170	160	160	170	200	170
Chloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	52	37	47	59	19	41	62
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	95	89	78	84	130	110	76
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	µg/L	71	67	60	62	64	70	61
m&p-Xylenes	µg/L	180	160	150	150	170	170	150
Methylene chloride	µg/L	1.2 J	2.0 U	2.0 U	0.88 J	2.0 U	1.7 J	1.3 J

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 4820 INT-D	HP 41520 INT-D	HP 42220 INT-D	HP 42920 INT-D	HP 5620 INT-D	HP 51320 INT-D	HP 52020 INT-D
Sample Date:		04/08/2020	04/15/2020	04/22/2020	04/29/2020	05/06/2020	05/13/2020	05/20/2020
Parameters	**Units**							
Volatile Organic Compounds (Continued)								
m-Monochlorobenzotrifluoride	µg/L	28	24	21	22	23	23	21
o-Monochlorobenzotrifluoride	µg/L	86	73	60	61	68	76	66
o-Xylene	µg/L	130	120	110	120	120	130	110
p-Monochlorobenzotrifluoride	µg/L	92	78	66	69	75	78	68
Styrene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	µg/L	1.7 J	1.2 J	1.1 J	1.5 J	1.2 J	1.3 J	1.3 J
Toluene	µg/L	160	130	130	140	100	130	130
trans-1,2-Dichloroethene	µg/L	20	20	19	20	23	21	20
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	41	27	23	27	24	35	47
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	µg/L	120	110	110	120	130	130	110
Xylenes (total)	µg/L	310	280	260	270	290	300	270

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 52720 INT-D	HP 6320 INT-D	HP 61020 INT-D	HP 61620 INT-D	HP 62420 INT-D	HP 7120 INT-D	HP 7820 INT-D
Sample Date:		05/27/2020	06/03/2020	06/09/2020	06/16/2020	06/24/2020	07/01/2020	07/08/2020
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	0.92 J	1.7 J	1.2 J	1.0 J	1.7 J	1.2 J	1.3 J
1,1,2,2-Tetrachloroethane	µg/L	22	61	24	19	58	21	34
1,1,2-Trichloroethane	µg/L	2.2	5.5	2.7	1.9 J	5.7	3.0	4.9
1,1-Dichloroethane	µg/L	4.3	2.8	3.7	4.3	3.7	4.4	4.0 J
1,1-Dichloroethene	µg/L	2.0 U	0.83 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	2.8	6.6	2.8	2.2	4.1	2.0	2.2
1,2-Dichlorobenzene	µg/L	3.0	9.3	3.8	2.7	7.1	3.1	3.4
1,2-Dichloroethane	µg/L	19	16	20	19	18	20	16
1,2-Dichloropropane	µg/L	1.6 J	1.2 J	1.4 J	1.4 J	1.7 J	1.5 J	2.0 U
1,3-Dichlorobenzene	µg/L	0.62 J	1.9 J	0.80 J	0.56 J	1.4 J	0.56 J	0.62 J
1,4-Dichlorobenzene	µg/L	2.0	6.4	2.1	1.8 J	4.6	1.9 J	2.1
2-Chlorotoluene	µg/L	46	150	53	42	120	50	54
3-Chlorotoluene	µg/L	0.43 J	1.2 J	2.0 U	2.0 U	0.86 J	2.0 U	0.41 J
4-Chlorotoluene	µg/L	17	61	19	16	46	17	18
Benzene	µg/L	200	190	200	210	230	230	230
Bromodichloromethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon disulfide	µg/L	110	33	37	78	63	32	81
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	81	180	94	84	180	92	110
Chloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	5.5	95	15	6.3	88	24	57
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	14	100	14	9.5	55	14	24
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	µg/L	23	66	27	23	58	27	31
m&p-Xylenes	µg/L	50	160	58	45	130	55	60
Methylene chloride	µg/L	2.0 U	2.6	2.0 U	2.0 U	1.6 J	2.0 U	2.0 U

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 52720 INT-D	HP 6320 INT-D	HP 61020 INT-D	HP 61620 INT-D	HP 62420 INT-D	HP 7120 INT-D	HP 7820 INT-D
Sample Date:		05/27/2020	06/03/2020	06/09/2020	06/16/2020	06/24/2020	07/01/2020	07/08/2020
Parameters	**Units**							
Volatile Organic Compounds (Continued)								
m-Monochlorobenzotrifluoride	µg/L	6.3	21	8.3	6.8	17	7.3	8.8
o-Monochlorobenzotrifluoride	µg/L	21	69	29	22	59	24	29
o-Xylene	µg/L	43	120	56	40	110	48	56
p-Monochlorobenzotrifluoride	µg/L	19	69	26	20	54	22	26
Styrene	µg/L	2.0 U	2.0 U	1.6 J	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	µg/L	2.0 U	1.0 J	0.46 J	2.0 U	0.53 J	2.0 U	2.0 U
Toluene	µg/L	56	130	55	53	120	54	54
trans-1,2-Dichloroethene	µg/L	29	23	30	32	27	37	32 J
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	8.4	59	11	8.0	30	12	15
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	µg/L	32	120	39	24	110	41	78
Xylenes (total)	µg/L	93	280	110	85	240	100	120

