Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

Joe Branch
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May 8, 2017

Reference No. 001069

Ms. Gloria M. Sosa
USEPA
Region II, Site Investigation & Compliance Branch
290 Broadway, 20th Floor
New York, NY 10007-1866

Mr. Brian P. Sadowski
NYSDEC
270 Michigan Avenue
Buffalo, NY 14203-2999

Dear Ms. Sosa and Mr. Sadowski:

Re: **Five Year Site Remedial Performance Report – 2012 - 2016**
Hyde Park Remedial Program
Bedrock and Overburden Monitoring Programs

In accordance with the July 2006 "Performance Monitoring Plan (PMP)," the following is the Five-Year Site Remedial Performance Report (Five-Year Report) for the period January 1, 2012 through December 31, 2016 for the Hyde Park Landfill Site (Site) located in the Town of Niagara, New York.

As per Section 2.6 of the PMP, "*The Five-Year report will present a review of the Site conditions and a statistical evaluation of the analytical data collected over the preceding five years. The sampling parameters, frequency, and locations will be reassessed. The need to sample the Inner piezometers (piezometer within or near the current or historical NAPL Plume boundaries) will be reviewed. The Five-Year Report will recommend any appropriate modifications to the PMP for the following five years".*

Site Conditions

Operations and monitoring at the Site are conducted in both the overburden and bedrock. There are three active remediation systems installed in the overburden:

- The Source Control (SC) System
- The Existing Barrier Collection System (EBCS) installed in 1978
- The Overburden Barrier Collection System (OBCS) installed in 1992

The overburden monitoring consists of groundwater level monitoring, non-aqueous phase liquid (NAPL) presence monitoring, and groundwater quality monitoring.

There are two active remediation systems in the Lockport bedrock:

- The NAPL Plume Containment System
- The Aqueous Phase Liquid (APL) Containment System

The containment systems are comprised of a combination of monitoring wells and purge wells. The bedrock monitoring programs consists of water level monitoring, NAPL presence monitoring, and groundwater quality monitoring. Fifth-year monitoring of the Bloody Run Creek monitoring wells is also conducted as part of the bedrock monitoring.

Community Monitoring is conducted at the Site, and includes:

- The Gorge Face Seep Inspection

- APL Flux Monitoring
- Community Well Monitoring

The "Annual Site Remedial Performance Evaluation Report" for the period of January 1, 2016 to December 31, 2016 was submitted by GSH on April 28, 2017, and contains the most current Site overburden and bedrock hydraulic and groundwater quality monitoring data. A review of the 2016 data demonstrates that:

1. The overburden monitoring systems are operating properly with overburden containment being achieved.
2. The bedrock monitoring systems are operating properly, and containment is being maintained in each of the flow zones.

Tables 1 through 3 present the Five-Year groundwater sampling data collected in 2016, as per Section 7.0 of the PMP. These tables are also presented in the "Annual Site Remedial Performance Evaluation Report".

In July 2011, the New York State Department of Environmental Conservation (NYSDEC) reclassified the Site on the Registry of Inactive Hazardous Waste Disposal Sites (Registry) to a Class 4 site, indicating that it no longer presents a significant threat to public health and/or the environment for the following reasons (quoted from the NYSDEC "Public Notice - State Superfund Program, Hooker-Hyde Park Landfill" dated July 12, 2011):

1. The Site is a 15-acre parcel that was used for the disposal of chlorinated organic chemicals. Subsequent capping and other remedial activities have increased the footprint of the landfill to nearly 20 acres.
2. A series of remedies to address source area contamination, surface soil contamination, overburden and bedrock groundwater contamination, and a contaminated creek have addressed exposure concerns.
3. A deed restriction is on file, and the site management activities, including community groundwater monitoring and daily site inspections, are ongoing.

In August 2016, the United States Environmental Protection Agency issued their "Fifth Five-Year Review Report" and concluded that "the remedy is functioning as intended by the Site's decision documents. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. The hydraulic containment stipulated in the RRT has been achieved. EPA issued a dioxin RfD in 2012. The dioxin RfD does not affect the protectiveness of the remedy because there is limited to no access or exposure to the sediment at the mouth of the Bloody Run where dioxin has been historically detected. There have been no other changes in the toxicity factors for the contaminants of concern and there has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy."

Statistical Evaluation

A statistical evaluation of the data from 2012 through 2016 was performed, and the results of this evaluation are presented in Attachment 1 "Statistical Evaluation of the Groundwater Monitoring Data – 5-Year Evaluation (2012-2016) Report".

The statistical evaluations (trend test and cluster analysis) conducted on the available monitoring data from 2012 through 2016 of the Lockport Bedrock APL plume containment system, NAPL plume containment system, and Bloody Run Creek monitoring system concluded the following:

1. The APL Plume Containment System had regular detections of organic acid and volatile organic compound (VOC) parameters, indicating continued presence and need for containment of these chemicals. Semi-volatile organic compounds (SVOCs) were infrequently detected (detected in 6 percent of the samples).

2. The NAPL Plume Containment System had regular detections of organic acid, VOC, and SVOC parameters. This would support that the System is successful in capturing impacted groundwater.
3. The Bloody Run Creek Monitoring System results indicate that chlorendic acid, cis-1,2-dichloroethylene, and carbon disulfide remained present at detectable concentrations but SVOCs were not present.
4. Temporal trend analysis of Site Organic Indicators (SOI) concentrations over time revealed nine data sets with decreasing trends and thirteen data sets with increasing trends. These data sets were for either chlorendic acid or VOCs in the Lockport Bedrock APL System (various flow zones).
5. The vast majority of SOI data sets either had no apparent concentration trends over time (141 data sets) or had too few detected results (1008 data sets) to perform a trend test.
6. The cluster analysis results indicate that for most of the APL Flow Zones, at least two wells appear to have very similar chemistry and may represent redundant monitoring effort. If appropriate based on the spatial layout of these wells, it may be worthwhile considering to consider removing some redundant wells from the monitoring program.
7. The cluster analysis results also indicate that there is redundancy in VOC SOIs in a number of APL flow zones and in the Bloody Run Creek System (presumably due mainly to lack of detections of VOCs). Although this is a potential redundant monitoring effort for certain VOCs, there is limited value in removing redundant VOCs from the parameter list since analysis for other VOCs would still be appropriate.
8. Due to low frequencies or no detections of SVOC parameters in the APL Plume Containment and Bloody Run Creek Monitoring Systems, respectively, it is appropriate to consider eliminate SVOCs from future monitoring.

At this time, it is recommended that SVOCs be removed from future monitoring for the APL Containment System and Bloody Run Creek Monitoring System. The next Five-Year Report is due on April 30, 2021.

If you have any questions, please feel free to contact me at 231-670-6809 or by email at joseph_branch@oxy.com.

Very truly yours,

GLENN SPRINGS HOLDINGS, INC.

Joe Branch
Site Manager
231-670-6809 Cell

JB//

Encl.

c.c.: G. May, NYSDEC
C. Babcock, GSH
D. Hoyt, GHD
J. Pentilchuk, GHD

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			APW-1	APW-2	PW-1L	PW-1U	PW-2L	PW-2M
Sample ID:			APW-1-0716	APW-2-0716	PW-1L-0716	PW-1U-0716	PW-2L-0716	PW-2M-0716
Sample Date:			7/12/2016	7/13/2016	7/13/2016	7/12/2016	7/13/2016	7/12/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	**34**	**32**	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	6.5	**1400**	**920**	7.7
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	6.4	170	110	2.7
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	0.21 J	0.27 J	83	61	39	29
1,4-Dichlorobenzene	µg/L	75	0.25 J	1.0 U	29	**170**	**110**	7.5
2-Chlorotoluene	µg/L	120	0.74 J	0.43 J	68	**2000**	**1100**	35
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	21	7.0 J	0.36 J
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.1	**1300**	**570**	2
Benzene	µg/L	5	1.0 U	1.0 U	3.4	**78**	**40**	0.49 J
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Carbon disulfide	µg/L	1000	1.3	1.0 U	2.1	100	16	2.6
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Chlorobenzene	µg/L	100	5.6	2	95	**600**	**420**	28
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	**120**	**88**	0.81 J
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	0.43 J	1.0 U	1.3	**1300**	**960**	1.1
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	0.28 J	1.0 U	0.28 J	9.2 J	6.2 J	0.52 J
Ethylbenzene	µg/L	700	1.0 U	1.0 U	0.42 J	350	170	0.56 J
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	27	6.0 J	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	3.4	**240**	**110**	4.5
o-Monochlorobenzotrifluoride	µg/L	50	0.20 J	0.41 J	4.9	**440**	**210**	6.5
p-Monochlorobenzotrifluoride	µg/L	50	0.48 J	0.96 J	9.3	**780**	**370**	13
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	**110**	**15**	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.1	950	260	0.37 J

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			APW-1	APW-2	PW-1L	PW-1U	PW-2L	PW-2M
Sample ID:			APW-1-0716	APW-2-0716	PW-1L-0716	PW-1U-0716	PW-2L-0716	PW-2M-0716
Sample Date:			7/12/2016	7/13/2016	7/13/2016	7/12/2016	7/13/2016	7/12/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.6	20 U	3.7 J	0.59 J
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	20 U	10 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	0.23 J	1.1	**970**	**66**	**18**
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	5.0 J	10 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	40 U	20 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	**30**	**31**	1.5
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	2.5 J	1900	700	2.9 J
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	190 U	14 J	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	940 U	94 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	190 U	2.3 J	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	940 U	94 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	190 U	6.9 J	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	940 U	94 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	**8.5 J**	9.4 U	**41 J**	19 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			APW-1	APW-2	PW-1L	PW-1U	PW-2L	PW-2M
Sample ID:			APW-1-0716	APW-2-0716	PW-1L-0716	PW-1U-0716	PW-2L-0716	PW-2M-0716
Sample Date:			7/12/2016	7/13/2016	7/13/2016	7/12/2016	7/13/2016	7/12/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	**850**	**34**	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	**1100**	**51**	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	**61 J**	19 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	94 U	9.4 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	940 U	94 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	1300	140	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	190 U	19 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	730	210	30 U
3-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	860	380	30 U
4-Chlorobenzoic acid	µg/L	7300	300 U	300 U	300 U	1600	510	300 U
Benzoic acid	µg/L	150000	100 U	100 U	100 U	7500	410	100 U
Chlorendic acid	µg/L	50	**270**	**180 J**	**280**	**8500**	**2200**	**210 J**
General Chemistry								
Sulfate	mg/L	NA	1040	2.0 U	1820	234	1660	1390

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			PW-2UR	PW-3L	PW-3M	PW-4U	PW-5UR	PW-6MR
Sample ID:			PW-2UR-0716	PW-3L-0716	PW-3M-0716	PW-4U-0716	PW-5UR-0716	PW-6MR-0716
Sample Date:			7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	96 J	10 U	98	160	22 J	17 J
1,1,2,2-Tetrachloroethane	µg/L	0.053	**1000**	**67**	**2000**	**8900**	**400**	**400**
1,1,2-Trichloroethane	µg/L	5	**210**	4.5 J	**220**	**240**	**46**	**41**
1,1-Dichloroethane	µg/L	800	20 J	10 U	54	28 J	11 J	12 J
1,1-Dichloroethene	µg/L	7	100 U	10 U	**72**	100 U	**16 J**	**15 J**
1,2,4-Trichlorobenzene	µg/L	70	**4000**	**380**	**6200**	**11000**	**300**	**260**
1,2-Dichlorobenzene	µg/L	600	590	87	**670**	**1200**	130	110
1,2-Dichloroethane	µg/L	5	**620**	4.7 J	50 U	100 U	25 U	25 U
1,2-Dichloropropane	µg/L	5	100 U	10 U	**23 J**	100 U	25 U	25 U
1,3-Dichlorobenzene	µg/L	180	120	32	140	57 J	22 J	24 J
1,4-Dichlorobenzene	µg/L	75	**800**	**110**	**580**	**670**	**95**	**95**
2-Chlorotoluene	µg/L	120	**6600**	**1200**	**7900**	**11000**	**1800**	**1400**
3-Chlorotoluene	µg/L	120	82 J	10 U	50 U	100 U	17 J	25 U
4-Chlorotoluene	µg/L	120	**4700**	**810**	**5200**	**8900**	**1100**	**900**
Benzene	µg/L	5	**2700**	**110**	**9200**	**320**	**2000**	**1900**
Bromodichloromethane	µg/L	80	100 U	10 U	50 U	100 U	25 U	25 U
Bromoform	µg/L	80	100 U	10 U	50 U	100 U	25 U	25 U
Bromomethane (Methyl bromide)	µg/L	8.5	100 U	10 U	50 U	100 U	25 U	25 U
Carbon disulfide	µg/L	1000	360	23	540	540	120	120
Carbon tetrachloride	µg/L	5	**610**	10 U	**340**	**2600**	**190**	**140**
Chlorobenzene	µg/L	100	**7800**	**680**	**6500**	**2700**	**1500**	**1400**
Chloroethane	µg/L	3.6	100 U	10 U	50 U	100 U	25 U	25 U
Chloroform (Trichloromethane)	µg/L	80	**6700**	**100**	**3200**	**5900**	**2500**	**2400**
Chloromethane (Methyl chloride)	µg/L	190	75 J	10 U	50 U	100 U	25 U	25 U
cis-1,2-Dichloroethene	µg/L	70	**340**	**1300**	**2600**	**8900**	**1800**	**1700**
cis-1,3-Dichloropropene	µg/L	0.44	100 U	10 U	50 U	100 U	25 U	25 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	97 J	5.8 J	38 J	100 U	8.8 J	8.8 J
Ethylbenzene	µg/L	700	**2000**	270	**1800**	**3200**	400	330
Methylene chloride	µg/L	30	**740**	9.6 J	**1100**	**530**	**230**	**220**
m-Monochlorobenzotrifluoride	µg/L	5	**690**	**110**	**860**	**1500**	**190**	**140**
o-Monochlorobenzotrifluoride	µg/L	50	**1300**	**240**	**2500**	**6600**	**650**	**480**
p-Monochlorobenzotrifluoride	µg/L	50	**2600**	**410**	**3500**	**5900**	**830**	**590**
Styrene	µg/L	NA	100 U	10 U	50 U	100 U	25 U	25 U
Tetrachloroethene	µg/L	5	**8300**	**24**	**580**	**19000**	**670**	**330**
Toluene	µg/L	1000	**17000**	260	**3700**	**5100**	**3600**	**3100**

Table 1

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5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			PW-2UR	PW-3L	PW-3M	PW-4U	PW-5UR	PW-6MR
Sample ID:			PW-2UR-0716	PW-3L-0716	PW-3M-0716	PW-4U-0716	PW-5UR-0716	PW-6MR-0716
Sample Date:			7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	100 U	7.0 J	**400**	**190**	80	74
trans-1,3-Dichloropropene	µg/L	0.44	100 U	10 U	50 U	100 U	25 U	25 U
Trichloroethene	µg/L	5	**5100**	**51**	**5300**	**6800**	**1300**	**1100**
Trichlorofluoromethane (CFC-11)	µg/L	NA	210	10 U	23 J	100 U	5.0 J	25 U
Vinyl acetate	µg/L	NA	200 U	20 U	100 U	200 U	50 U	50 U
Vinyl chloride	µg/L	2	**76 J**	**77**	**6600**	**780**	**1400**	**1200**
Xylenes (total)	µg/L	10000	**11000**	1300	9500	**17000**	2100	1700
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	5000 U	94 U	94 U	1000 U	190 U	94 U
2,4-Dichlorophenol	µg/L	110	**3600 J**	94 U	17 J	1000 U	190 U	14 J
2,4-Dimethylphenol	µg/L	730	5000 U	94 U	94 U	1000 U	190 U	94 U
2,4-Dinitrophenol	µg/L	73	25000 U	470 U	470 U	5000 U	R	470 U
2-Chloronaphthalene	µg/L	490	5000 U	94 U	94 U	1000 U	190 UJ	94 U
2-Chlorophenol	µg/L	30	5000 U	94 U	14 J	1000 U	190 U	10 J
2-Nitrophenol	µg/L	50	5000 U	94 U	94 U	1000 U	190 U	94 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	25000 U	470 U	470 U	5000 U	R	470 U
4-Chloro-3-methylphenol	µg/L	50	5000 U	94 U	94 U	1000 U	190 U	94 U
4-Nitrophenol	µg/L	50	25000 U	470 U	470 U	5000 U	R	470 U
Acenaphthene	µg/L	370	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Acenaphthylene	µg/L	310	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Anthracene	µg/L	1800	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Benzo(a)anthracene	µg/L	0.092	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Benzo(a)pyrene	µg/L	0.2	5000 U	94 U	94 U	1000 U	190 U	94 U
Benzo(b)fluoranthene	µg/L	0.092	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Benzo(g,h,i)perylene	µg/L	310	5000 U	94 U	94 U	1000 U	190 U	94 U
bis(2-Chloroethoxy)methane	µg/L	5	5000 U	94 U	94 U	1000 U	190 U	94 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Butyl benzylphthalate (BBP)	µg/L	NA	5000 U	94 U	94 U	1000 U	190 U	94 U
Chrysene	µg/L	9.2	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Dibenz(a,h)anthracene	µg/L	0.0092	5000 U	94 U	94 U	1000 U	190 U	94 U
Diethyl phthalate	µg/L	29000	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Dimethyl phthalate	µg/L	370000	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Di-n-butylphthalate (DBP)	µg/L	3700	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	5000 U	94 U	94 U	1000 U	190 U	94 U

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			PW-2UR	PW-3L	PW-3M	PW-4U	PW-5UR	PW-6MR
Sample ID:			PW-2UR-0716	PW-3L-0716	PW-3M-0716	PW-4U-0716	PW-5UR-0716	PW-6MR-0716
Sample Date:			7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016	7/12/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Fluorene	µg/L	240	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Hexachlorobenzene	µg/L	1	**540 J**	**18 J**	**54 J**	**590 J**	190 U	94 U
Hexachlorobutadiene	µg/L	0.86	**700 J**	**15 J**	**45 J**	**300 J**	190 U	94 U
Hexachlorocyclopentadiene	µg/L	50	5000 U	94 U	94 U	**420 J**	R	94 U
Hexachloroethane	µg/L	4.8	5000 U	**17 J**	94 U	**440 J**	**27 J**	**17 J**
Indeno(1,2,3-cd)pyrene	µg/L	0.092	5000 U	94 U	94 U	1000 U	190 U	94 U
Isophorone	µg/L	70	5000 U	94 U	94 U	1000 U	190 U	94 U
Naphthalene	µg/L	6.5	5000 U	94 U	94 U	1000 U	190 U	94 U
Octachlorocyclopentene	µg/L	NA	2500 U	47 U	47 U	560	94 U	47 U
Pentachlorophenol	µg/L	1	25000 U	470 U	470 U	5000 U	R	470 U
Phenanthrene	µg/L	310	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Phenol	µg/L	11000	**48000**	920	1200	**14000**	1100	880
Pyrene	µg/L	180	5000 U	94 U	94 U	1000 U	190 UJ	94 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	**33000**	670	4900	5900	4600	4700
3-Chlorobenzoic acid	µg/L	7300	**81000**	1000	**16000**	**31000**	**16000**	**16000**
4-Chlorobenzoic acid	µg/L	7300	**44000 J**	1300	**18000**	**45000**	**17000**	**18000**
Benzoic acid	µg/L	150000	**610000**	1100	15000	140000	15000	15000
Chlorendic acid	µg/L	50	**110000**	**3200**	**4100**	25000 U	**3800 J**	**4200**
General Chemistry								
Sulfate	mg/L	NA	589	1280	74.8	318	71.6	72.2

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			PW-6UR	PW-7U	PW-8U	PW-9U	PW-10U	PW-10U
Sample ID:			PW-6UR-0716	PW-7U-0716	PW-8U-0716	PW-9U-0716	PW-10U-0716	PW-11U-0716
Sample Date:			7/12/2016	7/13/2016	7/12/2016	7/13/2016	7/12/2016	7/12/2016 Duplicate
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	1.8 J
1,1,2,2-Tetrachloroethane	µg/L	0.053	**53**	1.0 U	**12**	**14**	**23**	**24**
1,1,2-Trichloroethane	µg/L	5	3.7 J	1.0 U	2.5	3.4 J	4.1 J	4.1 J
1,1-Dichloroethane	µg/L	800	5.0 U	1.0 U	0.63 J	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	7	4.3 J	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	70	**85**	1.6	**120**	**870 J**	**160**	**160**
1,2-Dichlorobenzene	µg/L	600	28	1.0 U	29	33	49	49
1,2-Dichloroethane	µg/L	5	5.0 U	1.0 U	**10**	3.3 J	**17**	**16**
1,2-Dichloropropane	µg/L	5	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/L	180	4.8 J	0.60 J	29	13	35	37
1,4-Dichlorobenzene	µg/L	75	21	0.63 J	33	44	52	54
2-Chlorotoluene	µg/L	120	**290**	0.55 J	**330**	**330**	**540**	**570**
3-Chlorotoluene	µg/L	120	5.0 U	1.0 U	3.4	3.4 J	6.1	5.9
4-Chlorotoluene	µg/L	120	**150**	0.38 J	**210**	**200**	**370**	**390**
Benzene	µg/L	5	**100**	1.0 U	**79**	**58**	**88**	**91**
Bromodichloromethane	µg/L	80	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	80	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	1000	8.8	1.0 U	14	4.9 J	19	20
Carbon tetrachloride	µg/L	5	4.8 J	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	100	**260**	0.38 J	**250**	**140**	**410**	**410**
Chloroethane	µg/L	3.6	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	80	**140**	0.41 J	**83**	58	**160**	**180**
Chloromethane (Methyl chloride)	µg/L	190	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	70	**1100**	2.3	**270**	**150**	**540**	**580**
cis-1,3-Dichloropropene	µg/L	0.44	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.9 J	0.37 J	5.2	2.8 J	4.7 J	4.6 J
Ethylbenzene	µg/L	700	55	1.0 U	65	69	110	110
Methylene chloride	µg/L	30	5.9	1.0 U	6.1	16	11	11
m-Monochlorobenzotrifluoride	µg/L	5	**64**	**5.6**	**34**	**76**	**47**	**47**
o-Monochlorobenzotrifluoride	µg/L	50	**210**	8.6	**56**	**110**	**89**	**87**
p-Monochlorobenzotrifluoride	µg/L	50	**260**	19	**96**	**230**	**140**	**140**
Styrene	µg/L	NA	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5	**5.2**	**8.4**	**18**	**200**	**8.5**	**7.8**
Toluene	µg/L	1000	300	1.0 U	300	210	570	600

