2018 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 2018 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 2018, the remedial system components at the Site performed as designed. The Source Control (SC), Overburden Requisite Remedial Technology (RRT), and Bedrock RRT Systems removed 28.2 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 2018, 45,342 pounds of NAPL were shipped off Site for disposal.

The 2018 data indicate that there has been no significant change in chemical and hydrogeological conditions at the Site. Quarterly manual NAPL removal from SC wells will continue in 2019 except at SC-3 where removal will continue to be performed on an approximate monthly basis. The frequency and continued need for NAPL recovery from the SC wells will be reevaluated in the 2019 Annual Periodic Review Report.

Table of Contents

Figure Index

Table Index

Appendix Index

1. Introduction

The following Periodic Review Report (PRR) describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2018 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 2015 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 2018 performance monitoring data for the overburden systems are presented as follows:

SC System Well Locations	Figure 1.2
2018 SC Well Pumping Summary	Table 3.1
Overburden RRT System	Figure 1.3
2018 Overburden Quarterly Groundwater Elevation Summary	Table 3.2
2018 Overburden NAPL Presence Monitoring	Table 3.3
2018 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 last occurred in the fourth quarter of 2017 and will be sampled

again in the first quarter of 2019. The Bloody Run monitoring wells are sampled every 5 years, which occurred in July 2016, with the next event planned for 2021.

The 2018 performance monitoring data for the bedrock systems are presented as follows:

BMP Locations	Figure 1.4
2018 Bedrock Quarterly Water Level Elevation Summary - Piezometers	Table 3.5
2018 Bedrock Purge Well Monthly Flow Rate Summary	Table 3.6
Analytical Results Summary: Quarterly Group B Bedrock Piezometer Sampling	Tables 3.7a-d
2018 Analytical Results Summary: Annual Bedrock Open Catch Basin	Table 3.8

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 2018 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 2018 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 2018 performance monitoring data for the community monitoring are presented as follows:

APL Flux Well Locations	Figure 3.2
2018 Analytical Results Summary: Annual AFW Composite	Table 3.9
Community Monitoring Locations	Figure 1.7
2018 Quarterly Hydraulic Gradient Summary	Table 3.10
2018 Community Monitoring Well Soil Vapor Monitoring	Table 3.11

3.4 Organic Acids Data Recall and Correction

On July 17, 2018, GSH was informed by its laboratory, ALS, that the reported analytical results for ortho (o)- and meta (m)-chlorobenzoic acid had inadvertently been switched on all laboratory deliverables for the Hyde Park Landfill Site since 2012. This error occurred due to a computer programming issue in which a translation table that uploads raw data from the laboratory's

instruments to ALS's data management software (LIMS) was incorrectly set up. This error has since been corrected at the laboratory and additional quality control measures have been implemented in an effort to avoid a repeat of the error in the future. Correspondence from ALS to GHD documenting this error and providing a list of the recalled and corrected results for o- and m-chlorobenzoic acid is included as Appendix B. The corrected data for 2012 through 2017 are presented in Table B.1 in Appendix B. Data collected in 2018 that had been affected by the error was corrected for inclusion in this PRR and was also reissued in revised data validation memorandums in 2018.

A summary of the reports and associated tables submitted for the Site that reported incorrect values for o- and m-chlorobenzoic acid is presented in Table 3.12.

GSH promptly notified the USEPA and the NYSDEC of the laboratory error and engaged in subsequent conversations with these two Agencies to determine an appropriate response to this error. On August 17, 2018, GSH received approval from the USEPA and the NYSDEC to resubmit the 2017 PRR for the Site using the corrected data, and to subsequently resubmit the remainder of the corrected data (pre-2017). A revised PRR dated October 24, 2018 was submitted to the Agencies.

The error in the original reporting of o- and m-chlorobenzoic acid does not change the conclusions of the above-referenced reports, in that the analytical data demonstrate that containment is being achieved in each of the bedrock flow zones.

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 2015 O&M Manual.

Analytical results from the treatment system monitoring program have been presented previously in the 2018 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 2018:

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 2018. 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 2018, 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 SC wells will continue in 2017 except at SC-3 where removal will be performed on an approximate monthly basis. This change was implemented in 2017.

The 2018 SC well NAPL thickness and recovery data are summarized in Table 3.1. The amounts of NAPL recovered in 2018 from SC-2, SC-3, SC-4, SC-5, and SC-6 were 0 gallon, 390.3 gallons, 31.0 gallons, 0 gallon, and 9.0 gallons, respectively. Based on the amounts recovered, quarterly manual NAPL recovery will continue in 2019 except at SC-3 where recovery will be performed on an approximate monthly basis.

The total amount of NAPL recovered in 2018 was 430.3 gallons. The APL/NAPL volumes removed from the SC wells from 2006 through 2018 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

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 2018 Quarterly Operations Reports. These potentiometric surface maps indicated hydraulic containment for each quarter of 2018.

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 2018.

5.1.5 Overburden Monitoring Conclusions

Based on the overburden data collected in 2018, as shown in Tables 3.1 through 3.4 and the potentiometric surface maps that were presented in the 2018 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 2018, and monitoring was conducted in accordance with the 2006 PMP. The results of the BMP in 2018 are discussed below and summarized in Tables 3.5 through 3.8.

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 2018 Quarterly Operations Reports. The potentiometric surface maps for each monitored flow zone during each quarter of 2018 indicated containment.

5.2.2 Bedrock RRT System Flow Rates and Setpoints

The 2018 bedrock purge well monthly average flow rate data, presented in Table 3.6, are consistent with historic flow rates.

Maintenance of operating water level setpoints by each of the purge wells has been discussed in the 2018 Quarterly Operations Reports. These reports indicate that, with the exception of the maintenance issues identified, the water levels were maintained within target setpoint ranges at each of the purge wells throughout 2018.

Due to a compromised overburden casing at the overburden/bedrock interface, purge well PW-1U was not operational from October through December 2018. An evaluation was conducted to determine if pumping from PW-1U is still required for containment. Based on the results of the evaluation, PW-1U will be repaired via insertion of a well riser pump and screen in the second quarter of 2019.

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 of 518.17 feet AMSL throughout 2018, with a maximum elevation observed of 521.54 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 518.94 feet AMSL in 2018.

5.2.3 Bedrock Analytical Results

In accordance with the 2006 PMP, quarterly groundwater samples were collected from the Group B Bedrock piezometers in 2018. The quarterly groundwater sampling events were performed during February 2018, May 2018, August 2018, and December 2018. The annual (fifth quarter Group "A" Bedrock piezometer sampling) event, as defined in the PMP, was performed during November and December 2017, and, as such, was not performed in 2018. The fifth quarter Group A Bedrock piezometer sampling event will be performed during the first quarter of 2019.

The 2018 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 presented in the PMP have been included in these tables and exceedances of these values have been highlighted.

The 2018 data for the quarterly Group "B" Bedrock piezometer sampling events indicate that samples from a number of locations exhibited concentrations of Site Organic Indicators (SOIs) that exceeded the Site-specific screening levels, as summarized below:

Site Organic Indicators	Location Exceeding Site-Specific Screening Level
Chlorendic Acid	AGW-1M-09, ABP-7-09, AGW-1U-06, B2L-11, D1M-09, D1U-05, F2U-02, F2U-04, G6-04, H2U-02, H5-09

The above exceedances are generally consistent with results from the quarterly Group "B" 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 specific screening levels (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. Based on the preliminary results of the requested analysis, there are approximately seven wells with recent exceedances of SOIs that require further evaluation relative to the hydrogeologic characteristics of the individual flow zones and the findings of the statistical evaluation presented in the Five Year Site Remedial Performance Report for 2012 – 2016. The results of this evaluation will be presented no later than in the Quarterly Operations Report for the Second Quarter 2019, which is due on July 31, 2019.

The catch basin on the north side of the Greif Brothers' warehouse is sampled annually for NAPL organic acids. The analytical results for 2018 are presented in Table 3.8.

The bedrock groundwater data collected in 2018 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 2018 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 3.9. 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 3.10 presents a summary of groundwater elevations and vertical hydraulic gradients at the paired community monitoring wells for each quarter of 2018. 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.

5.3.3 Soil Vapor Monitoring

Results of community monitoring well soil vapor monitoring are presented in Table 3.11. None of the six locations monitored exhibited any recordable concentrations of VOCs during the September 2018 monitoring event. Therefore, in accordance with the field procedure for community well vapor monitoring presented in Appendix B of the 2014 Annual Periodic Review Report, groundwater sampling was not required.

5.3.4 Gorge Face Seep Survey

The biennial Gorge Face Seep Survey was last conducted on August 25, 2015. The Gorge Face Seep Survey was scheduled to be performed on November 7, 2018, but was canceled due to slippery conditions caused by heavy rains the day before. 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, 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.

5.3.5 Community Monitoring Conclusions

The community monitoring data collected in 2018 demonstrate that the community is being properly protected by Site remedial systems.

5.4 Site Operations and Maintenance

There were no deviations in 2018 from the treatment system monitoring specified in the 2006 PMP. Ongoing O&M issues are discussed in the 2018 Quarterly Operations Reports.

6. Recommendations

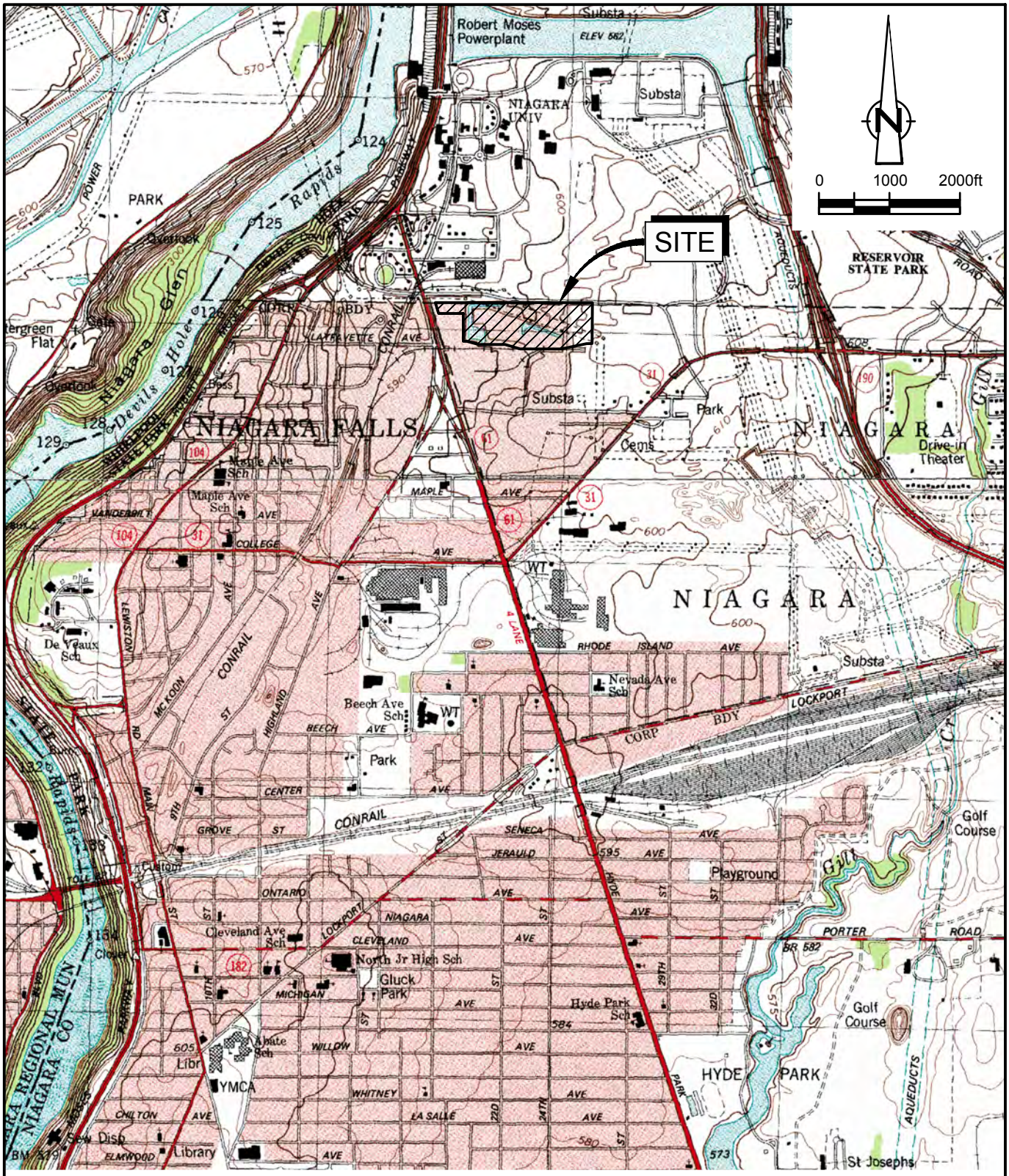
Quarterly manual NAPL removal from SC wells will continue in 2019 except at SC-3 where removal will be performed on an approximate monthly basis (temperature dependent). The frequency and continued need for NAPL recovery from the SC wells will be reevaluated in the 2019 Annual PRR. In addition, it is 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.

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.

Margaret A. Popek
margaret.popek@ghd.com
716 297 6150

www.ghd.com



SOURCE: USGS QUADRANGLE MAPS;
NIAGARA FALLS, NEW YORK - ONTARIO, 1980
LEWISTON, NEW YORK, 1980

figure 1.1

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

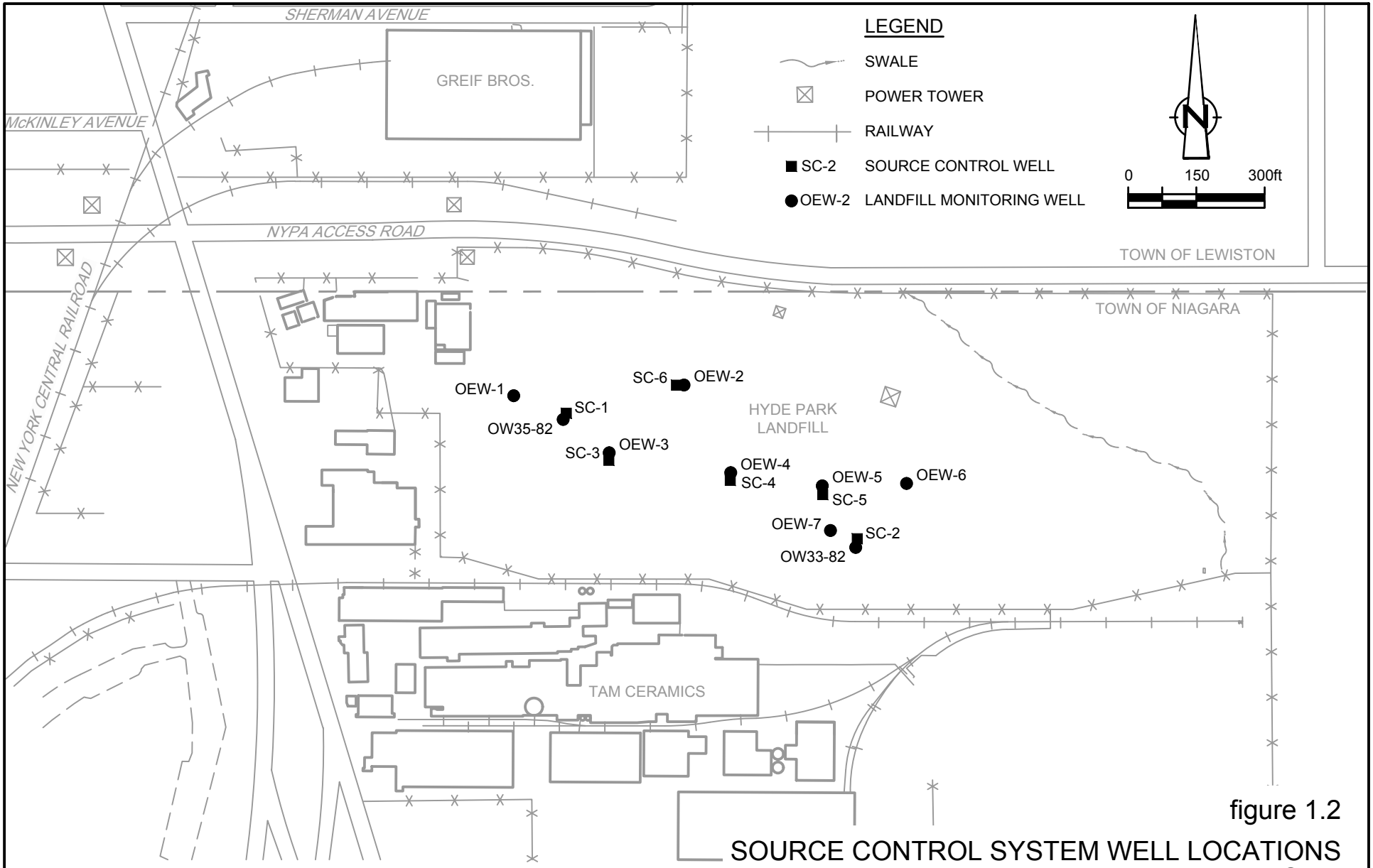


figure 1.2

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.