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 71520 INT-D	HP 72220 INT-D	HP 72920 INT-D	HP 8520 INT-D	HP 81120 INT-D	HP 81920 INT-D	HP 82620 INT-D
Sample Date:		07/15/2020	07/22/2020	07/29/2020	08/05/2020	08/11/2020	08/19/2020	08/26/2020
Parameters	**Units**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	1.6 J	1.5 J	1.1 J	1.3 J	1.6 J	1.4 J	1.4 J
1,1,2,2-Tetrachloroethane	µg/L	45	41	36	34	46	42	37
1,1,2-Trichloroethane	µg/L	5.9	5.2	5.5	5.8	6.2	7.0	6.7
1,1-Dichloroethane	µg/L	4.4	3.3	3.5	3.2	3.7	4.3	4.0
1,1-Dichloroethene	µg/L	2.0 U	0.52 J	2.0 U	0.42 J	2.0 U	0.42 J	2.0 U
1,2,4-Trichlorobenzene	µg/L	2.5	2.3	1.8 J	1.8 J	1.9 J	1.6 J	1.1 J
1,2-Dichlorobenzene	µg/L	4.7	4.4	3.0	4.3	3.7	3.5	2.8
1,2-Dichloroethane	µg/L	19	15	16	15	16	20	22
1,2-Dichloropropane	µg/L	1.8 J	1.5 J	1.5 J	1.6 J	1.8 J	1.8 J	1.6 J
1,3-Dichlorobenzene	µg/L	0.88 J	0.88 J	0.55 J	0.85 J	0.73 J	0.63 J	0.50 J
1,4-Dichlorobenzene	µg/L	2.8	2.7	1.8 J	2.3	2.0	2.0	1.6 J
2-Chlorotoluene	µg/L	83	75	54	65 J	63	61	49
3-Chlorotoluene	µg/L	0.77 J	0.50 J	0.45 J	0.47 J	2.0 U	0.61 J	2.0 U
4-Chlorotoluene	µg/L	29	27	18	23 J	22	20	16
Benzene	µg/L	260	220	230	220	250	270	250
Bromodichloromethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon disulfide	µg/L	57	54	70	23	120	43	55
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	150	130	110	140	140	130	120
Chloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	83	83	70	82	100	110	130
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	37	44	23	32	31	29	18
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	µg/L	48	42	33	44	41	39	34
m&p-Xylenes	µg/L	93	85	63	87	77	73	62
Methylene chloride	µg/L	2.0 U	2.0 J	1.6 J	2.8	3.3	3.3	7.0

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 71520 INT-D	HP 72220 INT-D	HP 72920 INT-D	HP 8520 INT-D	HP 81120 INT-D	HP 81920 INT-D	HP 82620 INT-D
Sample Date:		07/15/2020	07/22/2020	07/29/2020	08/05/2020	08/11/2020	08/19/2020	08/26/2020
Parameters	**Units**							
Volatile Organic Compounds (Continued)								
m-Monochlorobenzotrifluoride	µg/L	13	12	9.0	12	9.3	9.7	8.0
o-Monochlorobenzotrifluoride	µg/L	41	39	29	39	32	32	26
o-Xylene	µg/L	83	77	60	76	70	68	56
p-Monochlorobenzotrifluoride	µg/L	39	36	27	37	28	28	23
Styrene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	µg/L	0.45 J	0.50 J	2.0 U	2.0 U	0.70 J	2.0 U	0.42 J
Toluene	µg/L	85	87	59	80	73	54	62
trans-1,2-Dichloroethene	µg/L	36	29	29	27	33	38	33
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	30	31	20	38	28	27	23
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	µg/L	110	110	85	76	110	120	100
Xylenes (total)	µg/L	180	160	120	160	150	140	120

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 9220 INT-D	HP 9920 INT-D	HP 91720 INT-D	HP 92320 INT-D	HP 93020 INT-D	HP 10720 INT-D
Sample Date:		09/02/2020	09/09/2020	09/17/2020	09/23/2020	09/30/2020	10/07/2020
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	0.87 J	0.96 J	1.7 J	0.68 J	2.0 U	1.7 J
1,1,2,2-Tetrachloroethane	µg/L	22	16	40	16	25	46
1,1,2-Trichloroethane	µg/L	5.5	5.1	8.4	4.9	6.3	8.9
1,1-Dichloroethane	µg/L	6.2	5.7	4.0	5.1	5.0	4.1
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	0.63 J	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	0.75 J	2.0 U	1.2 J	2.0 U	0.77 J	1.2 J
1,2-Dichlorobenzene	µg/L	1.8 J	1.7 J	3.9	1.4 J	1.7 J	2.8
1,2-Dichloroethane	µg/L	31	19	18	17	16	14
1,2-Dichloropropane	µg/L	2.2	2.0 J	1.8 J	1.8 J	2.0 J	1.9 J
1,3-Dichlorobenzene	µg/L	2.0 U	2.0 U	0.72 J	2.0 U	2.0 U	0.52 J
1,4-Dichlorobenzene	µg/L	1.0 J	1.0 J	2.3	0.78 J	0.92 J	1.7 J
2-Chlorotoluene	µg/L	32	27	69	25	29	48
3-Chlorotoluene	µg/L	2.0 U	2.0 U	0.58 J	2.0 U	2.0 U	0.46 J
4-Chlorotoluene	µg/L	10	8.4	24	7.8	9.7	17
Benzene	µg/L	320	270	290	270	260	270
Bromodichloromethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon disulfide	µg/L	92	2.0 U	36	59	2.0 U	130
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	87	80	150	69	77	130
Chloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	70	68	220	87	120	190
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	0.74 J	2.0 U	8.3	2.0 U
cis-1,2-Dichloroethene	µg/L	9.5	8.2	32	8.3	11	20
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	µg/L	21	18	45	17	19	35
m&p-Xylenes	µg/L	37	32	94	30	35	67
Methylene chloride	µg/L	2.0 U	2.0 U	14	2.0 U	3.2	11