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			PW-6UR	PW-7U	PW-8U	PW-9U	PW-10U	PW-10U
Sample ID:			PW-6UR-0716	PW-7U-0716	PW-8U-0716	PW-9U-0716	PW-10U-0716	PW-11U-0716
Sample Date:			7/12/2016	7/13/2016	7/12/2016	7/13/2016	7/12/2016	7/12/2016 Duplicate
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	14	1.0 U	1.7 J	5.0 U	2.2 J	2.1 J
trans-1,3-Dichloropropene	µg/L	0.44	5.0 U	1.0 U	2.5 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5	**250**	**32**	**70**	**170**	**120**	**130**
Trichlorofluoromethane (CFC-11)	µg/L	NA	5.0 U	1.0 U	2.1 J	1.3 J	4.8 J	4.6 J
Vinyl acetate	µg/L	NA	10 U	2.0 U	5.0 U	10 U	10 U	10 U
Vinyl chloride	µg/L	2	**140**	1.0 U	**20**	**7.8**	**25**	**27**
Xylenes (total)	µg/L	10000	250	3.0 U	290	280	530	540
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	19 U	9.4 U	28 U	190 U	**100**	47 U
2,4-Dichlorophenol	µg/L	110	12 J	9.4 U	3.7 J	190 U	5.3 J	6.7 J
2,4-Dimethylphenol	µg/L	730	19 U	9.4 U	28 U	190 U	28 U	47 U
2,4-Dinitrophenol	µg/L	73	94 U	47 U	140 U	940 U	140 U	240 U
2-Chloronaphthalene	µg/L	490	19 U	9.4 U	28 U	190 U	28 U	47 U
2-Chlorophenol	µg/L	30	2.7 J	9.4 U	28 U	190 U	28 U	47 U
2-Nitrophenol	µg/L	50	19 U	9.4 U	28 U	190 U	28 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	94 U	47 U	140 U	940 U	140 U	240 U
4-Chloro-3-methylphenol	µg/L	50	19 U	9.4 U	28 U	190 U	28 U	47 U
4-Nitrophenol	µg/L	50	94 U	47 U	140 U	940 U	140 U	240 U
Acenaphthene	µg/L	370	19 U	9.4 U	28 U	190 U	28 U	47 U
Acenaphthylene	µg/L	310	19 U	9.4 U	28 U	190 U	28 U	47 U
Anthracene	µg/L	1800	19 U	9.4 U	28 U	190 U	28 U	47 U
Benzo(a)anthracene	µg/L	0.092	19 U	9.4 U	28 U	190 U	28 U	47 U
Benzo(a)pyrene	µg/L	0.2	19 U	9.4 U	28 U	190 U	28 U	47 U
Benzo(b)fluoranthene	µg/L	0.092	19 U	9.4 U	28 U	190 U	28 U	47 U
Benzo(g,h,i)perylene	µg/L	310	19 U	9.4 U	28 U	190 U	28 U	47 U
bis(2-Chloroethoxy)methane	µg/L	5	19 U	9.4 U	28 U	190 U	28 U	47 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	19 U	9.4 U	28 U	**55 J**	28 U	47 U
Butyl benzylphthalate (BBP)	µg/L	NA	19 U	9.4 U	28 U	190 U	28 U	47 U
Chrysene	µg/L	9.2	19 U	9.4 U	28 U	190 U	28 U	47 U
Dibenz(a,h)anthracene	µg/L	0.0092	19 U	9.4 U	28 U	190 U	28 U	47 U
Diethyl phthalate	µg/L	29000	19 U	9.4 U	28 U	190 U	28 U	47 U
Dimethyl phthalate	µg/L	370000	19 U	9.4 U	28 U	190 U	28 U	47 U
Di-n-butylphthalate (DBP)	µg/L	3700	19 U	9.4 U	28 U	190 U	28 U	47 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	19 U	9.4 U	28 U	190 U	28 U	47 U

Table 1

Analytical Results Summary
5-Year APL and NAPL Purge Well Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			PW-6UR	PW-7U	PW-8U	PW-9U	PW-10U	PW-10U
Sample ID:			PW-6UR-0716	PW-7U-0716	PW-8U-0716	PW-9U-0716	PW-10U-0716	PW-11U-0716
Sample Date:			7/12/2016	7/13/2016	7/12/2016	7/13/2016	7/12/2016	7/12/2016 Duplicate
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	19 U	9.4 U	28 U	190 U	28 U	47 U
Fluorene	µg/L	240	19 U	9.4 U	28 U	190 U	28 U	47 U
Hexachlorobenzene	µg/L	1	**38**	9.4 U	28 U	**1300**	28 U	47 U
Hexachlorobutadiene	µg/L	0.86	**53**	**2.2 J**	28 U	**950**	28 U	47 U
Hexachlorocyclopentadiene	µg/L	50	19 U	9.4 U	28 U	190 U	28 U	47 U
Hexachloroethane	µg/L	4.8	**17 J**	9.4 U	28 U	**24 J**	28 U	47 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	19 U	9.4 U	28 U	190 U	28 U	47 U
Isophorone	µg/L	70	19 U	9.4 U	28 U	190 U	28 U	47 U
Naphthalene	µg/L	6.5	19 U	9.4 U	28 U	190 U	28 U	47 U
Octachlorocyclopentene	µg/L	NA	10	4.7 U	14 U	94 U	14 U	24 U
Pentachlorophenol	µg/L	1	94 U	47 U	140 U	940 U	140 U	240 U
Phenanthrene	µg/L	310	19 U	9.4 U	28 U	190 U	28 U	47 U
Phenol	µg/L	11000	190	9.4 U	290	950	290	370
Pyrene	µg/L	180	19 U	9.4 U	28 U	190 U	28 U	47 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	440	30 U	560	430	600	600
3-Chlorobenzoic acid	µg/L	7300	990	30 U	1800	850	2400	2400
4-Chlorobenzoic acid	µg/L	7300	1100	300 U	780 J	810	1100	1100
Benzoic acid	µg/L	150000	1500	100 U	2300	3400	4100	4200
Chlorendic acid	µg/L	50	**800**	**800**	**10000**	**4100**	**2800**	**2700**
General Chemistry								
Sulfate	mg/L	NA	1190	285	355	462	522	512

Notes:

mg/L - Milligrams per liter
µg/L - Micrograms per liter
J - Estimated concentration
NA - Not available
U - Not detected at the associated reporting limit
R - Data Rejected
Value exceeds associated screening level

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-1-09	ABP-7-09	AFW-1L-11	AFW-2U-04	AFW-2U-05	AGW-1M
Sample ID:			ABP-1-09-0816	ABP-7-09-0816	AFW-1L-11-0816	AFW-2U-04-0816	AFW-2U-05-0816	AGW-1M-07-0816
Sample Date:			08/30/2016	08/25/2016	08/27/2016	08/27/2016	08/27/2016	08/16/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.52 J
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.55 J
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1
1,4-Dichlorobenzene	µg/L	75	1.0 U	0.59 J	1.0 U	1.0 U	1.0 U	1.1
2-Chlorotoluene	µg/L	120	1.0 U	2.1	1.0 U	1.0 U	1.0 U	2.6
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	2.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	11	1.0 U	1.0 U	1.0 U	8.3
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	0.28 J	1.0 U	0.56 J	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.88 J
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.4
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	0.51 J	1.0 U	1.0 U	1.0 U	2.9
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-1-09	ABP-7-09	AFW-1L-11	AFW-2U-04	AFW-2U-05	AGW-1M
Sample ID:			ABP-1-09-0816	ABP-7-09-0816	AFW-1L-11-0816	AFW-2U-04-0816	AFW-2U-05-0816	AGW-1M-07-0816
Sample Date:			08/30/2016	08/25/2016	08/27/2016	08/27/2016	08/27/2016	08/16/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	4.8 J	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			ABP-1-09	ABP-7-09	AFW-1L-11	AFW-2U-04	AFW-2U-05	AGW-1M
Sample ID:			ABP-1-09-0816	ABP-7-09-0816	AFW-1L-11-0816	AFW-2U-04-0816	AFW-2U-05-0816	AGW-1M-07-0816
Sample Date:			08/30/2016	08/25/2016	08/27/2016	08/27/2016	08/27/2016	08/16/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 UJ
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 UJ
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 UJ
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 UJ
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 UJ
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ
Chlorendic acid	µg/L	50	0.25 U	0.030 J	0.25 U	0.25 U	0.25 U	0.036 J
General Chemistry								
Sulfate	mg/L	NA	1680	281	181	81.2	192	1640

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			AGW-1M-09	AGW-1U	AGW-1U-05	B2L-11	C3-07	C3-09
Sample ID:			AGW-1M-09-0816	AGW-1U-06-0816	AGW-1U-05-0816	B2L-11-0816	C3-07-0816	C3-09-0816
Sample Date:			08/16/2016	08/16/2016	08/16/2016	08/30/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	0.35 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.4	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	3.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	5.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	3.9	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	32	1.0 U	1.0 U	1.2	1.0 U	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	0.37 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	**27**	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	39	1.0 U	0.48 J	5.0	0.70 J	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	0.71 J	1.4	0.62 J	0.52 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	4.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	8.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	13	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	0.31 J	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	0.54 J	1.0 U	1.0 U	0.36 J	0.23 J	0.23 J

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			AGW-1M-09	AGW-1U	AGW-1U-05	B2L-11	C3-07	C3-09
Sample ID:			AGW-1M-09-0816	AGW-1U-06-0816	AGW-1U-05-0816	B2L-11-0816	C3-07-0816	C3-09-0816
Sample Date:			08/16/2016	08/16/2016	08/16/2016	08/30/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	0.29 J	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	0.84 J	2.0	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	1.2 J	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	1.3 J	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 UJ	9.4 UJ	9.4 UJ	2.0 J	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			AGW-1M-09	AGW-1U	AGW-1U-05	B2L-11	C3-07	C3-09
Sample ID:			AGW-1M-09-0816	AGW-1U-06-0816	AGW-1U-05-0816	B2L-11-0816	C3-07-0816	C3-09-0816
Sample Date:			08/16/2016	08/16/2016	08/16/2016	08/30/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 UJ	4.7 UJ	4.7 UJ	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 UJ	9.4 UJ	9.4 UJ	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.015 J	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.11 J	0.19 J	0.25 U	0.18 J	0.015 J	0.016 J
General Chemistry								
Sulfate	mg/L	NA	1650	405	191	1400	179	189

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1L-11	D1M-09	D1U-04	D1U-05	D2M-09	D2U-04
Sample ID:			D1L-11-0816	D1M-09-0816	D1U-04-0816	D1U-05-0816	D2M-09-0816	D2U-04-0816
Sample Date:			08/29/2016 (Duplicate)	08/19/2016	08/19/2016	08/19/2016	08/29/2016	08/29/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	0.69 J	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	4.8	1.0 U	1.0 U	0.21 J	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.6	1.0 U	1.0 U	0.25 J	1.0 U
2-Chlorotoluene	µg/L	120	0.22 J	7.7	1.0 U	1.0 U	1.2	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	0.41 J	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	**97**	3.2	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	21	1.0 U	0.83 J	4.6	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	0.55 J	1.0 U	1.0 U	0.96 J	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	0.46 J	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	0.69 J	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	2.3	0.41 J	1.0 U	0.21 J	0.20 J	1.0 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1L-11	D1M-09	D1U-04	D1U-05	D2M-09	D2U-04
Sample ID:			D1L-11-0816	D1M-09-0816	D1U-04-0816	D1U-05-0816	D2M-09-0816	D2U-04-0816
Sample Date:			08/29/2016 (Duplicate)	08/19/2016	08/19/2016	08/19/2016	08/29/2016	08/29/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	0.62 J	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.5	1.3	3.6	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	0.52 J	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	21	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	1.7 J	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	1.5 J	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D1L-11	D1M-09	D1U-04	D1U-05	D2M-09	D2U-04
Sample ID:			D1L-11-0816	D1M-09-0816	D1U-04-0816	D1U-05-0816	D2M-09-0816	D2U-04-0816
Sample Date:			08/29/2016 (Duplicate)	08/19/2016	08/19/2016	08/19/2016	08/29/2016	08/29/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	10	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.0085 J	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.25 U	0.21 J	0.25 U	0.079 J	0.16 J	0.034 J
General Chemistry								
Sulfate	mg/L	NA	978	1320	110	178	1090	144

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D2U-05	E6-04	E6-05	E6-06	E6-09	E6-11
Sample ID:			D2U-05-0816	E6-04-0816	E6-05-0816	E6-06-0816	E6-09-0816	E6-11-0816
Sample Date:			08/29/2016	08/11/2016	08/11/2016	08/11/2016	08/11/2016	08/11/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	0.69 J	0.26 J
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	0.36 J	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	**110**	**39**
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	1.0 U	4.9	0.22 J	1.8	0.36 J	0.26 J
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	0.36 J	1.0 U	1.0 U	1.0 U	7.1	4.3
cis-1,2-Dichloroethene	µg/L	70	1.0 U	1.0 U	1.0 U	3.5	0.36 J	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	2.6	1.2
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	0.22 J	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	53	14

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D2U-05	E6-04	E6-05	E6-06	E6-09	E6-11
Sample ID:			D2U-05-0816	E6-04-0816	E6-05-0816	E6-06-0816	E6-09-0816	E6-11-0816
Sample Date:			08/29/2016	08/11/2016	08/11/2016	08/11/2016	08/11/2016	08/11/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	0.76 J	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	0.41 J	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U	65	18
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	19 U	9.4 U	9.4 U	2.9 J	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	94 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	94 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	94 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	**220 J**	1.5 J	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			D2U-05	E6-04	E6-05	E6-06	E6-09	E6-11
Sample ID:			D2U-05-0816	E6-04-0816	E6-05-0816	E6-06-0816	E6-09-0816	E6-11-0816
Sample Date:			08/29/2016	08/11/2016	08/11/2016	08/11/2016	08/11/2016	08/11/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	19 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	9.4 UJ	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	94 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	19 U	9.4 U	9.4 U	9.3 J	9.4 U
Pyrene	µg/L	180	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.11 J	0.25 U	0.25 U	0.25 U	0.25 U	0.019 J
General Chemistry								
Sulfate	mg/L	NA	344	1650	1660	1610	1110	1730

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F2L-11	F2M-09	F2U-04	F2U-04	F6-04	F6-06
Sample ID:			F2L-11-0816	F2M-09-0816	F2U-04-0816	Z7-10-0816	F6-04-0816	F6-06-0816
Sample Date:			08/29/2016	08/29/2016	08/29/2016	08/29/2016	08/11/2016	08/11/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	**25**	0.73 J	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	8.2	8.1	1.0 U	1.0 U	1.9	2.1
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	0.40 J	1.0 U	0.30 J	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	0.81 J	1.0 U	1.0 U	1.0 U	2.2
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.3	0.31 J	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	12	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F2L-11	F2M-09	F2U-04	F2U-04	F6-04	F6-06
Sample ID:			F2L-11-0816	F2M-09-0816	F2U-04-0816	Z7-10-0816	F6-04-0816	F6-06-0816
Sample Date:			08/29/2016	08/29/2016	08/29/2016	08/29/2016	08/11/2016	08/11/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.58 J
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	16	0.95 J	3.0 U	3.0 U	3.0 U	1.2 J
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F2L-11	F2M-09	F2U-04	F2U-04	F6-04	F6-06
Sample ID:			F2L-11-0816	F2M-09-0816	F2U-04-0816	Z7-10-0816	F6-04-0816	F6-06-0816
Sample Date:			08/29/2016	08/29/2016	08/29/2016	08/29/2016	08/11/2016	08/11/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.25 U	0.020 J	0.41	0.39	0.25 U	0.25 U
General Chemistry								
Sulfate	mg/L	NA	63.9	1440	137	137	467	1510

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F6-11	G1L-11	G1M-06	G1U-01	G6-01	G6-02
Sample ID:			F6-11-0816	G1L-11-0816	G1M-06-0816	G1U-01-0816	G6-01-0816	G6-02-0816
Sample Date:			08/11/2016	08/18/2016	08/18/2016	08/18/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	**4.0**	**3.3**
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	0.60 J	0.60 J
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	0.73 J	1.0
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	0.26 J
2-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	0.61 J	0.56 J
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	0.50 J	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	**28**	**110**	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	0.27 J	0.28 J	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.5	1.6
Chloroethane	µg/L	3.6	1.0 U	0.98 J	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	5.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	0.92 J	1.0 U	5.7	37	55
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	6.6	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.2
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	2.1	1.9
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	0.44 J	1.0 U	8.3	7.7
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	**16**	**16**
Toluene	µg/L	1000	0.24 J	1.2	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F6-11	G1L-11	G1M-06	G1U-01	G6-01	G6-02
Sample ID:			F6-11-0816	G1L-11-0816	G1M-06-0816	G1U-01-0816	G6-01-0816	G6-02-0816
Sample Date:			08/11/2016	08/18/2016	08/18/2016	08/18/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	0.59 J	3.4	5.1
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	0.40 J	0.48 J	3.8	**65**	**82**
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	0.42 J	1.0 U	1.0 U	**3.9**	**6.8**
Xylenes (total)	µg/L	10000	3.0 U	57	3.0 U	3.0 U	3.0 U	3.0 U
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	2.3 J	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			F6-11	G1L-11	G1M-06	G1U-01	G6-01	G6-02
Sample ID:			F6-11-0816	G1L-11-0816	G1M-06-0816	G1U-01-0816	G6-01-0816	G6-02-0816
Sample Date:			08/11/2016	08/18/2016	08/18/2016	08/18/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.015 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
General Chemistry								
Sulfate	mg/L	NA	2130	1650	1300	125	116	106

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			G6-04	G6-05	G6-06	G6-07	G6-11	G6-11
Sample ID:			G6-04-0816	G6-05-0816	G6-06-0816	G6-07-0816	G6-11-0816	X7-10-0816
Sample Date:			08/15/2016	08/15/2016	08/15/2016	08/15/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	2.6	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	**4.5**	**110**	**0.78 J**	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	0.77 J	**17**	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	0.96 J	5.3	0.24 J	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	0.64 J	3.0	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	0.29 J	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	0.55 J	0.52 J	1.0 U	1.0 U	0.40 J	0.60 J
3-Chlorotoluene	µg/L	120	0.51 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	0.45 J	0.52 J
Benzene	µg/L	5	**23**	**280**	1.0 U	1.0 U	**110**	**110**
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	1.0 U	8.7	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.9	18	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	0.65 J	0.73 J
Chloroform (Trichloromethane)	µg/L	80	9.2	**490**	2.1	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	10	10
cis-1,2-Dichloroethene	µg/L	70	33	**120**	5.1	1.0 U	4.3	4.6
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.2	1.0 U	1.0 U	6.9	7.3
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.2	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.7	0.26 J	1.0 U	1.0 U	0.35 J	0.42 J
p-Monochlorobenzotrifluoride	µg/L	50	7.4	0.64 J	0.68 J	0.30 J	1.2	1.3
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U
Tetrachloroethene	µg/L	5	**11**	4.3	1.2	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	0.46 J	8.6	1.0 U	1.0 U	4.1	4.4

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			**G6-04**	**G6-05**	**G6-06**	**G6-07**	**G6-11**	**G6-11**
Sample ID:			**G6-04-0816**	**G6-05-0816**	**G6-06-0816**	**G6-07-0816**	**G6-11-0816**	**X7-10-0816**
Sample Date:			**08/15/2016**	**08/15/2016**	**08/15/2016**	**08/15/2016**	**08/15/2016**	**08/15/2016**
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	9.8	38	0.60 J	1.0 U	0.82 J	0.88 J
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	**48**	**280**	**7.9**	0.66 J	2.2	2.1
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	**12**	**70**	1.0 U	1.0 U	0.59 J	0.78 J
Xylenes (total)	µg/L	10000	3.0 U	5.8	3.0 U	3.0 U	44	46
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	2.0 J	2.0 J
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			G6-04	G6-05	G6-06	G6-07	G6-11	G6-11
Sample ID:			G6-04-0816	G6-05-0816	G6-06-0816	G6-07-0816	G6-11-0816	X7-10-0816
Sample Date:			08/15/2016	08/15/2016	08/15/2016	08/15/2016	08/15/2016	08/15/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.36	2.2	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	1.8	9.5	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.56	19	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	1.0 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.091 J	0.55 J	0.25 U	0.25 U	0.25 U	0.25 U
General Chemistry								
Sulfate	mg/L	NA	180	1180	270	296	1640	1650

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			**H2M-06**	**H2M-09**	**H2U-01**	**H2U-02**	**H5-02**	**H5-02**
Sample ID:			**H2M-06-0816**	**H2M-09-0816**	**H2U-01-0816**	**H2U-02-0816**	**H5-02-0816**	**Y7-10-0816**
Sample Date:			**08/30/2016**	**08/30/2016**	**08/30/2016**	**08/30/2016**	**08/18/2016**	**08/18/2016**
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	10 U	1.0 U	1.0 U	2.6	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	10 U	2.4	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	10 U	1.8	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	10 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	10 U	1.7	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	10 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	10 U	25	1.0 U	1.0 U	1.0 U	1.0 U
3-Chlorotoluene	µg/L	120	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	10 U	**43**	1.0 U	4.1	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	55	1.0 U	1.0 U	1.0 U	0.27 J	0.35 J
Carbon tetrachloride	µg/L	5	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	10 U	13	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	3.6	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	9.8 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	16	1.6	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	10 U	0.78 J	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	10 U	3.6	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	10 U	8.8	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	10 U	15	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	NA	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	10 U	0.48 J	1.0 U	1.0 U	0.45 J	0.38 J

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			H2M-06	H2M-09	H2U-01	H2U-02	H5-02	H5-02
Sample ID:			H2M-06-0816	H2M-09-0816	H2U-01-0816	H2U-02-0816	H5-02-0816	Y7-10-0816
Sample Date:			08/30/2016	08/30/2016	08/30/2016	08/30/2016	08/18/2016	08/18/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	10	1.5	1.0 U	0.67 J	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	**7.6 J**	3.1	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	20 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	10 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	30 U	4.8	3.0 U	3.0 U	3.0 U	3.0 U
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			H2M-06	H2M-09	H2U-01	H2U-02	H5-02	H5-02
Sample ID:			H2M-06-0816	H2M-09-0816	H2U-01-0816	H2U-02-0816	H5-02-0816	Y7-10-0816
Sample Date:			08/30/2016	08/30/2016	08/30/2016	08/30/2016	08/18/2016	08/18/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	3.8 J	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.033	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.29	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.019 J	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.25	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.033 J	0.028 J	0.25 U	0.094 J	0.25 U	0.25 U
General Chemistry								
Sulfate	mg/L	NA	1740 J	1720	119	206	164	162