P:\drawings\01000s\01069\01069-REPORTS\01069-30(367)\01069-30(367)GN\01069-30(367)GN-WA002.DWG Plot Date: APR 25, 2019

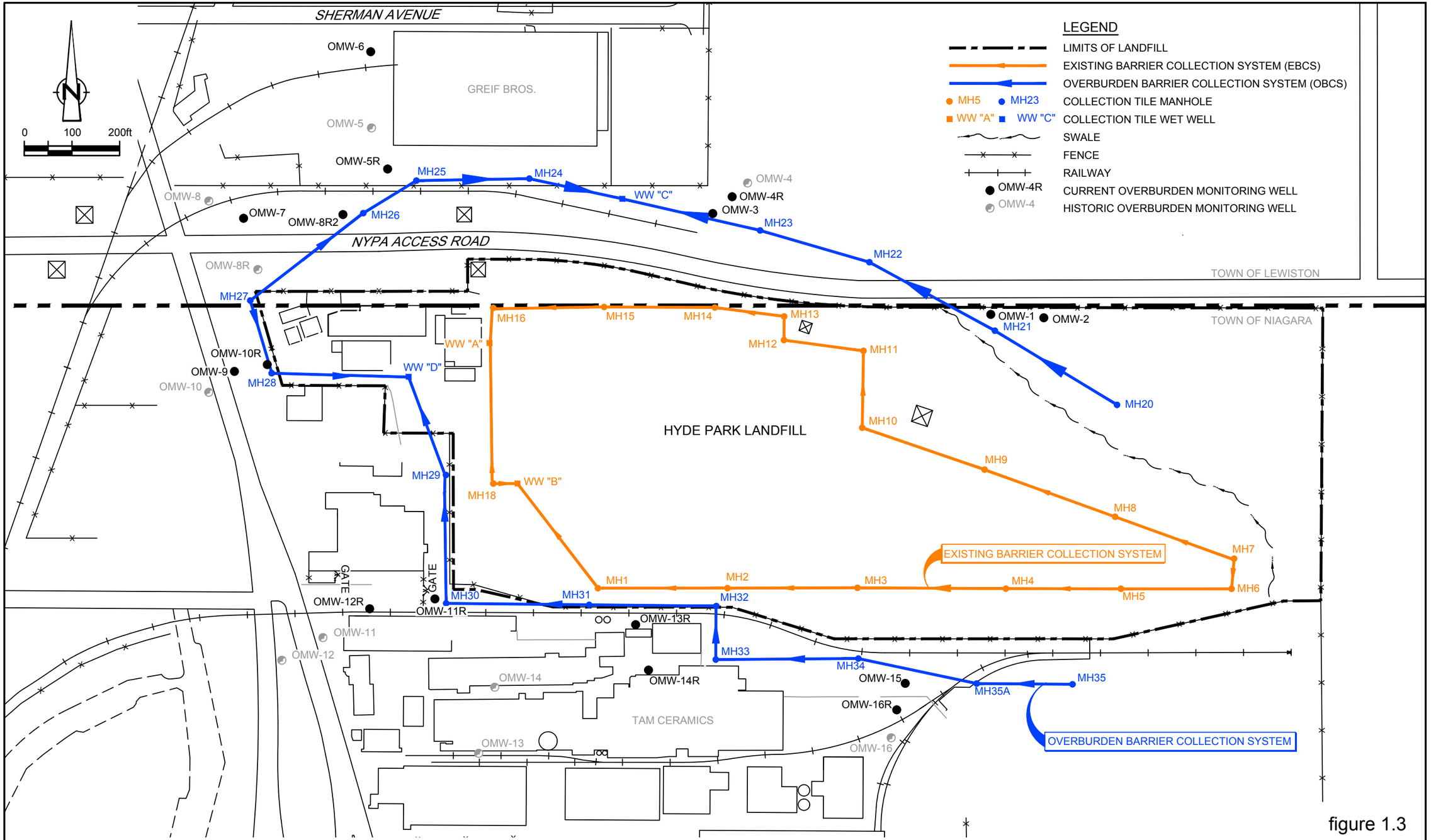


figure 1.3

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

P:\drawings\01000s\01069\01069-REPORTS\01069-30(367)\01069-30(367)GN\01069-30(367)GN-WA003.DWG Plot Date: APR 25, 2019

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-1L
PW-8M
PW-7U
PW-1U
PW-2UR
PW-2L
PW-2M
PW-3M
PW-3L
PW-4M
PW-4U
PW-5UR
PW-6UR
PW-6MR

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

figure 1.4

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

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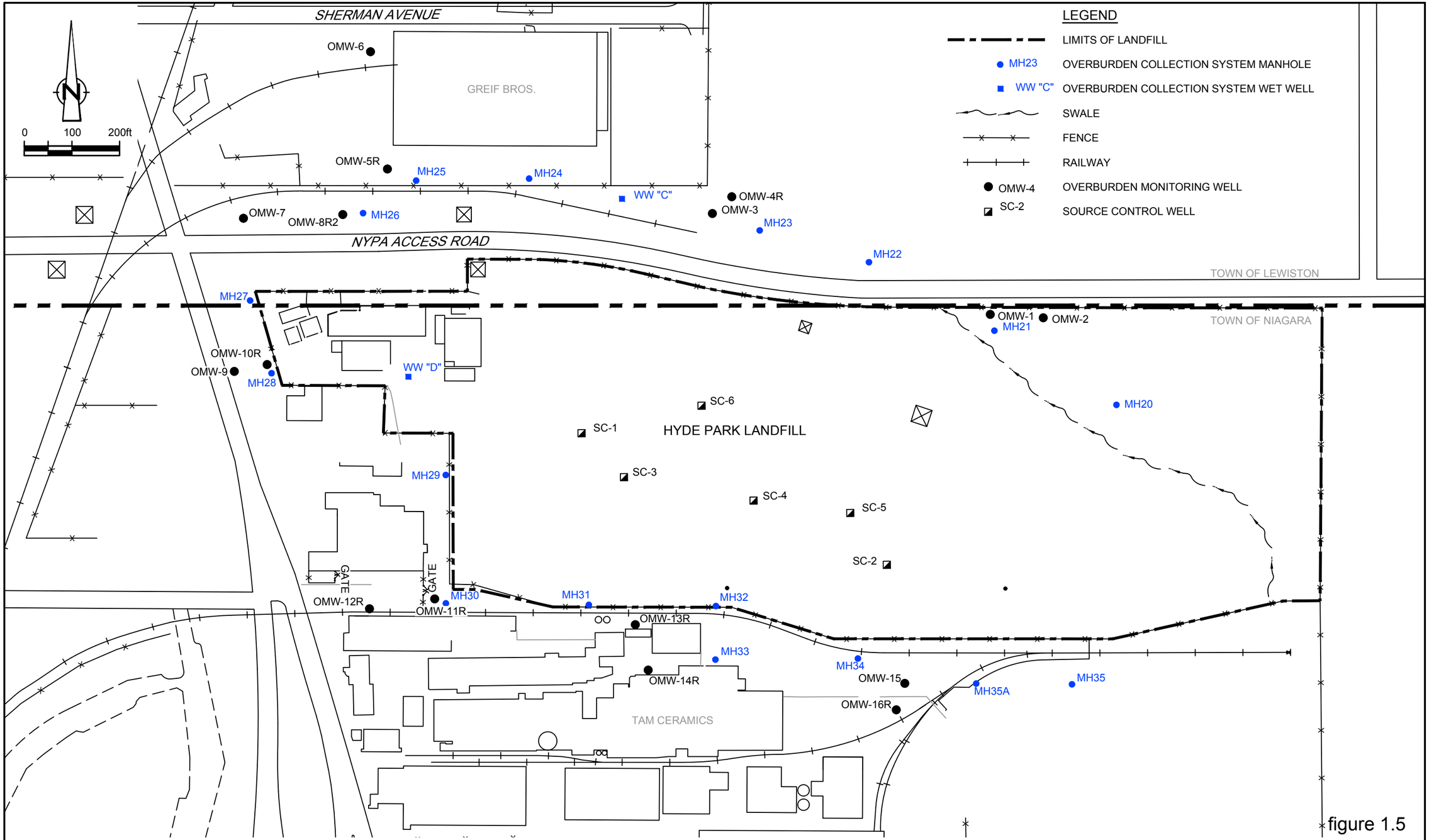

figure 1.5

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

UNIVERSITY AVE.
BEL-VEDERE AVE
SHERMAN AVE
GREIF BROS.
NYPA ACCESS ROAD
TOWN OF LEWISTON
HYDE PARK LANDFILL
TRW CERAMICS
PENNSYLVANIA AVE.
DELAWARE ALLEY
DELAWARE AVE.
MARTIN DRIVE
NEW YORK CENTRAL RAILROAD
LAFAYETTE AVE.
RANKINE ROAD
PATRICIA DR.
WYOMING AVE.
McKINLEY
NORWOOD
HARRISON
DENNIS
JAMES AVE.
ROSELLE
MORLEY
ROBERT MOSES PARKWAY
ROOSEVELT AVE
McKINLEY AVE
THURSDALE
TERRACE DR.
LAFAYETTE CIR.
UNIVERSITY CT.
LEVISTON ROAD
MEADOWBROOK DR.
HUDSON DR.
DRESCOTT DR.
WASHINGTON ST.
BEVERLY ST.
BELL ST.
HUDSON
HERKIMER ST.
JAMES ST.
HIGHLAND AVE.
RIVER PARK BLVD.

figure 1.6

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

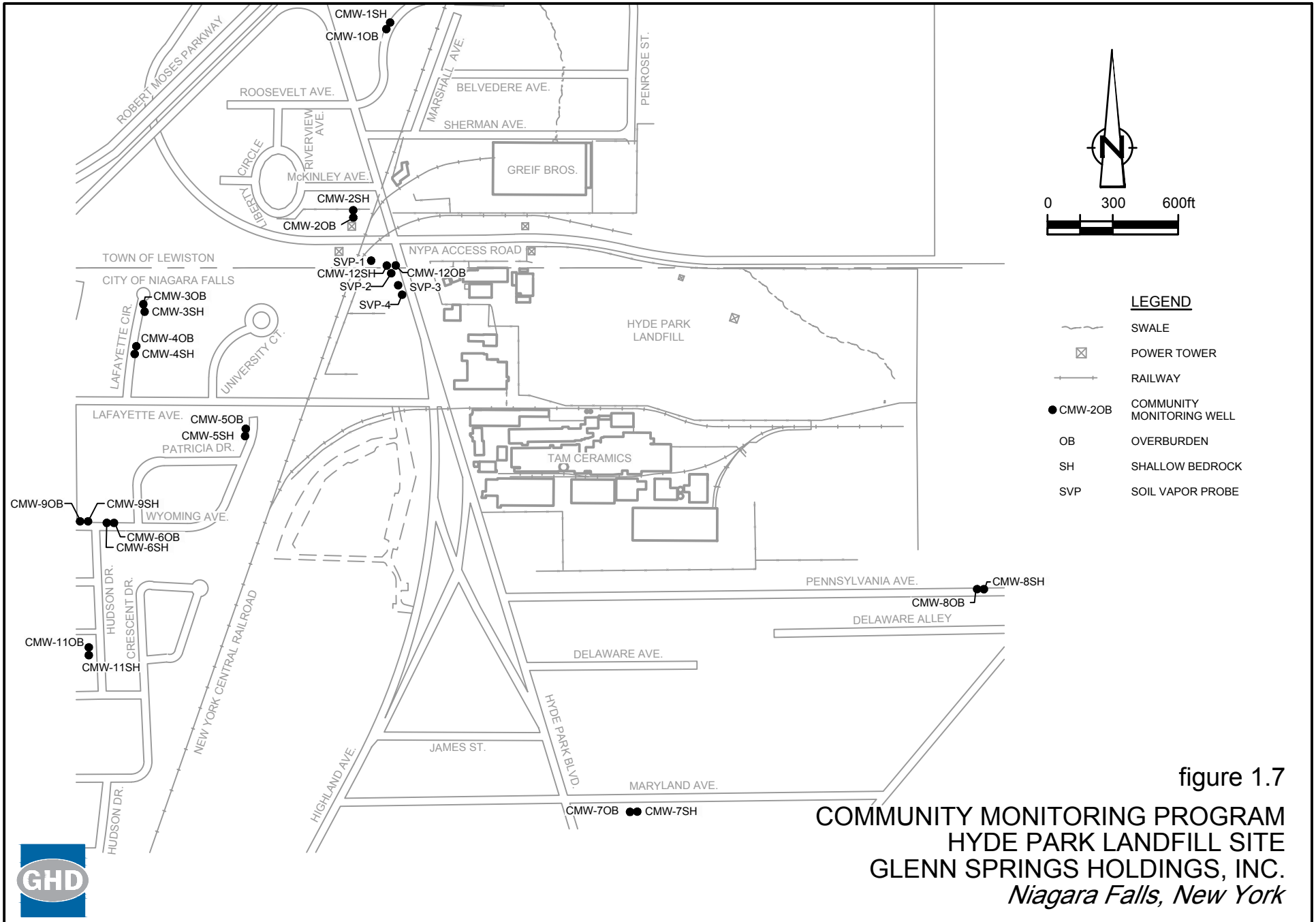

figure 1.7

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

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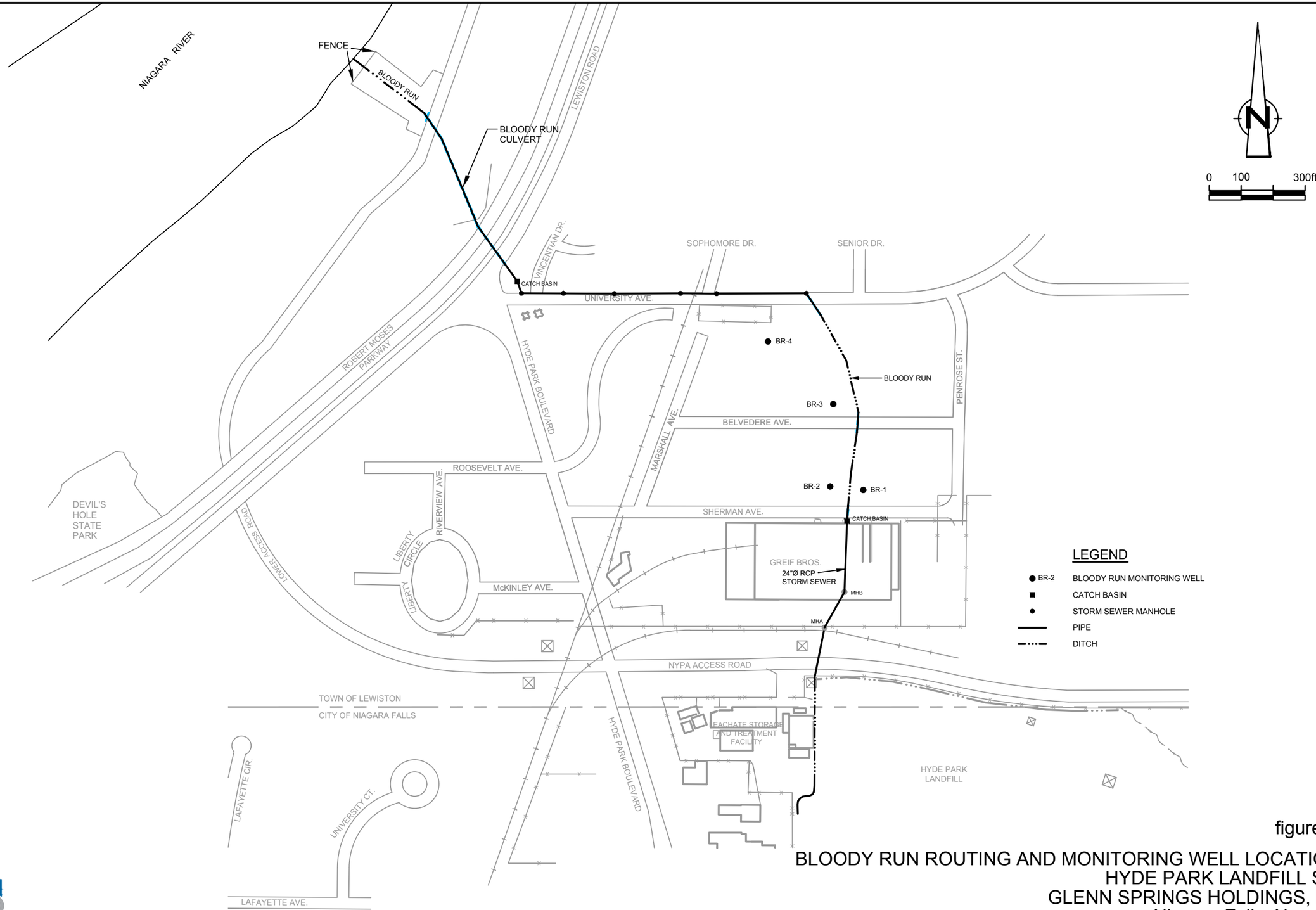