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 9220 INT-D	HP 9920 INT-D	HP 91720 INT-D	HP 92320 INT-D	HP 93020 INT-D	HP 10720 INT-D
Sample Date:		09/02/2020	09/09/2020	09/17/2020	09/23/2020	09/30/2020	10/07/2020
Parameters	**Units**						
Volatile Organic Compounds (Continued)							
m-Monochlorobenzotrifluoride	µg/L	4.4	3.8	11	3.8	4.3	8.7
o-Monochlorobenzotrifluoride	µg/L	15	14	36	13	17	30
o-Xylene	µg/L	35	30	80	29	34	61
p-Monochlorobenzotrifluoride	µg/L	13	11	34	11	14	26
Styrene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	µg/L	2.0 U	0.59 J	0.62 J	2.0 U	2.0 U	0.58 J
Toluene	µg/L	55	50	110	26	34	90
trans-1,2-Dichloroethene	µg/L	51	44	34	39	39	28
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	13	10	38	14	16	30
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	µg/L	43	32	150	45	66	83
Xylenes (total)	µg/L	73	62	170	58	69	130

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 101420 INT-D	HP 102120 INT-D	HP 102720 INT-D	HP 11420 INT-D	HP 111120 INT-D	HP 111820 INT-D
Sample Date:		10/14/2020	10/21/2020	10/27/2020	11/04/2020	11/11/2020	11/18/2020
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	2.0	1.8 J	2.0 U	1.2 J	1.0 J	1.5 J
1,1,2,2-Tetrachloroethane	µg/L	49	40	16	35	15	47
1,1,2-Trichloroethane	µg/L	9.9	9.3	5.3	6.6	6.4	8.2
1,1-Dichloroethane	µg/L	6.1	4.8	4.9	3.1	5.3	3.9
1,1-Dichloroethene	µg/L	0.55 J	0.48 J	2.0 U	0.46 J	2.0 U	0.65 J
1,2,4-Trichlorobenzene	µg/L	1.0 J	1.3 J	2.0 U	1.4 J	2.0 U	1.6 J
1,2-Dichlorobenzene	µg/L	3.1	2.9	1.1 J	3.0	1.5 J	3.2
1,2-Dichloroethane	µg/L	22	23	16	11	18	15
1,2-Dichloropropane	µg/L	2.2	2.1	2.1	1.3 J	2.0 J	2.0 J
1,3-Dichlorobenzene	µg/L	0.58 J	0.55 J	2.0 U	0.56 J	2.0 U	0.66 J
1,4-Dichlorobenzene	µg/L	1.7 J	1.8 J	0.59 J	1.5 J	0.92 J	1.9 J
2-Chlorotoluene	µg/L	58	48	20	46	28	56
3-Chlorotoluene	µg/L	0.56 J	0.43 J	2.0 U	0.40 J	2.0 U	0.45 J
4-Chlorotoluene	µg/L	19	16	6.4	17	8.6	21
Benzene	µg/L	330	310	260	220	260	290
Bromodichloromethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon disulfide	µg/L	59	46	130	59	93	89
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	140	140	64	110	80	150
Chloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	290	240	89	150	120	180
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	23	17	5.1	17	8.2	20
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	µg/L	38	37	14	33	20	40
m&p-Xylenes	µg/L	74	69	26	66	37	82
Methylene chloride	µg/L	18	15	2.0 U	9.7	1.8 J	11 U

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 101420 INT-D	HP 102120 INT-D	HP 102720 INT-D	HP 11420 INT-D	HP 111120 INT-D	HP 111820 INT-D
Sample Date:		10/14/2020	10/21/2020	10/27/2020	11/04/2020	11/11/2020	11/18/2020
Parameters	**Units**						
Volatile Organic Compounds (Continued)							
m-Monochlorobenzotrifluoride	µg/L	7.7	8.1	3.6	8.9	4.6	11
o-Monochlorobenzotrifluoride	µg/L	25	29	12	29	14	35
o-Xylene	µg/L	66	63	25	57	33	71
p-Monochlorobenzotrifluoride	µg/L	22	24	10	27	13	32
Styrene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	µg/L	0.50 J	0.69 J	2.0 U	0.93 J	2.0 U	0.67 J
Toluene	µg/L	100	100	42	92	38	120
trans-1,2-Dichloroethene	µg/L	38	31	35	21	39	27
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	32	31	10	29	16	32
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	µg/L	170	100	19	81	47	100
Xylenes (total)	µg/L	140	130	51	120	70	150