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Parameters	Units	Screening Level	H5-04 H5-04-0816 08/18/2016	H5-05 H5-05-0816 08/18/2016 (Duplicate)	H5-07 H5-07-0816 08/18/2016	H5-09 H5-09-0816 08/18/2016	I1-01 I1-01-0816 08/25/2016	I1-02 I1-02-0816 08/25/2016
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	0.37 J	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	2.3	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	5.9	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	2.2	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	24	1.0 U	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	0.27 J	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	0.58 J	**26**	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	0.33 J	0.23 J	1.9	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	1.0 U	1.0 U	29	1.0 U	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U	0.29 J	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.0 U	1.0 U	1.0 U	0.93 J	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	0.91 J	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	3.5	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	7.2	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	9.8	1.0 U	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	0.37 J	1.0 U	1.0 U	8.2	1.0 U	1.0 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			H5-04	H5-05	H5-07	H5-09	I1-01	I1-02
Sample ID:			H5-04-0816	H5-05-0816	H5-07-0816	H5-09-0816	I1-01-0816	I1-02-0816
Sample Date:			08/18/2016	08/18/2016 (Duplicate)	08/18/2016	08/18/2016	08/25/2016	08/25/2016
Parameters	**Units**	**Screening Level**						
Volatile Organic Compounds (Continued)								
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.4	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.3	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	0.85 J	6.3	3.0 U	3.0 U
Semi-volatile Organic Compounds								
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	1.8 J	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			H5-04	H5-05	H5-07	H5-09	I1-01	I1-02
Sample ID:			H5-04-0816	H5-05-0816	H5-07-0816	H5-09-0816	I1-01-0816	I1-02-0816
Sample Date:			08/18/2016	08/18/2016 (Duplicate)	08/18/2016	08/18/2016	08/25/2016	08/25/2016
Parameters	**Units**	**Screening Level**						
Semi-volatile Organic Compounds (Continued)								
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid								
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.25 U	0.25 U	0.25 U	0.11 J	0.25 U	0.25 U
General Chemistry								
Sulfate	mg/L	NA	1050	1500	1890	1560	286	293

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			**I1-04**	**I1-07**	**J6-02**	**J6-04**	**J6-05**	**J6-07**	**J6-11**
Sample ID:			**I1-04-0816**	**I1-07-0816**	**J6-02-0816**	**J6-04-0816**	**J6-05-0816**	**J6-07-0816**	**J6-11-0816**
Sample Date:			**08/25/2016**	**08/25/2016**	**08/16/2016**	**08/16/2016**	**08/16/2016**	**08/16/2016**	**08/16/2016**
Parameters	**Units**	**Screening Level**							
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	0.24 J	1.0 U	1.0 U	0.26 J	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.39 J	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.1	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**86**
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	0.89 J	1.0 U	1.0 U	1.0 U	12	1.0 U
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	0.23 J	1.0 U	1.0 U	1.0 U	11
cis-1,2-Dichloroethene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.91 J	1.0 U
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.7
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.55 J	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.90 J	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	0.34 J	0.27 J

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			I1-04	I1-07	J6-02	J6-04	J6-05	J6-07	J6-11
Sample ID:			I1-04-0816	I1-07-0816	J6-02-0816	J6-04-0816	J6-05-0816	J6-07-0816	J6-11-0816
Sample Date:			08/25/2016	08/25/2016	08/16/2016	08/16/2016	08/16/2016	08/16/2016	08/16/2016
Parameters	**Units**	**Screening Level**							
Volatile Organic Compounds (Continued)									
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.44 J	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	9.6
Semi-volatile Organic Compounds									
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

2016 Analytical Results Summary
Fifth Quarter Group A Bedrock Piezometer Sampling
Third Quarter 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			I1-04	I1-07	J6-02	J6-04	J6-05	J6-07	J6-11
Sample ID:			I1-04-0816	I1-07-0816	J6-02-0816	J6-04-0816	J6-05-0816	J6-07-0816	J6-11-0816
Sample Date:			08/25/2016	08/25/2016	08/16/2016	08/16/2016	08/16/2016	08/16/2016	08/16/2016
Parameters	**Units**	**Screening Level**							
Semi-volatile Organic Compounds (Continued)									
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Organic Acid									
2-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
3-Chlorobenzoic acid	µg/L	7300	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
4-Chlorobenzoic acid	µg/L	7300	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Benzoic acid	µg/L	150000	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chlorendic acid	µg/L	50	0.25 U	0.052 J	0.25 U	0.25 U	0.25 U	0.11 J	0.25 U
General Chemistry									
Sulfate	mg/L	NA	333	1400	102	114	207	1720	1740

Notes:

mg/L - Milligrams per liter
µg/L - Micrograms per liter
J - Estimated concentration
NA - Not available
U - Not detected at the associated reporting limit
R - Data Rejected
Value exceeds associated screening level

Table 3

Analytical Results Summary
5-Year Bloody Run Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			**BR-1**	**BR-2**	**BR-3**	**BR-4**
Sample ID:			**BR-1-0716**	**BR-2-0716**	**BR-3-0716**	**BR-4-0716**
Sample Date:			**7/13/2016**	**7/13/2016**	**7/13/2016**	**7/13/2016**
Parameters	**Units**	**Screening Level**				
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	200	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	0.053	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	800	1.0 U	24	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	7	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	70	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	600	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	180	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	75	1.0 U	1.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	120	1.0 U	0.32 J	1.0 U	1.0 U
3-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	120	1.0 U	1.0 U	1.0 U	1.0 U
Benzene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	8.5	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1000	1.0 U	1	1.0 U	1.4
Carbon tetrachloride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	100	1.0 U	1.0 U	1.0 U	0.46 J
Chloroethane	µg/L	3.6	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	80	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	190	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	70	1.1	0.84 J	1.0 U	0.80 J
cis-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	350	1.0 U	0.30 J	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	30	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U
p-Monochlorobenzotrifluoride	µg/L	50	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1000	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	100	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.44	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	5	**70**	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	NA	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	NA	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	2	0.49 J	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	10000	3.0 U	3.0 U	3.0 U	3.0 U

Analytical Results Summary
5-Year Bloody Run Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		**BR-1**	**BR-2**	**BR-3**	**BR-4**
Sample ID:		**BR-1-0716**	**BR-2-0716**	**BR-3-0716**	**BR-4-0716**
Sample Date:		**7/13/2016**	**7/13/2016**	**7/13/2016**	**7/13/2016**
Parameters	**Units**	**Screening Level**			
Semi-volatile Organic Compounds					
2,4,6-Trichlorophenol	µg/L	6.1	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	110	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	730	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	73	47 U	47 U	47 U	47 U
2-Chloronaphthalene	µg/L	490	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	30	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitrophenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dinitro-2-methylphenol	µg/L	3.7	47 U	47 U	47 U	47 U
4-Chloro-3-methylphenol	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitrophenol	µg/L	50	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	370	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	1800	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	0.2	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	5	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	6	9.4 U	9.4 U	9.4 U	9.4 U
Butyl benzylphthalate (BBP)	µg/L	NA	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.2	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	0.0092	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	29000	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	370000	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	3700	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	1500	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	240	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	1	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	0.86	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	50	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	4.8	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	0.092	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	70	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	6.5	9.4 U	9.4 U	9.4 U	9.4 U
Octachlorocyclopentene	µg/L	NA	4.7 U	4.7 U	4.7 U	4.7 U
Pentachlorophenol	µg/L	1	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	310	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	11000	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	180	9.4 U	9.4 U	9.4 U	9.4 U

Table 3

Analytical Results Summary
5-Year Bloody Run Sampling
July 2016
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:			**BR-1**	**BR-2**	**BR-3**	**BR-4**
Sample ID:			**BR-1-0716**	**BR-2-0716**	**BR-3-0716**	**BR-4-0716**
Sample Date:			**7/13/2016**	**7/13/2016**	**7/13/2016**	**7/13/2016**
Parameters	**Units**	**Screening Level**				
Organic Acid						
2-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7300	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7300	300 U	300 U	300 U	300 U
Benzoic acid	µg/L	150000	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	**250**	**75 J**	**320**
General Chemistry						
Sulfate	mg/L	NA	268	363	234	244

Notes:

mg/L - Milligrams per liter
µg/L - Micrograms per liter
J - Estimated concentration
NA - Not available
U - Not detected at the associated reporting limit
R - Data Rejected
Value exceeds associated screening level

Memorandum

Draft for Review

April 27, 2017

To:	Samantha Sasnow	Ref. No.:	053716
From:	Wesley Dyck/kf/2	Tel:	519-884-0510- ext. 3426

Subject: **Statistical Evaluation of the Groundwater Monitoring Data**
5-Year Evaluation (2012-2016) Report
Hyde Park Landfill Site
Town of Niagara, New York

1. Introduction

This memorandum presents a statistical evaluation of the chemistry data generated from groundwater quality monitoring efforts over the past five years (2012-2016) at the Hyde Park Landfill Site (Site), located in the Town of Niagara, New York. This memorandum is part of the second 5-Year Report for the Site, and focuses on evaluating sampling parameters, frequencies and locations.

In order to assess the performance of the Site's groundwater monitoring program regarding sampling parameters, frequency and locations, a series of statistical tests were carried out. The following groups of tests/assessments were carried out:

i) The tabulation of summary statistics, including sampling frequencies, detection frequencies, the range of observations obtained, etc., was carried out for all parameters on a per-well basis.

ii) Statistical trend tests of parameter concentration vs. time were carried out on a per-well, per-parameter basis.

iii) Considering a group of nine site organic indicator parameters and sulfate, wells within each flow zone group were subjected to a hierarchical cluster analysis. This procedure was used to identify wells and/or parameters that exhibit similar concentration patterns, which identifies areas in the monitoring program where efforts may be duplicated (e.g., multiple wells monitoring similar groundwater).

The present evaluation focused on groundwater samples collected from Bedrock Monitoring Program wells, specifically those in the Lockport Bedrock APL plume containment system, the NAPL plume containment system and the Bloody Run Creek monitoring program.

2. Statistical Tests

The statistical tests used during this evaluation are described below.

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2.1 Parameter Summary Statistics by Well

In order to assess current conditions in the Site regarding sampling parameters, frequency and locations, a general account of number of parameters analysed and detected by well and number of wells where each parameter was analysed and detected was carried out. The various summary statistics produced were generated via spreadsheet calculations of the original data.

2.2 Trend Tests

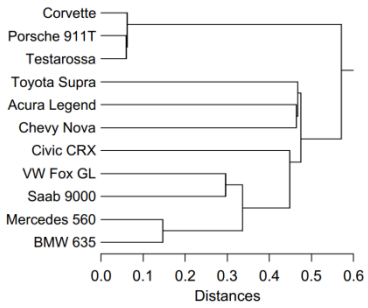
In order to look for evidence of changes (increases or decreases) in parameter concentrations over time, statistical trend tests were performed on a per parameter, per well basis. Statistical procedures for evaluating trends are discussed in United States Environmental Protection Agency (USEPA) and United States Geological Survey (USGS) guidance documents (USEPA, 2006, 2009; USGS, 2002).

The selected statistical procedure for trend evaluation was the Mann-Kendall trend test. This test is a recommended general trend test procedure for detection of *monotonic* (single-direction) trends. It does not make any distributional assumptions (e.g., does not require data to be normally or lognormally distributed) or assumptions of trend shape (e.g., does not require a linear or exponential trend), and is well suited for evaluating environmental data. This procedure is non-parametric (rank-based) and is relatively unaffected by individual outlying observations. The use of the Mann-Kendall test is therefore appropriate for evaluating temporal trends in chemical concentrations in groundwater at the Site. However, the Mann-Kendall test loses sensitivity with increasing presence of non-detect results (e.g., above 50 percent non-detects in a given data set), and is not recommended for such data (e.g., see Table 13.3 of USGS, 2002). The Mann-Kendall test was therefore used to evaluate data sets containing up to 50 percent non-detects. Additionally, data sets having fewer than four observations were deemed unsuitable for trend evaluation (i.e., having too few data to run the Mann-Kendall test with a reasonable expectation/power of detecting any underlying trends) and were not subjected to statistical testing.

Mann-Kendall testing was carried out using a proprietary validated spreadsheet add-in.

2.3 Cluster Analysis

Cluster analysis is a multivariate statistical procedure used to determine natural groupings in data. This analysis uses a correlation matrix, which is a symmetrical table of correlation coefficients for each variable (e.g., well or parameter in this case) with all other variables (Sokal and Rohlf, 1997). Cluster analysis, as performed in the present evaluation, sequentially “joins” together observations (in this case, groundwater samples) such that more similar observations are joined first, and less similar observation are joined last. By looking at patterns in the “tree” produced in the cluster analysis output, different branches may be identified that represent groupings. For example, in the following example output (taken from the SYSTAT software manual), cars with more similar performance characteristics fall into different logical groups based on clustering of the input data (acceleration, stopping distance, etc.).



Cluster analyses were performed for each flow zone group of wells considering the last five years of monitoring data for each of nine site organic indicators (see Section 3 below for a list) and sulfate. Since cluster analysis does require that the data used are normally distributed (or at least reasonably symmetrically distributed), the concentration data used were log-transformed prior to the analysis, reflecting the observed log-distribution of data sets with sufficient detected values to test. Any non-detects were assigned a value equal to one-half of the most-common detection limit, to avoid variation in detection limits unduly influencing the results. Cluster analysis was carried out using SYSTAT version 10, a commercial statistics package.

3. Scope of Data

The Bedrock Monitoring Program consists of groundwater monitoring in two systems: the Lockport bedrock and the Bloody Run Creek monitoring systems, which are described below.

A. The Lockport Bedrock Monitoring System:

There are two active remediation systems in the Lockport bedrock:

i) The APL Plume Containment System: 59 piezometers sampled and analyzed for VOCs, SVOCs, Organic Acids, and Sulfate. Included in the system are piezometers located beyond the limits of the NAPL plume boundaries, which are designated as Outer piezometers. Only piezometers yielding sufficient water are included in the sampling program. The piezometers are distributed along eleven bedding-parallel groundwater flow zones. Monitoring of these locations generally consists of annual analysis of VOCs, SVOCs and sulfate, along with quarterly analysis of organic acids.

ii) The NAPL Plume Containment System: 17 purge wells sampled and analyzed for VOCs, SVOCs, Organic Acids, and Sulfate. These wells were sampled once during the five-year evaluation period, in 2016.

B. The Bloody Run Creek Monitoring System:

Four monitoring wells are monitored along the Bloody Run Creek. Samples collected are analyzed for VOCs, SVOCs, and Organic Acids. Sampling at these wells occurred once during the five-year evaluation period, in 2016.

From the full target compound list of chemicals sampled (VOCs, SVOCs, and Organic Acids), nine Site Organic Indicators (SOIs) are identified in the Site's Performance Monitoring Plan, based on comparisons of the Site data to screening levels. The basis for identifying the SOIs was that these parameters exceeded a screening level in more than one Outer piezometer. The nine SOIs are:

Site Organic Indicator (SOI)	Comment
Chlorendic Acid	Site-related organic acid
Benzene	Common petroleum hydrocarbon
1,1,2,2-Tetrachloroethane (1,1,2,2-PCA)	Common industrial solvent
Tetrachloroethene (PCE)	Common industrial solvent
Trichloroethene (TCE)	Common industrial solvent
cis-1,2-Dichloroethene (cis-1,2-DCE)	Degradation product of PCE and TCE
Vinyl chloride	Degradation product of PCE and TCE
bis(2-Ethylhexyl)phthalate (BEHP)	Common laboratory contaminant
Methylene chloride	Common laboratory contaminant

An additional inorganic parameter included in the monitoring program, and considered in the statistical analyses, is sulfate. The Site's Performance Monitoring Plan indicates that sulfate concentrations are an important component of the monitoring program, providing information on relative age of the groundwater.

Groundwater samples collected during the last five years (2012-2016) at different sampling frequencies were used for this evaluation. Considering the three types of statistical evaluations performed, the following parameters were considered:

i) Statistical summaries were produced for the entire list of acids, VOCs, SVOCs and sulfate in all wells included in the Lockport Bedrock and Bloody Run Creek Monitoring Systems.

ii) For the trend tests, the nine SOIs and sulfate were considered for all wells in the Lockport Bedrock System. In general, other organic parameters were not detected in groundwater samples collected over the past 5 years (2012-2016), preventing any meaningful assessment of temporal trends. Trends were not assessed for wells in the Bloody Run Creek Monitoring System, as only one sampling event occurred in the past 5 years.

iii) Similarly, the cluster analyses considered only the nine SOIs and sulfate. Cluster analyses were performed for the NAPL purge wells and wells in eight bedrock flow zone groups where monitoring is carried out. A modified cluster analysis (individual trees, not a matrix) was conducted using monitoring data from the Bloody Run Creek wells, due to only a single sampling event and low detection frequencies for monitored parameters.

4. Results

The results from the statistical tests are summarized below.

4.1 Statistical Data Summary

The data sets considered, along with the summary statistics produced, are listed in Table 1. A total of 7126 data sets (approximately 90 chemicals analyzed at least once in the past five years in groundwater samples from the 80 wells) were evaluated. Of these 7126 data sets, only 1129 (16 percent) include at least one detected concentration during the past 5 years. A breakdown by monitoring system is shown in the following table.

	Lockport Bedrock Monitoring System		*Bloody Run Creek Monitoring System*
	APL Plume Containment System	*NAPL Plume Containment System*	
Number of data sets	5304	1474	348
Number with detects	584	528	17
Percentage with detects	11%	36%	5%

Of the 90 parameters included in monitoring, 24 were not detected in any wells over the past five years. Another 27 parameters were rarely detected (i.e., in fewer than 10 wells), and 34 parameters were infrequently detected (in more than 10, but fewer than half of the monitoring wells). There were five parameters that were detected relatively frequently, in more than 50 percent of the wells included in the monitoring program. These included:

Sulfate (80 of 80 wells sampled)	*cis*-1,2-DCE (47 of 80 wells)	Carbon disulfide (50 of 80 wells)
Chlorendic acid (49 of 80 wells)	Toluene (48 of 80 wells)	

The breakdown of percentage of detected parameters by groups (acids, SVOCs and VOCs) and by monitoring system is:

- APL Plume Containment System (59 piezometers):
  - Acids were detected in 62 percent of samples collected from the piezometers. The most frequently detected acid was chlorendic acid (342 detections in 564 samples).
  - SVOCs were detected in 6 percent of the samples collected from the piezometers. The most frequently detected SVOCs were BEHP (12 detections in 244 samples), 2,4-dimethylphenol (10 detections in 244 samples) and phenol (9 detections in 244 samples).
  - VOCs were detected in 34 percent of the samples collected from the piezometers. The most frequently detected VOCs were: cis-1,2-DCE (95 detections in 244 samples), toluene (84 detections in 244 samples), benzene (78 detections in 244 samples), carbon disulfide (77 detections in 244 samples) and chlorobenzene (74 detections in 244 samples).

- NAPL Plume Containment System (17 wells):
  - Acids were detected in 100 percent of the samples collected from the wells. The most frequently detected acid was chlorendic acid (in 16 wells; all except PW-4U). The other four acids monitored (benzoic acid, 2-chlorobenzoic acid, 3-chlorobenzoic acid and 4-chlorobenzoic acid) were each detected in 12 NAPL puge wells.
  - SVOCs were detected in 83 percent of the samples collected from the wells. The most frequently detected SVOCs were phenol (detected in 12 wells), hexachlorobutadiene (detected in 9 wells), hexachlorobenzene (detected in 8 wells), hexachloroethane (detected in 7 wells) and 2,4-dichlorophenol (detected in 7 wells).
  - VOCs were detected in 100 percent of the samples collected from the wells. There is a large group of 23 VOC parameters that were detected in 13-17 of the 17 wells (i.e., VOCs are frequently detected in NAPL purge wells).
- Blood Run Creek Monitoring System (4 wells):
  - Acids: only chlorendic acid was detected in 3 of the 4 wells
  - SVOCs were not detected in any of the 4 samples collected.
  - VOCs were detected in all 4 samples collected (1 per well). The most frequent detected VOCs were: cis-1,2-DCE (detected in 3 wells) and carbon disulfide (detected in 2 wells).

4.2 Trend Tests

Table 2 presents the results for the Mann-Kendall trend tests performed on the SOIs data and for sulfate. Of the 1171 data sets evaluated, 1008 were not suitable for trend analysis due to insufficient detected data (i.e., fewer than 50 percent detected observations). Out of the remaining 163 data sets tested, 141 had no statistically significant trend, nine had statistically significantly (above 95 percent confidence) decreasing trends, and thirteen had increasing trends in parameter concentrations over time between 2012-2016. The data sets with statistically significant trends are summarized below.

Well	*Monitoring Program*	*Parameter*	*Trend Test Conclusion*
AGW-1M-07	LB - APL (flow zone 7)	chlorendic acid	Decreasing
AGW-1M-09	LB – APL (flow zone 9)	chlorendic acid	Increasing
D1M-09	LB – APL (flow zone 9)	benzene	Decreasing
D1U-04	LB - APL (flow zone 4)	chlorendic acid	Decreasing
D2U-04	LB - APL (flow zone 4)	sulfate	Increasing
F2L-11	LB - APL (flow zone 11)	benzene	Increasing
F2M-09	LB – APL (flow zone 9)	chlorendic acid	Increasing
F2U-02	LB - APL (flow zone 2)	chlorendic acid	Increasing
G6-02	LB - APL (flow zone 2)	cis-1,2-DCE	Decreasing
G6-04	LB - APL (flow zone 4)	chlorendic acid	Increasing

Well	Monitoring Program	Parameter	Trend Test Conclusion
G6-04	LB - APL (flow zone 4)	cis-1,2-DCE	Decreasing
G6-05	LB - APL (flow zone 5)	benzene	Increasing
G6-05	LB - APL (flow zone 5)	PCE	Increasing
G6-05	LB - APL (flow zone 5)	TCE	Increasing
G6-05	LB - APL (flow zone 5)	vinyl chloride	Increasing
G6-06	LB - APL (flow zone 6)	cis-1,2-DCE	Increasing
H2U-02	LB - APL (flow zone 2)	chlorendic acid	Decreasing
H2U-02	LB - APL (flow zone 2)	cis-1,2-DCE	Decreasing
H2U-02	LB - APL (flow zone 2)	vinyl chloride	Decreasing
H5-07	LB - APL (flow zone 7)	TCE	Decreasing
H5-09	LB – APL (flow zone 9)	chlorendic acid	Increasing
I1-07	LB – APL (flow zone 1)	chlorendic acid	Increasing

Note: LB – APL: the Lockport Bedrock Monitoring System – APL plume containment system.