figure 3.1

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

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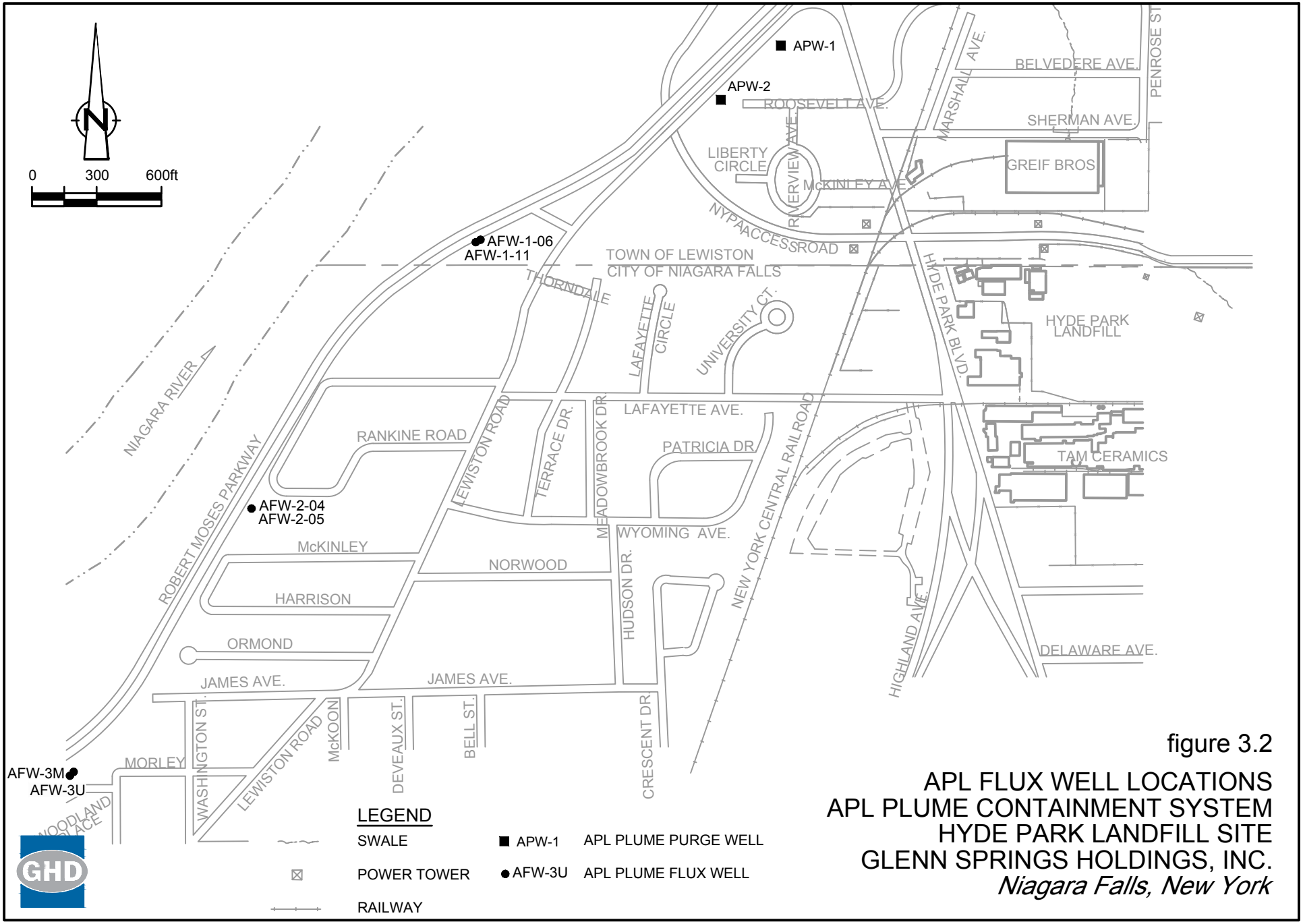

figure 3.2

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

P:\drawings\01000s\01069\01069-REPORTS\01069-30(367)\01069-30(367)GN\01069-30(367)GN-WA009.DWG Plot Date: APR 25, 2019

Table 1.1

PMP Monitoring Tasks - 2018
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	-	-	Completed 4th Quarter 2017
	Annual	APL Sampling	Open Catch Basin	-	Table 3.8	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 3.10	Yes	
		Hand Water Level Measurement	Overburden Monitoring Wells	Table 5.4	Table 3.10	Yes	
	Annual	APL Plume Flux Composite Sample	APL Flux Piezometers and Purge Wells (APWs and AFWs)	Table 5.3/App D	Table 3.9	Yes	
		Vapor Monitoring	Overburden Monitoring Wells	Table 5.4	Table 3.11	Yes	
	Biennial	Gorge Face Seep Inspection	Seeps	Table 5.2	-	No	Canceled due to weather

Table 1.1

PMP Monitoring Tasks - 2018
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 2018
	Annual	Report	-	-	-	Yes	Completed in 2019
	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

2018 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	0.52	602.88	0.0	3.10	598.09	143.0	3.23	599.89	8.0	0.37	602.56	0.0	1.68	606.20	5.5	156.5
April - June	0.86	602.72	0.0	2.73	596.17	90.5	2.63	600.00	8.0	0.37	602.55	0.0	1.43	606.62	3.5	102.0
July - September	0.86	602.67	0.0	2.90	597.90	102.5	2.23	599.93	8.0	0.45	602.50	0.0	0.76	607.72	0.0	110.5
October - December	0.86	602.88	0.0	2.68	597.85	54.3	2.33	599.33	7.0	0.45	602.55	0.0	0.63	609.84	0.0	61.3
Totals			**0.0**			**390.3**			**31.0**			**0.0**			**9.0**	**430.3**

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.

2018 Overburden Quarterly Groundwater Elevation Summary
Hyde Park Landfill Site
Town of Niagara, New York

Well	Reference Elevation (ft. AMSL)	Water Level Elevation Quarter 1 3/6/2018 (ft. AMSL)	Water Level Elevation Quarter 2 5/30/2018 (ft. AMSL)	Water Level Elevation Quarter 3 9/12/2018 (ft. AMSL)	Water Level Elevation Quarter 4 12/4/2018 (ft. AMSL)
OMW-1	605.28	599.90	599.29	596.28	601.55
OMW-2	605.99	603.06	602.19	599.87	603.28
OMW-3	598.63	590.50	588.71	585.61	592.67
OMW-4R	601.17	590.23	589.90	587.61	589.57
OMW-5R	591.31	587.32	585.09	582.79	587.56
OMW-6	587.62	585.64	585.49	585.49	585.78
OMW-7	592.74	586.28	584.77	584.25	586.37
OMW-8R2	594.67	586.95	585.12	585.25	587.34
OMW-9	595.52	588.58	587.07	587.16	588.88
OMW-10R	595.13	587.74	586.04	586.11	588.18
OMW-11R	597.52	592.73	591.74	591.47	593.37
OMW-12R	597.20	593.43	592.98	592.43	593.85
OMW-13R	601.50	591.66	591.73	591.78	591.75
OMW-14R	599.64	594.44	593.93	593.35	594.17
OMW-15	607.48	603.33	602.99	600.48	602.74
OMW-16R	607.62	603.72	602.92	602.94	603.62
SC-2	625.61	602.88	602.72	602.67	602.88
SC-3	638.72	598.09	596.17	597.90	597.85
SC-4	639.35	599.89	600.00	599.93	599.33
SC-5	634.07	602.56	602.55	602.50	602.55
SC-6	631.15	606.20	606.62	607.72	609.84
MH-20	605.87	601.21	601.25	601.24	601.18
MH-21	599.77	593.68	593.69	593.51	593.70
MH-22	593.37	586.63	586.40	585.85	586.68
MH-23	587.05	576.42	574.61	574.73	576.76
MH-24	582.57	578.41	575.62	575.00	578.84
MH-25	583.82	580.03	577.24	576.67	580.46
MH-26	584.48	579.18	576.40	Dry	579.60
MH-27	586.12	577.53	575.45	575.44	577.93
MH-28	585.23	576.66	569.19	568.87	577.07
MH-29	582.90	593.93	589.65	589.46	594.34
MH-30	588.37	*	589.41	589.43	589.47
MH-31	590.10	580.47	580.47	580.49	580.53
MH-32	592.01	582.39	582.40	582.41	582.38
MH-33	592.51	583.81	583.80	583.81	583.82
MH-34	597.64	591.21	591.23	591.19	591.20
MH-35	605.69	599.14	599.14	599.16	599.14
MH-35A	605.69	598.53	598.52	598.21	598.52

Notes:

Dry - No water present in well
ft. AMSL - Feet Above Mean Sea Level
* - Water level could not be measured due to presence of overlying snow bank

Table 3.3

2018 Overburden NAPL Presence Monitoring
Hyde Park Landfill Site
Town of Niagara, New York

Well I.D.	February 20 - March 6, 2018 (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

2018 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	15.3	15.9	0.7	31.2
February	1.0	17.9	23.1	1.0	41.0
March	0.7	14.6	21.8	0.7	36.4
April	1.8	11.6	35.1	1.8	46.7
May	0.6	11.6	14.5	0.6	26.1
June	0.1	2.9	2.1	0.1	5.1
July	0.0	0.7	1.9	0.0	2.6
August	0.01	3.2	2.8	0.0	5.9
September	0.00	1.6	2.4	0.0	4.0
October	0.00	3.9	4.1	0.0	8.0
November	0.70	19.5	14.1	0.7	33.6
December	0.98	25.0	17.7	1.0	42.7
Annual Average	0.5	10.7	13.0	0.5	23.6

Notes:

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

2018 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 3/6/2018 (ft. AMSL)	Water Level Elevation Quarter 2 5/30/2018 (ft. AMSL)	Water Level Elevation Quarter 3 9/12/2018 (ft. AMSL)	Water Level Elevation Quarter 4 12/4/2018 (ft. AMSL)
Flow Zone 1					
G1U-01	617.08	606.30	604.83	598.19	603.68
G6-01	609.24	605.22	603.54	598.56	603.60
H2U-01	620.92	613.62	611.73	606.93	612.98
H5-01	617.61	596.71	596.90	593.46	595.52
I1-01	625.58	603.02	601.59	597.36	599.79
Flow Zone 2					
F2U-02	599.89	576.45	575.79	573.82	575.63
F4U-02	602.32	586.93	585.86	584.63	586.78
G1-02	616.86	594.06	592.58	590.56	593.51
G6-02	608.65	592.77	591.85	589.77	592.20
H2U-02	620.88	596.08	594.96	591.66	594.97
H5-02	617.47	595.29	594.93	591.51	594.58
I1-02	625.47	593.40	589.15	584.26	589.27
J2U-02	609.66	599.50	595.82	592.44	599.93
J5U-02	606.21	600.06	596.43	592.59	599.69
J6-02	609.23	600.71	595.96	594.66	608.93
Flow Zone 4					
AFW-2U-04	593.48	578.27	577.39	574.06	576.26
D1U-04	593.77	583.46	581.62	579.07	582.88
D2U-04	590.65	581.68	579.74	577.26	581.14
E6-04	578.23	566.71	565.52	565.15	566.42
F2U-04	599.76	579.06	578.24	575.87	578.24
F4U-04	602.19	587.69	585.99	584.37	585.90
F6-04	588.06	570.41	570.25	569.51	570.09
G1U-04	616.96	594.01	592.44	590.17	593.23
G6-04	609.15	593.13	592.23	590.13	592.56
H5-04	617.40	595.32	594.58	591.47	594.46
I1-04	625.30	589.99	585.58	581.55	585.52
J2U-04	609.42	596.09	592.56	590.44	596.65
J5U-04	606.05	588.82	586.58	584.76	588.79
J6-04	609.12	583.15	579.43	578.95	582.93
Flow Zone 5					
AFW-2U-05	593.33	578.22	577.49	573.74	576.11
AGW-1U-05	591.80	587.87	584.27	584.52	588.42
D1U-05	593.51	582.00	580.78	578.46	581.74
D2U-05	590.56	581.77	580.51	578.21	581.49
E6-05	578.04	566.97	565.73	565.06	566.61
F2U-05	599.64	579.45	578.43	576.33	578.76
F4U-05	602.06	585.57	583.45	581.55	585.76
F6-05	587.85	570.30	570.17	569.41	569.98
G6-05	609.13	592.84	591.94	589.90	592.31
H2M-05	621.59	592.82	592.43	589.79	592.39
H5-05	617.31	594.74	593.76	590.31	593.22
I1-05	625.25	552.93	552.94	552.61	551.53
J2U-05	609.30	581.21	577.79	577.47	580.93
J5U-05	605.87	581.26	577.78	577.45	580.95
J6-05	609.02	582.63	579.01	578.64	582.48
PMW-1U-05	598.00	579.91	579.42	577.89	580.48
Flow Zone 6					
ABP-7-06	575.78	Dry	Dry	Dry	Dry
AFW-1U-06	571.83	557.61	557.20	556.81	557.20
AFW-2U-06	593.22	545.24	545.10	544.93	544.94
AGW-1U-06	591.66	554.25	553.17	551.94	553.50
B2U-06	589.29	554.91	553.76	553.07	554.98
C3-06	585.78	548.76	548.31	Dry	Dry

2018 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 3/6/2018 (ft. AMSL)	Water Level Elevation Quarter 2 5/30/2018 (ft. AMSL)	Water Level Elevation Quarter 3 9/12/2018 (ft. AMSL)	Water Level Elevation Quarter 4 12/4/2018 (ft. AMSL)
Flow Zone 6 Continued					
D1U-06	593.25	549.30	548.64	547.34	548.16
D2U-06	590.38	550.29	549.70	548.31	549.28
E6-06	577.99	574.59	574.00	572.72	574.04
F2M-06	599.06	554.19	554.32	553.94	553.53
F4M-06	602.05	552.35	552.21	552.27	552.76
F6-06	587.84	574.53	573.92	572.64	574.01
G1M-06	616.75	574.65	574.09	572.83	574.13
G6-06	609.09	576.54	576.67	574.60	575.64
H2M-06	621.42	570.23	572.49	573.40	574.14
H5-06	617.17	591.23	592.10	590.53	589.92
I1-06	625.15	547.96	547.69	547.39	547.18
J2M-06	608.94	554.45	554.42	553.71	554.43
J5M-06	606.22	549.22	548.48	547.21	548.10
J6-06	608.93	555.15	555.52	554.57	554.52
PMW-1U-06	597.92	548.74	549.68	548.03	547.99
Flow Zone 7					
ABP-1-07	576.44	548.15	547.91	547.41	548.18
ABP-7-07	575.73	534.77	533.95	534.42	534.69
AFW-1M-07	571.41	Dry	Dry	Dry	Dry
AFW-2M-07	593.44	526.67	526.71	526.65	526.63
AGW-1M-07	592.91	544.93	547.43	550.19	543.19
B2M-07	589.52	532.50	531.30	Dry	530.85
C3-07	585.62	545.82	544.70	541.40	545.79
D1M-07	594.15	532.31	532.15	531.98	532.09
D2M-07	590.77	525.97	523.77	Dry	524.52
E6-07	577.91	554.48	554.89	554.62	554.72
F2M-07	598.91	518.84	520.64	518.55	519.58
F4M-07	601.91	529.49	531.65	529.89	531.86
F6-07	587.68	567.18	567.34	567.22	567.46
G1M-07	616.68	585.86	584.46	579.13	583.19
G6-07	609.06	585.59	584.17	579.15	582.82
H5-07	617.05	553.61	553.81	553.30	553.34
I1-07	625.14	541.80	545.46	545.34	542.46
J5M-07	606.07	544.49	546.18	547.34	543.76
J6-07	608.85	544.32	545.63	545.81	543.31
PMW-1M-07	598.50	529.59	529.09	529.02	529.11
Flow Zone 9					
ABP-1-09	575.49	534.77	534.37	534.30	534.60
ABP-7-09	575.67	533.99	533.25	532.89	533.58
AFW-1M-09	571.12	529.61	526.29	524.58	524.70
AFW-2M-09	593.32	521.06	521.11	521.11	521.07
AGW-1M-09	592.75	545.24	547.57	549.46	543.83
B2M-09	589.34	-	530.28	529.66	529.72
C3-09	585.00	543.37	542.92	540.72	543.43
D1M-09	594.02	518.63	520.25	517.81	519.20
D2M-09	590.66	518.62	520.20	517.76	519.08
E6-09	577.82	553.24	553.40	552.96	553.05
F2M-09	598.71	518.32	520.08	517.52	518.92
F4M-09	601.79	518.28	519.98	517.49	518.85
F6-09	587.53	572.72	571.96	571.07	570.68
G1M-09	616.58	581.61	582.16	578.38	579.90
G6-09	608.98	586.51	585.09	580.18	583.76
H2M-09	621.32	549.21	550.22	551.82	547.62
H5-09	616.93	543.50	544.89	545.66	542.88
I1-09	624.91	562.89	562.62	562.93	562.69

Table 3.5

2018 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 3/6/2018 (ft. AMSL)	Water Level Elevation Quarter 2 5/30/2018 (ft. AMSL)	Water Level Elevation Quarter 3 9/12/2018 (ft. AMSL)	Water Level Elevation Quarter 4 12/4/2018 (ft. AMSL)
Flow Zone 9 Continued					
J2M-09	608.77	545.00	546.66	546.19	543.96
J5M-09	605.82	544.91	545.99	547.01	544.19
J6-09	608.76	563.84	561.93	562.64	563.82
PMW-1M-09	598.34	518.55	520.16	517.72	519.32
Flow Zone 11					
AFW-1L-11	572.10	511.93	508.47	505.76	510.92
AFW-2L-11	593.43	497.00	496.79	495.25	496.69
AGW-1L-11	592.71	581.28	581.67	581.79	582.29
B2L-11	589.65	498.80	498.29	498.71	498.07
D1L-11	593.80	504.95	504.26	503.71	503.81
D2L-11	590.21	517.87	518.25	518.21	517.99
E6-11	577.72	555.44	532.50	533.43	532.52
F2L-11	598.94	555.12	556.03	554.49	554.66
F4L-11	602.22	573.93	575.06	575.01	574.58
F6-11	587.40	530.51	530.47	528.46	529.03
G1L-11	616.84	592.81	591.99	588.09	590.15
G6-11	608.89	595.48	594.56	590.59	592.70
H2L-11	620.73	555.98	556.97	557.40	557.50
H5-11	616.81	542.35	542.90	543.33	542.49
I1-11	624.75	547.18	546.86	546.82	546.53
J5L-11	607.20	553.42	553.27	553.76	552.11
J6-11	608.68	585.24	585.26	584.29	585.55
PMW-1L-11	598.84	511.87	511.24	511.27	511.76

