Islip
Resource
Recovery
Agency

Post Closure Groundwater Monitoring Program

Third Quarter 2018

Blydenburgh Road Landfill Complex
Town of Islip, New York

DECEMBER 2018

D&B Engineers and Architects, P.C.

D&B ENGINEERS AND ARCHITECTS, P.C.

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December 26, 2018

Anthony J. Varrichio, P.E.
Chief Engineer
Islip Resource Recovery Agency
401 Main Street
Islip, NY 11751

Re: Blydenburgh Road Landfill Complex
Post-Closure Groundwater Monitoring Program
Third Quarter 2018 Baseline Sampling Event
D&B No. 3763-13B

Dear Mr. Varrichio:

Enclosed please find six copies of the Third Quarter 2018 Post-Closure Groundwater Monitoring Program Report for the Blydenburgh Road Landfill Complex. In addition, this report is provided in electronic format on the enclosed compact disc.

If you have any questions or require additional information, please call me at (516) 364-9890, Ext. 3068.

Very truly yours,

Thomas P. Fox, P.G.
Vice President

TPF/KSRt/nc
Enclosures
♦3763\TPF18LTR-04

POST CLOSURE GROUNDWATER MONITORING PROGRAM
QUARTERLY SAMPLING RESULTS
THIRD QUARTER 2018

BLYDENBURGH ROAD LANDFILL COMPLEX
TOWN OF ISLIP, NEW YORK

Prepared for:

ISLIP RESOURCE RECOVERY AGENCY
TOWN OF ISLIP, NEW YORK

Prepared by:

D&B ENGINEERS AND ARCHITECTS, P.C.
WOODBURY, NEW YORK

DECEMBER 2018

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
QUARTERLY SAMPLING RESULTS
THIRD QUARTER 2018

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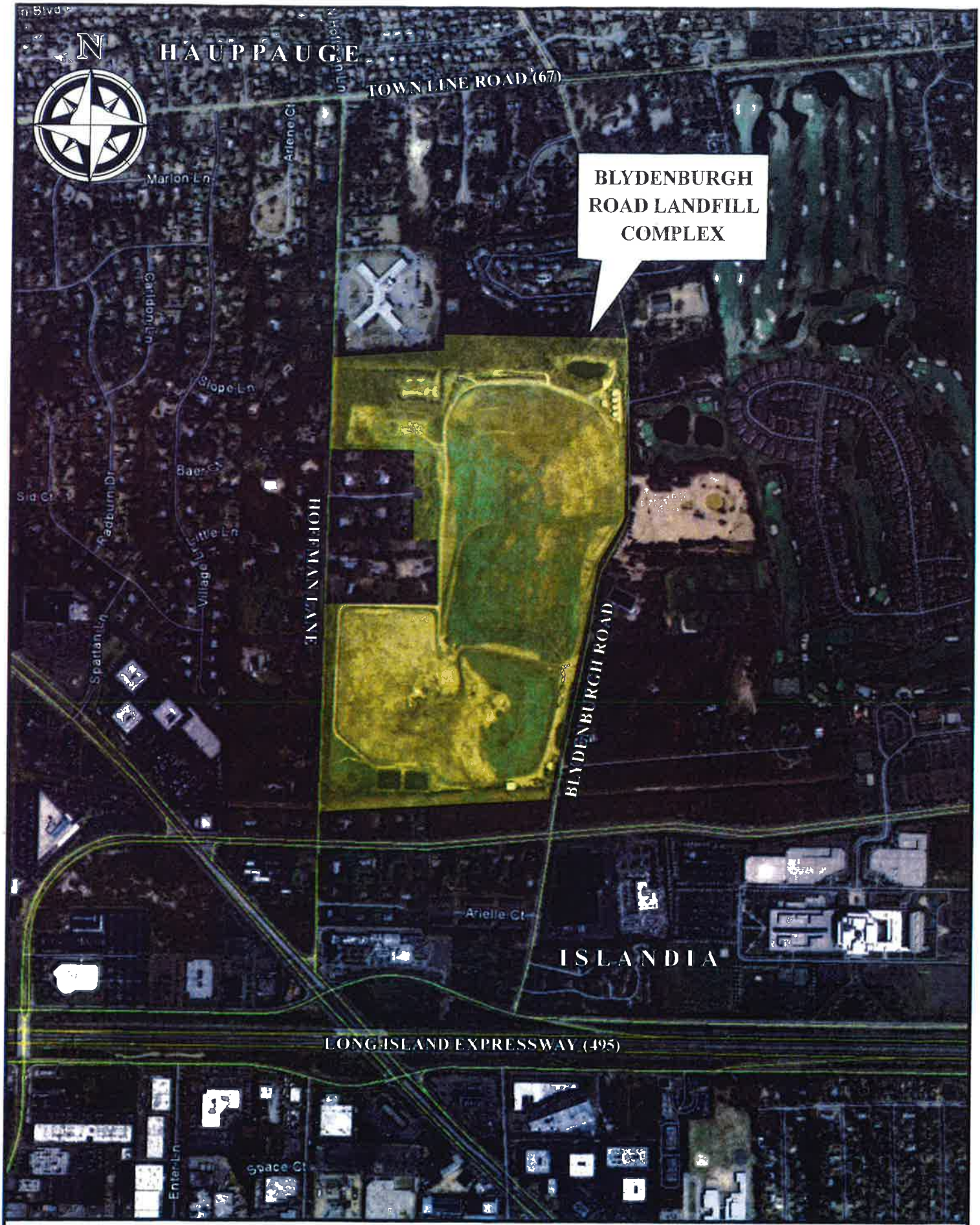
1.0 INTRODUCTION

This report presents the analytical results obtained in support of the Post Closure Groundwater Monitoring Program conducted during the Third Quarter of 2018 for the Blydenburgh Road Landfill Complex, on behalf of the Islip Resource Recovery Agency (IRRA). The landfill complex is located in Hauppauge, Town of Islip, New York (see **Figure 1-1**). D&B Engineers and Architects, P.C. (D&B) completed the Part 360 Baseline and emerging contaminants groundwater sampling event at the Blydenburgh Landfill Complex Site in accordance with the New York State Department of Environmental Conservation (NYSDEC) correspondence letter dated March 23, 2018. The sampling for the emerging contaminants including: Per-and Polyfluoroalkyl Substances (PFAS) and 1,4- dioxane, was in response to NYSDEC correspondence dated December 12, 2017 requesting the IRRA perform this additional sampling and analysis.

The purpose of the Post Closure Groundwater Monitoring Program is to monitor groundwater flow direction and quality subsequent to the capping and closure of the Municipal Solid Waste (MSW) Landfill and Ash Monofill and operation of the groundwater remediation system.

This Post Closure Groundwater Monitoring Program Report includes a discussion of the sample locations, sampling procedures, laboratory analyses, field and analytical results, data validation, groundwater level measurements and flow direction. In addition, the report includes a comparison of the analytical results of this August 2018 sampling event to applicable New York State groundwater quality standards and guidelines, the results obtained during the previous sampling event (February 2018), where applicable and the remediation criterion for total volatile organic compounds prescribed in the Record of Decision (ROD) issued by the USEPA – Region 2. Consistent with the ROD, the remediation program was designed to reduce total VOCs in groundwater to 50 micrograms per liter (ug/l).



D&B ENGINEERS AND ARCHITECTS, P.C.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