4.3 Cluster Analysis

Hierarchical cluster analyses were performed grouping wells within a flow zone group considering the nine SOI parameters and sulfate. The results of the cluster analysis are shown in Figures 1-10. In these figures, the connecting lines to the right of the correlation matrices show which wells are more similar (lines connecting close to the matrix) and different (lines connecting further from the matrix) from one another. Similarly, the connecting lines at the bottom of the correlation matrices show which analytes are more similar or more different. Where wells or parameters are joined quickly together (i.e., are more similar), these may indicate overlap/duplication of monitoring efforts, and could be adjusted to optimize the monitoring program. Apparent groups with overlaps are summarized in the following table:

Well Group	Similar wells	Similar parameters
Flow Zone 1	I1-01 and H2U-01	i) Benzene and MC ii) cis-1,2-DCE and TCE iii) PCE, 1,1,2,2-PCA and VC
Flow Zone 2	F2U-04, F2U-02, J6-02, H5-02 and to a lesser extent I1-02	i) cis-1,2-DCE and TCE ii) 1,1,2,2-PCA and PCE iii) The 7 VOC SOIs
Flow Zone 4	All wells but H5-04 and G6-04	cis-1,2-DCE, TCE, VC, benzene, 1,1,2,2-PCA and PCE
Flow Zone 5	All wells but D1U-05 and G6-05	cis-1,2-DCE, TCE, 1,1,2,2-PCA, VC and benzene
Flow Zone 6	G1M-06 and F6-06	benzene, MC, 1,1,2,2-PCA and PCE
Flow Zone 7	H5-07, J6-07, I1-07 and AGW-1M-07	The 7 VOC SOIs

Well Group	Similar wells	Similar parameters
Flow Zone 9	Not as similar as other flow zones AGW-1M-09 and F2M-09	6 of the 7 VOC SOIs (excluding benzene)
Flow Zone 11	B2L-11, E6-11 and J6-11	6 of the 7 VOC SOIs (excluding benzene)
Purge Wells	i) PW-5MR and PW-6MR ii) PW-2L, PW-3L, PW-10U, PW-8U and PW-6UR iii) APW-1 and PW-1L	More dissimilar than in flow zones (1,1,2,2-PCA, PCE, MC, benzene and VC are somewhat similar)
Bloody Run Creek	BR-2 and BR-4	VC, MC, 1,1,2,2-PCA, benzene and PCE

The cluster analysis results generated considering data from the APL containment system piezometers generally show that SOI concentrations are fairly similar within the same Flow Zone. This is particularly evident for VOC SOIs, likely due to the prevalence of non-detect results for these parameters (particularly in in Flow Zones 7, 9 and 11). The monitoring results for Flow Zones 4, 5 and 7 are quite consistent across the wells monitored, indicating an apparent lack of variation in chemistry within these flow zones.

From inspection of the cluster analysis matrices (see Figures), certain wells appear to be more distinctive in terms of SOI concentrations. These include:

- Flow Zone 1 G6-01 (particularly for VC, 1,1,2,2-PCA, PCE)
- Flow Zone 2, G6-02 (VC, 1,1,2,2-PCA, PCE and TCE)
- Flow Zone 4, G6-04 (all VOC SOIs but MC)
- Flow Zone 5, G6-05 (VOC SOIs except PCE and MC)
- Flow Zone 6, H2M-06 (primarily TCE)
- Flow Zone 7, C3-07 (low chlorendic acid)
- Flow Zone 9, H2M-09 and H5-09 (low chlorendic acid)
- Flow Zone 11, G6-11 (low chlorendic acid)
- Flow Zone 11, AFW-1L-11 (low benzene)
- Within the NAPL Purge wells, there is a group of 5 wells with low VOC SOI concentrations (top of Figure 9 – APW-2, APW-1, PW-1L, PW-2M, PW-7U). There are also 4 or so wells with higher VOC concentrations (bottom of Figure 9 – PW-6MR, PW-5UR, PW-3M, PW-4U).

Variations in sulfate concentrations are generally different from other parameters for wells within the same flow zone (not for the NAPL purge wells). This is likely reflective of its high detection frequency relative to the SOIs at most wells. Chlorendic acid concentrations appear to have relatively high variability across wells in Flow Zone 2, and to a lesser degree in Flow Zone 9.

The cluster analysis for the Bloody Run Creek System was conducted using individual trees (as opposed to a matrix) due to only having one observation per well. Wells BR-2 and BR-4 appear to have the most similar SOI concentrations, while well BR-1 has the most dissimilar SOI concentrations relative to the other locations. Five of the seven VOC SOIs are tightly clustered (i.e., are not detected in samples from the Bloody Run Creek System).

5. Conclusions

Based on the statistical evaluations performed considering the monitoring data generated from 2012-2016 sampling of the Lockport Bedrock APL, NAPL purge well and Bloody Run Creek monitoring systems, the following conclusions are made:

1) In the APL Plume Containment System, regular detection of acid and VOC parameters is noted, indicating continued presence and need for containment of these chemicals. SVOCs are infrequently detected.

2) The NAPL Plume Containment System has regular detections of acid, VOC and SVOC parameters. This would support that the System is successful in capturing impacted groundwater.

3) The Bloody Run Creek Monitoring System results indicate that chlorendic acid, cis-1,2-PCE and carbon disulfide, but no SVOCs, remain present at detectable concentrations.

4) Temporal trend analysis of SOI concentrations over time revealed nine data sets with decreasing trends, and thirteen data sets with increasing trends (see list in Section 4.2 above). These data sets were for either chlorendic acid or VOCs in the Lockport Bedrock APL System (various flow zones).

5) The vast majority of SOI data sets either had no apparent concentration trends over time (141 data sets), or had too few detected results (1008 data sets) to perform a trend test.

6) The cluster analysis results indicate that for most of the APL Flow Zones, at least two wells appear to have very similar chemistry and may represent redundant monitoring effort (see Figures and list in Section 4.3 above). If appropriate based on the spatial layout of these wells, it may be worthwhile considering removing some redundant wells from the monitoring program.

7) The cluster analysis results also indicate that there is redundancy in VOC SOIs in a number of APL flow zones and in the Bloody Run Creek System (presumably due mainly to lack of detections of VOCs). Although this is a potential redundant monitoring effort, the nature of laboratory analysis is such that a VOC scan typically analyzes all VOCs at once, so there is not a strong motivation to try to remove redundancy within these VOC SOIs.

8) Due to low frequencies or no detections of SVOC parameters in the APL Plume Containment and Bloody Run Creek Monitoring Systems, it may be appropriate to consider eliminating SVOCs from future monitoring, at least for some locations and/or flow zones.

Based on these findings, continued monitoring of the three Systems and reevaluation of the monitoring data during the next 5 year review is appropriate and warranted.

6. References

Sokal, R.R. & F.J. Rohlf, 1997. Biometry, the principles and practice of statistics in biological research, 3rd Edition. W.H. Freeman and Co., New York, NY.

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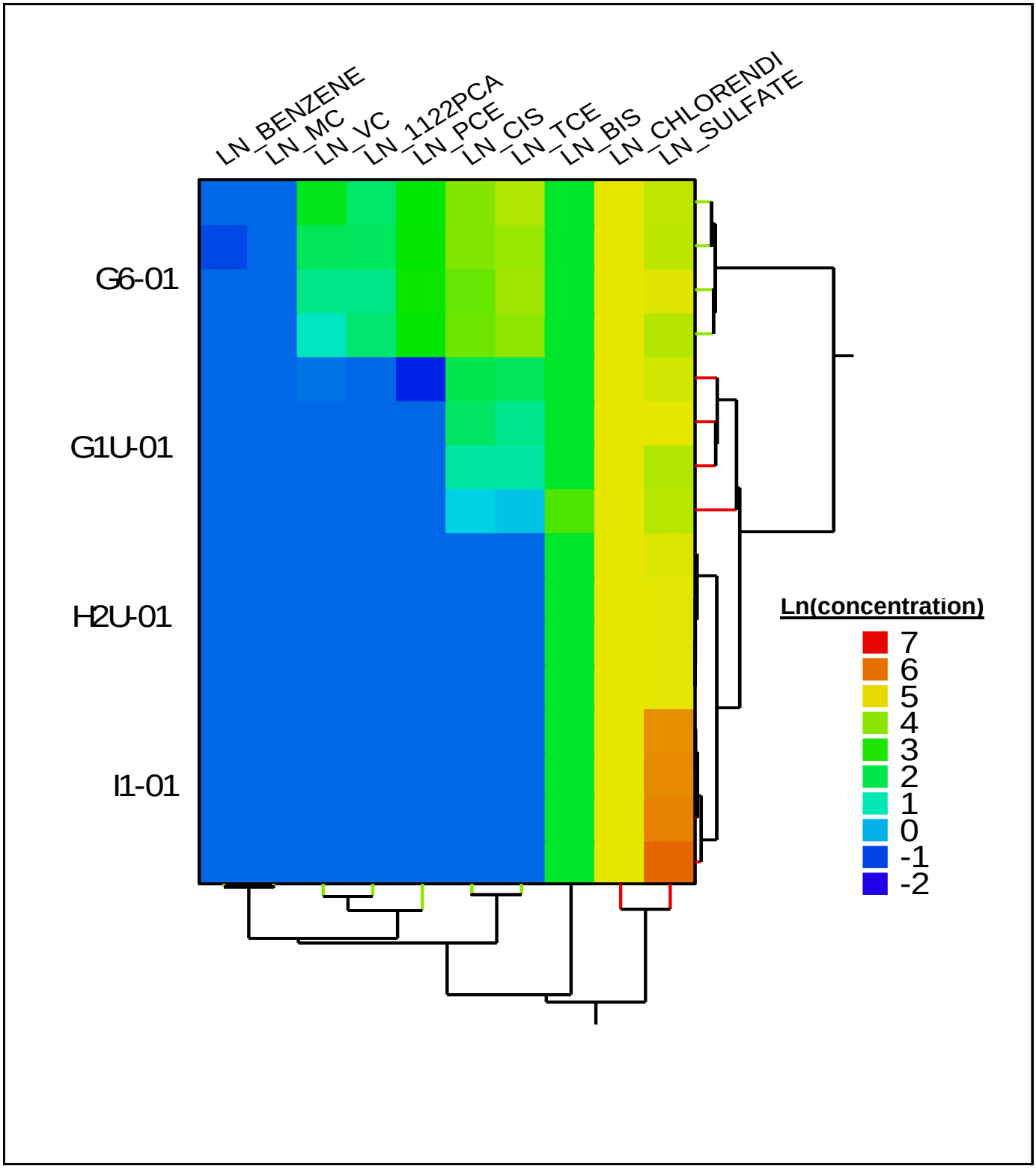
USEPA, March 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance. Office of Resource Conservation and Recovery, Program Implementation and Information Division, United States Environmental Protection Agency Washington DC. EPA 530-R-09-007.

USGS, 2002. Statistical Methods in Water Resources. By D.R. Helsel and R.M. Hirsch. Chapter A3 of Book 4, Hydrologic Analysis and Interpretation *in* Techniques of Water-Resources Investigations of the United States Geological Survey. [Available at http://pubs.usgs.gov/twri/twri4a3/].

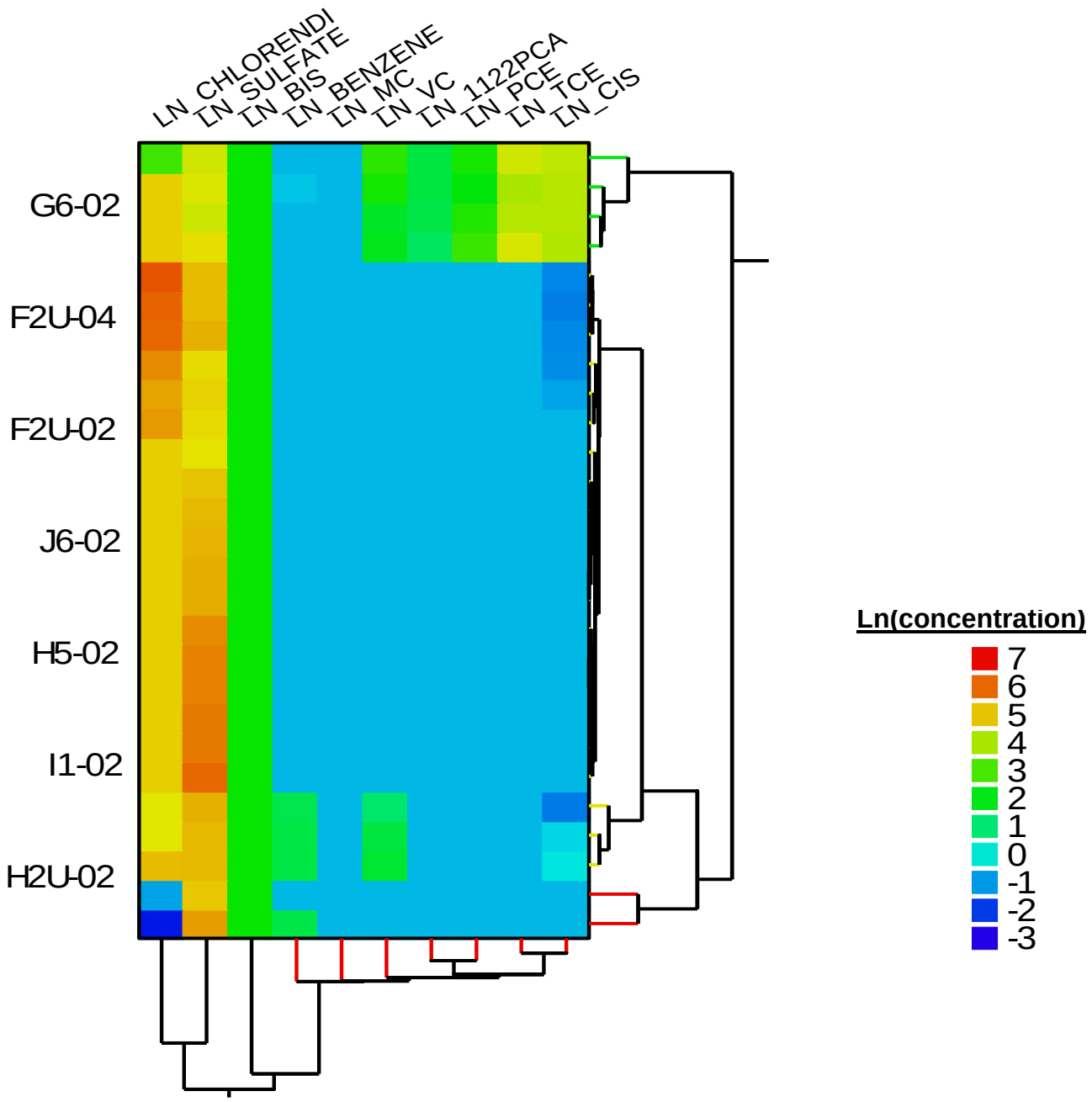


HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

FLOW ZONE 1 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

PROJECT NO. 53716
DATE 25-Apr-17

FIGURE NO. 1



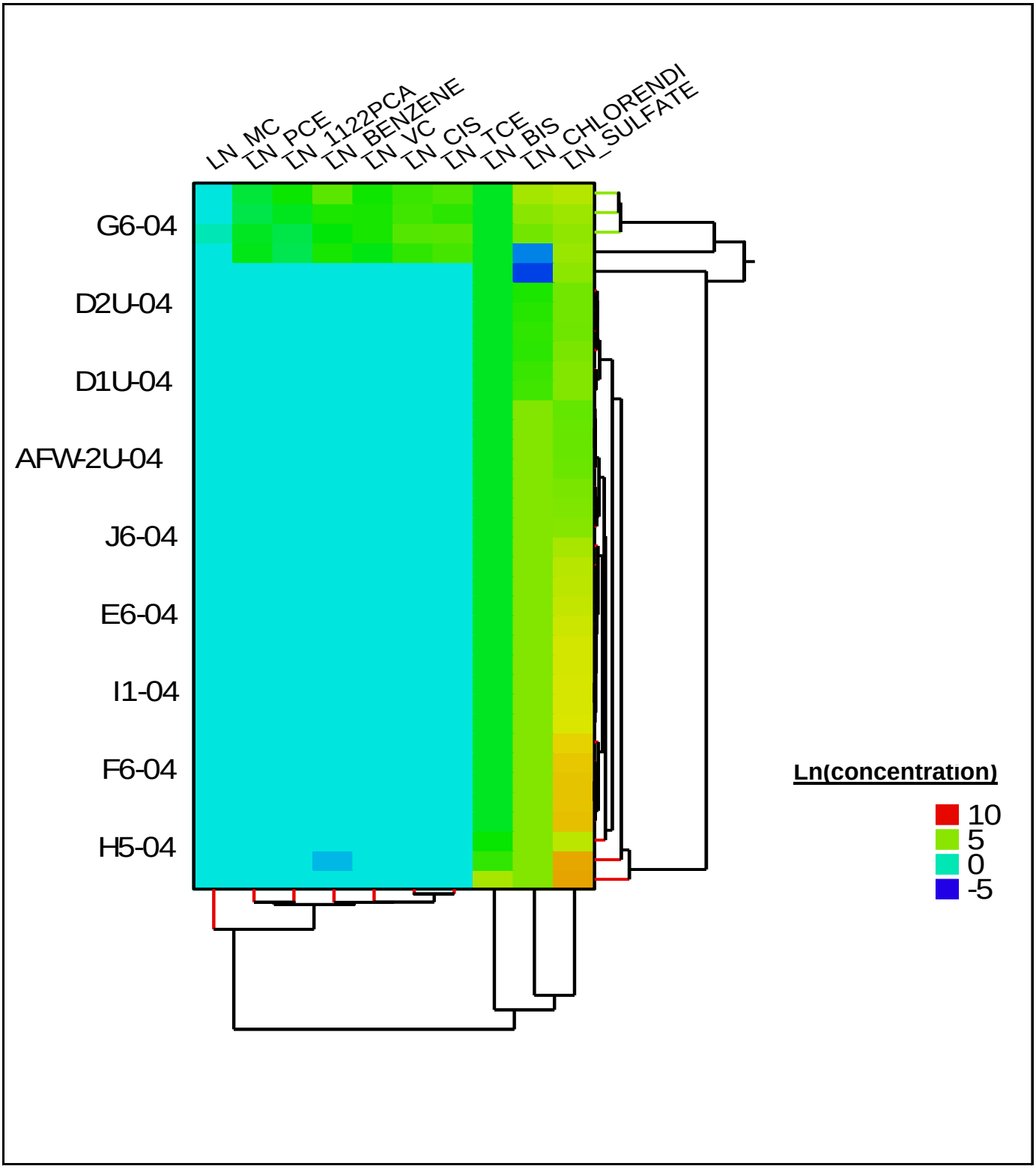
HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

FLOW ZONE 2 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

PROJECT NO.
53716

DATE
25-Apr-17

FIGURE NO. 2



HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

FLOW ZONE 4 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

PROJECT NO.
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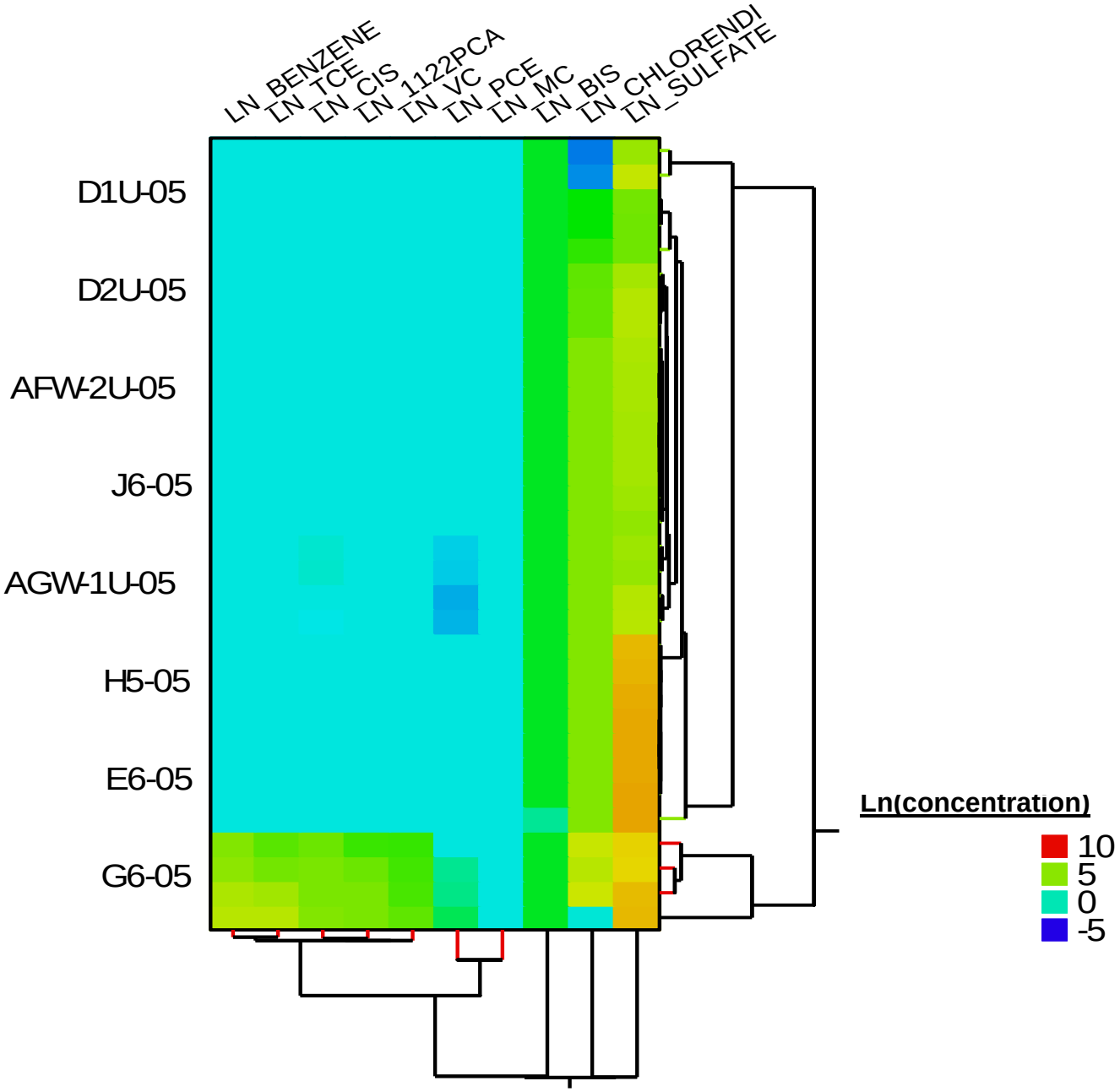
25-Apr-17