Notes:

ft. AMSL - Feet Above Mean Sea Level
- - Obstructed

Table 3.6

2018 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	0.15	2.69	0.70	8.29	0.43	1.61	1.28	0.13	0.04	2.65	0.64	3.04
February	0.30	2.16	0.83	11.46	0.60	2.77	1.06	0.14	0.08	2.78	0.75	2.85
March	0.32	3.18	0.87	8.93	0.50	2.97	0.93	0.14	0.08	2.67	0.78	3.17
April	0.42	4.90	0.91	8.08	0.87	2.99	1.03	0.14	0.09	2.74	0.50	2.80
May	0.33	4.50	0.89	6.27	0.50	0.61	1.37	0.12	0.10	2.59	0.77	3.71
June	1.26	2.44	0.70	6.55	0.35	0.23	1.88	0.09	0.15	2.32	0.57	3.54
July	0.76	0.99	0.68	6.57	0.30	0.13	1.64	0.06	0.15	2.11	0.43	3.38
August	0.29	0.79	0.67	6.59	0.32	0.19	1.71	0.06	0.13	1.90	0.38	3.24
September	0.05	0.94	0.61	6.43	0.30	0.12	1.74	0.05	0.14	1.79	0.36	2.93
October	0.00	1.19	0.60	6.34	0.30	0.12	1.78	0.06	0.15	1.78	0.39	3.56
November	0.00	2.74	0.63	6.23	0.73	0.14	1.86	0.09	0.00	2.02	0.48	3.66
December	0.00	3.46	0.64	6.70	0.61	0.17	2.46	0.12	0.00	2.30	0.59	3.69
Annual Average	0.32	2.50	0.73	7.37	0.48	1.01	1.56	0.10	0.09	2.30	0.55	3.30

Month	PW-7U	PW-8M (1)	PW-8U	PW-9U	PW-10U	APW-1	APW-2
January	0.44	0.00	0.00	0.64	2.86	0.46	0.05
February	0.46	0.49	0.00	0.74	3.06	0.85	0.35
March	0.45	0.00	0.00	0.70	3.11	0.71	0.08
April	0.48	0.45	0.99	0.87	3.68	0.98	0.22
May	0.46	0.00	0.64	0.57	3.30	0.10	0.00
June	0.43	0.00	0.12	0.41	2.83	0.00	0.00
July	0.39	0.00	0.01	0.23	2.70	0.00	0.00
August	0.38	0.00	0.00	0.20	2.65	0.01	0.00
September	0.38	0.00	0.00	0.16	2.55	0.00	0.00
October	0.38	0.00	0.00	0.18	2.61	0.00	0.00
November	0.10	0.00	0.07	0.31	2.82	0.26	0.02
December	0.11	0.00	0.03	0.45	3.00	0.45	0.05
Annual Average	0.37	0.14	0.23	0.50	2.84	0.34	0.08

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 2018
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-7-09-0218	AGW-1M-07-0218	AGW-1M-09-0218	AGW-1U-06-0218	B2L-11-0218
Sample Date:			02/15/2018	02/14/2018	02/14/2018	02/14/2018	02/16/2018
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	13 J
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	27 J	32 J	**160 J**	**120 J**	**160 J**

Sample Location:			C3-07	C3-09	D1M-09	D1U-04	D1U-05
Sample ID:			C3-07-0218	C3-09-0218	D1M-09-0218	D1U-04-0218	D1U-05-0218
Sample Date:			02/16/2018	02/16/2018	02/14/2018	02/14/2018	02/14/2018
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	3.4 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	21 J	**180 J**	20 J	**65 J**

Sample Location:			F2M-09	F2U-02	F2U-04	G1U-01	G6-01
Sample ID:			F2M-09-0218	F2U-02-0218	F2U-04-0218	G1U-01-0218	G6-01-0218
Sample Date:			02/15/2018	02/15/2018	02/15/2018	02/15/2018	02/13/2018
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	19 J	**270**	**360**	250 U	250 U

Sample Location:			G6-04	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-04-0218	W7-10-0218	G6-06-0218	H2U-02-0218	H5-09-0218
Sample Date:			02/13/2018	02/13/2018 Duplicate	02/13/2018	02/16/2018	02/16/2018
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	2000	2100	30 U	11 J	33
3-Chlorobenzoic acid	µg/L	7,300	420	440	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	1500	1600	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	**94 J**	**100 J**	250 U	**91 J**	**88 J**

Notes:

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

Table 3.7b

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Second Quarter 2018
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-7-09-0518	AGW-1M-07-0518	AGW-1M-09-0518	AGW-1U-06-0518	B2L-11-0518
Sample Date:			05/15/2018	05/15/2018	05/15/2018	05/15/2018	05/15/2018
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	10 J
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	**75 J**	18 J	**140 J**	**59 J**	**150 J**

Sample Location:			C3-07	C3-07	C3-09	D1M-09	D1U-04
Sample ID:			C3-07-0518	W7-10-0518	C3-09-0518	D1M-09-0518	D1U-04-0518
Sample Date:			05/14/2018	05/14/2018	05/14/2018	05/15/2018	05/15/2018
				Duplicate			
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	250 U	**200 J**	21 J

Sample Location:			D1U-05	F2M-09	F2U-02	F2U-04	G1U-01
Sample ID:			D1U-05-0518	F2M-09-0518	F2U-02-0518	F2U-04-0518	G1U-01-0517
Sample Date:			05/15/2018	05/14/2018	05/14/2018	05/14/2018	07/10/2018
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	**53 J**	12 J	**240 J**	**360**	250 U

Sample Location:			G6-01	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-01-0518	G6-04-0518	G6-06-0518	H2U-02-0518	H5-09-0518
Sample Date:			05/14/2018	05/14/2018	05/14/2018	05/18/2018	05/15/2018
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	1700	30 U	30 U	23 J
3-Chlorobenzoic acid	µg/L	7,300	30 U	310	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	1200	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	**86 J**	250 U	**60 J**	**110 J**

Notes:

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

Table 3.7c

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Third Quarter 2018
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-7-09-0818	AGW-1M-07-0818	AGW-1M-09-0818	AGW-1U-06-0818	B2L-11-0818
Sample Date:			08/14/2018	08/15/2018	08/15/2018	08/15/2018	08/15/2018
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	10 J
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	40 J	20 J	**140 J**	**120 J**	**130 J**

Sample Location:			C3-07	C3-07	C3-09	D1M-09	D1U-04
Sample ID:			C3-07-0818	W7-10-0818	C3-09-0818	D1M-09-0818	D1U-04-0818
Sample Date:			08/14/2018	08/14/2018	08/14/2018	08/14/2018	08/14/2018
				Duplicate			
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	10 J	250 U	10 J	**170 J**	250 U

Sample Location:			D1U-05	F2M-09	F2U-02	F2U-04	G1U-01
Sample ID:			D1U-05-0818	F2M-09-0818	F2U-02-0818	F2U-04-0818	G1U-01-0818
Sample Date:			08/14/2018	08/14/2018	08/14/2018	08/14/2018	08/15/2018
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	**200 J**	**340**	250 U

Sample Location:			G6-01	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-01-0818	G6-04-0818	G6-06-0818	H2U-02-0818	H5-09-0818
Sample Date:			08/14/2018	08/14/2018	08/14/2018	08/15/2018	08/15/2018
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	2800	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	590	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	1900	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	**110 J**	250 U	**80 J**	40 J

Notes:

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

Table 3.7d

Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Fourth Quarter 2018
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-7-09-1118	AGW-1M-07-1118	AGW-1M-09-1118	AGW-1U-06-1118	B2L-11-1118
Sample Date:			12/03/2018	12/03/2018	12/03/2018	12/03/2018	12/03/2018
Parameters	**Units**	**Screening Level**					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	10 J
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	**70 J**	40 J	**150 J**	**150 J**	**140 J**

Sample Location:			C3-07	C3-09	D1M-09	D1U-04	D1U-04
Sample ID:			C3-07-1118	C3-09-1118	D1M-09-1118	D1U-04-1118	W7-10-1118
Sample Date:			11/30/2018	11/30/2018	11/30/2018	11/30/2018	11/30/2018 Duplicate
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	10 J	20 J	**180 J**	20 J	40 J

Sample Location:			D1U-05	F2M-09	F2U-02	F2U-04	G1U-01
Sample ID:			D1U-05-1118	F2M-09-1118	F2U-02-1118	F2U-04-1118	G1U-01-1118
Sample Date:			11/30/2018	11/30/2018	11/30/2018	11/30/2018	11/30/2018
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	10 J	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	10 J	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	**150 J**	20 J	**240 J**	**360**	10 J

Sample Location:			G6-01	G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-01-1118	G6-04-1118	G6-06-1118	H2U-02-1118	H5-09-1118
Sample Date:			11/30/2018	11/30/2018	11/30/2018	12/03/2018	12/03/2018
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	1,700	30 U	10 J	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	310	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	1,600	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	**70 J**	250 U	**130 J**	**80 J**

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

2018 Analytical Results Summary
Annual Bedrock Open Catch Basin
Hyde Park Landfill Site
Town of Niagara, New York

	Sample Location:	**BR-OpenCatchBasin**
	Sample ID:	**HPOPENCB-1018**
	Sample Date:	**10/16/2018**
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	250 U

Notes:

U - Not detected at the associated reporting limit

Table 3.9

2018 Analytical Results Summary
Annual AFW Composite
Hyde Park Landfill Site
Town of Niagara, New York

		Sample Location:	**AFWCOMPOSITE**
		Sample ID:	**AFW-C-118**
		Sample Date:	**11/29/2018**
Parameters	**Units**	**Reporting Level**	
Polychlorinated Biphenyls (PCBs)			
Pentachlorobiphenyl	µg/L	1	0.0094 U
Tetrachlorobiphenyl	µg/L	1	0.0094 U
Trichlorobiphenyl	µg/L	1	0.0033 J
Pesticides			
alpha-BHC	µg/L	1	0.12
beta-BHC	µg/L	1	0.047 U
delta-BHC	µg/L	1	0.037 J
gamma-Chlordane	µg/L	1	0.072
Mirex	µg/L	1	0.047 U
Dioxin Furans			
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L	500	4.73 UJ

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 3.10

2018 Quarterly Hydraulic Gradient Summary
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York

Gradient Pairing		3/6/2018			5/30/2018			9/12/2018			12/4/2018		
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	572.09	565.16	0.630	571.51	564.19	0.665	571.09	563.29	0.709	571.42	564.73	0.608
CMW-2OB	CMW-2SH	590.22	573.32	1.182	587.43	573.29	0.989	581.37	571.55	0.687	590.69	574.15	1.157
CMW-3OB	CMW-3SH	576.42	549.91	1.894	575.69	548.42	1.948	570.54	548.45	1.578	571.63	549.42	1.586
CMW-4OB	CMW-4SH	574.28*	567.63	0.564	574.28*	566.76	0.637	573.77	566.05	0.654	574.28*	567.07	0.611
CMW-5OB	CMW-5SH	583.43*	577.45	0.378	583.43*	576.14	0.461	583.43*	574.02	0.596	583.43*	576.74	0.423
CMW-6OB	CMW-6SH	571.89*	562.56	0.972	571.67	561.95	1.012	571.56	561.38	1.060	571.62	561.64	1.040
CMW-7OB	CMW-7SH	606.47	601.60	0.341	- (1)	599.70	0.446	- (1)	597.58	0.613	606.38	599.61	0.473
CMW-8OB	CMW-8SH	612.93	611.83	0.106	- (2)	609.86	0.286	- (2)	605.93	0.663	612.88	610.35	0.243
CMW-9OB	CMW-9SH	- (3)	560.36	1.760	- (3)	559.84	1.867	- (3)	559.88	1.848	- (3)	560.33	1.752
CMW-11OB	CMW-11SH	570.34	565.26	0.529	568.96	564.84	0.429	569.08	564.52	0.475	571.18	565.18	0.625
CMW-12OB	CMW-12SH	591.41	572.44	1.009	588.32	572.33	0.851	576.73	570.41	0.336	577.38	572.91	0.238

Notes:

ft. AMSL - Feet Above Mean Sea Level
ft./ft. - Feet per foot
- 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-7OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.
-(2) - Well CMW-8OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.
-(3) - Well CMW-9OB was recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.

Table 3.11

2018 Community Monitoring Well Soil Vapor Monitoring
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York

September 27, 2018
63°F, Winds SSE 5-10 MPH

Well I.D.	Time Intervals	Sampling Time (hhmm)	VOC Readings (ppmv)
SVP-1	Background	1330	0
	At 1 minute	1331	0
	At 2 minutes	1332	0
	At 3 minutes	1333	0
	At 4 minutes	1334	0
	At 5 minutes	1335	0
	At 6 minutes	1336	0
	At 7 minutes	1337	0
	At 8 minutes	1338	0
	At 9 minutes	1339	0
	At 10 minutes	1340	0
SVP-2	Background	1317	0
	At 1 minute	1318	0
	At 2 minutes	1319	0
	At 3 minutes	1320	0
	At 4 minutes	1321	0
	At 5 minutes	1322	0
	At 6 minutes	1323	0
	At 7 minutes	1324	0
	At 8 minutes	1325	0
	At 9 minutes	1326	0
	At 10 minutes	1327	0
SVP-3	Background	1307	0
	At 1 minute	1308	0
	At 2 minutes	1309	0
	At 3 minutes	1310	0
	At 4 minutes	1311	0
	At 5 minutes	1312	0
	At 6 minutes	1313	0
	At 7 minutes	1314	0
	At 8 minutes	1315	0
	At 9 minutes	1316	0
	At 10 minutes	1317	0
SVP-4	Background	1256	0
	At 1 minute	1257	0
	At 2 minutes	1258	0
	At 3 minutes	1259	0
	At 4 minutes	1300	0
	At 5 minutes	1301	0
	At 6 minutes	1302	0
	At 7 minutes	1303	0
	At 8 minutes	1304	0
	At 9 minutes	1305	0
	At 10 minutes	1306	0

Table 3.11

2018 Community Monitoring Well Soil Vapor Monitoring
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York

September 27, 2018
63°F, Winds SSE 5-10 MPH

Well I.D.	Time Intervals	Sampling Time (hhmm)	VOC Readings (ppmv)
CMW-7OB	Background	1351	0
	At 1 minute	1352	0
	At 2 minutes	1353	0
	At 3 minutes	1354	0
	At 4 minutes	1355	0
	At 5 minutes	1356	0
	At 6 minutes	1357	0
	At 7 minutes	1358	0
	At 8 minutes	1359	0
	At 9 minutes	1400	0
	At 10 minutes	1401	0
CMW-8OB	Background	1419	0
	At 1 minute	1420	0
	At 2 minutes	1421	0
	At 3 minutes	1422	0
	At 4 minutes	1423	0
	At 5 minutes	1424	0
	At 6 minutes	1425	0
	At 7 minutes	1426	0
	At 8 minutes	1427	0
	At 9 minutes	1428	0
	At 10 minutes	1429	0

Notes:

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

Table 3.12

Organic Acid Recall and Correction Summary
Hyde Park Landfill Site
Town of Niagara, New York

Report	Tables with Incorrect Values for o- and m- Chlorobenzoic Acid
1. Annual Site Remedial Performance Evaluation Report: January 1, 2012 to December 31, 2012	Table 8d - Quarterly Group B Bedrock Piezometer Sampling, Fourth Quarter 2012 Table 9 - Fifth Quarter Group A Bedrock Piezometer Sampling Table 15 - 2012 Quarterly Leachate Feed APL Sampling
2. Annual Site Remedial Performance Evaluation Report: January 1, 2013 to December 31, 2013	Tables 8a through 8d - Quarterly Group B Bedrock Piezometer Sampling, First Quarter through Fourth Quarter 2013 Table 15 - 2013 Quarterly Leachate Feed APL Sampling
3. 2014 Annual Periodic Review Report	Tables 3.7a through 3.7d - Quarterly Group B Bedrock Piezometer Sampling, First Quarter through Fourth Quarter 2014 Table 3.8 - Fifth Quarter Group A Bedrock Piezometer Sampling Table 4.3 - 2014 Quarterly Leachate Feed APL Sampling
4. 2015 Annual Periodic Review Report	Tables 3.7a through 3.7d - Quarterly Group B Bedrock Piezometer Sampling, First Quarter through Fourth Quarter 2015 Table 3.8 - Fifth Quarter Group A Bedrock Piezometer Sampling Table 4.3 - 2015 Quarterly Leachate Feed APL Sampling
5. 2016 Annual Periodic Review Report	Tables 3.7a through 3.7d - Quarterly Group B Bedrock Piezometer Sampling, First Quarter through Fourth Quarter 2016 Table 3.8 - Fifth Quarter Group A Bedrock Piezometer Sampling Table 4.3 - 2016 Quarterly Leachate Feed APL Sampling
6. Five Year Site Remedial Performance Report – 2012 - 2016	Table 1 - 5-Year APL and NAPL Purge Well Sampling, July 2016 Table 2 - Fifth Quarter Group A Bedrock Piezometer Sampling Attachment 1, Table 1 - Summary of Detection Frequency for Chemicals in Groundwater Samples, BMP
7. 2017 Annual Periodic Review Report	Tables 3.7a through 3.7d - Quarterly Group B Bedrock Piezometer Sampling, First Quarter through Fourth Quarter 2017 Table 3.8 - Fifth Quarter Group A Bedrock Piezometer Sampling Table 4.3 - 2017 Quarterly Leachate Feed APL Sampling