LOCATION MAP

Source: Googlearth.com
Scale: Not to Scale

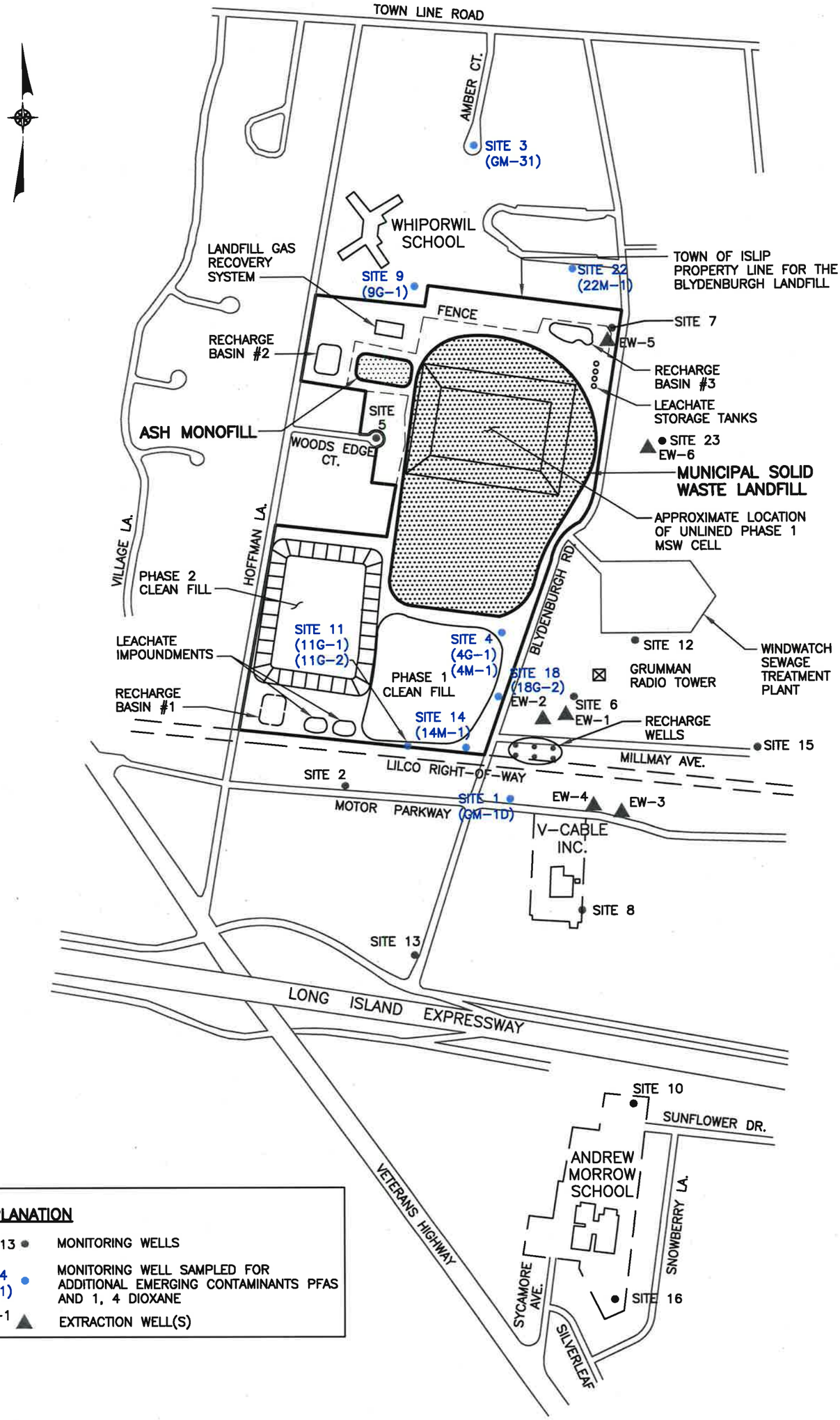
FIGURE 1-1

3763 - Location Map.indd (04/07/17 - 3:28 PM)

2.0 SAMPLING LOCATIONS

Nine groundwater monitoring wells (GM-3I, 4G-1, 4M-1, 9G-1, 11G-1, 11G-2, 14M-1, 18G-2 and 22M-1) and temporary extraction well (GM-1D) was sampled as part of the Third Quarter 2018 Post Closure Groundwater Monitoring Program. It should be noted, at the request of the NYSDEC, groundwater monitoring well GM-1D was converted to a temporary extraction well in October 2013.

Figure 2-1 illustrates groundwater monitoring well and extraction well site locations for the Post Closure Groundwater Monitoring Program. The monitoring wells and temporary extraction well that were sampled during the third quarter 2018 sampling event are denoted in blue on **Figure 2-1**. Well construction information for these wells are summarized on **Tables 2-1.** In addition, well construction information for the six recharge wells used as part of the water level monitoring network is summarized on **Table 2-2**. The locations of the recharge wells are also illustrated in **Figure 2-1**.



SOURCES: GERAGHTY & MILLER (1993), MALCOLM PIRNIE (1992)

D&B ENGINEERS AND ARCHITECTS, P.C.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

MONITORING WELL AND EXTRACTION WELL LOCATIONS

FIGURE 2-1

F:\3763-13B\dwg\3763-13B-FIG 2-1.dwg, FIGURE 2-1, 12/12/2018 2:54:42 PM, kalesius

Table 2-1

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS

Well Designation	Date Completed	Well Diameter (inches)	Screen Type	Total Depth (feet below land surface)	Screen Setting (feet below land surface)	Screen Setting (elevation relative to mean sea level)	Gravel Pack (feet below land surface)	Fine-Grained Sand Seal (feet below land surface)	Bentonite Slurry or Grout Seal (feet below land surface)	Height of Measuring Point (feet relative to land surface)	Elevation of Measuring Point (feet above mean sea level)
GM-1D [1]	8/14/86	4	SS	399	389-399	(-237)-(-247)	387-402	385-387(a)	300-385	-1.01	151.19
GM-3I	10/1/86	2	SS	177	167-177	(-106)-(-116)	162-177	160-162 (a)	20-160	-1.11	60.39
4G-1	4/21/89	4	PVC	164	154-164	12-2	140-170	135-140	0-135	1.27	168.47
4M-1	5/9/89	4	PVC	325	315-325	(-149)-(-159)	305-336(b)	None Used	0-290	1.25	168.95
9G-1	8/2/89	4	SS	68	58-68	33-23	52.6-68	47-52.5	0-47	-0.47	90.83
11G-1	10/5/89	4	SS	145	135-145	32-22	130-160	125-130	0-125	0.90	168.90
11G-2	--	4	SS	220.5	--	(-31)-(-51)	--	--	--	2.51	169.31
14M-1	1/18/90	4	SS	355	335-355	(-174)-(-194)	330-395	325-330	0-325	-0.12	161.98
18G-2	--	4	SS	197.5	--	(-9)-(-29)	--	--	--	2.18	168.78
22M-1	6/5/92	4	SS	222.5	215-225	(-154)-(-164)	211-225	209-211	0-209	-0.26	61.04

PVC Polyvinyl chloride
SS Stainless steel
-- Data not available

(a) Bentonite pellets used
(b) Estimated

[1] In October 2013, GM-1D was converted to a temporary extraction well.

(Source: G&M Draft Environmental Monitoring Plan, March 1993; ERM Sampling and Analysis Plan Phase 1 and 2 Clean Fill Landfills, November 1995)

Table 2-2

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
SUMMARY OF RECHARGE WELL CONSTRUCTION DETAILS

Well Designation	Date Completed	Aquifer (contact)	Well Diameter (inches)	Screen Setting						
				Screen Type	Screen Diameter (inches)	Total Depth (feet below land surface)	Screen Length (feet)	Screen Setting (feet below land surface)	Elevation of Bottom of Screen (relative to mean sea level)	Ground Surface Elevation (feet above mean sea level)
RW-1	August 1996	M-UG	8	SS	8	220	70	133-203	-45	157.17
RW-2	August 1996	M-UG	8	SS	8	216	65	135-200	-46	153.45
RW-3	August 1996	M-UG	8	SS	8	215	60	139-199	-39	160.63
RW-4	August 1996	M-UG	8	SS	8	225	75	133-208	-53	155.54
RW-5	July 1996	M-UG	8	SS	8	227	70	141-211	-48	163.47
RW-6	August 1996	M-UG	8	SS	8	215	65	133-198	-38	159.95

SS - Stainless steel
M-UG - Mid-Upper Glacial

(Source: D&B IRRA Groundwater Treatment Facility Operation and Maintenance Manual, 1996)

3.0 SAMPLING PROCEDURES AND ANALYSES

Sampling procedures for collection of the groundwater samples were implemented in accordance with the protocol described in the Sampling and Analysis Plan (SAP), as well as in accordance with NYSDEC standard protocols utilizing low-flow sampling methodologies specific to Per-and Polyfluoroalkyl Substances (PFAS)/Emerging Contaminants. Dedicated and disposable sampling equipment was used whenever possible in accordance with the SAP. Field decontamination was performed between sampling locations for non-disposable equipment. The following sections provide a brief discussion of the procedures used during groundwater level measurements, organic vapor and combustible gas monitoring, groundwater sampling and sample analysis.

3.1 Groundwater Level Measurement Procedures

Synoptic water level measurements were obtained from the monitoring wells to determine the volume of standing water in the well for purposes of purging, as well as for the determination of groundwater elevations and flow direction. Groundwater level measurements were obtained from a surveyed measuring point on each well using an electronic water level indicator to an accuracy of 0.01 foot. A discussion regarding groundwater level measurement results and groundwater flow direction is provided in Section 6.0.

In addition to the monitoring wells, water level measurements were also obtained in the six recharge wells by means of the existing bubbler systems to determine the operating water levels in each of the recharge wells. Water levels were measured while the effluent lift station pump inside the treatment facility was in operation. During operation of the pump, treated groundwater is discharged from the treatment facility into the six recharge wells. The operation of the pump was determined by listening for water flowing into each recharge well.

Measurement of the operating water level in the recharge well casing was obtained using a low flow of compressed air to minimize errors associated with friction (back pressure) resulting from turbulent air flow in the bubbler components. After a steady state reading was observed on

the bubbler pressure gauge, the air flow rate was temporarily increased to ensure that the bubbler tube was fully evacuated. The air flow was then throttled down to a slower rate to confirm the initial reading.

The gauge reading represents the back pressure on the bubbler tube or depth of submergence of the bubbler tube tip. The depth of submergence, measured in feet, is added to the bubbler tube tip elevation (reference elevation) to calculate the operating water level elevation within the well.

The difference between the operating water elevation within the well casing and the water table elevation of the aquifer surrounding the well represents the driving head or resistance of the well components and the aquifer to the recharge of water from the well casing to the aquifer. The magnitude of the driving head (or resistance) provides an indication of the hydraulic condition of each well. As an example, a partially clogged well (well screen, gravel pack, surrounding soil) would require a larger driving force at a given flow rate to realize the transfer of water from the well casing to the aquifer as compared to an unclogged well.

3.2 Sampling Procedures

Nine monitoring wells were purged and sampled using low flow sampling protocol. PFAS-free bladder pump equipped with dedicated high-density polyethylene (HDPE) tubing and disposable bladders were used to purge and collect the groundwater samples. As noted previously, GM-1D has been converted into a temporary extraction well and is purged using the dedicated submersible pump installed within the well. The groundwater sample for GM-1D was collected from the sample port adjacent to the well.