FIGURE NO. 3

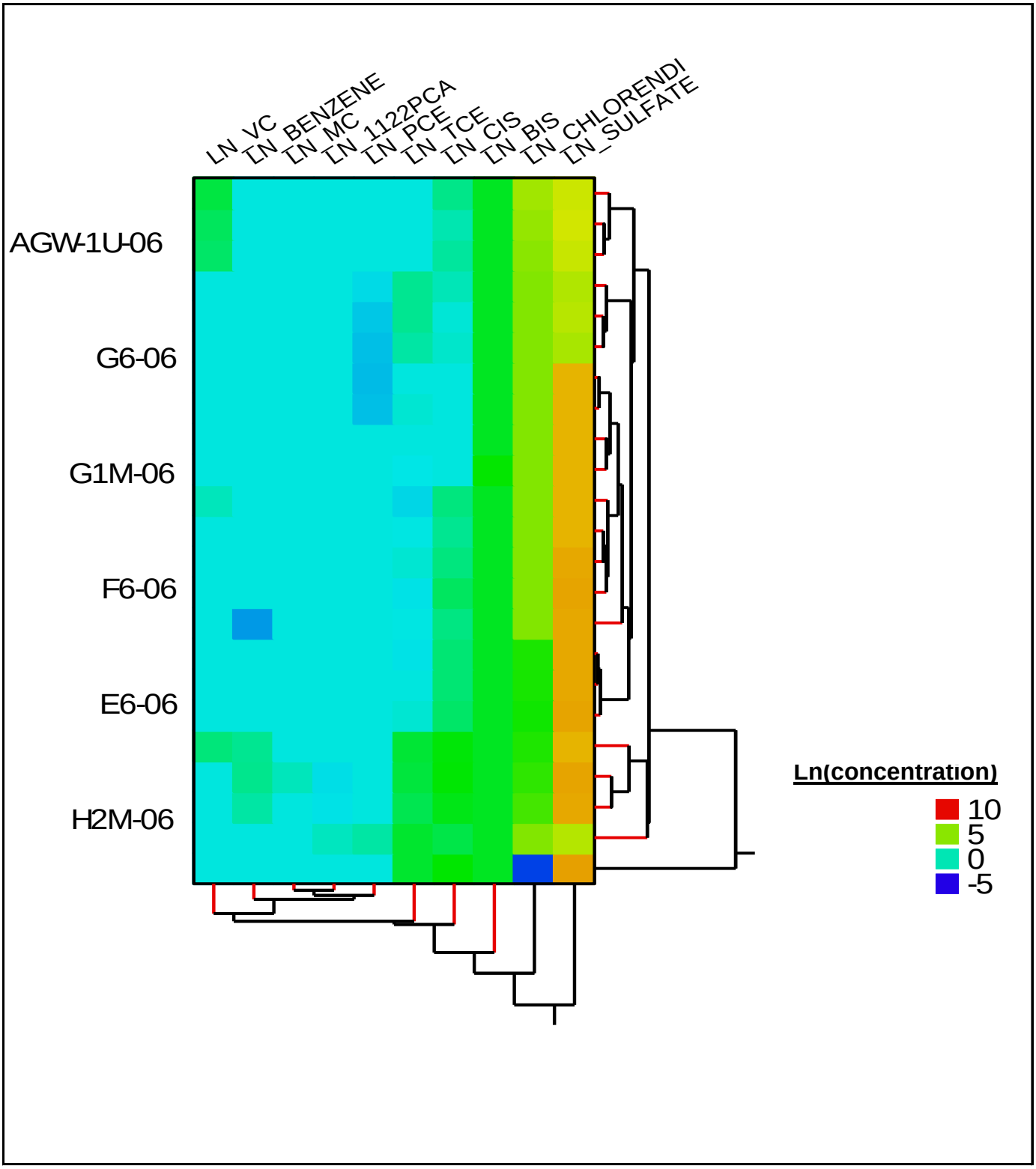


HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

FLOW ZONE 5 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

PROJECT NO. 53716
DATE 25-Apr-17

FIGURE NO. 4



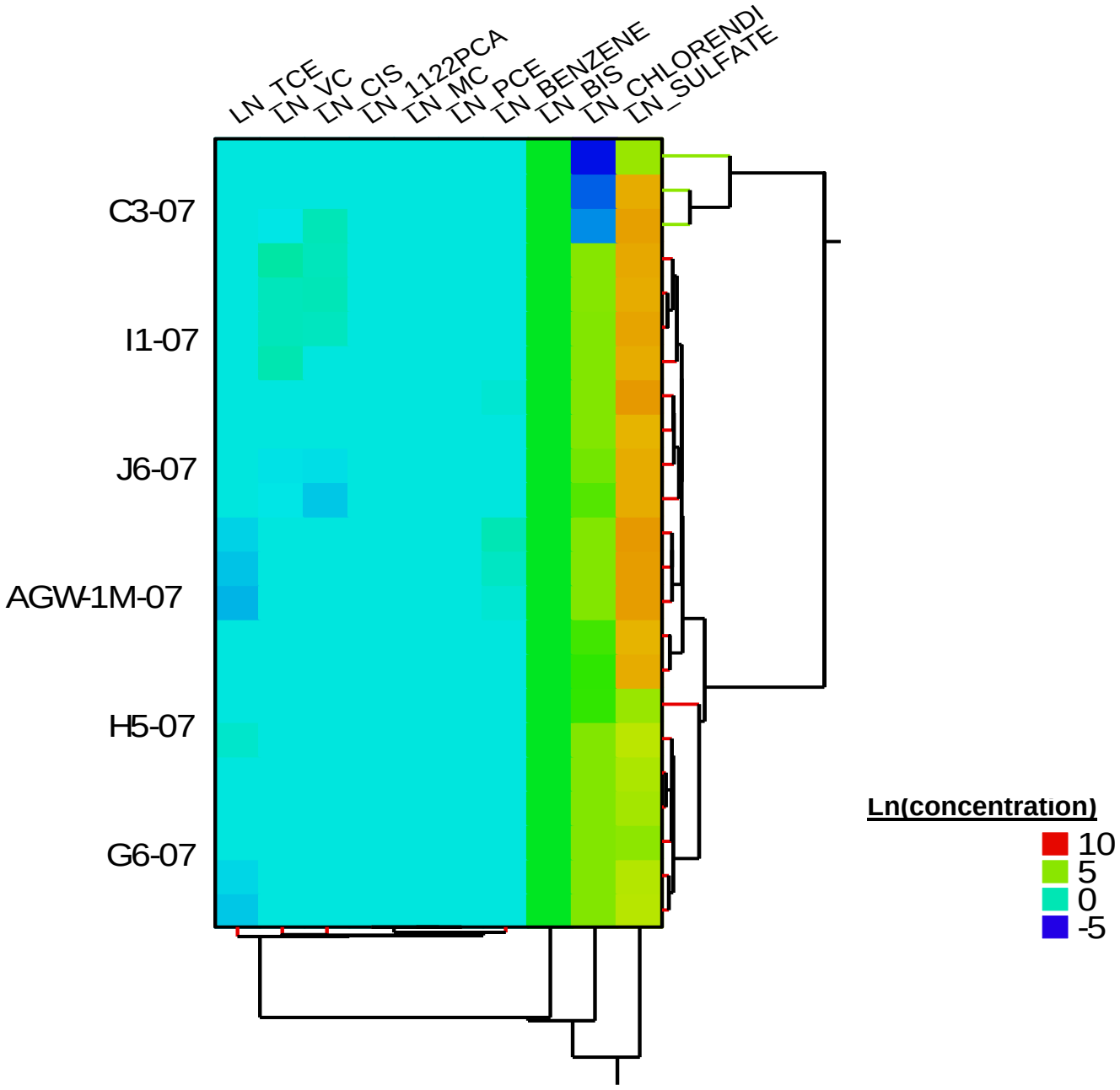
HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

PROJECT NO. 53716

DATE 25-Apr-17

FLOW ZONE 6 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

FIGURE NO. 5

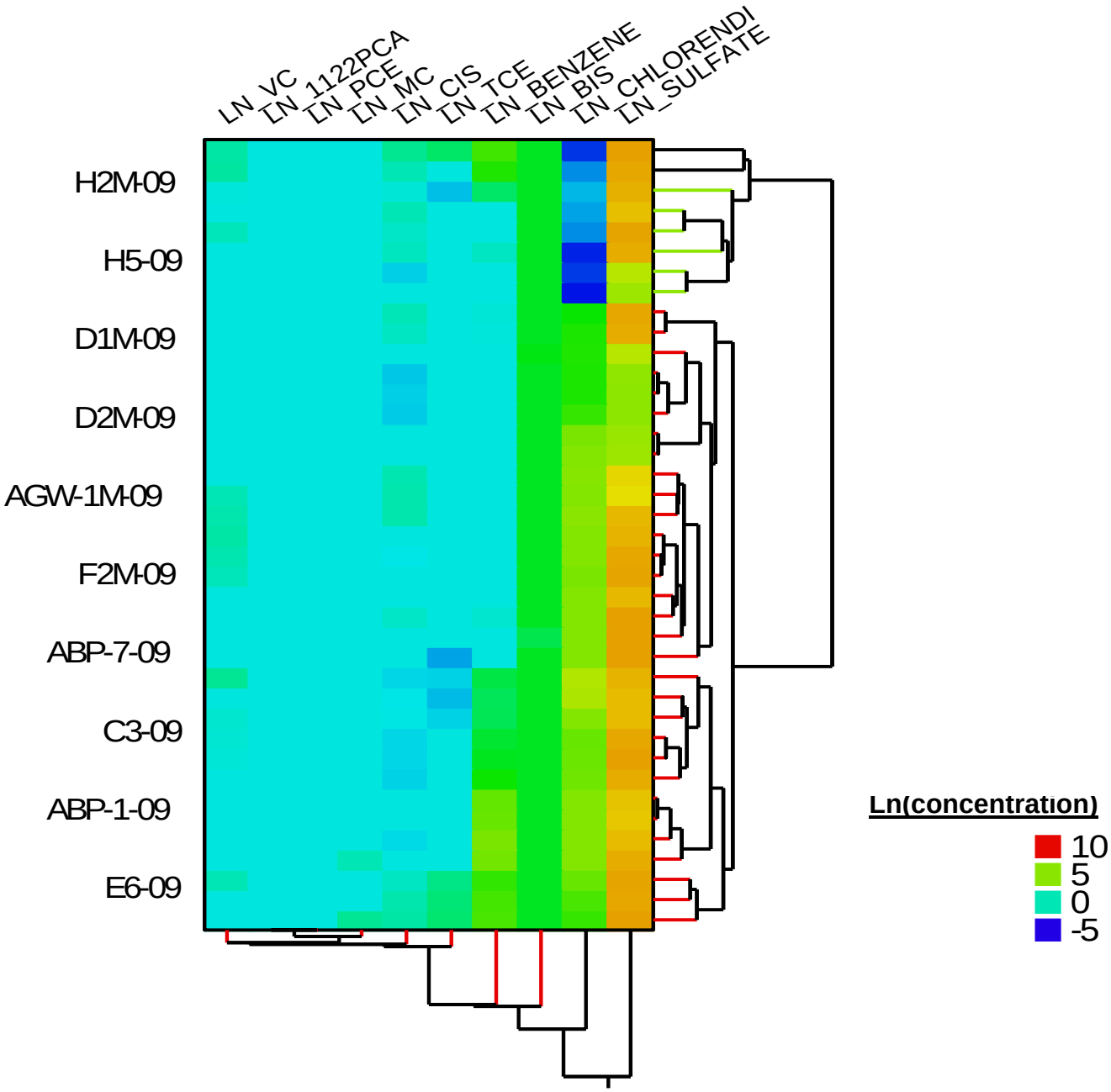


HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

FLOW ZONE 7 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

PROJECT NO. 53716
DATE 25-Apr-17

FIGURE NO. 6



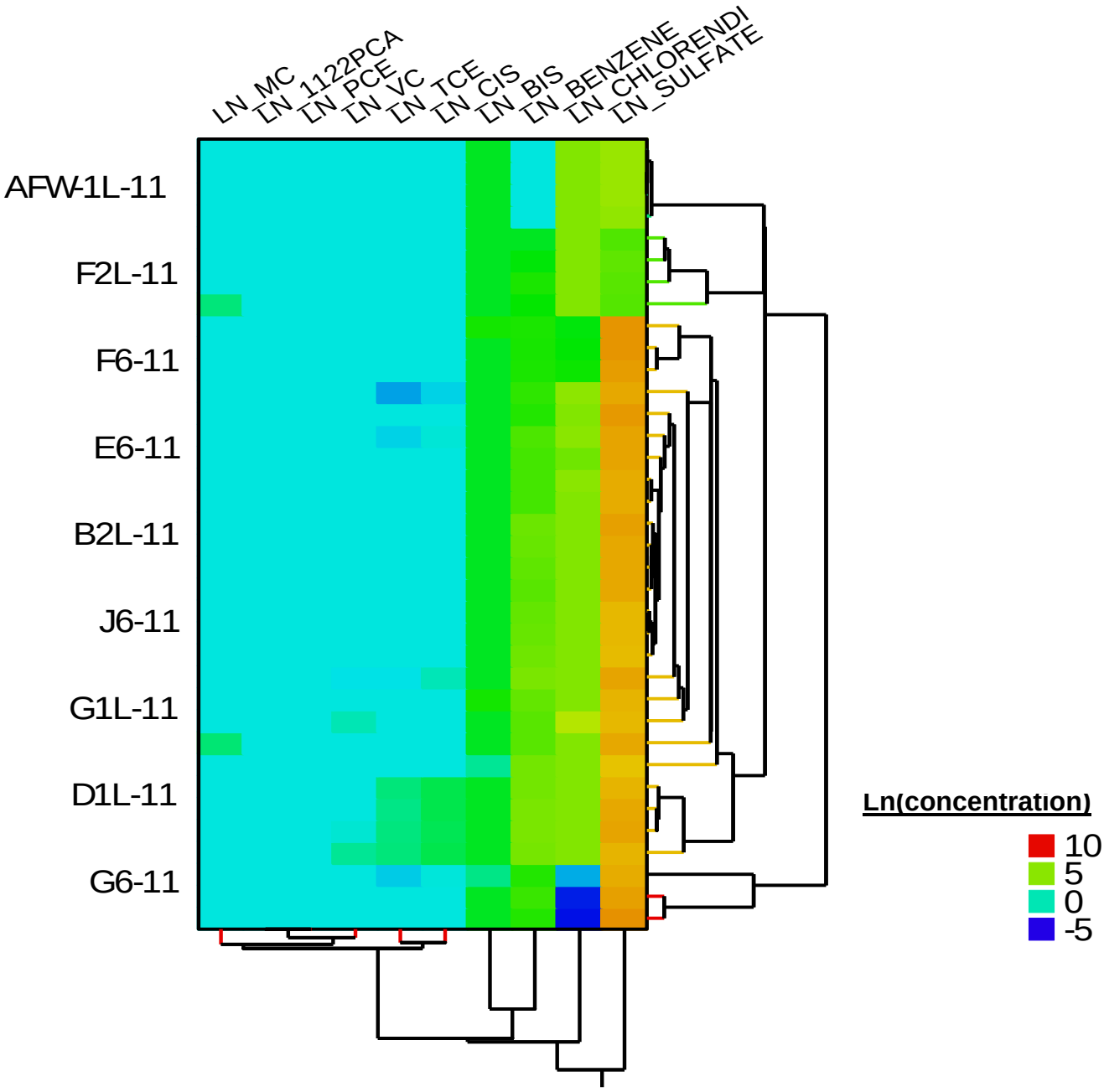
HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

PROJECT NO.
53716

DATE
25-Apr-17

FLOW ZONE 9 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

FIGURE NO. 7

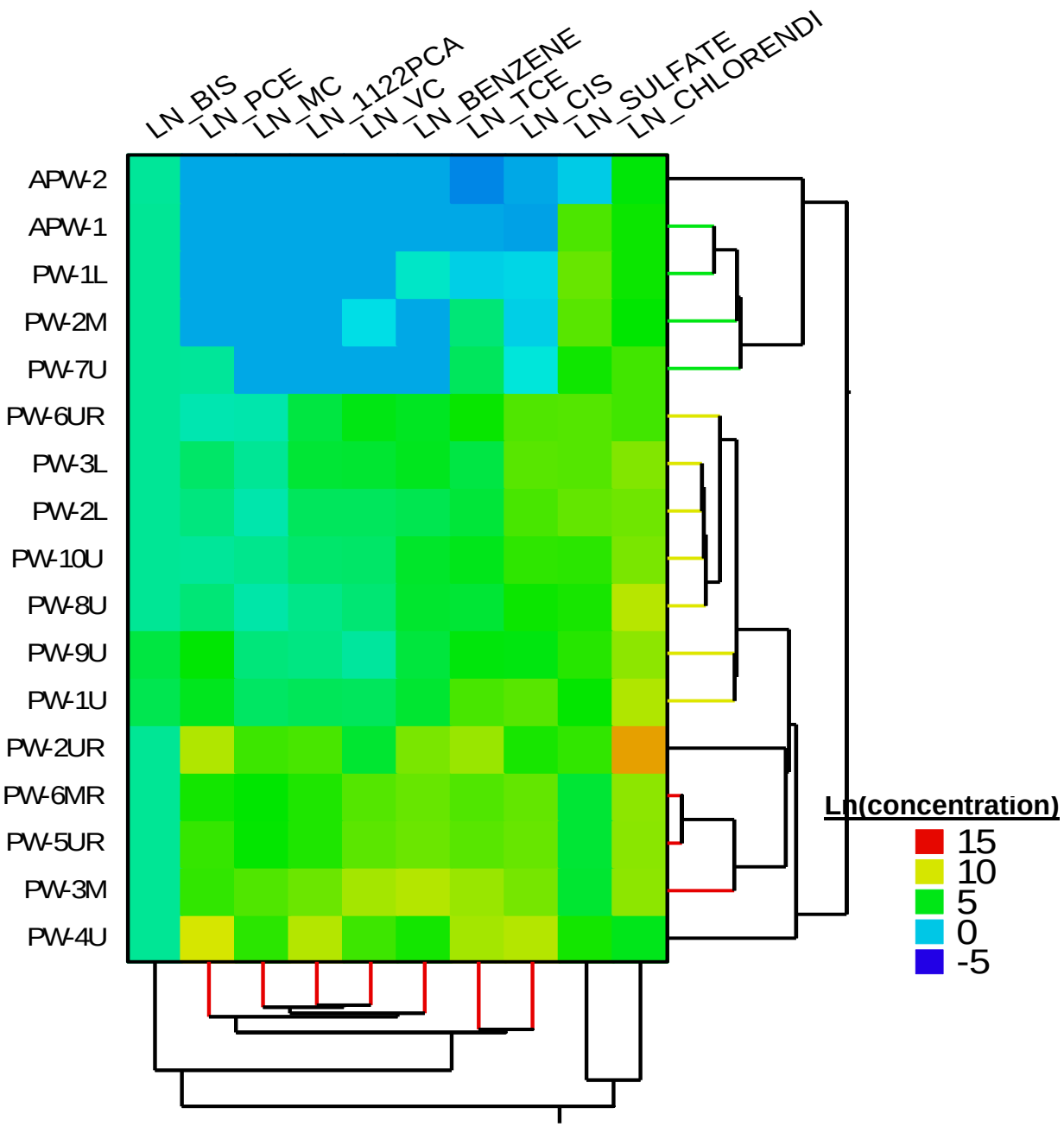


HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

FLOW ZONE 11 CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

PROJECT NO. 53716
DATE 25-Apr-17

FIGURE NO. 8



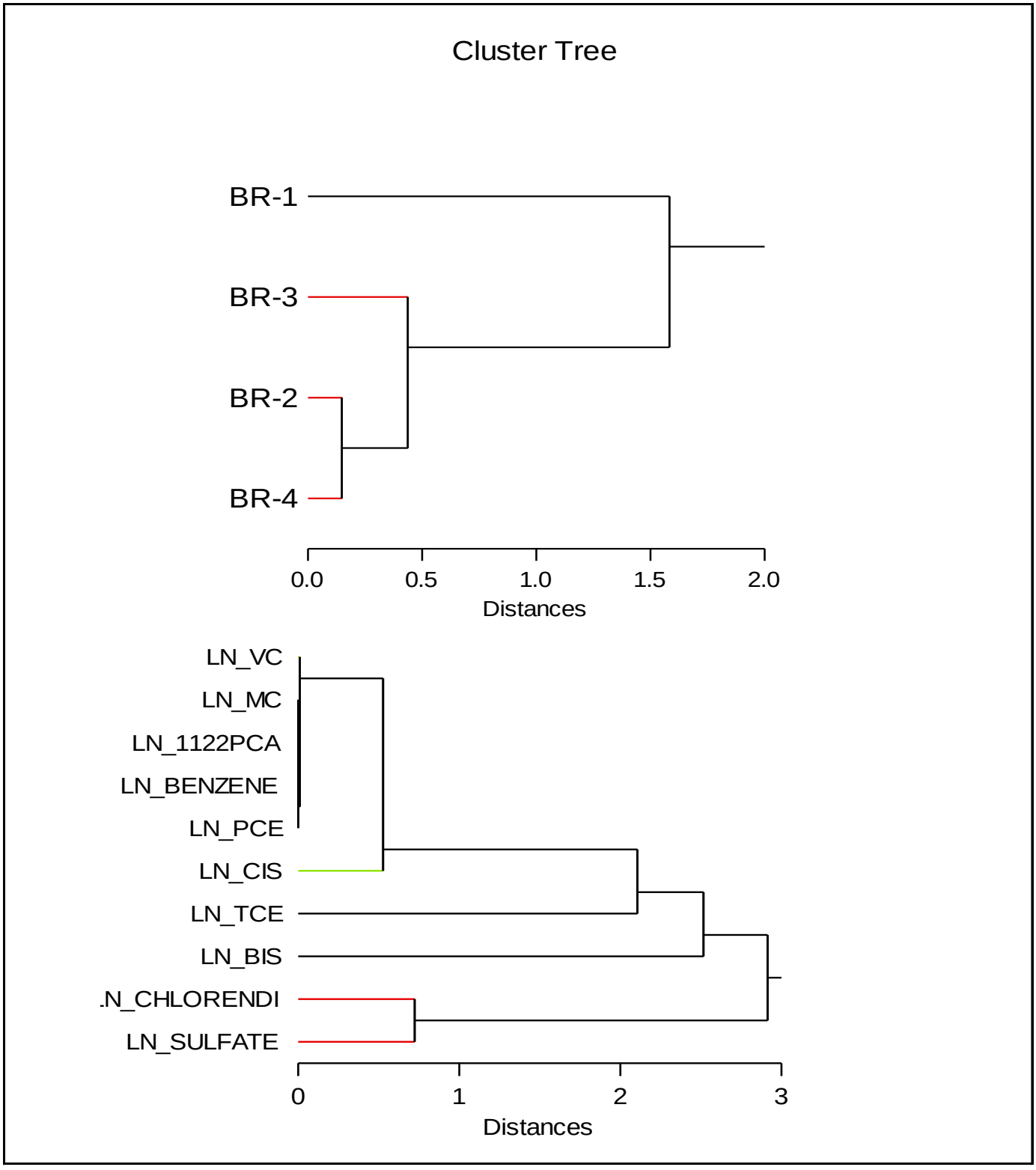
HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