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 112420 INT-D	HP 12220 INT-D	HP 12920 INT-D	HP 121620 INT-D	HP 122120 INT-D	HP 123020 INT-D
Sample Date:		11/24/2020	12/02/2020	12/09/2020	12/16/2020	12/21/2020	12/30/2020
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	1.5 J	2.0	0.99 J	2.0 U	0.47 J	2.0 U
1,1,2,2-Tetrachloroethane	µg/L	43	21	23	10	11	5.5
1,1,2-Trichloroethane	µg/L	7.7	6.9	5.7	2.3	3.0	1.2 J
1,1-Dichloroethane	µg/L	3.4	3.9	4.0	1.8 J	3.6	1.2 J
1,1-Dichloroethene	µg/L	2.0 U	1.1 J	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	1.5 J	1.3 J	1.3 J	1.1 J	0.68 J	2.0 U
1,2-Dichlorobenzene	µg/L	2.9	2.1	3.3	2.5	1.9 J	1.9 J
1,2-Dichloroethane	µg/L	14	13	15	7.2	12	4.6
1,2-Dichloropropane	µg/L	2.0 U	1.9 J	1.7 J	0.92 J	1.4 J	0.61 J
1,3-Dichlorobenzene	µg/L	0.68 J	0.41 J	0.73 J	0.49 J	2.0 U	2.0 U
1,4-Dichlorobenzene	µg/L	1.8 J	1.2 J	1.8 J	1.6 J	1.0 J	1.1 J
2-Chlorotoluene	µg/L	52	31	56	45	29	30
3-Chlorotoluene	µg/L	0.45 J	2.0 U	0.55 J	2.0 U	2.0 U	2.0 U
4-Chlorotoluene	µg/L	18	11	19	16	9.8	9.9
Benzene	µg/L	270	260	280	170	230	130
Bromodichloromethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Carbon disulfide	µg/L	77	86	37	8.0	21	6.1
Carbon tetrachloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	µg/L	140	92	130	100	83	81
Chloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform (Trichloromethane)	µg/L	140	74	60	19	20	5.9
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	18	7.5	15	7.9	5.6	3.3
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	µg/L	39	22	36	27	19	19
m&p-Xylenes	µg/L	79	45	70	53	35	37
Methylene chloride	µg/L	8.7	2.0 U	1.3 J	2.0 U	2.0 U	2.0 U

Table 4.2

2020 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:		HP 112420 INT-D	HP 12220 INT-D	HP 12920 INT-D	HP 121620 INT-D	HP 122120 INT-D	HP 123020 INT-D
Sample Date:		11/24/2020	12/02/2020	12/09/2020	12/16/2020	12/21/2020	12/30/2020
Parameters	**Units**						
Volatile Organic Compounds (Continued)							
m-Monochlorobenzotrifluoride	µg/L	10	6.6	8.4	5.9	4.4	4.8
o-Monochlorobenzotrifluoride	µg/L	31	21	29	20	14	15
o-Xylene	µg/L	67	41	63	47	34	32
p-Monochlorobenzotrifluoride	µg/L	31	19	26	18	13	14
Styrene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	µg/L	0.58 J	0.61 J	0.71 J	2.0 U	2.0 U	2.0 U
Toluene	µg/L	100	46	41	23	22	11
trans-1,2-Dichloroethene	µg/L	26	28	32	23	31	17
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	µg/L	29	17	29	19	14	11
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Vinyl chloride	µg/L	90	49	65	21	13	7.7
Xylenes (total)	µg/L	150	86	130	100	70	69

Notes:

J - Estimated concentration.
U - Not detected at the associated reporting limit.
µg/L - Micrograms per liter