During purging, the groundwater from the monitoring wells were monitored and recorded for temperature, specific conductivity, pH, oxidation-reduction potential [ORP], turbidity and dissolved oxygen [DO]. These field parameters were measured at approximately five-minute intervals utilizing a Horbia water quality meter and flow through cell. After the field parameters had stabilized within the required ranges for each parameter, as specified for low flow purging

requirements, well purging was considered complete. The dedicated HDPE tubing was then disconnected from the Horbia flow through cell and groundwater samples were collected directly from the tubing into pre-cleaned, pre-preserved, laboratory-supplied bottles. The bottles were then placed into iced coolers and either picked up by the laboratory or hand-delivered by D&B personnel to the laboratory under Chain of Custody procedures.

Appropriate quality assurance/quality control (QA/QC) samples were collected in accordance with the SAP. QA/QC samples included: one field blank, one matrix spike and matrix spike duplicate (MS/MSD) set, one blind duplicate and five trip blanks. Daily trip blank samples accompanied all laboratory sample coolers.

Analytical results are provided in **Appendix A** and discussed in **Section 4.0**. Field observation logs for the Third Quarter 2018 sampling event are contained in **Appendices B** and the chain of custody forms are provided in **Appendix C**.

3.3 Organic Vapor and Combustible Gas Monitoring

Total organic vapor and combustible gas headspace measurements were collected in the monitoring wells that were sampled during this event. Organic vapors were measured using a photoionization detector (PID) and combustible gas was measured using a portable multi-gas meter. The organic vapor and combustible gas monitoring results represent headspace measurements collected during synoptic groundwater level measurements and are provided in **Section 4.0**.

3.4 Sample Analyses

Groundwater samples collected during the Third Quarter August 2018 sampling event from 9 monitoring wells and temporary extraction well GM-1D were analyzed for New York Codes, Rules and Regulations (NYCRR) Part 360 Baseline Parameters, plus Freon 21 and Freon 22, as well as Emerging Contaminants: Full PFAS Target Analyte List by modified Method 537 and 1,4-dioxane by Method 8270D SIM.

4.0 ANALYTICAL RESULTS

4.1 Field Parameters

Table 4-1 provides a summary of the final field parameter values and field data measured for the Third Quarter 2018 sampling event.

4.2 Monitoring Well Groundwater Results

The analytical results for groundwater samples collected from the monitoring wells, as well as temporary extraction well (GM-1D), compared to NYSDEC Class GA groundwater standards and guidelines and to previous results are provided in **Appendices A-1** through **A-4**. The analytical results for temporary extraction well (GM-1D) are discussed in **Section 4.3**.

4.2.1 Volatile Organic Compounds

The following discussion regarding groundwater quality is relative to total VOCs, which represents the remedial cleanup objective as stated in the Record of Decision (ROD). The analytical results for the VOC analyses are presented in **Appendix A-1**. The nine groundwater wells sampled exhibited total VOCs below the remediation criterion of 50 ug/l. Three wells (GM-3I, 9G-1 and 18G-2) had no detectable concentrations of VOCs. Wells 4G-1 and 22M-1 detected total VOCs of less than 5 ug/l. The remaining wells (4M-1, 11G-1, 11G-2 and 14M-1) exhibited total VOC concentrations of 19.6 ug/l, 11.1 ug/l, 35.1 ug/l and 37.7 ug/l, respectively.

For the wells sampled during this event that were also sampled during the First Quarter 2018 sampling events, 4 wells (11G-1, 14M-1, 18G-2 and 22M-1) exhibited consistent total VOC concentrations (variation of 10 ug/l or less) between the Third Quarter 2018 and the First Quarter 2018 sampling events.

Table 4-1

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
GROUNDWATER SAMPLING – THIRD QUARTER 2018
SUMMARY OF FINAL FIELD PARAMETER RESULTS AND FIELD DATA

Monitoring Well	pH (Standard Units)	Temperature (°C)	Specific Conductance (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/l)	Results of Total Organic Vapor Screening and Combustible Gas Reading		Purging Method	Groundwater Elevation 8/28/18 (feet above msl)
							PID (ppm)	% LEL		
GM-1D*	7.24	14.56	1.06	0	-31	8.62	0	0	Submersible pump	--
GM-3I	5.72	16.75	0.073	15	214	2.93	0	0	Bladder pump	40.37
4G-1	7.04	23.77	0.673	0	-54	1.94	0	0	Bladder pump	39.89
4M-1	7.75	24.80	3.44	0	-109	0.88	0	0	Bladder pump	39.54
9G-1	6.73	14.63	0.029	48	272	NA	0	0	Bladder pump	40.41
11G-1	8.04	22.08	2.00	8	-68	1.82	0	0	Bladder pump	39.68
11G-2	7.49	22.22	3.20	7	-87	1.35	0	0	Bladder pump	39.68
14M-1	7.48	19.13	2.29	10	-38	1.86	0	0	Bladder pump	39.32
18G-2	6.87	20.87	0.415	0	64	2.53	0	0	Bladder pump	39.88
22M-1	6.19	15.35	0.158	1.5	156	1.52	0	0	Bladder pump	39.85

Monitoring Well	Initial Depth to Water (in feet)	Depth of Well (in feet)	Well Diameter (inches)	Volume of Water Purged (liters)	Date of Sampling	Time of Samplings	Initials of Samplers	Weather Condition
GM-1D*	NA	399	4	NA	9/7/18	1:45 p.m.	KR	Partly cloudy
GM-3I	20.02	177	4	17.5	9/6/18	1:45 p.m.	KR	Partly cloudy
4G-1	128.58	164	4	15	9/4/18	2:45 p.m.	KR	Sunny
4M-1	129.44	325	4	21	9/4/18	11:00 a.m.	KR	Sunny
9G-1	50.52	69	4	35	9/7/18	12:00 p.m.	KR	Partly cloudy
11G-1	129.22	146.6	4	12	8/31/18	2:30 p.m.	KR	Partly cloudy
11G-2	129.63	220.5	4	45	8/31/18	12:00 p.m.	KR	Partly cloudy
14M-1	122.65	325	4	12	9/5/18	10:30 a.m.	KR	Partly cloudy
18G-2	128.90	197.5	4	7.5	9/6/18	10:30 a.m.	KR	Partly cloudy
22M-1	21.19	222.5	4	18	9/5/18	3:30 p.m.	KR	Partly cloudy

ppm: Parts Per Million
% LEL: Lower Explosive Limit
PID: Photoionization Detector
mV: Millivolt
mg/l: Milligrams Per Liter
ORP: Oxidation Reduction Potential

NA: Not available

°C: Degrees Celsius
mS/cm: Millisiemens Per Centimeter
NTU: Nephelometric Turbidity Unit
DO: Dissolved Oxygen
msl: Mean Sea Level
* GM-1D was converted into a temporary extraction well in October 2013. Groundwater sample collected under pumping conditions.
-- Groundwater elevation not calculated

Wells which exhibited a decrease of more than 10 ug/l in total VOCs between the First Quarter 2018 and Third Quarter 2018 sampling events are discussed below:

- Well 4M-1 showed a decrease in total VOCs from 33.7 ug/l in the First Quarter 2018 to 19.6 ug/l in the Third Quarter 2018.
- Well 11G-2 showed a decrease in total VOCs from 61.7 ug/l in the First Quarter 2018 to 35.1 ug/l in the Third Quarter 2018.

For wells 4G-1 and 9G-1 which are sampled on an annual basis, total VOC concentrations remained consisted between the Third Quarter 2017 and the Third Quarter 2018 sampling events.

As previously mentioned in **Section 3.4** at the request of the NYSDEC both chlorodifluoromethane (Freon 22) and dichlorofluoromethane (Freon 21) were added to the Part 360 Baseline VOC list. Freon 22 and/or Freon 21 were detected in three monitoring wells (4M-1, 11G-2 and 14M-1). Wells 11G-2 and 14M-1 slightly exceeded the groundwater standard (5 ug/l) for Freon 21. It should be noted, there is no groundwater standard for Freon 22.

4.2.2 Inorganic Parameters

Tabulated analytical results for inorganic parameters for the monitoring wells are provided in **Appendix A-2**. Discussion of the individual inorganic parameters that were detected at concentrations exceeding NYSDEC Class GA groundwater standards and guidance values are discussed below:

- Boron was detected above the groundwater standard (1,000 ug/l) in wells 4M-1 (1,580 ug/l), 11G-2 (1,600 ug/l) and 14M-1 (1,120 ug/l).
- Iron was detected above the groundwater standard (300 ug/l) in all of the wells. Iron concentration in the wells which showed an exceedance ranged from 356 ug/l in well 18G-2 to 9,450 ug/l in well 4G-1.
- Manganese was detected above the groundwater standard (300 ug/l) in 6 monitoring wells (4G-1, 4M-1, 11G-1, 11G-2, 14M-1 and 18G-2). Manganese concentrations in these wells ranged from 964 ug/l in well 11G-1 to 7,000 ug/l in well 18G-2.

- Magnesium was detected above the groundwater guidance value (35,000 ug/l) in monitoring wells 4M-1 (37,100 ug/l) and 14M-1 (56,200 ug/l).