Table 4.1

2018 NAPL Decanter Volume Monitoring
Hyde Park Landfill Site
Town of Niagara, New York

	Decanter #1	Decanter #2	Decanter #3
First Quarter 2018			
March 6, 2018			
Thickness (feet)	13.00	4.54	5.00
Level (%)	32	31	22
Volume[(1)] (gallons)	3,584.00	3,472.00	2,464.00
Second Quarter 2018			
May 30, 2018			
Thickness (feet)	15.20	6.20	6.15
Level (%)	42	31	35
Volume[(1)] (gallons)	4,704.00	3,472.00	3,920.00
Third Quarter 2018			
September 12, 2018			
Thickness (feet)	16.75	5.80	6.55
Level (%)	45	30	31
Volume[(1)] (gallons)	5,040.00	3,360.00	3,472.00
Fourth Quarter 2018			
December 4, 2018			
Thickness (feet)	17.77	5.24	5.33
Level (%)	52	32	26
Volume[(1)] (gallons)	5,824.00	3,584.00	2,912.00

Notes:

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

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 1218 INT-D	HP 11018 INT-D	HP 11718 INT-D	HP 12418 INT-D	HP 13118 INT-D	HP 2718 IND-D	HP 21418 INT-D	HP 22118 INT-D
Sample Date:		1/2/2018	1/10/2018	1/17/2018	1/24/2018	1/31/2018	2/7/2018	2/14/2018	2/21/2018
Parameters	**Units**								
Volatile Organic Compounds									
1,1,1-Trichloroethane	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
1,1,2,2-Tetrachloroethane	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
1,1,2-Trichloroethane	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
1,1-Dichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.49 J	2.0 U
1,1-Dichloroethene	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
1,2,4-Trichlorobenzene	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
1,2-Dichlorobenzene	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
1,2-Dichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.73 J	0.73 J
1,2-Dichloropropane	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
1,3-Dichlorobenzene	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
1,4-Dichlorobenzene	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-Chlorotoluene	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
3-Chlorotoluene	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
4-Chlorotoluene	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
Benzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.43 J
Bromodichloromethane	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
Bromoform	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
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	2.0 U
Carbon disulfide	µg/L	8.7	1.2 J	4.3	1.4 J	5.0	4.9	25	3.8
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	2.0 U
Chlorobenzene	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
Chloroethane	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
Chloroform (Trichloromethane)	µg/L	2.0 U	2.0 U	0.70 J	0.81 J	0.61 J	0.68 J	0.77 J	0.68 J
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	2.0 U
cis-1,2-Dichloroethene	µg/L	2.0 U	0.88 J	2.0 U	2.0 U	2.0 U	0.64 J	0.81 J	1.0 J
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	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	2.0 U
Ethylbenzene	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
m&p-Xylenes	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	µg/L	2.0 U	2.0 U	1.3 J	2.0 U	1.2 J	2.0 U	2.0 U	2.0 U
m-Monochlorobenzotrifluoride	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

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 1218 INT-D	HP 11018 INT-D	HP 11718 INT-D	HP 12418 INT-D	HP 13118 INT-D	HP 2718 IND-D	HP 21418 INT-D	HP 22118 INT-D
Sample Date:		1/2/2018	1/10/2018	1/17/2018	1/24/2018	1/31/2018	2/7/2018	2/14/2018	2/21/2018
Parameters	**Units**								
Volatile Organic Compounds									
o-Monochlorobenzotrifluoride	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
o-Xylene	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
p-Monochlorobenzotrifluoride	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
Styrene	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
Tetrachloroethene	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
Toluene	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
trans-1,2-Dichloroethene	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
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	2.0 U
Trichloroethene	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
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	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	4.0 U
Vinyl chloride	µg/L	260	240	330	390	440	400	540	430
Xylenes (total)	µg/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 22818 INT-D	HP 3818 INT-D	HP 31418 INT-D	HP 32118 INT-D	HP 32818 INT-D	HP 4418 INT-D	HP 41118 INT-d	HP 41918 INT-D
Sample Date:		2/28/2018	3/8/2018	3/14/2018	3/21/2018	3/28/2018	4/4/2018	4/11/2018	4/19/2018
Parameters	**Units**								
Volatile Organic Compounds									
1,1,1-Trichloroethane	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
1,1,2,2-Tetrachloroethane	µg/L	2.0 U	1.4 J	0.88 J	1.2 J	1.2 J	1.2 J	1.6 J	1.9 J
1,1,2-Trichloroethane	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
1,1-Dichloroethane	µg/L	0.69 J	0.90 J	0.98 J	0.88 J	0.98 J	0.99 J	1.5 J	1.2 J
1,1-Dichloroethene	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
1,2,4-Trichlorobenzene	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
1,2-Dichlorobenzene	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
1,2-Dichloroethane	µg/L	1.2 J	2.0 J	1.7 J	2.1	2.4	2.4	3.3	3.5
1,2-Dichloropropane	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
1,3-Dichlorobenzene	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
1,4-Dichlorobenzene	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-Chlorotoluene	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
3-Chlorotoluene	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
4-Chlorotoluene	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
Benzene	µg/L	0.81 J	2.9	1.7 J	2.2	2.6	2.5	3.5	4.0
Bromodichloromethane	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
Bromoform	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
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	2.0 U
Carbon disulfide	µg/L	1.4 J	17	17	2.1	2.8	26	33	0.88 J
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	2.0 U
Chlorobenzene	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
Chloroethane	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
Chloroform (Trichloromethane)	µg/L	1.3 J	1.4 J	0.90 J	1.4 J	1.3 J	1.5 J	1.8 J	1.3 J
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	2.0 U
cis-1,2-Dichloroethene	µg/L	1.9 J	4.0	2.8	4.3	4.8	5.0	7.8	7.9
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	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	2.0 U
Ethylbenzene	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
m&p-Xylenes	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	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
m-Monochlorobenzotrifluoride	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

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 22818 INT-D	HP 3818 INT-D	HP 31418 INT-D	HP 32118 INT-D	HP 32818 INT-D	HP 4418 INT-D	HP 41118 INT-d	HP 41918 INT-D
Sample Date:		2/28/2018	3/8/2018	3/14/2018	3/21/2018	3/28/2018	4/4/2018	4/11/2018	4/19/2018
Parameters	**Units**								
Volatile Organic Compounds									
o-Monochlorobenzotrifluoride	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
o-Xylene	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
p-Monochlorobenzotrifluoride	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
Styrene	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
Tetrachloroethene	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
Toluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.46 J	0.53 J
trans-1,2-Dichloroethene	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
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	2.0 U
Trichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.54 J
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	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	4.0 U
Vinyl chloride	µg/L	580	470	520	460	530	400	530	410
Xylenes (total)	µg/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 42518 INT-D	HP 5218 INT-D	HP 51018 INT-D	HP 51618 INT-D	HP 52318 INT-D	HP 53018 INT-D	HP 6618 INT-D	HP 61318 INT-D
Sample Date:		4/25/2018	5/2/2018	5/10/2018	5/16/2018	5/23/2018	5/30/2018	6/6/2018	6/13/2018
Parameters	**Units**								
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.64 J	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	µg/L	2.3	2.8	2.5	2.9	7.0	2.5	2.8	2.2
1,1,2-Trichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.66 J	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane	µg/L	1.4 J	1.9 J	1.9 J	1.7 J	2.5	2.1	2.0	2.1
1,1-Dichloroethene	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
1,2,4-Trichlorobenzene	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
1,2-Dichlorobenzene	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
1,2-Dichloroethane	µg/L	4.3	5.6	6.0	5.5	9.0	7.9	7.6	7.6
1,2-Dichloropropane	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
1,3-Dichlorobenzene	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
1,4-Dichlorobenzene	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-Chlorotoluene	µg/L	3.6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3-Chlorotoluene	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
4-Chlorotoluene	µg/L	0.65 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Benzene	µg/L	4.9	6.3	6.0	5.9	12	7.0	6.2	4.5
Bromodichloromethane	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
Bromoform	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
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	2.0 U
Carbon disulfide	µg/L	35	32	37	3.1	10	9.6	5.4	13
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	2.0 U
Chlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.70 J	2.0 U	2.0 U	2.0 U
Chloroethane	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
Chloroform (Trichloromethane)	µg/L	1.7 J	3.2	2.1	1.9 J	11	2.9	1.9 J	2.0 J
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	2.0 U
cis-1,2-Dichloroethene	µg/L	11	14	15	14	29	18	17	16
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	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	2.0 U
Ethylbenzene	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
m&p-Xylenes	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	µg/L	2.0 U	1.3 J	2.0 U	2.0 U	7.5	2.0 U	2.0 U	2.0 U
m-Monochlorobenzotrifluoride	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

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 42518 INT-D	HP 5218 INT-D	HP 51018 INT-D	HP 51618 INT-D	HP 52318 INT-D	HP 53018 INT-D	HP 6618 INT-D	HP 61318 INT-D
Sample Date:		4/25/2018	5/2/2018	5/10/2018	5/16/2018	5/23/2018	5/30/2018	6/6/2018	6/13/2018
Parameters	**Units**								
Volatile Organic Compounds									
o-Monochlorobenzotrifluoride	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
o-Xylene	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
p-Monochlorobenzotrifluoride	µg/L	11	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	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
Tetrachloroethene	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
Toluene	µg/L	0.72 J	1.2 J	1.1 J	0.86 J	3.2	1.0 J	0.68 J	0.54 J
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.64 J	2.0 U	2.0 U	2.0 U
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	2.0 U
Trichloroethene	µg/L	0.58 J	1.2 J	0.98 J	0.78 J	2.0 J	0.98 J	0.78 J	0.54 J
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	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	4.0 U
Vinyl chloride	µg/L	470	490	510	460	480	400	520	410
Xylenes (total)	µg/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 62018 INT-D	HP 62718 INT-D	HP 7518 INT-D	HP 71118 INT-D	HP 71818 INT-D	HP 72518 INT-D	HP 8118 INT-D	HP 8818 INT-D
Sample Date:		6/20/2018	6/27/2018	7/5/2018	7/11/2018	7/18/2018	7/25/2018	8/1/2018	8/8/2018
Parameters	**Units**								
Volatile Organic Compounds									
1,1,1-Trichloroethane	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
1,1,2,2-Tetrachloroethane	µg/L	2.4	2.1	1.9 J	1.5 J	2.6	1.8 J	2.3	2.2
1,1,2-Trichloroethane	µg/L	2.0 U	2.0 U	0.50 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane	µg/L	2.2	2.5	3.0	2.3	3.1	2.8	2.9	3.0
1,1-Dichloroethene	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
1,2,4-Trichlorobenzene	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
1,2-Dichlorobenzene	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
1,2-Dichloroethane	µg/L	8.5	8.3	11	7.9	9.7	9.8	9.8	10
1,2-Dichloropropane	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
1,3-Dichlorobenzene	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
1,4-Dichlorobenzene	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-Chlorotoluene	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
3-Chlorotoluene	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
4-Chlorotoluene	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
Benzene	µg/L	4.6	5.0	5.1	3.5	6.7	4.9	6.1	5.7
Bromodichloromethane	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
Bromoform	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
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	2.0 U
Carbon disulfide	µg/L	17	20	85	20	23	2.0 U	10	7.3
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	2.0 U
Chlorobenzene	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
Chloroethane	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
Chloroform (Trichloromethane)	µg/L	1.9 J	2.0 J	2.3	2.1	5.1	3.3	5.8	6.6
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	2.0 U
cis-1,2-Dichloroethene	µg/L	17	17	19	13	17	16	16	16
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	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	2.0 U
Ethylbenzene	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
m&p-Xylenes	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	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
m-Monochlorobenzotrifluoride	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

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 62018 INT-D	HP 62718 INT-D	HP 7518 INT-D	HP 71118 INT-D	HP 71818 INT-D	HP 72518 INT-D	HP 8118 INT-D	HP 8818 INT-D
Sample Date:		6/20/2018	6/27/2018	7/5/2018	7/11/2018	7/18/2018	7/25/2018	8/1/2018	8/8/2018
Parameters	**Units**								
Volatile Organic Compounds									
o-Monochlorobenzotrifluoride	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
o-Xylene	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
p-Monochlorobenzotrifluoride	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
Styrene	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
Tetrachloroethene	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
Toluene	µg/L	0.56 J	0.58 J	0.51 J	2.0 U	0.62 J	0.40 J	0.47 J	2.0 U
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	0.65 J	2.0 U	0.52 J	2.0 U	2.0 U	2.0 U
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	2.0 U
Trichloroethene	µg/L	0.56 J	0.58 J	0.89 J	2.0 U	0.62 J	0.49 J	0.48 J	0.59 J
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	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	4.0 U
Vinyl chloride	µg/L	450	480	640	430	510	520	480	490
Xylenes (total)	µg/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 81518 INT-D	HP 82218 INT-D	HP 82918 INT-D	HP 9518 INT-D	HP 91218 INT-D	HP 91918 INT-D	HP 92618 INT-D	HP 10318 INT-D
Sample Date:		8/15/2018	8/22/2018	8/29/2018	9/5/2018	9/12/2018	9/19/2018	9/26/2018	10/3/2018
Parameters	**Units**								
Volatile Organic Compounds									
1,1,1-Trichloroethane	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
1,1,2,2-Tetrachloroethane	µg/L	2.2	2.1	1.6 J	1.9 J	1.9 J	1.8 J	1.8 J	2.5
1,1,2-Trichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.66 J
1,1-Dichloroethane	µg/L	2.9	2.6	2.6	3.1	3.1	3.2	3.1	2.9
1,1-Dichloroethene	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
1,2,4-Trichlorobenzene	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
1,2-Dichlorobenzene	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
1,2-Dichloroethane	µg/L	9.6	9.3	9.2	11	9.8	11	11	9.3
1,2-Dichloropropane	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
1,3-Dichlorobenzene	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
1,4-Dichlorobenzene	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-Chlorotoluene	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
3-Chlorotoluene	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
4-Chlorotoluene	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
Benzene	µg/L	5.4	5.9	4.7	6.6	5.1	5.2	6.0	7.9
Bromodichloromethane	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
Bromoform	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
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	2.0 U
Carbon disulfide	µg/L	6.5	7.4	6.6	2.0 U	21	25	31	8.3
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	2.0 U
Chlorobenzene	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
Chloroethane	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
Chloroform (Trichloromethane)	µg/L	7.0	8.2	6.6	8.9	8.4	7.8	8.3	9.2
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	2.0 U
cis-1,2-Dichloroethene	µg/L	15	15	13	15	14	15	15	13
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	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	2.0 U
Ethylbenzene	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
m&p-Xylenes	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.3 J	2.0 U	2.0 U
m-Monochlorobenzotrifluoride	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

Table 4.2

2018 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	HP-INTER-D-01
Sample ID:		HP 81518 INT-D	HP 82218 INT-D	HP 82918 INT-D	HP 9518 INT-D	HP 91218 INT-D	HP 91918 INT-D	HP 92618 INT-D	HP 10318 INT-D
Sample Date:		8/15/2018	8/22/2018	8/29/2018	9/5/2018	9/12/2018	9/19/2018	9/26/2018	10/3/2018
Parameters	**Units**								
Volatile Organic Compounds									
o-Monochlorobenzotrifluoride	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
o-Xylene	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
p-Monochlorobenzotrifluoride	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
Styrene	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
Tetrachloroethene	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
Toluene	µg/L	2.0 U	2.0 U	2.0 U	0.49 J	2.0 U	2.0 U	2.0 U	0.52 J
trans-1,2-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	0.59 J	2.0 U	2.0 U	0.58 J	2.0 U
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	2.0 U
Trichloroethene	µg/L	0.43 J	0.52 J	0.40 J	0.79 J	0.42 J	0.68 J	0.52 J	0.48 J
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	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	4.0 U
Vinyl chloride	µg/L	470	400	380	420	390	390	340	290
Xylenes (total)	µg/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U

Table 4.2

2018 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 101018 INT-D	HP 101718 INT-D	HP 102418 INT-D	HP 103118 INT-D	HP 11718 INT-D	HP 111418 INT-D
Sample Date:		10/10/2018	10/17/2018	10/24/2018	10/31/2018	11/7/2018	11/14/2018
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.1 J	1.5 J	2.6	2.2	4.1	3.6
1,1,2-Trichloroethane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.59 J	0.58 J
1,1-Dichloroethane	µg/L	2.6	2.6	2.8	2.8	3.0	2.7
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloroethane	µg/L	6.9	9.0	9.3	8.6	11	9.9
1,2-Dichloropropane	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Chlorotoluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3-Chlorotoluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorotoluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Benzene	µg/L	4.4	5.3	9.0	7.8	14	12
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	42	16	18	36	8.9	8.3
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	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
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	5.0	5.4	5.9	4.7	4.9	4.0
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.68 J
cis-1,2-Dichloroethene	µg/L	10	12	13	10	17	15
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	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
m&p-Xylenes	µg/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Methylene chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.7 J
m-Monochlorobenzotrifluoride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Table 4.2