Table 4.3

2020 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

	Sample Location:	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
	Sample ID:	HP 41520 INF	HP 61720 INF	HP 92320 INF	HP 122120 INF
	Sample Date:	04/15/2020	06/17/2020	09/23/2020	12/21/2020
Parameters	**Units**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	2.4 J	3.9 J	6.0	5.1 J
1,1,2,2-Tetrachloroethane	µg/L	76	110	130	100
1,1,2-Trichloroethane	µg/L	6.1	8.9	13	10
1,1-Dichloroethane	µg/L	5.0 U	1.1 J	2.3 J	10 U
1,1-Dichloroethene	µg/L	5.0 U	2.5 J	3.5 J	2.4 J
1,2,4-Trichlorobenzene	µg/L	500	540	830	710
1,2-Dichlorobenzene	µg/L	54	75	120	100
1,2-Dichloroethane	µg/L	11	19	20	15
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	1.9 J	10 U
1,3-Dichlorobenzene	µg/L	16	22	33	25
1,4-Dichlorobenzene	µg/L	72	94	160	130
2-Chlorotoluene	µg/L	620	780 J	1300	1100
3-Chlorotoluene	µg/L	6.9	9.2	18	11
4-Chlorotoluene	µg/L	460	550	940	750
Benzene	µg/L	120	180	310	210
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	10 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	10 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	10 U
Carbon disulfide	µg/L	7.3	12	33	18
Carbon tetrachloride	µg/L	22	21	17	22
Chlorobenzene	µg/L	360	550	900	740
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	10 U
Chloroform (Trichloromethane)	µg/L	200	320	560	380
Chloromethane (Methyl chloride)	µg/L	5.0 U	2.5 J	2.2 J	10 U
cis-1,2-Dichloroethene	µg/L	240	440	740	560
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	10 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	10 U
Ethylbenzene	µg/L	140	210	320	270
m&p-Xylenes	µg/L	530	740	1100	940
Methylene chloride	µg/L	20	31	50	33
m-Monochlorobenzotrifluoride	µg/L	65	85	130	100
o-Monochlorobenzotrifluoride	µg/L	180	240	370	280
o-Xylene	µg/L	260	390	590	480
p-Monochlorobenzotrifluoride	µg/L	260	350	500	390
Styrene	µg/L	5.0 U	12	18	10 U
Tetrachloroethene	µg/L	150	80	55	56
Toluene	µg/L	590	850	1200	1100
trans-1,2-Dichloroethene	µg/L	6.2	7.6	13	11
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	10 U
Trichloroethene	µg/L	380	540	800	710
Trichlorofluoromethane (CFC-11)	µg/L	2.1 J	3.1 J	4.1 J	4.3 J
Vinyl acetate	µg/L	10 U	10 U	10 U	20 U
Vinyl chloride	µg/L	50	86	180	89
Xylenes (total)	µg/L	790	1100	1700	1400
Semi-volatile Organic Compounds					
2,4,6-Trichlorophenol	µg/L	1.3 J	2.1 J	45 U	2.4 J
2,4-Dichlorophenol	µg/L	75	17	26 J	120
2,4-Dimethylphenol	µg/L	9.1 U	1.9 J	45 U	3.2 J

Table 4.3

2020 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

	Sample Location:	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
	Sample ID:	HP 41520 INF	HP 61720 INF	HP 92320 INF	HP 122120 INF
	Sample Date:	04/15/2020	06/17/2020	09/23/2020	12/21/2020
Parameters	**Units**				
Semi-volatile Organic Compounds (Continued)					
2,4-Dinitrophenol	µg/L	47 U	45 U	230 U	45 U
2-Chlorobenzoic acid	µg/L	1.7	3.6	4.0	3.1
2-Chloronaphthalene	µg/L	9.1 U	9.1 U	45 U	9.1 U
2-Chlorophenol	µg/L	4.2 J	5.6 J	7.1 J	5.3 J
2-Nitrophenol	µg/L	9.1 U	9.1 U	45 U	9.1 U
3-Chlorobenzoic acid	µg/L	0.86	1.8	2.1	1.6
4,6-Dinitro-2-methylphenol	µg/L	45 U	45 U	230 U	45 U
4-Chloro-3-methylphenol	µg/L	9.1 U	1.2 J	45 U	9.1 U
4-Chlorobenzoic acid	µg/L	1.6	3.4	4.0	3.0
4-Nitrophenol	µg/L	45 U	45 U	230 U	45 U
Acenaphthene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Acenaphthylene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Anthracene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Benzo(a)anthracene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Benzo(a)pyrene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Benzo(b)fluoranthene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Benzo(g,h,i)perylene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Benzoic acid	µg/L	2.5	8.5	10	6.0
bis(2-Chloroethoxy)methane	µg/L	9.1 U	9.1 UJ	45 U	9.1 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	3.4 J	9.1 U	45 U	1.8 J
Butyl benzylphthalate (BBP)	µg/L	9.1 U	9.1 U	45 U	9.1 U
Chlorendic acid	µg/L	2.3	4.7	5.7	4.8
Chrysene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Dibenz(a,h)anthracene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Diethyl phthalate	µg/L	9.1 U	9.1 U	45 U	9.1 U
Dimethyl phthalate	µg/L	9.1 U	9.1 U	45 U	9.1 U
Di-n-butylphthalate (DBP)	µg/L	9.1 U	9.1 U	45 U	9.1 U
Di-n-octyl phthalate (DnOP)	µg/L	9.1 U	1.2 J	45 U	1.4 J
Fluoranthene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Fluorene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Hexachlorobenzene	µg/L	110	5.1 J	17 J	47
Hexachlorobutadiene	µg/L	95	15	24 J	38
Hexachlorocyclopentadiene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Hexachloroethane	µg/L	9.1 J	7.6 J	45 U	6.2 J
Indeno(1,2,3-cd)pyrene	µg/L	9.1 U	9.1 U	45 U	9.1 U
Isophorone	µg/L	9.1 U	9.1 U	45 U	9.1 U
Naphthalene	µg/L	9.1 U	9.1 U	45 U	1.2 J
Octachlorocyclopentene	µg/L	4.5 U	4.5 U	23 U	4.5 U
Pentachlorophenol	µg/L	45 U	13 J	230 U	45 U
Phenanthrene	µg/L	9.1 U	9.1 U	45 U	2.6 J
Phenol	µg/L	24	820	1700 J	290
Pyrene	µg/L	9.1 U	9.1 U	45 U	9.1 U