- Nickel was detected above the groundwater standard (100 ug/l) in wells 4M-1 (128 ug/l), 11G-1 (104 ug/l) and 11G-2 (194 ug/l).

- Sodium was detected above the groundwater standard (20,000 ug/l) in 6 monitoring wells (4G-1, 4M-1, 11G-1, 11G-2, 14M-1 and 18G-2). Sodium concentrations which exceeded the groundwater standard ranged from 87,400 ug/l in well 18G-2 to 394,000 ug/l in well 11G-2.

4.2.3 Leachate Indicators

Tabulated analytical results for leachate indicators for the monitoring wells are provided in **Appendix A-3**. Discussion of the individual leachate indicators that were detected at concentrations exceeding NYSDEC Class GA groundwater standards and guidance values are discussed below:

- Ammonia nitrogen was detected above the groundwater standard (2 mg/l) in 5 monitoring wells (4G-1, 4M-1, 11G-1, 11G-2 and 14M-1). Ammonia concentrations in these wells ranged from 22.1 mg/l in well 4G-1 to 176 mg/l in well 11G-2.

- Bromide was detected above the groundwater guidance value (2 mg/l) in wells 4M-1 and 14M-1, at concentrations of 4.4 mg/l and 3.5 mg/l, respectively.

- Chloride was detected above the groundwater standard (250 mg/l) in wells 4M-1, 11G-1, 11G-2 and 14M-1, at concentrations of 493 mg/l, 498 mg/l, 479 mg/l and 432 mg/l, respectively.

- Phenols were detected above the groundwater standard (0.001 mg/l) in 5 monitoring wells (4G-1, 4M-1, 11G-1, 11G-2 and 14M-1). Phenol concentrations in these wells ranged from 0.0243 mg/l in well 4G-1 to 0.050 mg/l in well 11G-1.

4.2.4 Emerging Contaminants

Tabulated analytical results for emerging contaminants for the monitoring wells are provided in **Appendix A-4.**

4.3 Temporary Extraction Well Groundwater Results

The analytical results for the groundwater sample collected from temporary extraction well GM-1D compared to NYSDEC Class GA standards and guidelines and to previous results, are provided in **Appendix A-1** through **A-4**.

4.3.1 Volatile Organic Compounds

The results of the VOC analyses for temporary extraction well GM-1D are presented in **Appendix A-1** and are discussed below:

During the Third Quarter of 2018, total VOC concentrations in temporary extraction well GM-1D were reported at 44.3 ug/l. TVOCs in GM-1D remained fairly consistent in comparison with the July 2018 sampling result (37.2 ug/l). Temporary extraction well GM-1D contained the following VOCs exceeding their individual Class GA groundwater standards: 1,4-dichlorobenzene, cis-1,2-dichloroethylene and Freon 21.

4.3.2 Inorganic Parameters

The results of the inorganic parameters for temporary extraction well GM-1D are presented in **Appendix A-2**. Inorganic parameters which exceeded the NYSDEC Class GA groundwater standards/guidance values in temporary extraction well GM-1D, are discussed below:

- Iron was detected above the groundwater standard (300 ug/l) in GM-1D at a concentration of 368 ug/l.
- Magnesium was detected above the guidance value (35,000 ug/l) in GM-1D at a concentration of 63,800 ug/l.
- Sodium was detected above the groundwater standard (20,000 ug/l) in GM-1D at a concentration of 168,000 ug/l.

4.3.3 Leachate Indicators

The results of the leachate indicators for temporary extraction well GM-1D are presented in **Appendix A-3**. Leachate indicators which exceeded the NYSDEC Class GA groundwater standards/guidance values in temporary extraction well GM-1D, are discussed below:

- Ammonia was detected above the groundwater standard (2 mg/l) in GM-1D at a concentration of 5.2 mg/l.

4.3.4 Emerging Contaminants

Tabulated analytical results for emerging contaminants for temporary extracting well GM-1D are provided in Appendix A-4.

4.4 Organic Vapor and Combustible Gas Monitoring

The results of the organic vapor and combustible gas monitoring in the headspace of the monitoring wells that were sampled are presented in **Table 4-1 (refer to Section 4.2)**. The results show that organic vapors were not detected in the headspace of the nine groundwater monitoring wells sampled. Combustible gas readings for the nine groundwater monitoring wells sampled were 0% of the Lower Exposure Limit (LEL).

5.0 DATA VALIDATION

Ten (10) groundwater samples (9 monitoring wells and one temporary extraction well), one blind duplicate, one matrix spike/matrix spike duplicate (MS/MSD) set, one field blank and five trip blanks were collected as part of the Third Quarter 2018 Post-Closure Groundwater Monitoring Program sampling event at the Blydenburgh Road Landfill Complex. All samples were analyzed for Baseline NYCRR Part 360 VOCs, Freon 21 and Freon 22, inorganic parameters, leachate indicators, Per-and Polyfluoroalkyl Substances (PFAS) and 1,4-dioxane. Sample analysis was performed in accordance with SW-846 methods, as specified in the Part 360 regulations. The laboratory is approved under the New York State Department of Health Environment Laboratory Approval Program (ELAP) for the analysis performed.

The data package (7063554) submitted by the analytical laboratory, Pace Analytical, Inc., Melville, NY, Minneapolis, MN, or Test America, Sacramento, CA was validated in accordance with NYSDEC quality assurance/quality control (QA/QC) requirements. In accordance with the contract requirements and the approved Sampling and Analysis Plan, 20 percent of the environmental samples and all QA/QC samples (calibrations, blanks, spikes, etc.) were reviewed, yielding a "20% validation". While all of the samples were reviewed for transcription errors, calculations were verified for two environmental samples (11G-2 and GM-3I).

A duplicate was collected, Blind Duplicate-B was a duplicate of sample 14M-1. Matrix spike and matrix spike duplicate set was collected at well GM-1D.

The following requirements were outside limits:

- The holding time was outside required limits for 1,4-dioxane in samples 14M-1_DL, BLIND DUP-B_DL 11G-1, 4G-1, 9G-1, GM-3I, FILED BLANK and 18G-2 and were qualified as estimated (J/UJ).
- The PFAS 6:2 FTS was detected in the method blank. Samples 11G-1 and 11G-2 were reanalyzed outside the holding time for 6:2 FTS, the samples reanalyze were reported and 6:2 FTS was qualified as estimated (J).
- Acetone was detected in the two of the TRIP BLANKs and was qualified as non-detect (UB) in samples GM-3I, 4M-1and 4G-1.

- Perfluorohexanesulfonic acid (PFHxS) was detected in the method and FIELD BLANK associated with all samples. Perfluorohexanesulfonic acid (PFHxS) was qualified as non-detect (UB) in samples GM-3I and 9G-1.
- The percent recovery (%R) was above the QC limit in the matrix spike (MS), MS Duplicate (MSD) and laboratory control sample (LCS) for 1,4-dioxone and was qualified as estimated (J) in samples 22M-1, 11G-2, 11G-1, BLIND DUPE-B, GM-1D, 18G-2, 14M-1, 4M-1 and 4G-1. 1,4-Dioxonae was reanalyzed in samples GM-1D and 18G-2 due to %R and were outside of holding times, the original analyses were reported.
- The 1,4-dioxone surrogate was above the QC limit in the reanalysis of sample BLIND DUP-B. 1,4-Dioxane was qualified as estimated (J) in the reanalysis for sample BLIND DUP-B.
- Based on surrogate and internal area results the reanalysis for samples 11G-1 and 11G-2 were reported. Based on surrogate and internal area results all PFAS were qualified as estimated (J/UJ) in samples 11G-2 (reanalysis), 4M-1, 14M-1 and BLIND DUP-B and the following PFAS were qualified as estimated (J): perfluorooctane sulfonamide, perfluorodecanoic acid and 2-(n-methyl perfluorooctanesulfonamido) acetic acid in sample 4G-1 and 1h,1h,2h,2h-perfluorooctane sulfonate (6:2), n-ethyl-n-((heptadecafluorooctyl)sulphonyl) glycine, perfluorobutanesulfonic acid, perfluorobutyric acid, perfluorodecanoic acid, perfluoroheptane sulfonate, perfluoroheptanoic acid, perfluorohexanesulfonic acid, perfluorohexanoic acid, perfluorononanoic acid, perfluorooctanoic acid, perfluorooctane sulfonic acid and perfluoropentanoic acid in sample 11G-1 (reanalysis),
- 1,4-Dioxone exceeded the calibration range in the original analysis for samples 11G-2, 4M-1, 14M-1 and BLIND DUP-B. Samples 14M-1 and BLIND DUP-B were reanalyzed at a secondary dilution and reported as estimated (DJ). Samples 11G-2 and 4M-1 were not reanalyzed based on insufficient sample amount, therefore the associated 1,4-dioxane samples were qualified as estimated value exceeding calibration range (EJ).
- The following metals were detected in the field blank, initial blank and/or preparation blank and were qualified as non-detect (UB): boron in samples GM-3I and 9G-1; cadmium, zinc and mercury in all samples; copper in samples 4M-1, 9G-1 and 18G-2; manganese in sample 22M-1; and vanadium in samples 14M-1, BLIND DUPE-B, 22M-1, 18G-2 and GM-1D.
- The %R was above the QC limit in the spike for aluminum. Aluminum was detection above the reporting limit and qualified as estimated (J) in sample 22M-1.
- The following were analyzed outside of holding times: hexavalent chromium associated with samples 4M-1, 18G-2, 14M-1, BLIND DUP-B, FIELD BLANK, and GM-3I and was qualified as an estimated detection limit (UJ) in associated samples.