2018 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 101018 INT-D	HP 101718 INT-D	HP 102418 INT-D	HP 103118 INT-D	HP 11718 INT-D	HP 111418 INT-D
Sample Date:		10/10/2018	10/17/2018	10/24/2018	10/31/2018	11/7/2018	11/14/2018
Parameters	**Units**						
Volatile Organic Compounds							
o-Monochlorobenzotrifluoride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
p-Monochlorobenzotrifluoride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
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	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Toluene	µg/L	2.0 U	2.0 U	0.52 J	2.0 U	1.2 J	1.2 J
trans-1,2-Dichloroethene	µg/L	0.64 J	0.54 J	0.68 J	2.0 U	0.75 J	0.70 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
Trichloroethene	µg/L	2.0 U	0.42 J	0.50 J	0.69 J	0.90 J	1.1 J
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	220	250	230	180	250	210
Xylenes (total)	µg/L	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U

Table 4.2

2018 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 112018 INT-D	HP 112818 INT-D	HP 12518 INT-D	HP 121218 INT-D	HP 121918 INT-D	HP 122618 INT-D
Sample Date:		11/20/2018	11/28/2018	12/5/2018	12/12/2018	12/19/2018	12/26/2018
Parameters	**Units**						
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	0.65 J	2.0 U	0.58 J	0.50 J	0.70 J	0.60 J
1,1,2,2-Tetrachloroethane	µg/L	8.1	4.6	8.2	6.0	8.7	9.1
1,1,2-Trichloroethane	µg/L	0.80 J	0.52 J	0.66 J	0.70 J	0.86 J	0.77 J
1,1-Dichloroethane	µg/L	3.1	2.7	2.8	2.9	2.7	3.1
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloroethane	µg/L	11	9.8	11	12	13	13
1,2-Dichloropropane	µg/L	0.48 J	2.0 U	0.60 J	0.42 J	2.0 U	0.58 J
1,3-Dichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Chlorotoluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
3-Chlorotoluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Chlorotoluene	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Benzene	µg/L	23	15	27	23	27	28
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	8.2	11	17	7.2	12	15
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	0.77 J	0.60 J	1.5 J	1.2 J	1.5 J	1.4 J
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	7.2	5.6	3.7	2.1	5.1	2.6
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	20	18	25	27	29	30
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	2.0 U	2.0 U	0.53 J	2.0 U	0.52 J	0.42 J
m&p-Xylenes	µg/L	4.0 U	4.0 U	0.75 J	0.56 J	0.64 J	0.63 J
Methylene chloride	µg/L	4.8	2.2	1.2 J	2.0 U	1.6 J	2.0 U
m-Monochlorobenzotrifluoride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

Table 4.2

2018 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 112018 INT-D	HP 112818 INT-D	HP 12518 INT-D	HP 121218 INT-D	HP 121918 INT-D	HP 122618 INT-D
Sample Date:		11/20/2018	11/28/2018	12/5/2018	12/12/2018	12/19/2018	12/26/2018
Parameters	**Units**						
Volatile Organic Compounds							
o-Monochlorobenzotrifluoride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	0.42 J	2.0 U
o-Xylene	µg/L	2.0 U	2.0 U	0.79 J	0.46 J	0.68 J	0.67 J
p-Monochlorobenzotrifluoride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
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	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Toluene	µg/L	3.3	1.9 J	4.9	3.6	4.4	4.1
trans-1,2-Dichloroethene	µg/L	1.1 J	0.92 J	1.2 J	1.6 J	1.5 J	1.8 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
Trichloroethene	µg/L	1.8 J	1.5 J	2.5	2.6	3.0	2.7
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	220	170	160	170	160	180
Xylenes (total)	µg/L	6.0 U	6.0 U	1.5 J	1.0 J	1.3 J	1.3 J

Notes:

APL - Aqueous Phase Liquid
J - Estimated concentration
U - Not detected at the associated reporting limit
µg/L - Micrograms per liter

Table 4.3

2018 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
Sample ID:		HP 32818 INF	HP 62618 INF	HP 92618 INF	HP 121918 INF	HP 122618 INF
Sample Date:		3/28/2018	6/26/2018	9/26/2018	12/19/2018	12/26/2018
Parameters	**Units**					
Volatile Organic Compounds (VOCs)						
1,1,1-Trichloroethane	µg/L	3.1 J	5.8	4.6 J	3.2 J	-
1,1,2,2-Tetrachloroethane	µg/L	92	120	93	78	-
1,1,2-Trichloroethane	µg/L	7.1	12	12	7.1	-
1,1-Dichloroethane	µg/L	1.3 J	2.0 J	10 U	1.1 J	-
1,1-Dichloroethene	µg/L	5.0 U	3.0 J	5.0 J	5.0 U	-
1,2,4-Trichlorobenzene	µg/L	400	510	550	420	-
1,2-Dichlorobenzene	µg/L	59	90	82	61	-
1,2-Dichloroethane	µg/L	19	24	21	19	-
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	10 U	1.1 J	-
1,3-Dichlorobenzene	µg/L	19	29	28	19	-
1,4-Dichlorobenzene	µg/L	74	110	110	79	-
2-Chlorotoluene	µg/L	710	980	910	750	-
3-Chlorotoluene	µg/L	8.3	11	9.5 J	9.6	-
4-Chlorotoluene	µg/L	480	700	610	530	-
Benzene	µg/L	150	260	210	130	-
Bromodichloromethane	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Bromoform	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Carbon disulfide	µg/L	6.6	19	8.8 J	5.3	-
Carbon tetrachloride	µg/L	28	28	11	20	-
Chlorobenzene	µg/L	430	690	610	440	-
Chloroethane	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Chloroform (Trichloromethane)	µg/L	260	530	360	280	-
Chloromethane (Methyl chloride)	µg/L	1.3 J	5.0 U	10 U	2.0 J	-
cis-1,2-Dichloroethene	µg/L	310	650	510	310	-
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Ethylbenzene	µg/L	160	250	190	140	-
m&p-Xylenes	µg/L	550	840	680	540	-
Methylene chloride	µg/L	23	43	38	25	-
m-Monochlorobenzotrifluoride	µg/L	69	93	72	62	-
o-Monochlorobenzotrifluoride	µg/L	190	260	220	160	-
o-Xylene	µg/L	290	420	350	280	-
p-Monochlorobenzotrifluoride	µg/L	260	370	290	240	-
Styrene	µg/L	5.0 U	5.0 U	10 U	5.0 U	-

Table 4.3

2018 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
Sample ID:		HP 32818 INF	HP 62618 INF	HP 92618 INF	HP 121918 INF	HP 122618 INF
Sample Date:		3/28/2018	6/26/2018	9/26/2018	12/19/2018	12/26/2018
Parameters	**Units**					
VOCs-Continued						
Tetrachloroethene	µg/L	340	120	130	250	-
Toluene	µg/L	690	1000	880	630	-
trans-1,2-Dichloroethene	µg/L	7.0	9.5	7.0 J	6.3	-
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	10 U	5.0 U	-
Trichloroethene	µg/L	250	560	350	260	-
Trichlorofluoromethane (CFC-11)	µg/L	5.0 U	4.1 J	10 U	2.2 J	-
Vinyl acetate	µg/L	10 U	10 U	20 U	10 U	-
Vinyl chloride	µg/L	70	150	100	59	-
Xylenes (total)	µg/L	840	1300	1000	820	-
Semi-volatile Organic Compounds (SVOCs)						
2,4,6-Trichlorophenol	µg/L	2.3 J	47 U	47 U	1.7 J	-
2,4-Dichlorophenol	µg/L	120	110 J	130	16	-
2,4-Dimethylphenol	µg/L	2.3 J	47 UJ	47 U	1.5 J	-
2,4-Dinitrophenol	µg/L	47 U	240 U	240 U	47 U	-
2-Chlorobenzoic acid	µg/L	2200	3600	3300	-	1500
2-Chloronaphthalene	µg/L	9.4 U	47 U	47 U	9.4 U	-
2-Chlorophenol	µg/L	7.8 J	47 UJ	5.4 J	4.8 J	-
2-Nitrophenol	µg/L	9.4 U	47 U	47 U	9.4 U	-
3-Chlorobenzoic acid	µg/L	910	1600	1400	-	560
4,6-Dinitro-2-methylphenol	µg/L	47 U	240 U	240 U	47 U	-
4-Chloro-3-methylphenol	µg/L	2.1 J	47 UJ	47 U	1.8 J	-
4-Chlorobenzoic acid	µg/L	1800	3300	3000	-	1300
4-Nitrophenol	µg/L	47 U	240 U	240 U	47 U	-
Acenaphthene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Acenaphthylene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Anthracene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Benzo(a)anthracene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Benzo(a)pyrene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Benzo(b)fluoranthene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Benzo(g,h,i)perylene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Benzoic acid	µg/L	3800	6700	8200	-	560
bis(2-Chloroethoxy)methane	µg/L	9.4 U	47 U	47 U	9.4 U	-
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.4 U	47 U	49 U	9.7 U	-
Butyl benzylphthalate (BBP)	µg/L	9.4 U	47 U	47 U	9.4 U	-

Table 4.3

2018 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

	Sample Location:	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
	Sample ID:	HP 32818 INF	HP 62618 INF	HP 92618 INF	HP 121918 INF	HP 122618 INF
	Sample Date:	3/28/2018	6/26/2018	9/26/2018	12/19/2018	12/26/2018
Parameters	**Units**					
SVOCs-Continued						
Chlorendic acid	µg/L	2400	4500	4000	-	1500
Chrysene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Dibenz(a,h)anthracene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Diethyl phthalate	µg/L	9.4 U	47 U	47 U	9.4 U	-
Dimethyl phthalate	µg/L	9.4 U	47 U	47 U	9.4 U	-
Di-n-butylphthalate (DBP)	µg/L	9.4 U	47 U	47 U	9.4 U	-
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	47 U	47 U	9.4 U	-
Fluoranthene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Fluorene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Hexachlorobenzene	µg/L	8.9 J	47 U	47 U	4.5 J	-
Hexachlorobutadiene	µg/L	18	47 U	16 J	13	-
Hexachlorocyclopentadiene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Hexachloroethane	µg/L	9.8	47 U	47 U	4.6 J	-
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Isophorone	µg/L	9.4 U	47 U	47 U	9.4 U	-
Naphthalene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Octachlorocyclopentene	µg/L	4.7 U	24 U	24 U	4.7 U	-
Pentachlorophenol	µg/L	47 U	240 U	240 U	47 U	-
Phenanthrene	µg/L	9.4 U	47 U	47 U	9.4 U	-
Phenol	µg/L	2.5 J	580	400	9.4 U	-
Pyrene	µg/L	9.4 U	47 U	47 U	9.4 U	-

Notes:

APL - Aqueous Phase Liquid
J - Estimated concentration
U - Not detected at the associated reporting limit
UJ - Not detected; associated reporting limit is estimated
µg/L - Micrograms per liter
- - Not applicable

Table 4.4

2018 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 32818 SAC	HP 62618 SAC	HP 92618 SAC	HP 121918 SAC
Sample Date:		03/28/2018	06/26/2018	09/26/2018	12/19/2018
Parameters	**Units**				
Polychlorinated Biphenyls (PCB)					
Pentachlorobiphenyl	µg/L	1.2	0.099 J	0.29 J	2.4 J
Tetrachlorobiphenyl	µg/L	1.5	0.19 J	0.60 J	3.8 J
Trichlorobiphenyl	µg/L	0.33	0.078 J	0.24 J	0.80 J
Total PCBs	µg/L	3.03	0.367 J	1.13 J	7.00 J
Dioxin Furans					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L	6570	1350	3380	2590 J

Notes:

APL - Aqueous Phase Liquid
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

2/15/2019

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

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, 2019**. Guidance on the content of a PRR is enclosed.

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

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

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

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

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

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

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

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

You may contact 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 - jpentilchuk@ghd.com
GHD - Dennis Hoyt - dhoyt@ghd.com

Enclosure 1

Certification Instructions

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

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

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

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

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

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

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

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

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

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

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

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **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, 2018 to March 31, 2019

	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/ECs in place and functioning as designed?	☑	☐

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

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

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	Monitoring Plan O&M Plan

7.2 acre portion only

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

Box 4

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

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

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

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

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

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

YES	NO
☑	☐

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. 932021

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.

Joseph A. Branch (print name) at 7601 Old Channel Trail, Montague, Michigan (print business address)

am certifying as Owner (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

4-29-2019
Date

IC/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 J. Snyder (print name) at 2055 Niagara Falls Blvd, Niagara Falls, NY (print business address)

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

STATE OF NEW YORK
RICHARD J. SNYDER
No. 66242
LICENSED PROFESSIONAL ENGINEER

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

Stamp (Required for PE)

April 26, 2019
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
Organic Acids Data Recall and Correction

1565 Jefferson Rd., Bld 300, Suite 360
Rochester, NY 14623
T: +1 585 288 5380
F: +1 585 288 8475
www.alsglobal.com

July 17, 2018

Sheri Finn
GHD Services
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

RE: Data Recall m-chlorbenzoic acid and o-chlorobenzoic acid

Dear Ms. Finn,

On Wednesday, July 11, 2018, it was discovered that the HPLC Organic Acids test has been incorrectly reporting m-chlorobenzoic acid as o-chlorobenzoic and o-chlorobenzoic acid as m-chlorobenzoic acid since the method was started at ALS Rochester in 2012.

The instrument software was correctly identifying the analytes and was reporting the correct concentrations to the raw data. In LIMS, a translation table allows the upload of the instrument data to LIMS when the analyte names differ. The translation table incorrectly associated m-chlorobenzoic acid with 2-chorobenzoic acid, and incorrectly associated o-chlorobenzoic acid with 3-chlorobenzoic acid. The translation table was corrected upon discovery.

The recalled data is included in this letter with the corrected numeric results. Any other samples reported to you did not have concentrations above the MDL or MRL, as applicable, for both m-chlorobenzoic acid and o-chlorobenzoic acid and were not affected. For any reports previously submitted, ALS Rochester, at your request, will amend reports and/or EDDs to reflect the correction.

To prevent similar errors, the laboratory will be auditing the translation tables and will establish a secondary review of the setup of translation tables for future instrument/method setups.

If you have any further questions or wish to receive amended reports, please contact me at vicky.collom@alsglobal.com.

Sincerely,

Vicky Collom
Quality Manager – Rochester
Environmental Division USA

cc: Darla Stewart, GHD

SAMPLENUM	CLIENTID	Analyte	Recalled Result	Q	Correct Result	Q	Units
R1208239-012	B2L-11-1112	m-Chlorobenzoic Acid	21	J	8.4	J	ug/L
R1208524-012	D1M-09-1112	m-Chlorobenzoic Acid	8.4	J	21	J	ug/L
R1208524-013	D1L-11-1112	m-Chlorobenzoic Acid	7.5	J	MDL	U	ug/L
R1208524-013	D1L-11-1112	o-Chlorobenzoic Acid	MDL	U	7.5	J	ug/L
R1208524-015	HP121212 INF	m-Chlorobenzoic Acid	1700		510		ug/L
R1208524-015	HP121212 INF	o-Chlorobenzoic Acid	510		1700		ug/L
R1208524-017	H2M-09-1112	m-Chlorobenzoic Acid	33		MDL	U	ug/L
R1208524-017	H2M-09-1112	o-Chlorobenzoic Acid	MDL	U	33		ug/L
R1208524-018	H2M-06-1112	m-Chlorobenzoic Acid	170		MDL	U	ug/L
R1208524-018	H2M-06-1112	o-Chlorobenzoic Acid	MDL	U	170		ug/L
R1208524-019	H2U-02-1112	m-Chlorobenzoic Acid	39		MDL	U	ug/L
R1208524-019	H2U-02-1112	o-Chlorobenzoic Acid	MDL	U	39		ug/L
R1208524-027	G6-05-1112	m-Chlorobenzoic Acid	5800		1300		ug/L
R1208524-027	G6-05-1112	o-Chlorobenzoic Acid	1300		5800		ug/L
R1208524-029	G6-04-1112	m-Chlorobenzoic Acid	1700		310		ug/L
R1208524-029	G6-04-1112	o-Chlorobenzoic Acid	310		1700		ug/L
R1300075-011	OW597R-1212	m-Chlorobenzoic Acid	130		41		ug/L
R1300075-011	OW597R-1212	o-Chlorobenzoic Acid	41		130		ug/L
R1301169-007	G6-04-0213	m-Chlorobenzoic Acid	830		120		ug/L
R1301169-007	G6-04-0213	o-Chlorobenzoic Acid	120		830		ug/L
R1301169-013	B2L-11-0213	m-Chlorobenzoic Acid	21	J	MDL	U	ug/L
R1301169-013	B2L-11-0213	o-Chlorobenzoic Acid	MDL	U	21	J	ug/L
R1301169-014	D1M-09-0213	m-Chlorobenzoic Acid	7.3	J	MDL	U	ug/L
R1301169-014	D1M-09-0213	o-Chlorobenzoic Acid	MDL	U	7.3	J	ug/L
R1301169-020	H2U-02-0213	m-Chlorobenzoic Acid	29	J	MDL	U	ug/L
R1301169-020	H2U-02-0213	o-Chlorobenzoic Acid	MDL	U	29	J	ug/L
R1301668-001	HP31313 INF	m-Chlorobenzoic Acid	1700		800		ug/L
R1301668-001	HP31313 INF	o-Chlorobenzoic Acid	800		1700		ug/L
R1303907-002	H2U-02-0513	m-Chlorobenzoic Acid	17	J	MDL	U	ug/L
R1303907-002	H2U-02-0513	o-Chlorobenzoic Acid	MDL	U	17	J	ug/L
R1303907-009	B2L-11-0513	m-Chlorobenzoic Acid	58		MDL	U	ug/L
R1303907-009	B2L-11-0513	o-Chlorobenzoic Acid	MDL	U	58		ug/L
R1303907-012	D1M-09-0513	m-Chlorobenzoic Acid	6.8	J	MDL	U	ug/L
R1303907-012	D1M-09-0513	o-Chlorobenzoic Acid	MDL	U	6.8	J	ug/L
R1303907-020	G6-04-0513	m-Chlorobenzoic Acid	1100		140		ug/L
R1303907-020	G6-04-0513	o-Chlorobenzoic Acid	140		1100		ug/L
R1304309-001	HP61213 INF	m-Chlorobenzoic Acid	1900		740		ug/L
R1304309-001	HP61213 INF	o-Chlorobenzoic Acid	740		1900		ug/L
R1305965-001	D1M-09-0813	m-Chlorobenzoic Acid	5.3	J	MDL	U	ug/L
R1305965-001	D1M-09-0813	o-Chlorobenzoic Acid	MDL	U	5.3	J	ug/L
R1305965-008	G6-04-0813	m-Chlorobenzoic Acid	1300		200		ug/L
R1305965-008	G6-04-0813	o-Chlorobenzoic Acid	200		1300		ug/L
R1305965-019	B2L-11-0813	m-Chlorobenzoic Acid	71		MDL	U	ug/L
R1305965-019	B2L-11-0813	o-Chlorobenzoic Acid	MDL	U	71		ug/L
R1305965-020	H2U-02-0813	m-Chlorobenzoic Acid	12	J	MDL	U	ug/L
R1305965-020	H2U-02-0813	o-Chlorobenzoic Acid	MDL	U	12	J	ug/L
R1306909-001	HP91813 INF	m-Chlorobenzoic Acid	780		350		ug/L
R1306909-001	HP91813 INF	o-Chlorobenzoic Acid	350		780		ug/L
R1308847-007	G6-04-1113	m-Chlorobenzoic Acid	1100		180		ug/L
R1308847-007	G6-04-1113	o-Chlorobenzoic Acid	180		1100		ug/L
R1308847-012	D1M-09-1113	m-Chlorobenzoic Acid	4.5	J	MDL	U	ug/L
R1308847-012	D1M-09-1113	o-Chlorobenzoic Acid	MDL	U	4.5	J	ug/L
R1308847-016	H2U-02-1113	m-Chlorobenzoic Acid	26	J	MDL	U	ug/L
R1308847-016	H2U-02-1113	o-Chlorobenzoic Acid	MDL	U	26	J	ug/L
R1308847-019	B2L-11-1113	m-Chlorobenzoic Acid	37		MDL	U	ug/L
R1308847-019	B2L-11-1113	o-Chlorobenzoic Acid	MDL	U	37		ug/L