Notes:

J - Estimated concentration.
U - Not detected at the associated reporting limit.
µg/L - Micrograms per liter

Table 4.4

2020 Quarterly Sac Bed Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		**SAC INTERSTAGE**	**SAC INTERSTAGE**	**SAC INTERSTAGE**	**SAC INTERSTAGE**
Sample ID:		**HP 31820 SAC**	**HP 61720 SAC**	**HP 92320 SAC**	**HP 122120 SAC**
Sample Date:		**03/18/2020**	**06/17/2020**	**09/23/2020**	**12/21/2020**
Parameters	**Units**				
Polychlorinated Biphenyls (PCB)					
Pentachlorobiphenyl	µg/L	84	0.13 J	0.92 J	0.34
Tetrachlorobiphenyl	µg/L	150	0.41 J	1.6 J	0.46
Trichlorobiphenyl	µg/L	41	0.15 J	0.43 J	0.13
Total PCBs	µg/L	275	0.69 J	2.95 J	0.93
Dioxin Furans					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L	25700 J	3650 J	6890	1960

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit
pg/L - Picograms per liter
µg/L - Micrograms per liter

Appendices

Appendix A
Institutional and Engineering Controls Certification Form

NEW YORK STATE 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

2/19/2021

Joseph Branch
Project Manager
OXY-Glenn Springs Holdings, Inc.
7601 Old Channel Trail
Montague, MI 49437
Joseph_Branch@oxy.com

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Hooker-Hyde Park Landfill
Site No.: 932021
Site Address: 4825 Hyde Park Boulevard
Town Of Niagara, NY 14305

Dear Joseph Branch:

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 **April 30, 2021**. 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.

NEW YORK STATE | Department of Environmental Conservation

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 Brian Sadowski, the Project Manager, at 716-851-7220 or brian.sadowski@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
270 Michigan Ave

Buffalo, NY 14203-2915

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Brian Sadowski, Project Manager
Stanley Radon, Hazardous Waste Remediation Supervisor, Region 9

GHD - John Pentilchuk - john.pentilchuk@ghd.com
GHD - Dennis Hoyt - dennis.hoyt@ghd.com
GHD - Margaret Popek - margaret.popek@ghd.com

The following parcel owner did not receive an ec:
Niagara Mohawk Power Corp - Parcel Owner
Occidental Chemical Corporation - Parcel Owner

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. 932021

Site Name Hooker-Hyde Park Landfill

Site Address: 4825 Hyde Park Boulevard Zip Code: 14305
City/Town: Town Of Niagara
County: Niagara
Site Acreage: ~~22.800~~ 30

Reporting Period: March 31, 2020 to March 31, 2021

	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? Closed Landfill	☑	☐
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 _____

SITE NO. 932021 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
130.11-1-3	Occidental Chemical Corporation	Ground Water Use Restriction Landuse Restriction Monitoring Plan O&M Plan
		Surface Water Use Restriction
Same as parcel with SBL number 130.11-4.1		
130.11-1-4.1	Occidental Chemical Corporation	Ground Water Use Restriction Landuse Restriction Building Use Restriction Surface Water Use Restriction Monitoring Plan O&M Plan

Occidental, the United States and State of New York:

Stipulation and Judgement Approving Settlement Agreement,January 19, 1981
Stipulation on Requisite Remedial Technology, November 1, 1985
Enforcement Decision Document for Requisite Remedial Technology; November 11, 1985
Performance Monitoring Plan, July 31, 2006
Declaration of Restrictive Covenants and Environmental Easement, August 11, 2010

Legacy Restriction: "3. Restrictions on Use: The following restrictions apply to the use of the Property, run with the land, and are binding on the Grantor: the Property shall not be used in any manner that would interfere with or adversely affect the implementation, integrity, or effectiveness of the Response Action performed at the Site, including, but not limited to, a) the extraction of on-site groundwater, b) any digging, excavation, extraction of materials, construction, or other activity outside the requirements of the Response Action that would disturb the cap placed upon the Landfill at the Site, or c) other activity that would disturb or interfere with any portion of the Response Action for the Site enumerated in the RRT Stipulation."

130.11-1-5.1	Niagara Mohawk Power Corp	
7.2 acre portion only		Monitoring Plan O&M Plan

Occidental, the United States and State of New York:

Stipulation and Judgment Approving Settlement Agreement, January 19, 1981
Stipulation on Requisite Remedial Technology; November 1, 1985
Enforcement Decision Document for Requisite Remedial Technology, November 11, 1985
Performance Monitoring Plan, July 31, 2006

Description of Engineering Controls

Parcel	Engineering Control
130.11-1-3	Point-of-Entry Water Treatment Groundwater Treatment System Groundwater Containment Fencing/Access Control Monitoring Wells

Granular activated carbon treatment facility that handles aqueous phase leachate (APL) and non-aqueous phase leachate (NAPL) generated from the landfill and offsite sources.