- The following chemistry parameters were detected in the FIELD BLANK and/or method blank. These chemistry parameters were qualified as non-detect (UB): ammonia in samples 9G-1; sulfate in samples 11G-1, 11G-2, 9G-1 and 4M-1; TOC in samples 22M-1, GM-3I and 9G-1; and phenolics in samples GM-3I, 22M-1, 9G-1, GM-1D and 18G-2.
- The %Rs were below the QC limit in the MS for alkalinity associated with samples 14M-1, BLIND DUPE-B, 22M-1, 18G-2, GM-3I, FIELD BLANK, 9G-1 and GM-1D; hexavalent chromium associated with samples 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1; COD associated with samples 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1; TKN associated with all samples; nitrate associated with samples 4M-1 and 4G-1; nitrite associated with samples 4M-1, 4G-1 and 18G-2; phenolics associated with samples FIELD BLANK, GM-3I, 22M-1, 9G-1, GM-1D, 18G-2, 4G-1 and 11G-2 and TOC associated with samples 11G-2, 11G-1, 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1 and were qualified as estimated (J/UJ) in associated samples.
- The %R was above the QC limit in the MS for alkalinity associated with samples 4M-1 and 4G-1 and qualified as estimated (J).
- The relative percent differences (RPDs) were above the QC limits in the duplicate for TKN associated with samples 11G-2 and 11G-1 and nitrate associated with samples 4M-1 and 4G-1 and were qualified as estimated (J/UJ) in associated samples.

No other issues were found with the sample results and all results are deemed valid and usable for environmental assessment purposes as qualified above. Complete Data Validation Forms for the Third Quarter 2018 sampling event are provided in Appendix D.

6.0 GROUNDWATER LEVEL MEASUREMENTS AND FLOW DIRECTION

Groundwater level measurements were obtained by D&B on August 28, 2018, from 54 groundwater monitoring wells. The groundwater level measurements from the monitoring wells are presented in **Table 6-1**. In addition, seventeen water level measurements were collected by D&B on August 28, 2018, as part of the Cleanfill Landfill Groundwater Monitoring Program; these measurements are also included in **Table 6-1**.

6.1 Water Table Contours

The water table elevation contour map prepared from measurements obtained on August 28, 2018, is presented in **Figure 6-1**. The water table contour map was generated from wells screened at or near the water table in the Upper Glacial aquifer.

Based on a review of the water level elevation data collected from the shallow wells, the direction of the horizontal component of groundwater flow in the Upper Glacial aquifer is predominantly south to southeast. A localized mounding of the water table near well 7G-1 is likely caused by recharge from the northeast storm water recharge basin. Mounding of the water table is also occurring around the 6 recharge wells. The extent of the mounding and its effects on monitoring wells near the recharge wells are not well defined (water level readings in the active recharge wells are not representative of the water table elevation) and, therefore, is not depicted on **Figure 6-1**.

Lower groundwater elevations were noted downgradient of the Phase 2 Cleanfill Landfill in wells MW-D12, 19GR-1, 26G-1 and 27G-1, as well as, 12G-1 near the Windwatch Sewage Treatment Plant. Water levels from the above wells were not used in preparation of the water table contour map. The low groundwater elevations noted downgradient of the Phase 2 Cleanfill Landfill may be attributed to the low rate of recharge to the water table, upgradient of these locations. The reduction in groundwater recharge is primarily due to the landfill liners (primary and secondary liners) and the leachate collection and storage (impoundment) systems associated

Table 6-1

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
AUGUST 28, 2018

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
GM-1S	151.17	111.62	39.55
GM-1I	151.19	111.76	39.43
GM-1D	151.19	Pump installed in well	---
GM-2S	160.08	120.46	39.62
GM-2I	160.65	121.29	39.36
GM-2D	160.71	121.61	39.10
GM-3S	60.51	20.00	40.51
GM-3I	60.39	20.02	40.37
GM-3D	60.03	20.65	39.38
4G-1	168.47	128.58	39.84
4G-2	170.03[1]	130.29	39.74
4M-1	168.95	129.44	39.54
4M-2	169.53	131.83	37.70
5G-1	173.58	133.44	40.14
6G-1	180.17	140.75	39.42
6G-2	178.65	139.05	39.60
6G-3	179.83	140.11	39.72
6M-1	178.40	139.44	38.96
7G-1	69.33	27.19	42.14
7M-1	67.56	27.65	39.91
8G-1	133.97	94.99	38.98
8M-1	135.21	96.40	38.81
8M-2	135.11	96.31	38.80
9G-1	90.83	50.42	40.41
9M-1	90.59	50.35	40.24
10G-1	88.52	50.20	38.32
10M-1	88.84	50.49	38.35
11G-1	168.90	129.22	39.68
11G-2	169.31	129.63	39.68
11M-1	168.32	128.58	39.74

Table 6-1 (continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
AUGUST 28, 2018

Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
12G-1	173.61	136.07	37.54
12M-1	177.66	138.06	39.60
13G-1	110.49[(1)]	71.53	38.96
13M-1	109.92[(1)]	71.06	38.86
14G-1A	161.73	122.04	39.69
14G-1	162.82	123.15	39.67
14G-2	162.36	122.68	39.68
14M-1	161.98	122.65	39.33
15G-1	183.05	143.61	39.44
15M-1	183.47	144.08	39.39
16G-1	76.92	39.44	37.52
16M-1	76.90	39.40	37.50
18G-1	168.62	128.78	39.84
18G-2	168.78	128.90	39.88
22M-1	61.04	21.19	39.85
23M-1	76.81	37.06	39.75
MW-56	97.84	57.05	40.79
MW-57	84.05	43.20	40.85
MW-58	76.68	Dry	---
MW-59	87.58	46.71	40.87
MW-60	95.44	55.61	39.83
MW-61	107.01	67.21	39.80
MW-62	114.23	Dry	---
MW-63	126.26	86.36	39.90
MW-D12	162.39	123.22	39.17
19GR-1*	165.42	126.99	38.43
20G-1*	165.31	125.61	39.70
21G-1*	172.83	133.16	39.67
24G-1*	176.91	136.72	40.19
24G-2*	176.44	136.34	40.10
24G-3*	176.13	136.04	40.09

Table 6-1 (continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
MONITORING WELL GROUNDWATER ELEVATION MEASUREMENTS
AUGUST 28, 2018

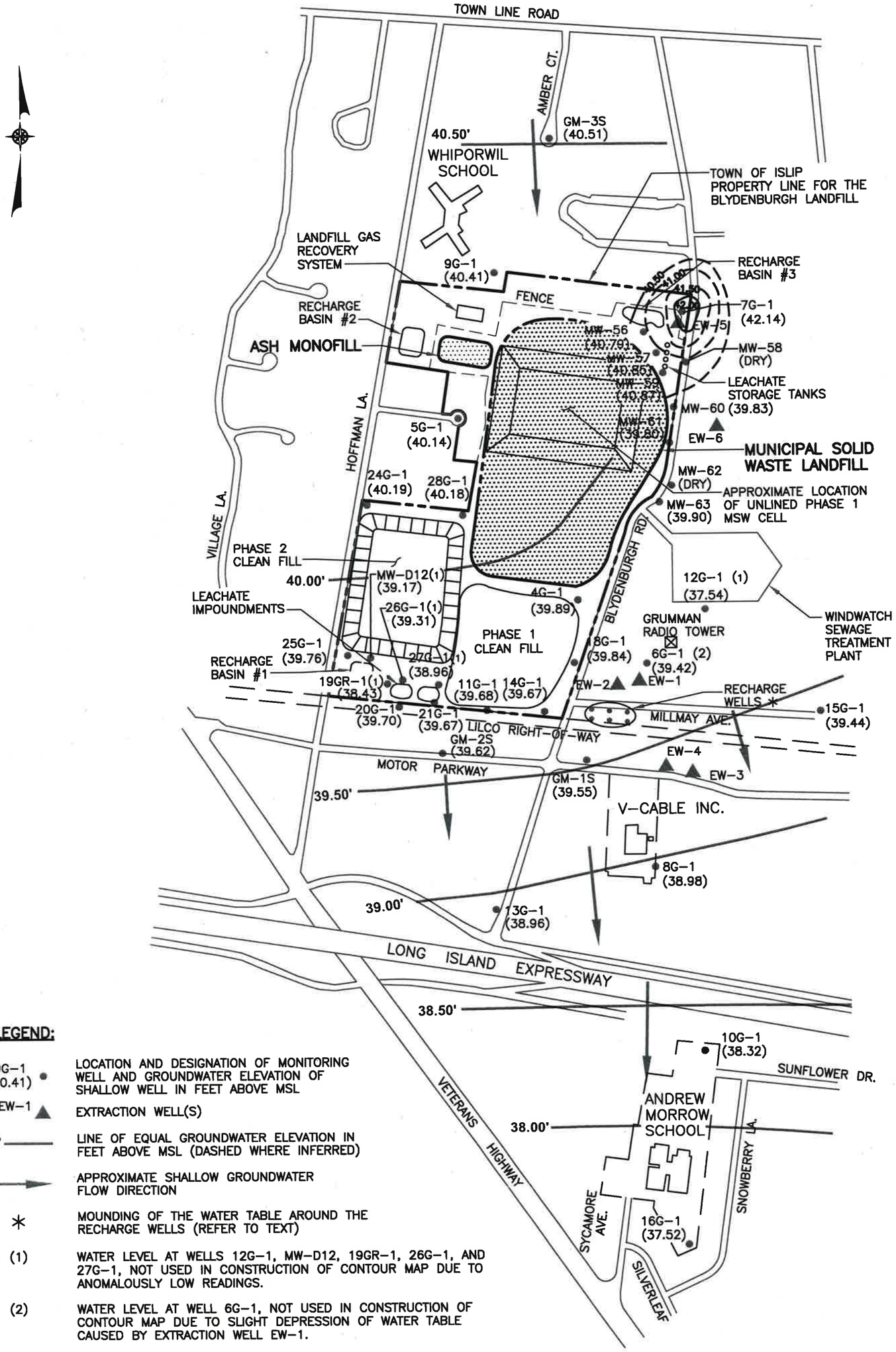
Well Designation	Measuring Point Elevation (feet above msl)	Depth to Water from Measuring Point (feet)	Groundwater Elevation (feet above msl)
25G-1*	159.91[(2)]	120.15	39.76
25G-2*	158.71	118.86	39.85
26G-1*	165.10	125.79	39.31
26G-2*	165.57	125.95	39.62
26G-3*	165.43	125.65	39.78
27G-1*	166.58	127.62	38.96
27G-2*	166.52	126.84	39.68
27G-3*	166.64	126.95	39.69
28G-1*	201.99	161.81	40.18
28G-2*	201.31	161.15	40.16
28G-3*	200.16	160.02	40.14