PROJECT NO. 53716

DATE 25-Apr-17

PURGE WELLS CLUSTER ANALYSIS
USING SITE ORGANIC INDICATORS AND SULFATE

FIGURE NO. 9



HYDE PARK LANDFILL FACILITY
SECOND FIVE-YEAR REVIEW (2012-2016)
TOWN ON NIAGARA, NEW YORK

PROJECT NO. 53716

DATE 25-Apr-17

BLOODY RUN CREEK CLUSTER ANALYSIS USING SITE ORGANIC INDICATORS AND SULFATE

FIGURE NO. 10

Table 1

Summary of Detection Frequency for Chemicals in Groundwater Samples
Bedrock Monitoring Program
Hyde Park Landfill Site

	The Lockport Bedrock Monitoring Program																																																	
	Piezometers - APL Plume Containment System																																																	
	Flow Zone 1				Flow Zone 2							Flow Zone 4									Flow Zone 5								Flow Zone 6						Flow Zone 7						Flow Zone 9									
	G1U-01	G6-01	H2U-01	I1-01	F2U-02	F2U-04	G6-02	H2U-02	H5-02	I1-02	J6-02	AFW-2U-04	D1U-04	D2U-04	E6-04	F6-04	G6-04	H5-04	I1-04	J6-04	AFW-2U-05	AGW-1U-05	D1U-05	D2U-05	E6-05	G6-05	H5-05	J6-05	AGW-1U-06	E6-06	F6-06	G1M-06	G6-06	H2M-06	AGW-1M-07	C3-07	G6-07	H5-07	I1-07	J6-07	ABP-1-09	ABP-7-09	AGW-1M-09	C3-09	D1M-09	D2M-09	E6-09	F2M-09	H2M-09	H5-09
Acid																																																		
2-Chlorobenzoic acid	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
3-Chlorobenzoic acid	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-	X	-	-	-	X	X
4-Chlorobenzoic acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzoic acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Chlorendic acid	-	**X**	-	-	**X**	**X**	**X**	**X**	-	-	-	-	**X**	**X**	-	-	**X**	-	-	-	-	-	**X**	**X**	-	**X**	-	-	**X**	**X**	-	-	-	**X**	**X**	**X**	-	-	**X**	**X**	-	**X**	**X**	**X**	**X**	**X**	-	**X**	**X**	**X**
SVOAs																																																		
2,4,6-Trichlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	X	X
2,4-Dimethylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-
2,4-Dinitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate (DEHP)	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	**X**	-	-	-	-	-	-	-	-	-	**X**	-	-	-	-	-	-	**X**	-	-	-	-	-	-	-	-	**X**	**X**	-	-	-	-	-	-	-	-
Butyl benzylphthalate (BBP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
Chrysene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate (DBP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate (DnOP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-
Octachlorocyclopentene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-
Pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Hyde Park Landfill Site

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	G1U-01	G6-01	H2U-01	I1-01	F2U-02	F2U-04	G6-02	H2U-02	H5-02	I1-02	J6-02	AFW-2U-04	D1U-04	D2U-04	E6-04	F6-04	G6-04	H5-04	I1-04	J6-04	AFW-2U-05	AGW-1U-05	D1U-05	D2U-05	E6-05	G6-05	H5-05	J6-05	AGW-1U-06	E6-06	F6-06	G1M-06	G6-06	H2M-06	AGW-1M-07	C3-07	G6-07	H5-07	I1-07	J6-07	ABP-1-09	ABP-7-09	AGW-1M-09	C3-09	D1M-09	D2M-09	E6-09	F2M-09	H2M-09	H5-09
VOAs																																																		
1,1,1-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	X	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	X	X	-	-	X	-	-	X	-	-	X	-	-	-	-	-	X	X
1,1-Dichloroethene	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	-	X	-	-	-	X	X
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	-	X	-	-	-	X	X
1,2-Dichloroethane	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	X	X	-	X	X	-	-	X	X
1,4-Dichlorobenzene	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	X	X	-	X	X	-	-	X	X
2-Chlorotoluene	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	X	X	-	-	-	-	X	X	X	X	-	X	X	X	-	X	X
3-Chlorotoluene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
4-Chlorotoluene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	X	-	X	-	X	X
Benzene	-	X	-	-	-	-	X	X	-	-	-	-	-	-	X	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	-	-	-	X	-	-	-	-	-	-	X	-	X	X	X	X
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	-	-	X	-	-	X	-	X	X	-	-	-	-	X	X	X	X	X	-	-	-	-	-	X	X	X	X	-	-	X	X	-	-	X	-	X	-	X	-	-	X	-	X	X	X	X	X	X	-	-
Carbon tetrachloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	X	-	-	X	-	-	-	-	X	-	-	X	X	X	-	-	X	X	-	X	X	X	X	X	-	-	X	X
Chloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane (Methyl chloride)	-	-	-	X	-	X	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	X	X
cis-1,2-Dichloroethene	X	X	-	-	X	X	X	X	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	-	X	-	-	X	X	X	-	X	X	X	-	-	-	-	X	-	X	X	X	X	X	X	X	X	X
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12)	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	X	-	-	-	X	-	-	-	-	-	-	-	-	X	X	X	X
m&p-Xylenes	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		-	X	-	-	-		-	-	X	-	-	-	-	-	-	-	-	X	X	-	X
Methylene chloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-
m-Monochlorobenzotrifluoride	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	X	-	-	X	-	X	-	-	-	X	X
o-Monochlorobenzotrifluoride	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	X	X	-	-	-	-	X	-	X	X	-	X	X	-	-	X	X
o-Xylene	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-		-	-	-	-	-		-	-	X	-	-	-	-	X	-	X	-	X	-	X	X
p-Monochlorobenzotrifluoride	-	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	X	X	X	X	-	X	-	-	X	-	X	X	-	X	X	-	-	X	X
Styrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-
Tetrachloroethene	X	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	-	X	-	-	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	-	-	X	-	-	-	-	X	-	X	-	-	-	X	X	X	X	-	X	-	-	X	-	-	X	-	-	X	-	X	-	-	X	X	X	-	X	-	X	X	-	X	X	X	X	X	-	X	X
trans-1,2-Dichloroethene	X	X	-	-	-	-	X	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	X	X	-	X	X	-	-	-	-	-	-	-	-	X	-	X	X	-	-	X	X
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
Trichloroethene	X	X	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	-	X	X	X	X	X	-	-	X	X	-	-	X	-	-	-	X	-	-	-	X	-
Trichlorofluoromethane (CFC-11)	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	X	X	-	-	-	-	X	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	X	-	-	X	-	X	-	-	X	X	-	-	-	-	X	-	-	X	-	X	X	-	-	X	X
Xylenes (total)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	-	-	-	X	-	-	-	-	X	-	-	-	X	X	X	X
General Chemistry																																																		
Sulfate	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Number of parameters analysed	90	90	90	90	88	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	88	90	90	90	90	90	88	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Number of parameters detected	8	17	2	3	3	5	17	12	3	1	5	2	3	3	5	3	25	3	1	3	1	4	5	4	4	28	2	1	6	7	13	6	14	34	14	6	5	9	3	15	6	12	21	6	24	13	17	8	27	27

Notes:
X = the analyte was detected at least one time during the five years of sampling.
- = the analyte was not detected during the five years of sampling.
Empty cell = Analyte not sampled.
Analytes listed in **boldface** are site organic indicators

Table 1

Summary of Detection Frequency for Chemicals in Groundwater Samples
Bedrock Monitoring Program
Hyde Park Landfill Site

	The Lockport Bedrock Monitoring Program (cont.)									The Lockport Bedrock Monitoring Program (cont.)																	Bloody Run Creek Monitoring Program				Number of wells where parameter was sampled	Number of wells where parameter was detected
	Piezometers - APL Plume Containment System (cont.)									NAPL Purge Wells																						
	Flow Zone 11																															
	AFW-1L-11	B2L-11	D1L-11	E6-11	F2L-11	F6-11	G1L-11	G6-11	J6-11	APW-1	APW-2	PW-1L	PW-1U	PW-2L	PW-2M	PW-2UR	PW-3L	PW-3M	PW-4U	PW-5UR	PW-6MR	PW-6UR	PW-7U	PW-8U	PW-9U	PW-10U	BR-1	BR-2	BR-3	BR-4		
Acid																																
2-Chlorobenzoic acid	-	X	-	-	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	19
3-Chlorobenzoic acid	-	X	X	-	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	24
4-Chlorobenzoic acid	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	16
Benzoic acid	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	14
Chlorendic acid	**-**	**X**	**X**	**X**	**-**	**X**	**-**	**-**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**X**	**X**	**80**	**49**
SVOAs																																
2,4,6-Trichlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	80	1
2,4-Dichlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-	X	-	-	X	X	-	X	-	X	-	-	-	-	80	10
2,4-Dimethylphenol	-	-	X	-	-	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	4
2,4-Dinitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	0
2-Chloronaphthalene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
2-Chlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	X	-	-	X	X	-	-	-	-	-	-	-	-	80	4
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
4,6-Dinitro-2-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	0
4-Chloro-3-methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	0
Acenaphthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Benzo(a)anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Benzo(a)pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
bis(2-Chloroethoxy)methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
bis(2-Ethylhexyl)phthalate (DEHP)	**-**	**X**	**X**	**-**	**-**	**X**	**X**	**-**	**-**	**-**	**X**	**-**	**X**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**-**	**-**	**-**	**-**	**-**	**80**	**13**
Butyl benzylphthalate (BBP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Chrysene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Dibenz(a,h)anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Diethyl phthalate	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Dimethyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Di-n-butylphthalate (DBP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Di-n-octyl phthalate (DnOP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Fluorene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Hexachlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	-	-	X	-	-	X	-	-	-	-	-	80	8
Hexachlorobutadiene	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	-	-	X	X	-	X	-	-	-	-	-	80	9
Hexachlorocyclopentadiene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	79	1
Hexachloroethane	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	X	-	X	X	X	X	-	-	X	-	-	-	-	-	80	7
Indeno(1,2,3-cd)pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	1
Isophorone	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Naphthalene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	2
Octachlorocyclopentene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	-	-	-	-	-	80	2
Pentachlorophenol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	0
Phenanthrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Phenol	-	-	X	X	-	-	-	-	-	-	-	-	X	X	-	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	15
Pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0

Table 1

Summary of Detection Frequency for Chemicals in Groundwater Samples
Bedrock Monitoring Program
Hyde Park Landfill Site

	The Lockport Bedrock Monitoring Program (cont.)									The Lockport Bedrock Monitoring Program (cont.)																	Bloody Run Creek Monitoring Program				Number of wells where parameter was sampled	Number of wells where parameter was detected
	Piezometers - APL Plume Containment System (cont.)									NAPL Purge Wells																						
	Flow Zone 11																															
VOAs	**AFW-1L-11**	**B2L-11**	**D1L-11**	**E6-11**	**F2L-11**	**F6-11**	**G1L-11**	**G6-11**	**J6-11**	**APW-1**	**APW-2**	**PW-1L**	**PW-1U**	**PW-2L**	**PW-2M**	**PW-2UR**	**PW-3L**	**PW-3M**	**PW-4U**	**PW-5UR**	**PW-6MR**	**PW-6UR**	**PW-7U**	**PW-8U**	**PW-9U**	**PW-10U**	**BR-1**	**BR-2**	**BR-3**	**BR-4**		
1,1,1-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	X	X	X	-	-	-	-	X	-	-	-	-	80	7
1,1,2,2-Tetrachloroethane	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**X**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**X**	**X**	**-**	**-**	**-**	**-**	**80**	**18**
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	18
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	X	X	X	-	-	X	-	-	-	X	-	-	80	18
1,1-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	X	X	-	-	-	-	-	-	-	-	80	9
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	22
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	20
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	X	X	X	-	-	-	-	80	6
1,2-Dichloropropane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	80	3
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	25
1,4-Dichlorobenzene	-	-	-	-	-	-	-	-	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	26
2-Chlorotoluene	-	X	X	X	X	-	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	-	-	80	38
3-Chlorotoluene	-	-	-	X	-	-	-	-	-	-	-	-	X	X	X	X	-	-	-	X	-	-	-	X	X	X	-	-	-	-	80	12
4-Chlorotoluene	-	-	-	-	-	-	X	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	23
Benzene	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**X**	**X**	**-**	**-**	**-**	**-**	**80**	**36**
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Bromoform	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Bromomethane (Methyl bromide)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Carbon disulfide	X	X	X	X	X	X	X	X	-	X	-	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	X	-	X	80	50
Carbon tetrachloride	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-	80	6
Chlorobenzene	-	X	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	X	80	38
Chloroethane	-	-	-	X	-	-	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	5
Chloroform (Trichloromethane)	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	18
Chloromethane (Methyl chloride)	-	X	X	X	X	X	X	X	X	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	21
cis-1,2-Dichloroethene	**-**	**X**	**-**	**-**	**-**	**-**	**X**	**X**	**-**	**X**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**80**	**47**
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Dichlorodifluoromethane (CFC-12)	-	-	-	-	-	-	-	-	-																						59	2
Ethylbenzene	-	-	X	X	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	28
m&p-Xylenes	-	-	X	X	X	-	X	X	X																						56	12
Methylene chloride	**-**	**-**	**-**	**-**	**X**	**-**	**-**	**-**	**X**	**-**	**-**	**-**	**X**	**X**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**X**	**X**	**-**	**-**	**-**	**-**	**80**	**18**
m-Monochlorobenzotrifluoride	-	-	-	-	-	-	-	X	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	26
o-Monochlorobenzotrifluoride	-	-	-	-	-	-	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	32
o-Xylene	-	-	X	X	X	-	X	X	X																						56	13
p-Monochlorobenzotrifluoride	-	X	-	-	-	-	-	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	80	35
Styrene	-	-	-	-	-	-	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	4
Tetrachloroethene	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**X**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**-**	**-**	**-**	**80**	**21**
Toluene	X	X	X	X	X	X	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	48
trans-1,2-Dichloroethene	-	-	-	-	-	-	-	X	-	-	-	X	-	X	X	-	X	X	X	X	X	X	-	X	-	X	-	-	-	-	80	27
trans-1,3-Dichloropropene	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	2
Trichloroethene	**-**	**X**	**-**	**-**	**X**	**-**	**X**	**X**	**-**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**-**	**-**	**80**	**36**
Trichlorofluoromethane (CFC-11)	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X	-	X	-	X	-	-	-	X	X	X	-	-	-	-	80	10
Vinyl acetate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	0
Vinyl chloride	**-**	**-**	**X**	**-**	**-**	**-**	**X**	**X**	**-**	**-**	**-**	**-**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**-**	**X**	**X**	**X**	**X**	**-**	**-**	**-**	**80**	**33**
Xylenes (total)	-	-	X	X	X	-	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	-	-	80	29
General Chemistry																																
Sulfate	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**80**	**80**
Number of parameters analysed	90	90	90	90	90	90	90	90	90	87	87	87	87	87	87	87	0	87	87	82	87	87	87	87	87	87	87	87	87	87		
Number of parameters detected	3	15	16	15	12	8	17	21	11	10	9	20	35	36	23	40	0	41	38	38	38	39	16	36	37	37	4	6	2	5		

Notes:
X = the analyte was detected at least one time during the five years of sampling.
- = the analyte was not detected during the five years of sampling.
Empty cell = Analyte not sampled.
Analytes listed in **boldface** are site organic indicators

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 1									
G1U-01	Chlorendic acid	ug/L	20	100%	250 U	250 U	--	--	100% ND
G6-01	Chlorendic acid	ug/L	20	65%	13	250 U	--	--	>50% ND
H2U-01	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
H5-01	Chlorendic acid	ug/L							
I1-01	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
G1U-01	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-01	Benzene	ug/L	4	75%	0.38 J	3.0 U	--	--	>50% ND
H2U-01	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	Benzene	ug/L							
I1-01	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-01	1,1,2,2-Tetrachloroethane	ug/L	4	0%	4	6.1	-4	0.334	No trend identified
H2U-01	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	1,1,2,2-Tetrachloroethane	ug/L							
I1-01	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	Tetrachloroethene	ug/L	4	75%	0.26 J	1.0 U	--	--	>50% ND
G6-01	Tetrachloroethene	ug/L	4	0%	14	16	5	0.209	No trend identified
H2U-01	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	Tetrachloroethene	ug/L							
I1-01	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	Trichloroethene	ug/L	4	0%	1.2	6.3	-2	0.75	No trend identified
G6-01	Trichloroethene	ug/L	4	0%	56	74	-2	0.75	No trend identified
H2U-01	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	Trichloroethene	ug/L							
I1-01	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	cis-1,2-Dichloroethene	ug/L	4	0%	1.4	6.8	-2	0.75	No trend identified
G6-01	cis-1,2-Dichloroethene	ug/L	4	0%	37	48	-5	0.209	No trend identified
H2U-01	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	cis-1,2-Dichloroethene	ug/L							
I1-01	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	Vinyl chloride	ug/L	4	75%	1.0 U	0.56 J	--	--	>50% ND
G6-01	Vinyl chloride	ug/L	4	0%	2.3 J	11	-4	0.334	No trend identified
H2U-01	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	Vinyl chloride	ug/L							
I1-01	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	9.4 U	29	--	--	>50% ND
G6-01	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
H2U-01	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
H5-01	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L							
I1-01	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
G1U-01	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-01	Methylene chloride	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
H2U-01	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-01	Methylene chloride	ug/L							
I1-01	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1U-01	Sulfate	mg/L	4	0%	76	125	2	0.75	No trend identified
G6-01	Sulfate	mg/L	4	0%	77	116	0	1	No trend identified
H2U-01	Sulfate	mg/L	4	0%	110	120	1	1	No trend identified
H5-01	Sulfate	mg/L							
I1-01	Sulfate	mg/L	4	0%	286	410	-4	0.334	No trend identified
Flow Zone 2									
F2U-02	Chlorendic acid	ug/L	19	0%	120 J	300	63	0.02887324	Increasing Trend
G6-02	Chlorendic acid	ug/L	4	75%	17	250 U	--	--	>50% ND
H2U-02	Chlorendic acid	ug/L	19	0%	73 J	150 J	-81	0.00451574	Decreasing Trend
H5-02	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
I1-02	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
J6-02	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
F2U-02	Benzene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
G6-02	Benzene	ug/L	4	75%	1.0 U	ND(5)	--	--	>50% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 2 (cont…)									
H2U-02	Benzene	ug/L	4	0%	3.9	4.3	-3	0.542	No trend identified
H5-02	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	1,1,2,2-Tetrachloroethane	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
G6-02	1,1,2,2-Tetrachloroethane	ug/L	4	0%	3.3	4.4	-5	0.209	No trend identified
H2U-02	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-02	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	Tetrachloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
G6-02	Tetrachloroethene	ug/L	4	0%	7.8	16	4	0.334	No trend identified
H2U-02	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-02	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	Trichloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
G6-02	Trichloroethene	ug/L	4	0%	52	82	2	0.75	No trend identified
H2U-02	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-02	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	cis-1,2-Dichloroethene	ug/L	3	0%	0.32 J	0.49 J	--	--	Insufficient data
G6-02	cis-1,2-Dichloroethene	ug/L	4	0%	55	66	-6	0.084	Decreasing Trend
H2U-02	cis-1,2-Dichloroethene	ug/L	4	25%	0.26 J	0.86 J	-6	0.084	Decreasing Trend
H5-02	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	Vinyl chloride	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
G6-02	Vinyl chloride	ug/L	4	0%	6	14	-4	0.334	No trend identified
H2U-02	Vinyl chloride	ug/L	4	25%	1.0 U	5.3	-6	0.084	Decreasing Trend
H5-02	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	3	100%	19 U	19 U	--	--	Insufficient data
G6-02	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	ND(20)	--	--	100% ND
H2U-02	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
H5-02	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	ND(9.4)	19 U	--	--	100% ND
I1-02	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
J6-02	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
F2U-02	Methylene chloride	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
G6-02	Methylene chloride	ug/L	4	100%	1.0 U	ND(5)	--	--	100% ND
H2U-02	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-02	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-02	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-02	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-02	Sulfate	mg/L	3	0%	110	120 J	--	--	Insufficient data
G6-02	Sulfate	mg/L	4	0%	73	106	2	0.75	No trend identified
H2U-02	Sulfate	mg/L	4	0%	160	206	5	0.209	No trend identified
H5-02	Sulfate	mg/L	4	0%	160	180	-1	1	No trend identified
I1-02	Sulfate	mg/L	4	0%	280	360	1	1	No trend identified
J6-02	Sulfate	mg/L	4	0%	102	300	0	1	No trend identified
Flow Zone 4									
AFW-2U-04	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
D1U-04	Chlorendic acid	ug/L	20	10%	14 J	250 U	-79	0.01097077	Decreasing Trend
D2U-04	Chlorendic acid	ug/L	4	0%	25 J	34 J	0	1	No trend identified
E6-04	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
F2U-04	Chlorendic acid	ug/L	20	0%	100 J	440	26	0.4081077	No trend identified
F6-04	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
G6-04	Chlorendic acid	ug/L	20	5%	34 J	210 J	67	0.03173459	Increasing Trend
H5-04	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 4 (cont…)									
I1-04	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
J6-04	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
AFW-2U-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	Benzene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	Benzene	ug/L	4	75%	0.21 J	1.0 U	--	--	>50% ND
F2U-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	Benzene	ug/L	4	0%	14	66 J	2	0.75	No trend identified
H5-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AFW-2U-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	1,1,2,2-Tetrachloroethane	ug/L	4	0%	4.5	19	0	1	No trend identified
H5-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AFW-2U-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	Tetrachloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	Tetrachloroethene	ug/L	4	0%	5	11	2	0.75	No trend identified
H5-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AFW-2U-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	Trichloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	Trichloroethene	ug/L	4	0%	30	64 J	-2	0.75	No trend identified
H5-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AFW-2U-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	cis-1,2-Dichloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-04	cis-1,2-Dichloroethene	ug/L	4	25%	0.27 J	ND(1)	-4	0.334	No trend identified
F6-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	cis-1,2-Dichloroethene	ug/L	4	0%	33	59 J	-6	0.084	Decreasing Trend
H5-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AFW-2U-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	Vinyl chloride	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	Vinyl chloride	ug/L	4	0%	12	23	-5	0.209	No trend identified
H5-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 4 (cont…)									
AFW-2U-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
D1U-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	ND(19)	--	--	100% ND
D2U-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
E6-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	25%	23 U	220 J	4	0.334	No trend identified
F2U-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	ND(9.4)	19 U	--	--	100% ND
F6-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
G6-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
H5-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
I1-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
J6-04	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
AFW-2U-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-04	Methylene chloride	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
D2U-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F2U-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-04	Methylene chloride	ug/L	4	75%	1.0 U	7.3 U	--	--	>50% ND
H5-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
I1-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-04	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AFW-2U-04	Sulfate	mg/L	4	0%	78	85	2	0.75	No trend identified
D1U-04	Sulfate	mg/L	4	0%	110	120	-4	0.334	No trend identified
D2U-04	Sulfate	mg/L	4	0%	93	144	6	0.084	Increasing Trend
E6-04	Sulfate	mg/L	4	0%	310	1650	5	0.209	No trend identified
F2U-04	Sulfate	mg/L	4	0%	137	170 J	-3	0.542	No trend identified
F6-04	Sulfate	mg/L	4	0%	420	480	-2	0.75	No trend identified
G6-04	Sulfate	mg/L	4	0%	160	260	2	0.75	No trend identified
H5-04	Sulfate	mg/L	4	0%	970	1050	3	0.542	No trend identified
I1-04	Sulfate	mg/L	4	0%	333	780	-2	0.75	No trend identified
J6-04	Sulfate	mg/L	4	0%	114	280	0	1	No trend identified
Flow Zone 5									
AFW-2U-05	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
AGW-1U-05	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
D1U-05	Chlorendic acid	ug/L	20	0%	42 J	95 J	51	0.10372135	No trend identified
D2U-05	Chlorendic acid	ug/L	4	0%	16 J	110 J	1	1	No trend identified
E6-05	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
G6-05	Chlorendic acid	ug/L	4	0%	290 J	550 J	4	0.334	No trend identified
H5-05	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
J6-05	Chlorendic acid	ug/L	4	100%	ND(250)	ND(250)	--	--	100% ND
AFW-2U-05	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-05	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	Benzene	ug/L	4	0%	120	280	6	0.084	Increasing Trend
H5-05	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	Benzene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	1,1,2,2-Tetrachloroethane	ug/L	4	0%	39	110	5	0.209	No trend identified
H5-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	1,1,2,2-Tetrachloroethane	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	Tetrachloroethene	ug/L	4	0%	0.18 J	0.31 J	0	1	No trend identified
D1U-05	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	Tetrachloroethene	ug/L	4	25%	1.6 J	10 U	6	0.084	Increasing Trend