130.11-1-4.1	Groundwater Treatment System Monitoring Wells Cover System Groundwater Containment Leachate Collection Fencing/Access Control

The below engineering controls are from the Declaration of Restrictive Covenants and Environmental Easement August 11, 2010 and other documentation that are the most applicable to the parcel and community wide remediation.

Landfill cap. Landfill cap source control wells. Landfill perimeter capping. Collection and containment of aqueous phase liquids (APL) and non-aqueous phase liquids (NAPL) in the overburden. Collection and containment of APL and NAPL in the bedrock. Industrial protection program by sealing of sumps and manholes. Bloody run excavation with new culvert installation, cleaned of existing and/or slip lined. Niagara Gorge face soil and visibly contaminated rock excavated and disposed of in the landfill. Niagara Gorge face seeps remediation by APL plume pumping wells through groundwater flow zones.

130.11-1-5.1 7.2 acre portion only	Groundwater Treatment System Cover System Groundwater Containment Leachate Collection Fencing/Access Control Monitoring Wells

The below engineering controls are from documentation that are the most applicable to the parcel and community wide remediation.

Landfill cap. Landfill cap source control wells. Landfill perimeter capping. Collection and containment of aqueous phase liquids (APL) and non-aqueous phase liquids (NAPL) in the overburden. Collection and containment of APL and NAPL in the bedrock. Industrial protection program by sealing of sumps and manholes.

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. 932018

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 JOSEPH A. BRANCH at 7001 OLD CHANNEL TRAIL, MONTAGUE, MI 49437
print name print business address

am certifying as Remedial Party (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

4-27-2022
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 RICHARD SNYDER at 2055 NIAGARA FALLS BLVD, NIAGARA FALLS, NY 14304
print name print business address

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

STATE OF NEW YORK
RICHARD J. SNYDER
LICENSED PROFESSIONAL ENGINEER

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

Stamp (Required for PE)

April 28, 2021
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
Well G6-05 Organic Compound Concentrations