Notes:

---: Groundwater elevation not calculated.
* Additional water level measurements collected by D&B as part of the Cleanfill Landfill Groundwater Monitoring Program.

(1) New Survey (Wells 4G-2, 13G-1 and 13M-1) obtained by Municipal Land Survey.

(2) New survey (Well 25G-1) obtained by Roux Associates.



LEGEND:

- 9G-1 (40.41) — LOCATION AND DESIGNATION OF MONITORING WELL AND GROUNDWATER ELEVATION OF SHALLOW WELL IN FEET ABOVE MSL
- EW-1 — EXTRACTION WELL(S)
- 40.00' — LINE OF EQUAL GROUNDWATER ELEVATION IN FEET ABOVE MSL (DASHED WHERE INFERRED)
- APPROXIMATE SHALLOW GROUNDWATER FLOW DIRECTION
- * — MOUNDING OF THE WATER TABLE AROUND THE RECHARGE WELLS (REFER TO TEXT)
- (1) — WATER LEVEL AT WELLS 12G-1, MW-D12, 19GR-1, 26G-1, AND 27G-1, NOT USED IN CONSTRUCTION OF CONTOUR MAP DUE TO ANOMALOUSLY LOW READINGS.
- (2) — WATER LEVEL AT WELL 6G-1, NOT USED IN CONSTRUCTION OF CONTOUR MAP DUE TO SLIGHT DEPRESSION OF WATER TABLE CAUSED BY EXTRACTION WELL EW-1.

NOTE: CONTOUR INTERVAL EQUALS 0.50 FT.

0 1000 FEET
SCALE

SOURCES: GERAGHTY & MILLER (1993), MALCOLM PIRNIE (1992)

D&B ENGINEERS AND ARCHITECTS, P.C.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

WATER TABLE CONTOUR MAP
AUGUST 28, 2018

FIGURE 6-1

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with the Cleanfill Landfill Phase 1 and 2. The direction of groundwater flow determined for this monitoring event for the Upper Glacial aquifer is consistent with flow conditions previously mapped.

6.2 Potentiometric Surface Contours

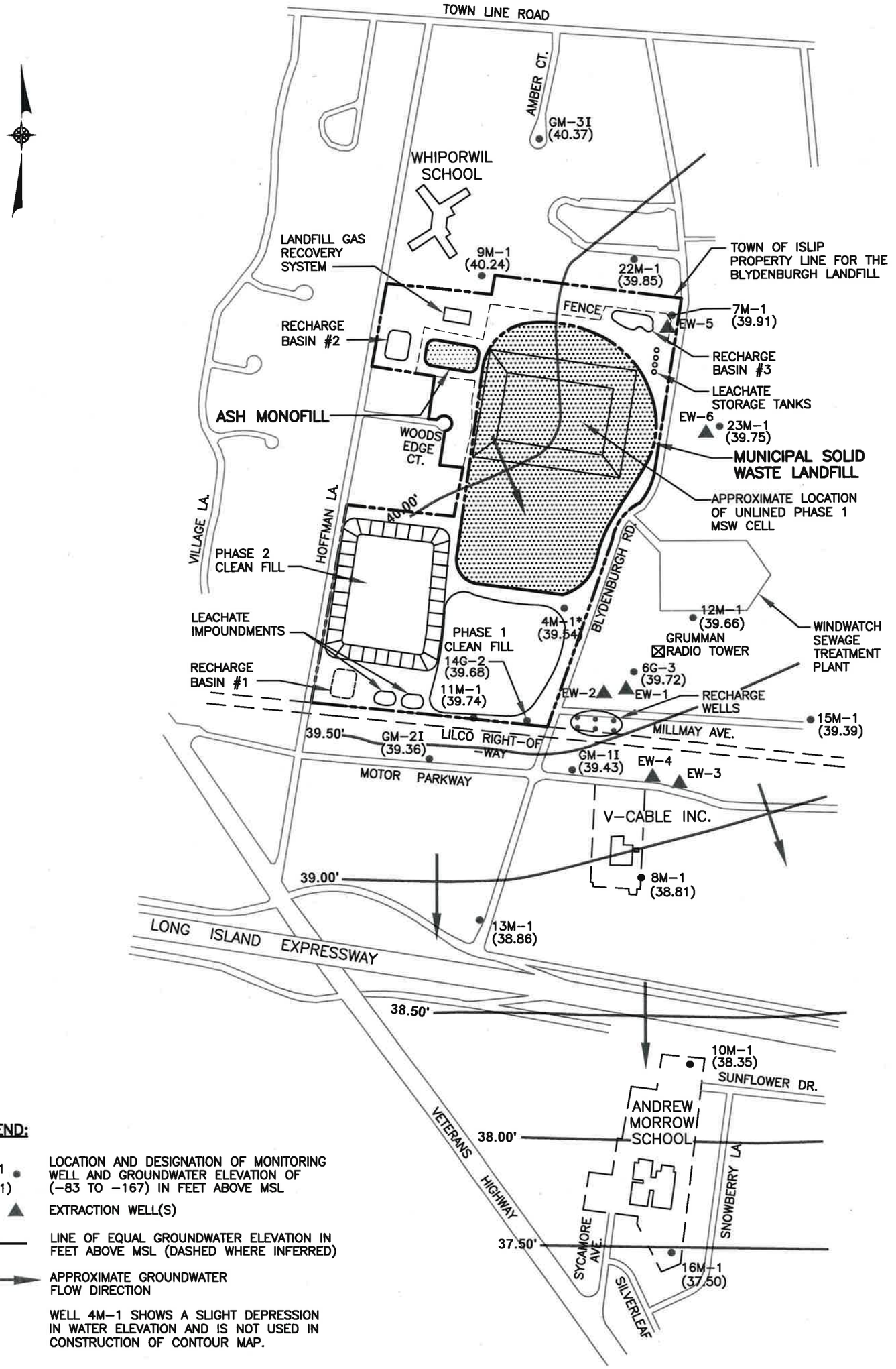
The potentiometric surface elevation contour map prepared from measurements obtained on August 28, 2018, is presented in **Figure 6-2**. The potentiometric surface contour map for the zone from 83 to 167 feet below mean sea level (msl) represents head conditions in wells screened near the deep Upper Glacial/shallow Magothy contact.

The water level elevation data collected from wells screened near the deep Upper Glacial/shallow Magothy aquifer contact indicate that the direction of horizontal component of groundwater flow is predominantly toward the south to southeast. The direction of groundwater flow determined for this monitoring event near the deep Upper Glacial/shallow Magothy aquifer contact is consistent with flow conditions previously mapped.

6.3 Recharge Well Water Levels

The recharge well water level elevation measurements obtained on August 30, 2018 are presented in **Table 6-2**. Historical water level elevation measurements from the recharge wells are presented in **Table 6-3**.

Water level elevation data collected from the 6 recharge wells ranged from 53.08 feet above mean sea level at well RW-5 to 134.16 feet above mean sea level at well RW-6. The water level readings in the recharge wells, less the water table elevation, represents the driving head required for the flow rate to that recharge well to pass from the well casing, through the well screen and gravel pack, and into the aquifer. The recharge wells are not pressurized and operate by gravity under atmospheric conditions. It should be noted that the water level elevation readings are, for all practical purposes, instantaneous readings which must be viewed in terms of the status of the pumping cycle at the time of the reading, as well as the manual throttling of wellhead valves and the actual distribution of flow to each of the 6 recharge wells.