SAMPLENUM	CLIENTID	Analyte	Recalled Result	Q	Correct Result	Q	Units
R1309532-003	OW597R-1213	m-Chlorobenzoic Acid	130		56		ug/L
R1309532-003	OW597R-1213	o-Chlorobenzoic Acid	56		130		ug/L
R1309570-001	HP121813 INF	m-Chlorobenzoic Acid	3500		1300		ug/L
R1309570-001	HP121813 INF	o-Chlorobenzoic Acid	1300		3500		ug/L
R1400881-010	G6-04-0214	m-Chlorobenzoic Acid	2600		490		ug/L
R1400881-010	G6-04-0214	o-Chlorobenzoic Acid	490		2600		ug/L
R1400881-011	G6-05-0214	m-Chlorobenzoic Acid	5000		1200		ug/L
R1400881-011	G6-05-0214	o-Chlorobenzoic Acid	1200		5000		ug/L
R1401931-001	HP31914 INF	m-Chlorobenzoic Acid	1200		350		ug/L
R1401931-001	HP31914 INF	o-Chlorobenzoic Acid	350		1200		ug/L
R1402035-006	B2L-11-0214	m-Chlorobenzoic Acid	21	J	MDL	U	ug/L
R1402035-006	B2L-11-0214	o-Chlorobenzoic Acid	MDL	U	21	J	ug/L
R1402035-010	H2M-06-0214	m-Chlorobenzoic Acid	190		5.9	J	ug/L
R1402035-010	H2M-06-0214	o-Chlorobenzoic Acid	5.9	J	190		ug/L
R1402035-011	H2M-09-0214	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1402035-011	H2M-09-0214	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1402035-013	H2U-02-0214	m-Chlorobenzoic Acid	16	J	MDL	U	ug/L
R1402035-013	H2U-02-0214	o-Chlorobenzoic Acid	MDL	U	16	J	ug/L
R1404375-008	G6-04-0614	m-Chlorobenzoic Acid	1900		310		ug/L
R1404375-008	G6-04-0614	o-Chlorobenzoic Acid	310		1900		ug/L
R1404375-020	H2U-02-0614	m-Chlorobenzoic Acid	10	J	MDL	U	ug/L
R1404375-020	H2U-02-0614	o-Chlorobenzoic Acid	MDL	U	10	J	ug/L
R1404851-001	HP62414 INF	m-Chlorobenzoic Acid	4100		1600		ug/L
R1404851-001	HP62414 INF	o-Chlorobenzoic Acid	1600		4100		ug/L
R1406660-008	G6-04-0814	m-Chlorobenzoic Acid	2800		480		ug/L
R1406660-008	G6-04-0814	o-Chlorobenzoic Acid	480		2800		ug/L
R1406660-014	B2L-11-0814	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1406660-014	B2L-11-0814	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1407707-001	HP93014 INF	m-Chlorobenzoic Acid	5000		2100		ug/L
R1407707-001	HP93014 INF	o-Chlorobenzoic Acid	2100		5000		ug/L
R1409933-006	G6-04-1214	m-Chlorobenzoic Acid	1600		270		ug/L
R1409933-006	G6-04-1214	o-Chlorobenzoic Acid	270		1600		ug/L
R1409933-008	W7-10-1214	m-Chlorobenzoic Acid	1600		270		ug/L
R1409933-008	W7-10-1214	o-Chlorobenzoic Acid	270		1600		ug/L
R1409933-010	B2L-11-1214	m-Chlorobenzoic Acid	11	J	MDL	U	ug/L
R1409933-010	B2L-11-1214	o-Chlorobenzoic Acid	MDL	U	11	J	ug/L
R1409933-015	H2U-02-1214	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1409933-015	H2U-02-1214	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1409993-001	HP121014 INF	m-Chlorobenzoic Acid	3100		1300		ug/L
R1409993-001	HP121014 INF	o-Chlorobenzoic Acid	1300		3100		ug/L
R1410362-007	OW597R-1214	m-Chlorobenzoic Acid	120		42		ug/L
R1410362-007	OW597R-1214	o-Chlorobenzoic Acid	42		120		ug/L
R1410362-011	DWRIN1-1214	m-Chlorobenzoic Acid	8.5	J	MDL	U	ug/L
R1410362-011	DWRIN1-1214	o-Chlorobenzoic Acid	MDL	U	8.5	J	ug/L
R1502024-004	B2L-11-0315	m-Chlorobenzoic Acid	9.7	J	MDL	U	ug/L
R1502024-004	B2L-11-0315	o-Chlorobenzoic Acid	MDL	U	9.7	J	ug/L
R1502024-016	G6-04-0315	m-Chlorobenzoic Acid	1900		360		ug/L
R1502024-016	G6-04-0315	o-Chlorobenzoic Acid	360		1900		ug/L
R1502024-020	H2U-02-3015	m-Chlorobenzoic Acid	20	J	MDL	U	ug/L
R1502024-020	H2U-02-3015	o-Chlorobenzoic Acid	MDL	U	20	J	ug/L
R1502094-001	HP32515 INF	m-Chlorobenzoic Acid	1500		610		ug/L
R1502094-001	HP32515 INF	o-Chlorobenzoic Acid	610		1500		ug/L
R1503914-001	D1L-11-0515	m-Chlorobenzoic Acid	8.4	J	MDL	U	ug/L
R1503914-001	D1L-11-0515	o-Chlorobenzoic Acid	MDL	U	8.4	J	ug/L
R1503914-002	D1M-09-0515	m-Chlorobenzoic Acid	5.0	J	MDL	U	ug/L
R1503914-002	D1M-09-0515	o-Chlorobenzoic Acid	MDL	U	5.0	J	ug/L

SAMPLENUM	CLIENTID	Analyte	Recalled Result	Q	Correct Result	Q	Units
R1503914-024	G6-04-0515	m-Chlorobenzoic Acid	4300		860		ug/L
R1503914-024	G6-04-0515	o-Chlorobenzoic Acid	860		4300		ug/L
R1503914-025	G6-05-0515	m-Chlorobenzoic Acid	8200		1900		ug/L
R1503914-025	G6-05-0515	o-Chlorobenzoic Acid	1900		8200		ug/L
R1504452-001	H2M-06-0515	m-Chlorobenzoic Acid	230		18	J	ug/L
R1504452-001	H2M-06-0515	o-Chlorobenzoic Acid	18	J	230		ug/L
R1504452-004	H2U-02-0515	m-Chlorobenzoic Acid	8.7	J	MDL	U	ug/L
R1504452-004	H2U-02-0515	o-Chlorobenzoic Acid	MDL	U	8.7	J	ug/L
R1504452-016	B2L-11-0515	m-Chlorobenzoic Acid	8.1	J	MDL	U	ug/L
R1504452-016	B2L-11-0515	o-Chlorobenzoic Acid	MDL	U	8.1	J	ug/L
R1504803-001	HP61615 INF	m-Chlorobenzoic Acid	2400		930		ug/L
R1504803-001	HP61615 INF	o-Chlorobenzoic Acid	930		2400		ug/L
R1507059-011	G6-04-0815	m-Chlorobenzoic Acid	2700		480		ug/L
R1507059-011	G6-04-0815	o-Chlorobenzoic Acid	480		2700		ug/L
R1507059-015	B2L-11-0815	m-Chlorobenzoic Acid	10	J	MDL	U	ug/L
R1507059-015	B2L-11-0815	o-Chlorobenzoic Acid	MDL	U	10	J	ug/L
R1507990-001	HP92315 INF	m-Chlorobenzoic Acid	3800		1700		ug/L
R1507990-001	HP92315 INF	o-Chlorobenzoic Acid	1700		3800		ug/L
R1510149-011	G6-04-1115	m-Chlorobenzoic Acid	1100		170		ug/L
R1510149-011	G6-04-1115	o-Chlorobenzoic Acid	170		1100		ug/L
R1510149-015	B2L-11-1115	m-Chlorobenzoic Acid	9.9	J	MDL	U	ug/L
R1510149-015	B2L-11-1115	o-Chlorobenzoic Acid	MDL	U	9.9	J	ug/L
R1510149-020	H2U-02-1115	m-Chlorobenzoic Acid	12	J	MDL	U	ug/L
R1510149-020	H2U-02-1115	o-Chlorobenzoic Acid	MDL	U	12	J	ug/L
R1510736-013	OW597R-1215	m-Chlorobenzoic Acid	130		MDL	U	ug/L
R1510736-013	OW597R-1215	o-Chlorobenzoic Acid	MDL	U	130		ug/L
R1510979-001	HP121615 INF	m-Chlorobenzoic Acid	3800		1500		ug/L
R1510979-001	HP121615 INF	o-Chlorobenzoic Acid	1500		3800		ug/L
R1601010-005	B2L-11-0216	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1601010-005	B2L-11-0216	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1601010-016	G6-04-0216	m-Chlorobenzoic Acid	2000		340		ug/L
R1601010-016	G6-04-0216	o-Chlorobenzoic Acid	340		2000		ug/L
R1601010-018	H2U-02-0216	m-Chlorobenzoic Acid	23	J	MDL	U	ug/L
R1601010-018	H2U-02-0216	o-Chlorobenzoic Acid	MDL	U	23	J	ug/L
R1602884-001	HP32916 INF	m-Chlorobenzoic Acid	1900		730		ug/L
R1602884-001	HP32916 INF	o-Chlorobenzoic Acid	730		1900		ug/L
R1605104-011	G6-04-0516	m-Chlorobenzoic Acid	3200		590		ug/L
R1605104-011	G6-04-0516	o-Chlorobenzoic Acid	590		3200		ug/L
R1605247-002	B2L-11-0516	m-Chlorobenzoic Acid	16	J	MDL	U	ug/L
R1605247-002	B2L-11-0516	o-Chlorobenzoic Acid	MDL	U	16	J	ug/L
R1605247-003	C3-07-0516	m-Chlorobenzoic Acid	16	J	MDL	U	ug/L
R1605247-003	C3-07-0516	o-Chlorobenzoic Acid	MDL	U	16	J	ug/L
R1605247-006	H2U-02-0516	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1605247-006	H2U-02-0516	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1605247-007	H5-09-0516	m-Chlorobenzoic Acid	230		MDL	U	ug/L
R1605247-007	H5-09-0516	o-Chlorobenzoic Acid	MDL	U	230		ug/L
R1606558-001	HP62116 INF	m-Chlorobenzoic Acid	4200		1800		ug/L
R1606558-001	HP62116 INF	o-Chlorobenzoic Acid	1800		4200		ug/L
R1607317-003	PW-8U-0716	m-Chlorobenzoic Acid	1800		560		ug/L
R1607317-003	PW-8U-0716	o-Chlorobenzoic Acid	560		1800		ug/L
R1607317-004	PW-10U-0716	m-Chlorobenzoic Acid	2400		600		ug/L
R1607317-004	PW-10U-0716	o-Chlorobenzoic Acid	600		2400		ug/L
R1607317-005	PW-11U-0716	m-Chlorobenzoic Acid	2400		600		ug/L
R1607317-005	PW-11U-0716	o-Chlorobenzoic Acid	600		2400		ug/L
R1607317-006	PW-SUR-0716	m-Chlorobenzoic Acid	16000		4600		ug/L
R1607317-006	PW-SUR-0716	o-Chlorobenzoic Acid	4600		16000		ug/L

SAMPLENUM	CLIENTID	Analyte	Recalled Result	Q	Correct Result	Q	Units
R1607317-007	PW-6MR-0716	m-Chlorobenzoic Acid	16000		4700		ug/L
R1607317-007	PW-6MR-0716	o-Chlorobenzoic Acid	4700		16000		ug/L
R1607317-008	PW-6UR-0716	m-Chlorobenzoic Acid	990		440		ug/L
R1607317-008	PW-6UR-0716	o-Chlorobenzoic Acid	440		990		ug/L
R1607317-009	PW-4U-0716	m-Chlorobenzoic Acid	31000		5900		ug/L
R1607317-009	PW-4U-0716	o-Chlorobenzoic Acid	5900		31000		ug/L
R1607317-010	PW-3L-0716	m-Chlorobenzoic Acid	1000		670		ug/L
R1607317-010	PW-3L-0716	o-Chlorobenzoic Acid	670		1000		ug/L
R1607317-011	PW-3M-0716	m-Chlorobenzoic Acid	16000		4900		ug/L
R1607317-011	PW-3M-0716	o-Chlorobenzoic Acid	4900		16000		ug/L
R1607317-013	PW-2UR-0716	m-Chlorobenzoic Acid	81000		33000		ug/L
R1607317-013	PW-2UR-0716	o-Chlorobenzoic Acid	33000		81000		ug/L
R1607317-014	PW-1U-0716	m-Chlorobenzoic Acid	860		730		ug/L
R1607317-014	PW-1U-0716	o-Chlorobenzoic Acid	730		860		ug/L
R1607317-020	PW-9U-0716	m-Chlorobenzoic Acid	850		430		ug/L
R1607317-020	PW-9U-0716	o-Chlorobenzoic Acid	430		850		ug/L
R1607317-023	PW-2L-0716	m-Chlorobenzoic Acid	380		210		ug/L
R1607317-023	PW-2L-0716	o-Chlorobenzoic Acid	210		380		ug/L
R1608581-014	G6-04-0816	m-Chlorobenzoic Acid	1.8		0.36		mg/L
R1608581-014	G6-04-0816	o-Chlorobenzoic Acid	0.36		1.8		mg/L
R1608581-015	G6-05-0816	m-Chlorobenzoic Acid	9.5		2.2		mg/L
R1608581-015	G6-05-0816	o-Chlorobenzoic Acid	2.2		9.5		mg/L
R1609140-005	D1L-11-0816	m-Chlorobenzoic Acid	0.0085	J	MDL	U	mg/L
R1609140-005	D1L-11-0816	o-Chlorobenzoic Acid	MDL	U	0.0085	J	mg/L
R1609140-015	B2L-11-0816	m-Chlorobenzoic Acid	0.015	J	MDL	U	mg/L
R1609140-015	B2L-11-0816	o-Chlorobenzoic Acid	MDL	U	0.015	J	mg/L
R1609140-016	H2M-06-0816	m-Chlorobenzoic Acid	0.29		0.033		mg/L
R1609140-016	H2M-06-0816	o-Chlorobenzoic Acid	0.033		0.29		mg/L
R1610183-001	HP92816 INF	m-Chlorobenzoic Acid	3.2		1.2		mg/L
R1610183-001	HP92816 INF	o-Chlorobenzoic Acid	1.2		3.2		mg/L
R1612290-005	B2L-11-1116	m-Chlorobenzoic Acid	0.016	J	MDL	U	mg/L
R1612290-005	B2L-11-1116	o-Chlorobenzoic Acid	MDL	U	0.016	J	mg/L
R1612290-016	G6-04-1116	m-Chlorobenzoic Acid	1.5		0.30		mg/L
R1612290-016	G6-04-1116	o-Chlorobenzoic Acid	0.30		1.5		mg/L
R1612290-017	G6-06-1116	m-Chlorobenzoic Acid	0.11		0.026	J	mg/L
R1612290-017	G6-06-1116	o-Chlorobenzoic Acid	0.026	J	0.11		mg/L
R1612290-018	H2U-02-1116	m-Chlorobenzoic Acid	0.012	J	MDL	U	mg/L
R1612290-018	H2U-02-1116	o-Chlorobenzoic Acid	MDL	U	0.012	J	mg/L
R1613101-001	HP121416 INF	m-Chlorobenzoic Acid	3.1		1.2		mg/L
R1613101-001	HP121416 INF	o-Chlorobenzoic Acid	1.2		3.1		mg/L
R1613106-015	OW597R-1216	m-Chlorobenzoic Acid	0.11		0.014	J	mg/L
R1613106-015	OW597R-1216	o-Chlorobenzoic Acid	0.014	J	0.11		mg/L
R1701765-005	B2L-11-0217	m-Chlorobenzoic Acid	17	J	MDL	U	ug/L
R1701765-005	B2L-11-0217	o-Chlorobenzoic Acid	MDL	U	17	J	ug/L
R1701765-015	G6-04-0217	m-Chlorobenzoic Acid	1200		220		ug/L
R1701765-015	G6-04-0217	o-Chlorobenzoic Acid	220		1200		ug/L
R1701765-017	H2U-2-0217	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1701765-017	H2U-2-0217	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1701765-018	H5-09-0217	m-Chlorobenzoic Acid	27	J	MDL	U	ug/L
R1701765-018	H5-09-0217	o-Chlorobenzoic Acid	MDL	U	27	J	ug/L
R1702502-001	HP32217 INF	m-Chlorobenzoic Acid	2.0		0.72		ug/L
R1702502-001	HP32217 INF	o-Chlorobenzoic Acid	0.72		2.0		ug/L
R1704792-005	B2L-11-0517	m-Chlorobenzoic Acid	21	J	MDL	U	ug/L
R1704792-005	B2L-11-0517	o-Chlorobenzoic Acid	MDL	U	21	J	ug/L
R1704792-016	G6-04-0517	m-Chlorobenzoic Acid	1900		370		ug/L
R1704792-016	G6-04-0517	o-Chlorobenzoic Acid	370		1900		ug/L