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 5 (cont…)									
H5-05	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	Tetrachloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-05	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	Trichloroethene	ug/L	4	0%	65	280	6	0.084	Increasing Trend
H5-05	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	Trichloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	cis-1,2-Dichloroethene	ug/L	4	25%	0.43 J	0.66 J	-2	0.75	No trend identified
D1U-05	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	cis-1,2-Dichloroethene	ug/L	4	0%	85	120	5	0.209	No trend identified
H5-05	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	cis-1,2-Dichloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-05	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	Vinyl chloride	ug/L	4	0%	36	70	6	0.084	Increasing Trend
H5-05	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	Vinyl chloride	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
AGW-1U-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 UJ	19 U	--	--	100% ND
D1U-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
D2U-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
E6-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	1.5 J	19 U	--	--	>50% ND
G6-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
H5-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
J6-05	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	ND(19)	--	--	100% ND
AFW-2U-05	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1U-05	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1U-05	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2U-05	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-05	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-05	Methylene chloride	ug/L	4	100%	1.0 U	10 U	--	--	100% ND
H5-05	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-05	Methylene chloride	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
AFW-2U-05	Sulfate	mg/L	4	0%	192	240	-2	0.75	No trend identified
AGW-1U-05	Sulfate	mg/L	4	0%	170	280	0	1	No trend identified
D1U-05	Sulfate	mg/L	4	0%	178	270	-2	0.75	No trend identified
D2U-05	Sulfate	mg/L	4	0%	91	344	5	0.209	No trend identified
E6-05	Sulfate	mg/L	4	0%	1400	1660	2	0.75	No trend identified
G6-05	Sulfate	mg/L	4	0%	740	1180	4	0.334	No trend identified
H5-05	Sulfate	mg/L	4	0%	1200	1500	3	0.542	No trend identified
J6-05	Sulfate	mg/L	4	0%	155	220	0	1	No trend identified
Flow Zone 6									
AGW-1U-06	Chlorendic acid	ug/L	19	0%	59 J	290	-12	0.69841682	No trend identified
E6-06	Chlorendic acid	ug/L	4	25%	20 J	250 U	-2	0.75	No trend identified
F6-06	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
G1M-06	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
G6-06	Chlorendic acid	ug/L	20	100%	250 U	250 U	--	--	100% ND
H2M-06	Chlorendic acid	ug/L	4	0%	26 J	46 J	3	0.542	No trend identified
AGW-1U-06	Benzene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
E6-06	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-06	Benzene	ug/L	4	75%	0.13 J	1.0 U	--	--	>50% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 6 (cont…)									
G1M-06	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-06	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-06	Benzene	ug/L	4	25%	1.2	10 U	-4	0.334	No trend identified
AGW-1U-06	1,1,2,2-Tetrachloroethane	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
E6-06	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-06	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1M-06	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-06	1,1,2,2-Tetrachloroethane	ug/L	4	75%	1.0 U	0.78 J	--	--	>50% ND
H2M-06	1,1,2,2-Tetrachloroethane	ug/L	4	50%	0.39 J	10 U	1	1	No trend identified
AGW-1U-06	Tetrachloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
E6-06	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-06	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1M-06	Tetrachloroethene	ug/L	4	50%	0.22 J	1.0 U	-5	0.209	No trend identified
G6-06	Tetrachloroethene	ug/L	4	0%	0.24 J	1.2	4	0.334	No trend identified
H2M-06	Tetrachloroethene	ug/L	4	100%	1.0 U	10 U	--	--	100% ND
AGW-1U-06	Trichloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
E6-06	Trichloroethene	ug/L	4	0%	0.41 J	0.60 J	-4	0.334	No trend identified
F6-06	Trichloroethene	ug/L	4	0%	0.35 J	0.58 J	4	0.334	No trend identified
G1M-06	Trichloroethene	ug/L	4	0%	0.44 J	0.59 J	-3	0.542	No trend identified
G6-06	Trichloroethene	ug/L	4	0%	1.2	7.9	3	0.542	No trend identified
H2M-06	Trichloroethene	ug/L	4	0%	4.5	7.6 J	0	1	No trend identified
AGW-1U-06	cis-1,2-Dichloroethene	ug/L	3	0%	1	1.8	--	--	Insufficient data
E6-06	cis-1,2-Dichloroethene	ug/L	4	0%	2.6	3.5	2	0.75	No trend identified
F6-06	cis-1,2-Dichloroethene	ug/L	4	0%	1.6	2.2	-1	1	No trend identified
G1M-06	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-06	cis-1,2-Dichloroethene	ug/L	4	0%	0.54 J	5.1	6	0.084	Increasing Trend
H2M-06	cis-1,2-Dichloroethene	ug/L	4	0%	11	16	2	0.75	No trend identified
AGW-1U-06	Vinyl chloride	ug/L	3	0%	3.1	5.7	--	--	Insufficient data
E6-06	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-06	Vinyl chloride	ug/L	4	75%	1.0 U	0.83 J	--	--	>50% ND
G1M-06	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-06	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-06	Vinyl chloride	ug/L	4	75%	1.0 U	10 U	--	--	>50% ND
AGW-1U-06	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	3	100%	19 U	19 U	--	--	Insufficient data
E6-06	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
F6-06	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
G1M-06	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	9.4 U	17 J	--	--	>50% ND
G6-06	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
H2M-06	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
AGW-1U-06	Methylene chloride	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
E6-06	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
F6-06	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1M-06	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-06	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-06	Methylene chloride	ug/L	4	75%	1.0 U	10 U	--	--	>50% ND
AGW-1U-06	Sulfate	mg/L	3	0%	360	420	--	--	Insufficient data
E6-06	Sulfate	mg/L	4	0%	1500	1610	3	0.542	No trend identified
F6-06	Sulfate	mg/L	4	0%	1300	1510	3	0.542	No trend identified
G1M-06	Sulfate	mg/L	4	0%	1300	1300	0	1	No trend identified
G6-06	Sulfate	mg/L	4	0%	230	290	0	1	No trend identified
H2M-06	Sulfate	mg/L	4	0%	1300	1740 J	4	0.334	No trend identified
Flow Zone 7									
AGW-1M-07	Chlorendic acid	ug/L	19	5%	36 J	210 J	-101	0.00046031	Decreasing Trend
C3-07	Chlorendic acid	ug/L	19	47%	11 J	250 U	52	0.05803941	No trend identified
G6-07	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
H5-07	Chlorendic acid	ug/L	4	100%	ND(250)	ND(250)	--	--	100% ND
I1-07	Chlorendic acid	ug/L	4	25%	36	250 U	6	0.084	Increasing Trend
J6-07	Chlorendic acid	ug/L	4	0%	110 J	130 J	-5	0.209	No trend identified
AGW-1M-07	Benzene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
C3-07	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 7 (cont…)									
G6-07	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-07	Benzene	ug/L	4	0%	0.58 J	0.93	-5	0.209	No trend identified
I1-07	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-07	1,1,2,2-Tetrachloroethane	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
C3-07	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-07	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-07	1,1,2,2-Tetrachloroethane	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
I1-07	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-07	Tetrachloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
C3-07	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-07	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-07	Tetrachloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
I1-07	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-07	Trichloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
C3-07	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-07	Trichloroethene	ug/L	4	0%	0.27 J	0.66 J	2	0.75	No trend identified
H5-07	Trichloroethene	ug/L	4	25%	0.20 J	1.0 U	-6	0.084	Decreasing Trend
I1-07	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-07	cis-1,2-Dichloroethene	ug/L	3	33%	0.27 J	1.0 U	--	--	Insufficient data
C3-07	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-07	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-07	cis-1,2-Dichloroethene	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
I1-07	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	cis-1,2-Dichloroethene	ug/L	4	0%	0.80 J	0.91 J	2	0.75	No trend identified
AGW-1M-07	Vinyl chloride	ug/L	3	0%	0.41 J	0.99 J	--	--	Insufficient data
C3-07	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-07	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-07	Vinyl chloride	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
I1-07	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	Vinyl chloride	ug/L	4	0%	0.44 J	1.2	-5	0.209	No trend identified
AGW-1M-07	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	3	100%	19 U	19 U	--	--	Insufficient data
C3-07	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
G6-07	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
H5-07	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	ND(19)	--	--	100% ND
I1-07	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
J6-07	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
AGW-1M-07	Methylene chloride	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
C3-07	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G6-07	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H5-07	Methylene chloride	ug/L	4	100%	ND(1)	ND(1)	--	--	100% ND
I1-07	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
J6-07	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-07	Sulfate	mg/L	3	0%	1400	1400	--	--	Insufficient data
C3-07	Sulfate	mg/L	4	0%	150	210	0	1	No trend identified
G6-07	Sulfate	mg/L	4	0%	240	296	4	0.334	No trend identified
H5-07	Sulfate	mg/L	4	0%	1800	1890	1	1	No trend identified
I1-07	Sulfate	mg/L	4	0%	1300	1400	2	0.75	No trend identified
J6-07	Sulfate	mg/L	4	0%	1400	1720	4	0.334	No trend identified
Flow Zone 9									
ABP-1-09	Chlorendic acid	ug/L	3	100%	250 U	250 U	--	--	Insufficient data
ABP-7-09	Chlorendic acid	ug/L	20	40%	14 J	250 U	50	0.09947026	No trend identified
AGW-1M-09	Chlorendic acid	ug/L	20	0%	82 J	170 J	76	0.01349469	Increasing Trend
B2M-09	Chlorendic acid	ug/L							
C3-09	Chlorendic acid	ug/L	20	35%	16 J	ND(250)	7	0.84179825	No trend identified
D1M-09	Chlorendic acid	ug/L	20	5%	110 J	260	-11	0.74447508	No trend identified
D2M-09	Chlorendic acid	ug/L	4	0%	120 J	160 J	2	0.75	No trend identified

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 9 (cont…)									
E6-09	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
F2M-09	Chlorendic acid	ug/L	20	25%	13 J	250 U	78	0.01149776	Increasing Trend
F4M-09	Chlorendic acid	ug/L							
H2M-09	Chlorendic acid	ug/L	4	0%	28 J	80 J	-2	0.75	No trend identified
H5-09	Chlorendic acid	ug/L	20	5%	26 J	250 U	95	0.00220953	Increasing Trend
ABP-1-09	Benzene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
ABP-7-09	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-09	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
C3-09	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1M-09	Benzene	ug/L	4	0%	3.2	5.3	-6	0.084	Decreasing Trend
D2M-09	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-09	Benzene	ug/L	4	0%	75	110	2	0.75	No trend identified
F2M-09	Benzene	ug/L	4	0%	0.53 J	0.73 J	4	0.334	No trend identified
H2M-09	Benzene	ug/L	4	0%	35	50	-2	0.75	No trend identified
H5-09	Benzene	ug/L	4	0%	7.2	26	2	0.75	No trend identified
ABP-1-09	1,1,2,2-Tetrachloroethane	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
ABP-7-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
C3-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1M-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2M-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2M-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
H5-09	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
ABP-1-09	Tetrachloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
ABP-7-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
C3-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1M-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2M-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-09	Tetrachloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2M-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-09	Tetrachloroethene	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
H5-09	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
ABP-1-09	Trichloroethene	ug/L	3	67%	0.16 J	1.0 U	--	--	Insufficient data
ABP-7-09	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-09	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
C3-09	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1M-09	Trichloroethene	ug/L	4	0%	0.22 J	0.33 J	-4	0.334	No trend identified
D2M-09	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-09	Trichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2M-09	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-09	Trichloroethene	ug/L	4	0%	2	3.1	2	0.75	No trend identified
H5-09	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
ABP-1-09	cis-1,2-Dichloroethene	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
ABP-7-09	cis-1,2-Dichloroethene	ug/L	4	75%	0.31 J	1.0 U	--	--	>50% ND
AGW-1M-09	cis-1,2-Dichloroethene	ug/L	4	0%	0.43 J	0.71 J	0	1	No trend identified
C3-09	cis-1,2-Dichloroethene	ug/L	4	25%	0.27 J	1.0 U	-2	0.75	No trend identified
D1M-09	cis-1,2-Dichloroethene	ug/L	4	0%	0.35 J	0.55 J	4	0.334	No trend identified
D2M-09	cis-1,2-Dichloroethene	ug/L	4	0%	0.96 J	1.1	-5	0.209	No trend identified
E6-09	cis-1,2-Dichloroethene	ug/L	4	75%	0.36 J	5.0 U	--	--	>50% ND
F2M-09	cis-1,2-Dichloroethene	ug/L	4	0%	0.70 J	0.88 J	2	0.75	No trend identified
H2M-09	cis-1,2-Dichloroethene	ug/L	4	0%	0.73 J	1.6	2	0.75	No trend identified
H5-09	cis-1,2-Dichloroethene	ug/L	4	0%	0.32 J	0.93 J	5	0.209	No trend identified
ABP-1-09	Vinyl chloride	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
ABP-7-09	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-09	Vinyl chloride	ug/L	4	0%	0.84 J	1.2	-4	0.334	No trend identified
C3-09	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1M-09	Vinyl chloride	ug/L	4	25%	1.0 U	1.5	-4	0.334	No trend identified
D2M-09	Vinyl chloride	ug/L	4	50%	1.0 U	1.1	-5	0.209	No trend identified
E6-09	Vinyl chloride	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2M-09	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 9 (cont…)									
H2M-09	Vinyl chloride	ug/L	4	50%	0.97 J	3.0 U	5	0.209	No trend identified
H5-09	Vinyl chloride	ug/L	4	25%	1.0 U	1.3	4	0.334	No trend identified
ABP-1-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	3	67%	4.8 J	21 U	--	--	Insufficient data
ABP-7-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	9.4 U	12 J	--	--	>50% ND
AGW-1M-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 UJ	19 U	--	--	100% ND
C3-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
D1M-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
D2M-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
E6-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
F2M-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
H2M-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
H5-09	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
ABP-1-09	Methylene chloride	ug/L	3	100%	1.0 U	1.0 U	--	--	Insufficient data
ABP-7-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
AGW-1M-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
C3-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D1M-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
D2M-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
E6-09	Methylene chloride	ug/L	4	75%	1.0 U	5.0 U	--	--	>50% ND
F2M-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
H2M-09	Methylene chloride	ug/L	4	75%	1.0 U	3.0 U	--	--	>50% ND
H5-09	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
ABP-1-09	Sulfate	mg/L	3	0%	1200	1700	--	--	Insufficient data
ABP-7-09	Sulfate	mg/L	4	0%	180	290	4	0.334	No trend identified
AGW-1M-09	Sulfate	mg/L	4	0%	1300	1650	4	0.334	No trend identified
C3-09	Sulfate	mg/L	4	0%	150	189	3	0.542	No trend identified
D1M-09	Sulfate	mg/L	4	0%	1100	1320	1	1	No trend identified
D2M-09	Sulfate	mg/L	4	0%	650	1200	0	1	No trend identified
E6-09	Sulfate	mg/L	4	0%	950	1400	2	0.75	No trend identified
F2M-09	Sulfate	mg/L	4	0%	1400	1700 J	0	1	No trend identified
H2M-09	Sulfate	mg/L	4	0%	1500	1720	4	0.334	No trend identified
H5-09	Sulfate	mg/L	4	0%	1400	1700	4	0.334	No trend identified
Flow Zone 11									
AFW-1L-11	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
B2L-11	Chlorendic acid	ug/L	20	0%	75 J	280	-52	0.09143932	No trend identified
D1L-11	Chlorendic acid	ug/L	4	75%	250 U	260	--	--	>50% ND
E6-11	Chlorendic acid	ug/L	4	25%	19 J	250 U	-3	0.542	No trend identified
F2L-11	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
F6-11	Chlorendic acid	ug/L	4	25%	13 J	250 U	1	1	No trend identified
G1L-11	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
G6-11	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
J6-11	Chlorendic acid	ug/L	4	100%	250 U	250 U	--	--	100% ND
AFW-1L-11	Benzene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	Benzene	ug/L	4	0%	27	53	-4	0.334	No trend identified
D1L-11	Benzene	ug/L	4	0%	64	97	4	0.334	No trend identified
E6-11	Benzene	ug/L	4	0%	24	48	-2	0.75	No trend identified
F2L-11	Benzene	ug/L	4	0%	9.2	25	6	0.084	Increasing Trend
F6-11	Benzene	ug/L	4	0%	23 J	28	3	0.542	No trend identified
G1L-11	Benzene	ug/L	4	0%	74	110	0	1	No trend identified
G6-11	Benzene	ug/L	4	0%	95	110	5	0.209	No trend identified
J6-11	Benzene	ug/L	4	0%	64	86	1	1	No trend identified
AFW-1L-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
D1L-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
E6-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2L-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	2.0 U	--	--	100% ND
F6-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1L-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
G6-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	ND(1)	5.0 U	--	--	100% ND
J6-11	1,1,2,2-Tetrachloroethane	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
Piezometers - APL Plume Containment System									
Flow Zone 11 (cont…)									
AFW-1L-11	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	Tetrachloroethene	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
D1L-11	Tetrachloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
E6-11	Tetrachloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2L-11	Tetrachloroethene	ug/L	4	100%	1.0 U	2.0 U	--	--	100% ND
F6-11	Tetrachloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1L-11	Tetrachloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
G6-11	Tetrachloroethene	ug/L	4	100%	ND(1)	5.0 U	--	--	100% ND
J6-11	Tetrachloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
AFW-1L-11	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	Trichloroethene	ug/L	4	25%	0.15 J	3.0 U	2	0.75	No trend identified
D1L-11	Trichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
E6-11	Trichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2L-11	Trichloroethene	ug/L	4	75%	1.0 U	ND(1.5)	--	--	>50% ND
F6-11	Trichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1L-11	Trichloroethene	ug/L	4	75%	0.40 J	5.0 U	--	--	>50% ND
G6-11	Trichloroethene	ug/L	4	0%	1.9 J	2.4 J	-3	0.542	No trend identified
J6-11	Trichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
AFW-1L-11	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	cis-1,2-Dichloroethene	ug/L	4	25%	0.33 J	3.0 U	2	0.75	No trend identified
D1L-11	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
E6-11	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2L-11	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	2.0 U	--	--	100% ND
F6-11	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1L-11	cis-1,2-Dichloroethene	ug/L	4	75%	0.92 J	5.0 U	--	--	>50% ND
G6-11	cis-1,2-Dichloroethene	ug/L	4	0%	4.45	4.9 J	-4	0.334	No trend identified
J6-11	cis-1,2-Dichloroethene	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
AFW-1L-11	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	Vinyl chloride	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
D1L-11	Vinyl chloride	ug/L	4	75%	1.0 U	5.0 U	--	--	>50% ND
E6-11	Vinyl chloride	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2L-11	Vinyl chloride	ug/L	4	100%	1.0 U	2.0 U	--	--	100% ND
F6-11	Vinyl chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1L-11	Vinyl chloride	ug/L	4	75%	0.42 J	5.0 U	--	--	>50% ND
G6-11	Vinyl chloride	ug/L	4	50%	0.685	5.0 U	1	1	No trend identified
J6-11	Vinyl chloride	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
AFW-1L-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
B2L-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	2.0 J	19 U	--	--	>50% ND
D1L-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	1.5 J	19 U	--	--	>50% ND
E6-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	20 U	--	--	100% ND
F2L-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
F6-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	9.4 U	22	--	--	>50% ND
G1L-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	75%	9.4 U	22	--	--	>50% ND
G6-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	ND(9.4)	19 U	--	--	100% ND
J6-11	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4	100%	9.4 U	19 U	--	--	100% ND
AFW-1L-11	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
B2L-11	Methylene chloride	ug/L	4	100%	1.0 U	3.0 U	--	--	100% ND
D1L-11	Methylene chloride	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
E6-11	Methylene chloride	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
F2L-11	Methylene chloride	ug/L	4	75%	1.0 U	2.4	--	--	>50% ND
F6-11	Methylene chloride	ug/L	4	100%	1.0 U	1.0 U	--	--	100% ND
G1L-11	Methylene chloride	ug/L	4	100%	1.0 U	5.0 U	--	--	100% ND
G6-11	Methylene chloride	ug/L	4	100%	ND(1)	5.0 U	--	--	100% ND
J6-11	Methylene chloride	ug/L	4	75%	1.0 U	2.7 J	--	--	>50% ND
AFW-1L-11	Sulfate	mg/L	4	0%	160	181	3	0.542	No trend identified
B2L-11	Sulfate	mg/L	4	0%	1400	1600	-1	1	No trend identified
D1L-11	Sulfate	mg/L	4	0%	978	1200	-3	0.542	No trend identified
E6-11	Sulfate	mg/L	4	0%	1400	1800	0	1	No trend identified
F2L-11	Sulfate	mg/L	4	0%	57	69	2	0.75	No trend identified
F6-11	Sulfate	mg/L	4	0%	1900	2130	3	0.542	No trend identified
G1L-11	Sulfate	mg/L	4	0%	1100	1650	4	0.334	No trend identified
G6-11	Sulfate	mg/L	4	0%	1300	1645	5	0.209	No trend identified
J6-11	Sulfate	mg/L	4	0%	1500	1740	3	0.542	No trend identified