LEGEND:

- 8M-1 (38.81) — LOCATION AND DESIGNATION OF MONITORING WELL AND GROUNDWATER ELEVATION OF (-83 TO -167) IN FEET ABOVE MSL
- EW-1 — EXTRACTION WELL(S)
- 40.00' — LINE OF EQUAL GROUNDWATER ELEVATION IN FEET ABOVE MSL (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- * — WELL 4M-1 SHOWS A SLIGHT DEPRESSION IN WATER ELEVATION AND IS NOT USED IN CONSTRUCTION OF CONTOUR MAP.

NOTE: CONTOUR INTERVAL EQUALS 0.50 FT.

SOURCES: GERAGHTY & MILLER (1993), MALCOLM PIRNIE (1992)

0 — 1000 FEET
SCALE

D&B ENGINEERS AND ARCHITECTS, P.C.

ISLIP RESOURCE RECOVERY AGENCY
BLYDENBURGH ROAD LANDFILL COMPLEX

POTENTIOMETRIC SURFACE CONTOUR MAP
(-83 TO -167 FEET MSL)
AUGUST 28, 2018

FIGURE 6-2

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Table 6-2

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
RECHARGE WELL WATER LEVEL ELEVATION MEASUREMENTS
AUGUST 30, 2018

Well Designation	Air Line Reference Elevation (feet above mean sea level)	Air Gauge Reading (feet)	Water Level Elevation (feet above mean sea level)
Recharge Well 1	26.42	70	96.42
Recharge Well 2	22.88	70	92.88
Recharge Well 3	30.39	45	75.39
Recharge Well 4	24.86	32	56.86
Recharge Well 5	33.08	20	53.08
Recharge Well 6	29.16	105	134.16

Table 6-3

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORICAL RECHARGE WELL WATER LEVEL ELEVATION MEASUREMENTS

Well Designation	Water Level Elevation (feet above mean sea level)					
	Third Quarter August 1999	Fourth Quarter November 1999	First Quarter February 2000[1]	Second Quarter May 2000[1]	Third Quarter August 2000[1]	Fourth Quarter November 2000[1]
Recharge Well 1	86.42	49.42	72.42	56.42	46.42	42.42
Recharge Well 2	87.88	94.88	68.88	94.88	97.88	74.88
Recharge Well 3	70.39	44.39	68.39	75.39	46.39	42.39
Recharge Well 4	74.86	75.86	60.86	62.86	54.86	38.86
Recharge Well 5	55.08	49.08	57.08	43.08	51.08	45.08
Recharge Well 6	67.16	49.16	57.16	43.16	45.16	47.16

Well Designation	Water Level Elevation (feet above mean sea level)					
	First Quarter February 2001[1]	Second Quarter May 2001[1]	Third Quarter August 2001[1]	Fourth Quarter November 2001[1]	First Quarter February 2002[1]	Second Quarter May 2002[1]
Recharge Well 1	40.42	54.42	54.42	56.42	68.42	70.42
Recharge Well 2	94.88	106.88	98.88	88.88	94.88	94.88
Recharge Well 3	48.39	92.39	95.39	88.39	54.39	89.39
Recharge Well 4	68.86	74.86	72.86	56.86	52.86	68.86
Recharge Well 5	54.08	53.08	53.08	57.08	53.08	45.08
Recharge Well 6	64.16	63.16	63.16	65.16	53.16	64.16

Well Designation	Water Level Elevation (feet above mean sea level)					
	Third Quarter August 2002[1]	Fourth Quarter November 2002[1]	First Quarter February 2003[1]	Second Quarter May 2003[1]	Third Quarter August 2003[1]	Fourth Quarter November 2003[1]
Recharge Well 1	80.42	75.42	76.42	80.42	76.42	81.42
Recharge Well 2	87.88	107.88	98.88	106.88	100.88	106.88
Recharge Well 3	72.39	92.39	100.39	98.39	112.39	70.39
Recharge Well 4	66.86	73.86	56.86	64.86	79.86	77.86
Recharge Well 5	55.08	55.08	53.08	55.08	58.08	48.08
Recharge Well 6	61.16	59.16	63.16	51.16	75.16	54.16

[1]A revised protocol was implemented for measuring water level elevations in the six recharge wells (refer to Section 3). This protocol records water levels when the effluent pump station is operating.

Table 6-3 (continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORICAL RECHARGE WELL WATER LEVEL ELEVATION MEASUREMENTS

	Water Level Elevation (feet above mean sea level)						
Well Designation	**First Quarter February 2004[1]**	**Second Quarter May 2004[1]**	**Third Quarter August 2004[1]**	**First Quarter February 2005[1]**	**Second Quarter May 2005[1]**	**Third Quarter August 2005[1]**	**Fourth Quarter November 2005[1]**
Recharge Well 1	84.42	82.42	71.42	76.42	88.42	68.42	70.42
Recharge Well 2	101.88	102.88	103.88	104.88	114.88	122.48	57.88
Recharge Well 3	112.39	122.39	70.39	98.39	95.39	74.39	94.39
Recharge Well 4	74.86	81.86	76.86	75.86	65.86	75.86	78.86
Recharge Well 5	48.08	57.08	46.08	61.08	53.08	48.08	49.08
Recharge Well 6	77.16	82.16	71.16	77.16	64.16	69.16	67.16

	Water Level Elevation (feet above mean sea level)						
Well Designation	**First Quarter February 2006[1]**	**Third Quarter July 2006[1]**	**First Quarter February 2007[1]**	**Third Quarter July 2007[1]**	**First Quarter February 2008[1]**	**Third Quarter August 2008[1]**	**First Quarter February 2009[1]**
Recharge Well 1	74.42	68.42	84.42	84.42	96.42	116.42	84.42
Recharge Well 2	125.88	112.88	120.88	122.88	137.88	77.88	102.88
Recharge Well 3	54.39	74.39	80.39	90.39	98.39	60.39	50.39
Recharge Well 4	74.86	64.86	58.86	54.86	74.86	94.86	82.86
Recharge Well 5	48.08	53.08	51.08	53.08	51.08	50.08	49.08
Recharge Well 6	50.16	79.16	95.16	104.16	97.16	169.16	119.16

	Water Level Elevation (feet above mean sea level)						
Well Designation	**Third Quarter August 2009[1]**	**First Quarter February 2010[1]**	**Third Quarter August 2010[1]**	**First Quarter February 2011[1]**	**Third Quarter August 2011[1]**	**First Quarter February 2012[1]**	**Third Quarter August 2012[1]**
Recharge Well 1	75.42	84.42	86.42	96.42	78.42	82.42	91.42
Recharge Well 2	132.88	94.88	108.88	114.88	74.88	90.88	99.88
Recharge Well 3	49.39	60.39	60.39	53.39	65.39	60.39	65.39
Recharge Well 4	109.86	76.86	60.86	82.86	64.86	70.86	66.86
Recharge Well 5	51.08	53.08	71.08	51.08	61.08	56.08	60.08
Recharge Well 6	139.16	151.16	129.16	129.16	109.16	135.16	151.16

[1] A revised protocol was implemented for measuring water level elevations in the six recharge wells (refer to Section 3). This protocol records water levels when the effluent pump station is operating.

Table 6-3 (continued)

BLYDENBURGH ROAD LANDFILL COMPLEX
POST CLOSURE GROUNDWATER MONITORING PROGRAM
HISTORICAL RECHARGE WELL WATER LEVEL ELEVATION MEASUREMENTS

	Water Level Elevation (feet above mean sea level)						
Well Designation	**First Quarter February 2013[1]**	**Third Quarter August 2013[1]**	**First Quarter February 2014[1]**	**Third Quarter August/September 2014[1]**	**First Quarter March 2015[1]**	**Third Quarter August 2015[1]**	**First Quarter February 2016[1]**
Recharge Well 1	86.42	80.42	96.42	81.42	96.42	91.42	96.42
Recharge Well 2	102.88	96.88	114.88	137.88	122.88	127.88	130.88
Recharge Well 3	78.39	62.39	70.39	60.39	50.39	60.39	102.39
Recharge Well 4	72.86	78.86	52.86	91.86	44.86	74.86	46.86
Recharge Well 5	57.08	47.08	61.08	55.08	58.08	55.08	53.08
Recharge Well 6	123.16	95.16	81.16	141.16	103.16	167.16	147.16

	Water Level Elevation (feet above mean sea level)						
Well Designation	**Third Quarter August 2016[1]**	**First Quarter February 2017[1]**	**Third Quarter August 2017[1]**	**First Quarter February 2018[1]**	**Third Quarter August 2018[1**		
Recharge Well 1	71.42	78.42	74.42	74.42	96.42		
Recharge Well 2	102.88	102.88	142.88	107.88	92.88		
Recharge Well 3	65.39	43.39	62.39	50.39	75.39		
Recharge Well 4	76.86	46.86	52.86	44.86	56.86		
Recharge Well 5	65.08	53.08	51.08	48.08	53.08		
Recharge Well 6	129.16	169.16	129.16	149.16	134.16		

[1]A revised protocol was implemented for measuring water level elevations in the six recharge wells (refer to Section 3). This protocol records water levels when the effluent pump station is operating.

7.0 FINDINGS AND RECOMMENDATIONS

7.1 FINDINGS

Groundwater Flow

Based on groundwater level measurements obtained during the Third Quarter 2018 sampling event and the water table and potentiometric surface elevation contour maps prepared for the shallow and deep zones at the site, groundwater flow is predominantly in a south to southeast direction. This groundwater flow direction is relatively consistent with previous elevation measurements obtained and maps prepared for the site.