SAMPLENUM	CLIENTID	Analyte	Recalled Result	Q	Correct Result	Q	Units
R1704792-018	H2U-02-0517	m-Chlorobenzoic Acid	5.6	J	MDL	U	ug/L
R1704792-018	H2U-02-0517	o-Chlorobenzoic Acid	MDL	U	5.6	J	ug/L
R1704792-019	HS-09-0517	m-Chlorobenzoic Acid	60		MDL	U	ug/L
R1704792-019	HS-09-0517	o-Chlorobenzoic Acid	MDL	U	60		ug/L
R1705739-001	HP INF 62117	m-Chlorobenzoic Acid	2900		1200		ug/L
R1705739-001	HP INF 62117	o-Chlorobenzoic Acid	1200		2900		ug/L
R1707576-005	B2L-11-0817	m-Chlorobenzoic Acid	13	J	MDL	U	ug/L
R1707576-005	B2L-11-0817	o-Chlorobenzoic Acid	MDL	U	13	J	ug/L
R1707576-016	G6-04-0817	m-Chlorobenzoic Acid	2400		500		ug/L
R1707576-016	G6-04-0817	o-Chlorobenzoic Acid	500		2400		ug/L
R1707576-017	G6-06-0817	m-Chlorobenzoic Acid	5.0	J	MDL	U	ug/L
R1707576-017	G6-06-0817	o-Chlorobenzoic Acid	MDL	U	5.0	J	ug/L
R1707576-018	H2U-02-0817	m-Chlorobenzoic Acid	7.2	J	MDL	U	ug/L
R1707576-018	H2U-02-0817	o-Chlorobenzoic Acid	MDL	U	7.2	J	ug/L
R1709175-001	HP 92817 INF	m-Chlorobenzoic Acid	3500		1600		ug/L
R1709175-001	HP 92817 INF	o-Chlorobenzoic Acid	1600		3500		ug/L
R1710816-005	G6-04-1117	m-Chlorobenzoic Acid	2.8		0.66		mg/L
R1710816-005	G6-04-1117	o-Chlorobenzoic Acid	0.66		2.8		mg/L
R1710816-006	G6-05-1117	m-Chlorobenzoic Acid	8.3		2.2		mg/L
R1710816-006	G6-05-1117	o-Chlorobenzoic Acid	2.2		8.3		mg/L
R1710816-017	D1L-11-1117	m-Chlorobenzoic Acid	0.0070	J	MDL	U	mg/L
R1710816-017	D1L-11-1117	o-Chlorobenzoic Acid	MDL	U	0.007	J	mg/L
R1711443-002	B2L-11-1117	m-Chlorobenzoic Acid	0.012	J	MDL	U	mg/L
R1711443-002	B2L-11-1117	o-Chlorobenzoic Acid	MDL	U	0.012	J	mg/L
R1711546-001	H2M-06-1117	m-Chlorobenzoic Acid	0.38		0.054		mg/L
R1711546-001	H2M-06-1117	o-Chlorobenzoic Acid	0.054		0.38		mg/L
R1711546-004	H2U-02-1117	m-Chlorobenzoic Acid	0.012	J	MDL	U	mg/L
R1711546-004	H2U-02-1117	o-Chlorobenzoic Acid	MDL	U	0.012	J	mg/L
R1712171-001	HP 122017 INF	m-Chlorobenzoic Acid	2.4		0.97		mg/L
R1712171-001	HP 122017 INF	o-Chlorobenzoic Acid	0.97		2.4		mg/L
R1801379-004	D1M-09-0218	m-Chlorobenzoic Acid	0.0034	J	MDL	U	mg/L
R1801379-004	D1M-09-0218	o-Chlorobenzoic Acid	MDL	U	0.0034	J	mg/L
R1801379-008	G6-04-0218	m-Chlorobenzoic Acid	2.0		0.42		mg/L
R1801379-008	G6-04-0218	o-Chlorobenzoic Acid	0.42		2.0		mg/L
R1801379-010	W7-10-0218	m-Chlorobenzoic Acid	2.1		0.44		mg/L
R1801379-010	W7-10-0218	o-Chlorobenzoic Acid	0.44		2.1		mg/L
R1801413-006	B2L-11-0218	m-Chlorobenzoic Acid	0.013	J	MDL	U	mg/L
R1801413-006	B2L-11-0218	o-Chlorobenzoic Acid	MDL	U	0.013	J	mg/L
R1801413-009	H2U-02-0218	m-Chlorobenzoic Acid	0.011	J	MDL	U	mg/L
R1801413-009	H2U-02-0218	o-Chlorobenzoic Acid	MDL	U	0.011	J	mg/L
R1801413-010	HS-09-0218	m-Chlorobenzoic Acid	0.033		MDL	U	mg/L
R1801413-010	HS-09-0218	o-Chlorobenzoic Acid	MDL	U	0.033		mg/L
R1802722-001	HP 32818 INF	m-Chlorobenzoic Acid	2.2		0.91		mg/L
R1802722-001	HP 32818 INF	o-Chlorobenzoic Acid	0.91		2.2		mg/L
R1804475-005	B2L-11-0518	m-Chlorobenzoic Acid	0.010	J	MDL	U	mg/L
R1804475-005	B2L-11-0518	o-Chlorobenzoic Acid	MDL	U	0.010	J	mg/L
R1804475-015	G6-04-0518	m-Chlorobenzoic Acid	1.7		0.31		mg/L
R1804475-015	G6-04-0518	o-Chlorobenzoic Acid	0.31		1.7		mg/L
R1804475-017	HS-09-0518	m-Chlorobenzoic Acid	0.023	J	MDL	U	mg/L
R1804475-017	HS-09-0518	o-Chlorobenzoic Acid	MDL	U	0.023	J	mg/L

Table B.1

Corrected Analytical Data
2012 - 2017
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11
Sample ID:		B2L-11-1112	B2L-11-0213	B2L-11-0513	B2L-11-0813	B2L-11-1113	B2L-11-0214	B2L-11-0814	B2L-11-1214	B2L-11-0315
Sample Date:		11/30/2012	2/21/2013	5/29/2013	8/16/2013	11/25/2013	3/22/2014	8/27/2014	12/9/2014	3/23/2015
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	21 J	21 J	58	71	37	21 J	13 J	11 J	9.7 J
3-Chlorobenzoic acid	µg/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Sample Location:		B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11	B2L-11
Sample ID:		B2L-11-0515	B2L-11-0815	B2L-11-1115	B2L-11-0216	B2L-11-0516	B2L-11-0816	B2L-11-1116	B2L-11-0217	B2L-11-0517
Sample Date:		6/8/2015	8/26/2015	11/20/2015	2/2/2016	5/18/2016	8/30/2016	11/17/2016	2/23/2017	5/25/2017
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	8.1 J	10 J	9.9 J	13 J	16 J	15 J	16 J	17 J	21 J
3-Chlorobenzoic acid	µg/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Sample Location:		B2L-11	B2L-11	C3-07	D1L-11	D1L-11	D1L-11	D1L-11	D1M-09	D1M-09
Sample ID:		B2L-11-0817	B2L-11-1117	C3-07-0516	D1L-11-1112	D1L-11-0515	D1L-11-0816	D1L-11-1117	D1M-09-1112	D1M-09-0213
Sample Date:		8/11/2017	12/1/2017	5/18/2016	12/11/2012	5/19/2015	8/29/2016	11/14/2017	12/11/2012	2/21/2013
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	13 J	12 J	16 J	7.5 J	8.4 J	8.5 J	7 J	8.4 J	7.3 J
3-Chlorobenzoic acid	µg/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Sample Location:		D1M-09	D1M-09	D1M-09	D1M-09	G6-04	G6-04	G6-04	G6-04	G6-04
Sample ID:		D1M-09-0513	D1M-09-0813	D1M-09-1113	D1M-09-0515	G6-04-1112	G6-04-0213	G6-04-0513	G6-04-0813	G6-04-1113
Sample Date:		5/29/2013	8/13/2013	11/21/2013	5/19/2015	12/14/2012	2/20/2013	5/29/2013	8/13/2013	11/19/2013
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	6.8 J	5.3 J	4.5 J	5.0 J	1700	830	1100	1300	1100
3-Chlorobenzoic acid	µg/L	30 U	30 U	30 U	30 U	310	120	140	200	180

Sample Location:		G6-04	G6-04	G6-04	G6-04	G6-04	G6-04	G6-04	G6-04	G6-04
Sample ID:		G6-04-0214	G6-04-0614	G6-04-0814	G6-04-1214	W7-10-1214	G6-04-0315	G6-04-0515	G6-04-0815	G6-04-1115
Sample Date:		2/6/2014	6/6/2014	8/26/2014	12/8/2014	12/8/2014 (Duplicate)	3/20/2015	5/21/2015	8/25/2015	11/19/2015
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	2600	1900	2800	1600	1600	1900	4300	2700	1100
3-Chlorobenzoic acid	µg/L	490	310	480	270	270	360	860	480	170

Sample Location:		G6-04	G6-04	G6-04	G6-04	G6-04	G6-04	G6-04	G6-04	G6-05
Sample ID:		G6-04-0216	G6-04-0516	G6-04-0816	G6-04-1116	G6-04-0217	G6-04-0517	G6-04-0817	G6-04-1117	G6-05-1112
Sample Date:		2/2/2016	5/17/2016	8/15/2016	11/16/2016	2/23/2017	5/24/2017	8/10/2017	11/13/2017	12/13/2012
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	2000	3200	1800	1500	1200	1900	2400	2800	5800
3-Chlorobenzoic acid	µg/L	340	590	360	300	220	370	500	660	1300

Sample Location:		G6-05	G6-05	G6-05	G6-05	G6-06	G6-06	H2M-06	H2M-06	H2M-06
Sample ID:		G6-05-0214	G6-05-0515	G6-05-0816	G6-05-1117	G6-06-1116	G6-06-0817	H2M-06-1112	H2M-06-0214	H2M-06-0515
Sample Date:		2/6/2014	5/21/2015	8/15/2016	11/13/2017	11/16/2016	8/10/2017	12/12/2012	3/25/2014	6/4/2015
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	5000	8200	9500	8300	110	5.0 J	170	190	230
3-Chlorobenzoic acid	µg/L	1200	1900	2200	2200	26 J	30 U	30 U	5.9 J	18 J

Notes:

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

Table B.1

Corrected Analytical Data
2012 - 2017
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		H2M-06	H2M-06	H2M-09	H2M-09	H2U-02	H2U-02	H2U-02	H2U-02	H2U-02
Sample ID:		H2M-06-0816	H2M-06-1117	H2M-09-1112	H2M-09-0214	H2U-02-1112	H2U-02-0213	H2U-02-0513	H2U-02-0813	H2U-02-1113
Sample Date:		8/30/2016	12/5/2017	12/12/2012	3/25/2014	12/12/2012	2/22/2013	5/30/2013	8/16/2013	11/21/2013
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	290	380	33	13 J	39	29 J	17 J	12 J	26 J
3-Chlorobenzoic acid	µg/L	33	54	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Sample Location:		H2U-02	H2U-02	H2U-02	H2U-02	H2U-02	H2U-02	H2U-02	H2U-02	H2U-02
Sample ID:		H2U-02-0214	H2U-02-0614	H2U-02-1214	H2U-02-3015	H2U-02-0515	H2U-02-1115	H2U-02-0216	H2U-02-0516	H2U-02-1116
Sample Date:		3/25/2014	6/9/2014	12/9/2014	3/24/2015	6/4/2015	11/23/2015	2/3/2016	5/18/2016	11/17/2016
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	16 J	10 J	13 J	20 J	8.7 J	12 J	23 J	13 J	12 J
3-Chlorobenzoic acid	µg/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U

Sample Location:		H2U-02	H2U-02	H2U-02	H2U-02	H5-09	H5-09	H5-09	PMPTKOUTLET	PMPTKOUTLET
Sample ID:		H2U-2-0217	H2U-02-0517	H2U-02-0817	H2U-02-1117	H5-09-0516	H5-09-0217	H5-09-0517	HP121212 INF	HP31313 INF
Sample Date:		2/24/2017	5/25/2017	8/11/2017	12/5/2017	5/18/2016	2/24/2017	5/24/2017	12/12/2012	3/13/2013
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	13 J	5.6 J	7.2 J	12 J	230	27 J	60	1700	1700
3-Chlorobenzoic acid	µg/L	30 U	30 U	30 U	30 U	30 U	30 U	30 U	510	800

Sample Location:		PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
Sample ID:		HP61213 INF	HP91813 INF	HP121813 INF	HP31914 INF	HP62414 INF	HP93014 INF	HP121014 INF	HP32515 INF	HP61615 INF
Sample Date:		6/12/2013	9/18/2013	12/18/2013	3/19/2014	6/24/2014	9/30/2014	12/10/2014	3/25/2015	6/16/2015
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	1900	780	3500	1200	4100	5000	3100	1500	2400
3-Chlorobenzoic acid	µg/L	740	350	1300	350	1600	2100	1300	610	930

Sample Location:		PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET
Sample ID:		HP92315 INF	HP121615 INF	HP32916 INF	HP62116 INF	HP92816 INF	HP121416 INF	HP32217 INF	HP INF 62117	HP 92817 INF
Sample Date:		9/23/2015	12/16/2015	3/29/2016	6/21/2016	9/28/2016	12/14/2016	3/22/2017	6/21/2017	9/28/2017
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	3800	3800	1900	4200	3200	3100 J	2000	2900	3500
3-Chlorobenzoic acid	µg/L	1700	1500	730	1800	1200	1200 J	720	1200	1600

Sample Location:		PMPTKOUTLET	PW-1U	PW-2L	PW-2UR	PW-3L	PW-3M	PW-4U	PW-5UR	PW-6MR
Sample ID:		HP 122017 INF	PW-1U-0716	PW-2L-0716	PW-2UR-0716	PW-3L-0716	PW-3M-0716	PW-4U-0716	PW-5UR-0716	PW-6MR-0716
Sample Date:		12/20/2017	7/12/2016	7/13/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016
Parameters	**Units**									
Semi-volatile Organic Compounds										
2-Chlorobenzoic acid	µg/L	2400	860	380	81000	1000	16000	31000	16000	16000
3-Chlorobenzoic acid	µg/L	970	730	210	33000	670	4900	5900	4600	4700

Sample Location:		PW-6UR	PW-8U	PW-9U	PW-10U	PW-10U
Sample ID:		PW-6UR-0716	PW-8U-0716	PW-9U-0716	PW-10U-0716	PW-11U-0716
Sample Date:		7/12/2016	7/12/2016	7/13/2016	7/12/2016	7/12/2016 (Duplicate)
Parameters	**Units**					
Semi-volatile Organic Compounds						
2-Chlorobenzoic acid	µg/L	990	1800	850	2400	2400
3-Chlorobenzoic acid	µg/L	440	560	430	600	600

Notes:

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