Table 2

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
NAPL Purge wells									
APW-1	Chlorendic acid	ug/L	1	0%	270	270	--	--	Insufficient data
APW-2	Chlorendic acid	ug/L	1	0%	180 J	180 J	--	--	Insufficient data
PW-1L	Chlorendic acid	ug/L	1	0%	280	280	--	--	Insufficient data
PW-1U	Chlorendic acid	ug/L	1	0%	8500	8500	--	--	Insufficient data
PW-2L	Chlorendic acid	ug/L	1	0%	2200	2200	--	--	Insufficient data
PW-2M	Chlorendic acid	ug/L	1	0%	210 J	210 J	--	--	Insufficient data
PW-2UR	Chlorendic acid	ug/L	1	0%	110000	110000	--	--	Insufficient data
PW-3L	Chlorendic acid	ug/L	1	0%	3200	3200	--	--	Insufficient data
PW-3M	Chlorendic acid	ug/L	1	0%	4100	4100	--	--	Insufficient data
PW-4M	Chlorendic acid	ug/L							
PW-4U	Chlorendic acid	ug/L	1	100%	25000 U	25000 U	--	--	Insufficient data
PW-4U	Chlorendic acid	ug/L	1	100%	25000 U	25000 U	--	--	Insufficient data
PW-4U	Chlorendic acid	ug/L	1	100%	25000 U	25000 U	--	--	Insufficient data
PW-4U	Chlorendic acid	ug/L	1	100%	25000 U	25000 U	--	--	Insufficient data
PW-4U	Chlorendic acid	ug/L	1	100%	25000 U	25000 U	--	--	Insufficient data
PW-4U	Chlorendic acid	ug/L	1	100%	25000 U	25000 U	--	--	Insufficient data
PW-5UR	Chlorendic acid	ug/L	1	0%	3800 J	3800 J	--	--	Insufficient data
PW-6MR	Chlorendic acid	ug/L	1	0%	4200	4200	--	--	Insufficient data
PW-6UR	Chlorendic acid	ug/L	1	0%	800	800	--	--	Insufficient data
PW-7U	Chlorendic acid	ug/L	1	0%	800	800	--	--	Insufficient data
PW-8M	Chlorendic acid	ug/L							
PW-8U	Chlorendic acid	ug/L	1	0%	10000	10000	--	--	Insufficient data
PW-9U	Chlorendic acid	ug/L	1	0%	4100	4100	--	--	Insufficient data
PW-10U	Chlorendic acid	ug/L	1	0%	2750	2750	--	--	Insufficient data
APW-1	Benzene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
APW-2	Benzene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1L	Benzene	ug/L	1	0%	3.4	3.4	--	--	Insufficient data
PW-1U	Benzene	ug/L	1	0%	78	78	--	--	Insufficient data
PW-2L	Benzene	ug/L	1	0%	40	40	--	--	Insufficient data
PW-2M	Benzene	ug/L	1	0%	0.49 J	0.49 J	--	--	Insufficient data
PW-2UR	Benzene	ug/L	1	0%	2700	2700	--	--	Insufficient data
PW-3L	Benzene	ug/L	1	0%	110	110	--	--	Insufficient data
PW-3M	Benzene	ug/L	1	0%	9200	9200	--	--	Insufficient data
PW-4M	Benzene	ug/L							
PW-4U	Benzene	ug/L	1	0%	320	320	--	--	Insufficient data
PW-4U	Benzene	ug/L	1	0%	320	320	--	--	Insufficient data
PW-4U	Benzene	ug/L	1	0%	320	320	--	--	Insufficient data
PW-4U	Benzene	ug/L	1	0%	320	320	--	--	Insufficient data
PW-4U	Benzene	ug/L	1	0%	320	320	--	--	Insufficient data
PW-5UR	Benzene	ug/L	1	0%	2000	2000	--	--	Insufficient data
PW-6MR	Benzene	ug/L	1	0%	1900	1900	--	--	Insufficient data
PW-6UR	Benzene	ug/L	1	0%	100	100	--	--	Insufficient data
PW-7U	Benzene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-8M	Benzene	ug/L							
PW-8U	Benzene	ug/L	1	0%	79	79	--	--	Insufficient data
PW-9U	Benzene	ug/L	1	0%	58	58	--	--	Insufficient data
PW-10U	Benzene	ug/L	1	0%	89.5	89.5	--	--	Insufficient data
APW-1	1,1,2,2-Tetrachloroethane	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
APW-2	1,1,2,2-Tetrachloroethane	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1L	1,1,2,2-Tetrachloroethane	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	34	34	--	--	Insufficient data
PW-2L	1,1,2,2-Tetrachloroethane	ug/L	1	0%	32	32	--	--	Insufficient data
PW-2M	1,1,2,2-Tetrachloroethane	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-2UR	1,1,2,2-Tetrachloroethane	ug/L	1	0%	1000	1000	--	--	Insufficient data
PW-3L	1,1,2,2-Tetrachloroethane	ug/L	1	0%	67	67	--	--	Insufficient data
PW-3M	1,1,2,2-Tetrachloroethane	ug/L	1	0%	2000	2000	--	--	Insufficient data
PW-4M	1,1,2,2-Tetrachloroethane	ug/L							
PW-4U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-5UR	1,1,2,2-Tetrachloroethane	ug/L	1	0%	400	400	--	--	Insufficient data
PW-6MR	1,1,2,2-Tetrachloroethane	ug/L	1	0%	400	400	--	--	Insufficient data

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
NAPL Purge wells									
PW-6UR	1,1,2,2-Tetrachloroethane	ug/L	1	0%	53	53	--	--	Insufficient data
PW-7U	1,1,2,2-Tetrachloroethane	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-8M	1,1,2,2-Tetrachloroethane	ug/L							
PW-8U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	12	12	--	--	Insufficient data
PW-9U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	14	14	--	--	Insufficient data
PW-10U	1,1,2,2-Tetrachloroethane	ug/L	1	0%	23.5	23.5	--	--	Insufficient data
APW-1	Tetrachloroethene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
APW-2	Tetrachloroethene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1L	Tetrachloroethene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1U	Tetrachloroethene	ug/L	1	0%	110	110	--	--	Insufficient data
PW-2L	Tetrachloroethene	ug/L	1	0%	15	15	--	--	Insufficient data
PW-2M	Tetrachloroethene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-2UR	Tetrachloroethene	ug/L	1	0%	8300	8300	--	--	Insufficient data
PW-3L	Tetrachloroethene	ug/L	1	0%	24	24	--	--	Insufficient data
PW-3M	Tetrachloroethene	ug/L	1	0%	580	580	--	--	Insufficient data
PW-4M	Tetrachloroethene	ug/L							
PW-4U	Tetrachloroethene	ug/L	1	0%	19000	19000	--	--	Insufficient data
PW-4U	Tetrachloroethene	ug/L	1	0%	19000	19000	--	--	Insufficient data
PW-4U	Tetrachloroethene	ug/L	1	0%	19000	19000	--	--	Insufficient data
PW-4U	Tetrachloroethene	ug/L	1	0%	19000	19000	--	--	Insufficient data
PW-4U	Tetrachloroethene	ug/L	1	0%	19000	19000	--	--	Insufficient data
PW-5UR	Tetrachloroethene	ug/L	1	0%	670	670	--	--	Insufficient data
PW-6MR	Tetrachloroethene	ug/L	1	0%	330	330	--	--	Insufficient data
PW-6UR	Tetrachloroethene	ug/L	1	0%	5.2	5.2	--	--	Insufficient data
PW-7U	Tetrachloroethene	ug/L	1	0%	8.4	8.4	--	--	Insufficient data
PW-8M	Tetrachloroethene	ug/L							
PW-8U	Tetrachloroethene	ug/L	1	0%	18	18	--	--	Insufficient data
PW-9U	Tetrachloroethene	ug/L	1	0%	200	200	--	--	Insufficient data
PW-10U	Tetrachloroethene	ug/L	1	0%	8.15	8.15	--	--	Insufficient data
APW-1	Trichloroethene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
APW-2	Trichloroethene	ug/L	1	0%	0.23 J	0.23 J	--	--	Insufficient data
PW-1L	Trichloroethene	ug/L	1	0%	1.1	1.1	--	--	Insufficient data
PW-1U	Trichloroethene	ug/L	1	0%	970	970	--	--	Insufficient data
PW-2L	Trichloroethene	ug/L	1	0%	66	66	--	--	Insufficient data
PW-2M	Trichloroethene	ug/L	1	0%	18	18	--	--	Insufficient data
PW-2UR	Trichloroethene	ug/L	1	0%	5100	5100	--	--	Insufficient data
PW-3L	Trichloroethene	ug/L	1	0%	51	51	--	--	Insufficient data
PW-3M	Trichloroethene	ug/L	1	0%	5300	5300	--	--	Insufficient data
PW-4M	Trichloroethene	ug/L							
PW-4U	Trichloroethene	ug/L	1	0%	6800	6800	--	--	Insufficient data
PW-4U	Trichloroethene	ug/L	1	0%	6800	6800	--	--	Insufficient data
PW-4U	Trichloroethene	ug/L	1	0%	6800	6800	--	--	Insufficient data
PW-4U	Trichloroethene	ug/L	1	0%	6800	6800	--	--	Insufficient data
PW-4U	Trichloroethene	ug/L	1	0%	6800	6800	--	--	Insufficient data
PW-5UR	Trichloroethene	ug/L	1	0%	1300	1300	--	--	Insufficient data
PW-6MR	Trichloroethene	ug/L	1	0%	1100	1100	--	--	Insufficient data
PW-6UR	Trichloroethene	ug/L	1	0%	250	250	--	--	Insufficient data
PW-7U	Trichloroethene	ug/L	1	0%	32	32	--	--	Insufficient data
PW-8M	Trichloroethene	ug/L							
PW-8U	Trichloroethene	ug/L	1	0%	70	70	--	--	Insufficient data
PW-9U	Trichloroethene	ug/L	1	0%	170	170	--	--	Insufficient data
PW-10U	Trichloroethene	ug/L	1	0%	125	125	--	--	Insufficient data
APW-1	cis-1,2-Dichloroethene	ug/L	1	0%	0.43 J	0.43 J	--	--	Insufficient data
APW-2	cis-1,2-Dichloroethene	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1L	cis-1,2-Dichloroethene	ug/L	1	0%	1.3	1.3	--	--	Insufficient data
PW-1U	cis-1,2-Dichloroethene	ug/L	1	0%	1300	1300	--	--	Insufficient data
PW-2L	cis-1,2-Dichloroethene	ug/L	1	0%	960	960	--	--	Insufficient data
PW-2M	cis-1,2-Dichloroethene	ug/L	1	0%	1.1	1.1	--	--	Insufficient data
PW-2UR	cis-1,2-Dichloroethene	ug/L	1	0%	340	340	--	--	Insufficient data
PW-3L	cis-1,2-Dichloroethene	ug/L	1	0%	1300	1300	--	--	Insufficient data
PW-3M	cis-1,2-Dichloroethene	ug/L	1	0%	2600	2600	--	--	Insufficient data
PW-4M	cis-1,2-Dichloroethene	ug/L							
PW-4U	cis-1,2-Dichloroethene	ug/L	1	0%	8900	8900	--	--	Insufficient data

Table 2

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Mann-Kendall Trend Test Probability	Mann-Kendall Trend Test Conclusion
The Lockport Bedrock Monitoring Program									
NAPL Purge wells									
PW-4U	cis-1,2-Dichloroethene	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	cis-1,2-Dichloroethene	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	cis-1,2-Dichloroethene	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-4U	cis-1,2-Dichloroethene	ug/L	1	0%	8900	8900	--	--	Insufficient data
PW-5UR	cis-1,2-Dichloroethene	ug/L	1	0%	1800	1800	--	--	Insufficient data
PW-6MR	cis-1,2-Dichloroethene	ug/L	1	0%	1700	1700	--	--	Insufficient data
PW-6UR	cis-1,2-Dichloroethene	ug/L	1	0%	1100	1100	--	--	Insufficient data
PW-7U	cis-1,2-Dichloroethene	ug/L	1	0%	2.3	2.3	--	--	Insufficient data
PW-8M	cis-1,2-Dichloroethene	ug/L							
PW-8U	cis-1,2-Dichloroethene	ug/L	1	0%	270	270	--	--	Insufficient data
PW-9U	cis-1,2-Dichloroethene	ug/L	1	0%	150	150	--	--	Insufficient data
PW-10U	cis-1,2-Dichloroethene	ug/L	1	0%	560	560	--	--	Insufficient data
APW-1	Vinyl chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
APW-2	Vinyl chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1L	Vinyl chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1U	Vinyl chloride	ug/L	1	0%	30	30	--	--	Insufficient data
PW-2L	Vinyl chloride	ug/L	1	0%	31	31	--	--	Insufficient data
PW-2M	Vinyl chloride	ug/L	1	0%	1.5	1.5	--	--	Insufficient data
PW-2UR	Vinyl chloride	ug/L	1	0%	76 J	76 J	--	--	Insufficient data
PW-3L	Vinyl chloride	ug/L	1	0%	77	77	--	--	Insufficient data
PW-3M	Vinyl chloride	ug/L	1	0%	6600	6600	--	--	Insufficient data
PW-4M	Vinyl chloride	ug/L							
PW-4U	Vinyl chloride	ug/L	1	0%	780	780	--	--	Insufficient data
PW-4U	Vinyl chloride	ug/L	1	0%	780	780	--	--	Insufficient data
PW-4U	Vinyl chloride	ug/L	1	0%	780	780	--	--	Insufficient data
PW-4U	Vinyl chloride	ug/L	1	0%	780	780	--	--	Insufficient data
PW-4U	Vinyl chloride	ug/L	1	0%	780	780	--	--	Insufficient data
PW-5UR	Vinyl chloride	ug/L	1	0%	1400	1400	--	--	Insufficient data
PW-6MR	Vinyl chloride	ug/L	1	0%	1200	1200	--	--	Insufficient data
PW-6UR	Vinyl chloride	ug/L	1	0%	140	140	--	--	Insufficient data
PW-7U	Vinyl chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-8M	Vinyl chloride	ug/L							
PW-8U	Vinyl chloride	ug/L	1	0%	20	20	--	--	Insufficient data
PW-9U	Vinyl chloride	ug/L	1	0%	7.8	7.8	--	--	Insufficient data
PW-10U	Vinyl chloride	ug/L	1	0%	26	26	--	--	Insufficient data
APW-1	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	9.4 U	9.4 U	--	--	Insufficient data
APW-2	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	0%	8.5 J	8.5 J	--	--	Insufficient data
PW-1L	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	9.4 U	9.4 U	--	--	Insufficient data
PW-1U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	0%	41 J	41 J	--	--	Insufficient data
PW-2L	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	19 U	19 U	--	--	Insufficient data
PW-2M	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	9.4 U	9.4 U	--	--	Insufficient data
PW-2UR	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	5000 U	5000 U	--	--	Insufficient data
PW-3L	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	94 U	94 U	--	--	Insufficient data
PW-3M	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	94 U	94 U	--	--	Insufficient data
PW-4M	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L							
PW-4U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	1000 U	1000 U	--	--	Insufficient data
PW-4U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	1000 U	1000 U	--	--	Insufficient data
PW-4U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	1000 U	1000 U	--	--	Insufficient data
PW-4U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	1000 U	1000 U	--	--	Insufficient data
PW-4U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	1000 U	1000 U	--	--	Insufficient data
PW-5UR	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	190 U	190 U	--	--	Insufficient data
PW-6MR	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	94 U	94 U	--	--	Insufficient data
PW-6UR	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	19 U	19 U	--	--	Insufficient data
PW-7U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	9.4 U	9.4 U	--	--	Insufficient data
PW-8M	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L							
PW-8U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	28 U	28 U	--	--	Insufficient data
PW-9U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	0%	55 J	55 J	--	--	Insufficient data
PW-10U	bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1	100%	ND(37.5)	ND(37.5)	--	--	Insufficient data
APW-1	Methylene chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
APW-2	Methylene chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1L	Methylene chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-1U	Methylene chloride	ug/L	1	0%	27	27	--	--	Insufficient data
PW-2L	Methylene chloride	ug/L	1	0%	6.0 J	6.0 J	--	--	Insufficient data

Trend Test Results - Site Organic Indicators (SOIs)
Hyde Park Landfill Site
Town of Niagara, New York

Well	Parameters	Units	Number of Samples	Percent Non-Detects	Minimum	Maximum	Mann-Kendall Trend Test S-Statistic	Probability	Conclusion
The Lockport Bedrock Monitoring Program									
NAPL Purge wells									
PW-2M	Methylene chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-2UR	Methylene chloride	ug/L	1	0%	740	740	--	--	Insufficient data
PW-3L	Methylene chloride	ug/L	1	0%	9.6 J	9.6 J	--	--	Insufficient data
PW-3M	Methylene chloride	ug/L	1	0%	1100	1100	--	--	Insufficient data
PW-4M	Methylene chloride	ug/L							
PW-4U	Methylene chloride	ug/L	1	0%	530	530	--	--	Insufficient data
PW-4U	Methylene chloride	ug/L	1	0%	530	530	--	--	Insufficient data
PW-4U	Methylene chloride	ug/L	1	0%	530	530	--	--	Insufficient data
PW-4U	Methylene chloride	ug/L	1	0%	530	530	--	--	Insufficient data
PW-4U	Methylene chloride	ug/L	1	0%	530	530	--	--	Insufficient data
PW-5UR	Methylene chloride	ug/L	1	0%	230	230	--	--	Insufficient data
PW-6MR	Methylene chloride	ug/L	1	0%	220	220	--	--	Insufficient data
PW-6UR	Methylene chloride	ug/L	1	0%	5.9	5.9	--	--	Insufficient data
PW-7U	Methylene chloride	ug/L	1	100%	1.0 U	1.0 U	--	--	Insufficient data
PW-8M	Methylene chloride	ug/L							
PW-8U	Methylene chloride	ug/L	1	0%	6.1	6.1	--	--	Insufficient data
PW-9U	Methylene chloride	ug/L	1	0%	16	16	--	--	Insufficient data
PW-10U	Methylene chloride	ug/L	1	0%	11	11	--	--	Insufficient data
APW-1	Sulfate	mg/L	1	0%	1040	1040	--	--	Insufficient data
APW-2	Sulfate	mg/L	1	0%	1040	1040	--	--	Insufficient data
PW-1L	Sulfate	mg/L	1	0%	1820	1820	--	--	Insufficient data
PW-1U	Sulfate	mg/L	1	0%	234	234	--	--	Insufficient data
PW-2L	Sulfate	mg/L	1	0%	1660	1660	--	--	Insufficient data
PW-2M	Sulfate	mg/L	1	0%	1390	1390	--	--	Insufficient data
PW-2UR	Sulfate	mg/L	1	0%	589	589	--	--	Insufficient data
PW-3L	Sulfate	mg/L	1	0%	1280	1280	--	--	Insufficient data
PW-3M	Sulfate	mg/L	1	0%	74.8	74.8	--	--	Insufficient data
PW-4M	Sulfate	mg/L							
PW-4U	Sulfate	mg/L	1	0%	318	318	--	--	Insufficient data
PW-5UR	Sulfate	mg/L	1	0%	71.6	71.6	--	--	Insufficient data
PW-6MR	Sulfate	mg/L	1	0%	72.2	72.2	--	--	Insufficient data
PW-6UR	Sulfate	mg/L	1	0%	1190	1190	--	--	Insufficient data
PW-7U	Sulfate	mg/L	1	0%	285	285	--	--	Insufficient data
PW-8M	Sulfate	mg/L							
PW-8U	Sulfate	mg/L	1	0%	355	355	--	--	Insufficient data
PW-9U	Sulfate	mg/L	1	0%	462	462	--	--	Insufficient data
PW-10U	Sulfate	mg/L	1	0%	517	517	--	--	Insufficient data