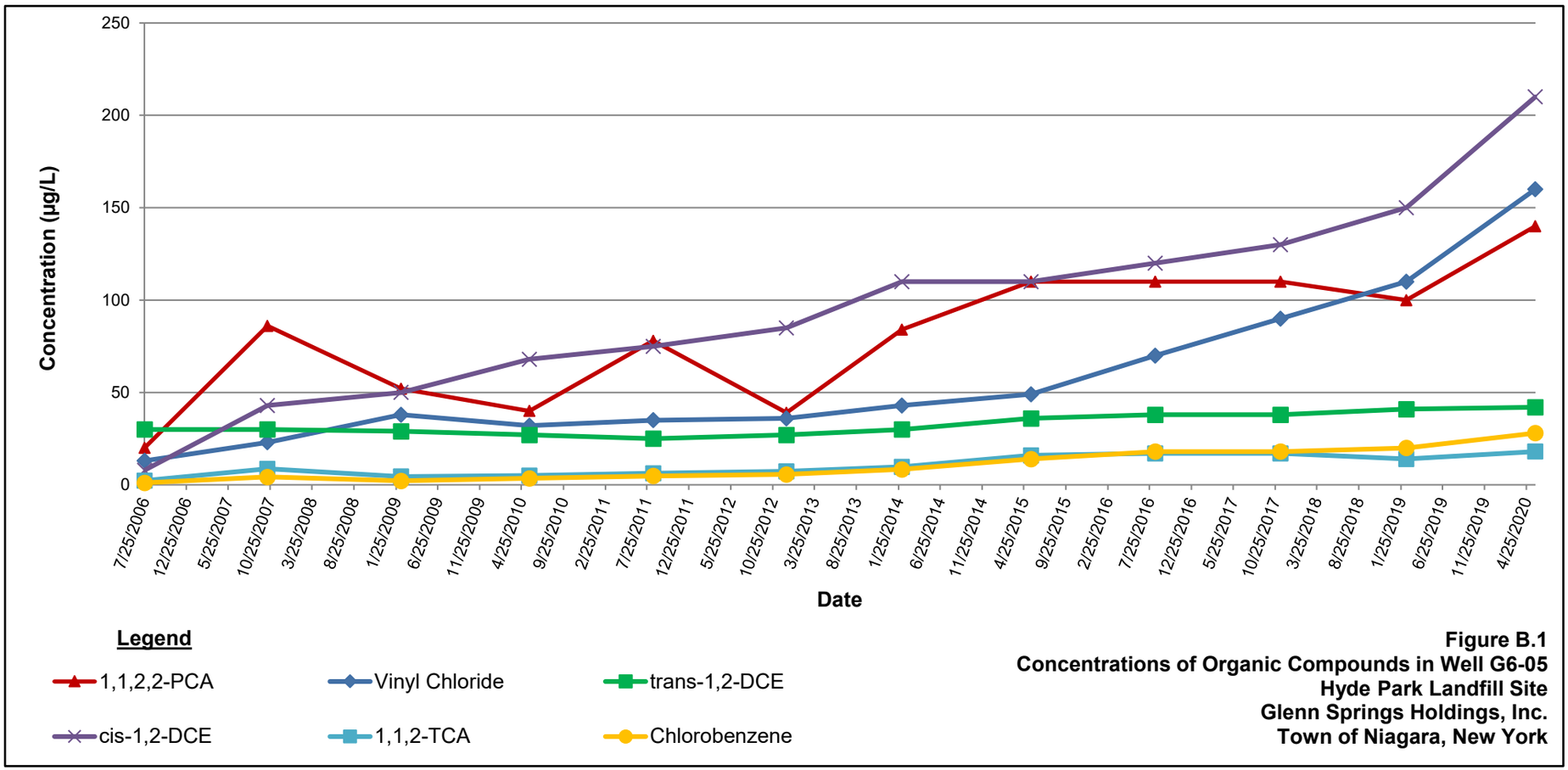

Figure B.1
Concentrations of Organic Compounds in Well G6-05
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Town of Niagara, New York

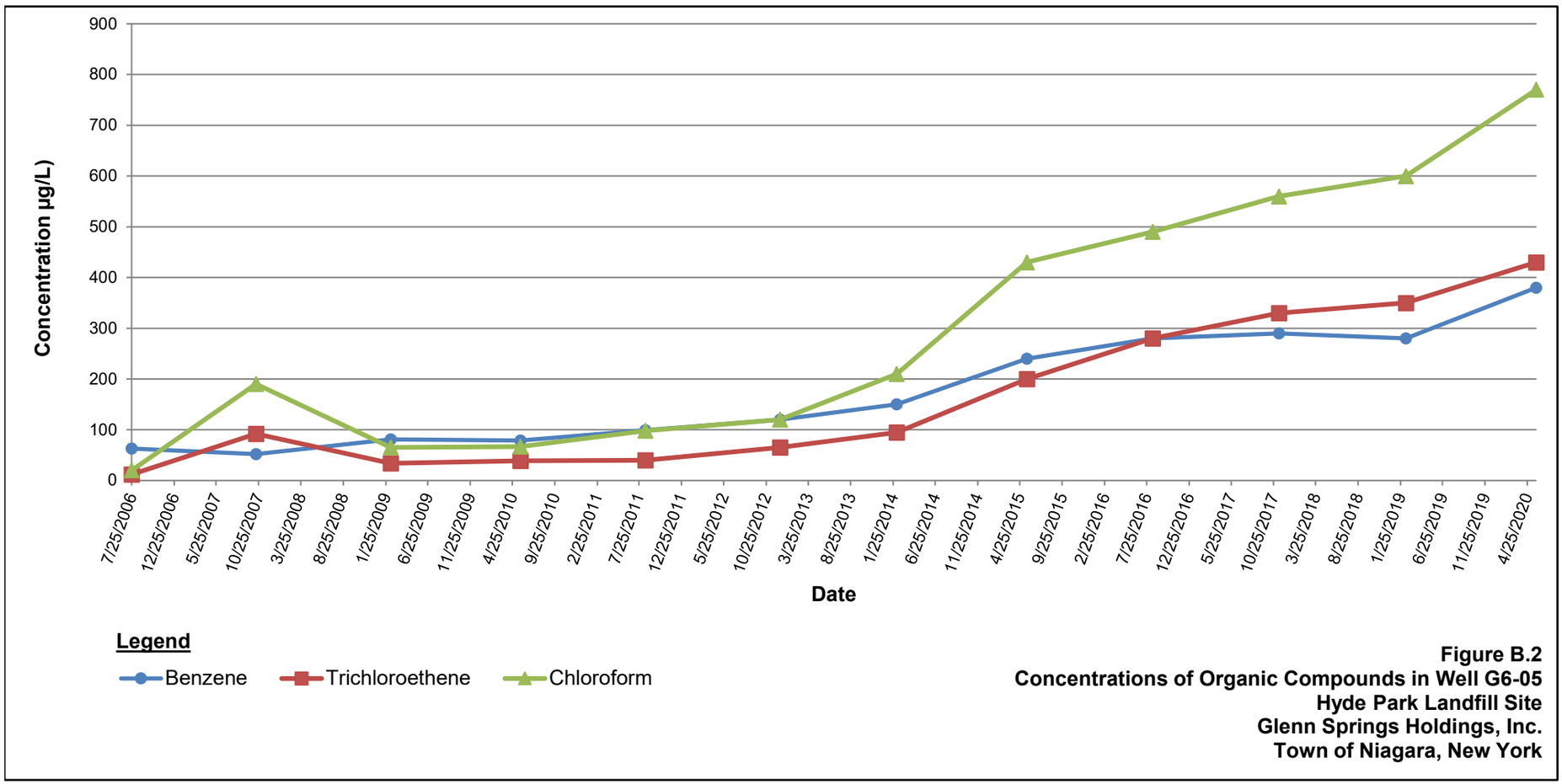

Figure B.2
Concentrations of Organic Compounds in Well G6-05
Hyde Park Landfill Site
Glenn Springs Holdings, Inc.
Town of Niagara, New York

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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