Groundwater Treatment Facility Recharge Well Water Levels

The water level measurements for recharge wells, RW-3, RW-4, and RW-5 suggest that these wells continue to be effective and not in need of rehabilitation or redevelopment. However, the water level measurements in recharge wells RW-1, RW-2 and RW-6 appear to indicate some loss of efficiency. Redevelopment of the recharge wells is not necessary at this time but may be required in the future.

Monitoring Wells

Based on a comparison of the Third Quarter 2018 results to the First Quarter 2018 results, as well as to the Third Quarter 2017 results (where applicable), groundwater quality downgradient and in the vicinity of the Blydenburgh Road Landfill Complex remained consistent (variation in total VOCs of 10 ug/l or less) in 7 of the 9 wells sampled. Two monitoring wells (4M-1 and 11G-2) exhibited a decrease of more than 10 ug/l in total VOCs. None of the 9 monitoring wells sampled exhibited TVOCs above the groundwater remediation criterion of 50 ug/l established by the ROD for TVOCs.

All 9 monitoring wells sampled exhibited one or more of the following inorganic parameters: boron, iron, manganese, magnesium, nickel and sodium at concentrations exceeding their respective groundwater standards or guidance values.

Five monitoring wells (4G-1, 4M-1, 11G-1, 11G-2 and 14M-1) exhibited of one or more of the following leachate parameters: ammonia, bromide, chloride and phenols at concentrations exceeding their respective groundwater standards or guidance values.

Temporary Extraction Well

During the third quarter monitoring event of 2018, TVOCs in temporary extraction well (GM-1D) were reported at 44.3 ug/l. TVOCs in GM-1D remained consistent in comparison to the previous sampling event in July 2018 (37.2 ug/l).

Temporary extraction well GM-1D, exhibited concentrations of iron and sodium above their respective groundwater standards, as well as a concentration of magnesium above the groundwater guidance value.

Temporary extraction well GM-1D, exhibited a concentration of ammonia above the groundwater standard.

7.2 RECOMMENDATIONS

Based on the findings of the Third Quarter 2018 Post Closure Groundwater Monitoring event, the following recommendations are presented:

- The monitoring frequency for the Post Closure Groundwater Monitoring Program should remain on a semiannual basis.
- The selected set of monitoring wells, extraction wells, as well as temporary extraction well (GM-1D) should be sampled in accordance with the revised Sampling and Analysis Plan (SAP) and the Corrective Measures Work Plan (CMWP).

APPENDIX A-1

MONITORING WELL SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	GM-1D*	GM-1D*	GM-1D*
			Sample_date	06/29/16	08/03/16	06/09/17
			Depth of Well BGS	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U
1,1-Dichloroethane	75-34-3	5 ST		5	4 J	2.7
1,1-Dichloroethene	75-35-4	5 ST		U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		***5***	***5***	***5.7***
2-Hexanone	591-78-6	50 GV		U	U	U
Acetone	67-64-1	50 GV		U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U
Benzene	71-43-2	1 ST		U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U
Bromoform	75-25-2	50 GV		U	U	U
Bromomethane	74-83-9	5 ST		U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U
Chlorobenzene	108-90-7	5 ST		1 J	1 J	1.4
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	6	3.1
Chloroethane	75-00-3	5 ST		U	U	U
Chloroform	67-66-3	7 ST		U	U	U
Chloromethane	74-87-3	5 ST		U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		***8***	***7***	***5.2***
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		***12***	***10***	***7.3***
Ethylbenzene	100-41-4	5 ST		U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U
Styrene	100-42-5	5 ST		U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		3 J	3 J	3.9
Toluene	108-88-3	5 ST		U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		3 J	3 J	1.8
Trichlorofluoromethane	75-69-4	5 ST		U	U	U
Vinyl Acetate	108-05-4	---		U	U	U
Vinyl Chloride	75-01-4	2 ST		2 J	2 J	U
Xylenes, Total	XYLENES	5 ST+		U	U	U
Total Volatile Organic Compounds		---		39	41	31.1

+	Applies to each isomer individually	***Exceeds Class GA Standard/Guidance value***	
NR	Not reported	ug/l	Micrograms per liter
U	Compound was analyzed for but not detected	BGS	Below Ground Surface
J	Estimated detection limit or value	MSL	Mean Sea Level
UB	Qualified as non detect (U) due to blank results	MSW	Municipal Solid Waste
		GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	GM-1D*	GM-1D*	GM-1D*
			Sample_date	08/04/17	10/27/17	12/18/17
			Depth of Well BGS	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U
1,1-Dichloroethane	75-34-3	5 ST		***6.1***	***7.4***	***5.6***
1,1-Dichloroethene	75-35-4	5 ST		U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		***1.1***	***1.3***	***1***
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	1	
1,4-Dichlorobenzene	106-46-7	3 ST++		***7***	***8.5***	***7.1***
2-Hexanone	591-78-6	50 GV		U	U	U
Acetone	67-64-1	50 GV		U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U
Benzene	71-43-2	1 ST		U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U
Bromoform	75-25-2	50 GV		U	U	U
Bromomethane	74-83-9	5 ST		U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U
Chlorobenzene	108-90-7	5 ST		1.6	1.8	1.5
Chlorodifluoromethane (Freon 22)	75-45-6	---		7.9	U	8 J
Chloroethane	75-00-3	5 ST		U	U	U
Chloroform	67-66-3	7 ST		U	U	U
Chloromethane	74-87-3	5 ST		U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		***10.4***	***13.5***	***9.5***
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		***11.9***	U	***11.9 J***
Ethylbenzene	100-41-4	5 ST		U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U
Methylene Chloride	75-09-2	5 ST		U	2.6	U
Styrene	100-42-5	5 ST		U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		3.2	4.4	3.3
Toluene	108-88-3	5 ST		U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		2.9	3.1	2.9
Trichlorofluoromethane	75-69-4	5 ST		U	U	U
Vinyl Acetate	108-05-4	---		U	U	U
Vinyl Chloride	75-01-4	2 ST		***2.4***	***2.7***	***2.3***
Xylenes, Total	XYLENES	5 ST+		U	U	U
Total Volatile Organic Compounds		---		54.5	46.3	53.1

+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value

NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

* Collected under pumping conditions, however, samples collected on 10/16 and 4/17 at GM-1D deemed unsuable due to pumping issues

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	GM-1D*	GM-1D*	GM-1D
			Sample_date	02/21/18	07/03/18	09/07/18
			Depth of Well BGS	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U
1,1-Dichloroethane	75-34-3	5 ST		***6***	4.3	4.3
1,1-Dichloroethene	75-35-4	5 ST		U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	***0.68 J***	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	0.74 J	U
1,4-Dichlorobenzene	106-46-7	3 ST++		***6.2***	***4.6***	***6.2***
2-Hexanone	591-78-6	50 GV		U	U	U
Acetone	67-64-1	50 GV		U	U	2 J
Acrylonitrile	107-13-1	5 ST		U	U	U
Benzene	71-43-2	1 ST		U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U
Bromoform	75-25-2	50 GV		U	U	U
Bromomethane	74-83-9	5 ST		U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U
Chlorobenzene	108-90-7	5 ST		1.3	U	1.3
Chlorodifluoromethane (Freon 22)	75-45-6	---		8.8	9.8	7
Chloroethane	75-00-3	5 ST		U	U	U
Chloroform	67-66-3	7 ST		U	U	U
Chloromethane	74-87-3	5 ST		U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		***9.4***	***7.1***	***6.8***
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		***11.1***	4.2	***9.1***
Ethylbenzene	100-41-4	5 ST		U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U
Styrene	100-42-5	5 ST		U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		2.8	1.7	3.1
Toluene	108-88-3	5 ST		U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		2.5	2.3	2.7
Trichlorofluoromethane	75-69-4	5 ST		U	U	U
Vinyl Acetate	108-05-4	---		U	U	U
Vinyl Chloride	75-01-4	2 ST		***2.5***	1.8	1.8
Xylenes, Total	XYLENES	5 ST+		U	U	U
Total Volatile Organic Compounds		---		50.6	37.22	44.3

+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results
ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer
* Collected under pumping conditions, however, samples collected on 10/16 and 4/17 at GM-1D deemed unusable due to pumping issues

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	GM-1I	GM-1I	GM-1I	GM-1I
			Sample_date	08/03/16	03/01/17	08/14/17	02/21/18
			Depth of Well BGS	285'	285'	285'	285'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		UB	UB	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	U	U
Chloroethane	75-00-3	5 ST		U	UJ	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	UJ	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	UJ	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	0

\+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	GM-1S 08/28/14	GM-1S 09/03/15	GM-1S 08/03/16	GM-1S 08/14/17
Sample ID			GM-1S	GM-1S	GM-1S	GM-1S
Sample_date			08/28/14	09/03/15	08/03/16	08/14/17
Depth of Well BGS			135'	135'	135'	135'
Depth to bottom screen, relative to MSL			19'	19'	19'	19'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: GM-2D	GM-2D	GM-2D	GM-2D
			Sample_date: 08/28/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS: 398'	398'	398'	398'
			Depth to bottom screen, relative to MSL: -248'	-248'	-248'	-248'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+	Applies to each isomer individually	***Exceeds Class GA Standard/Guidance value***	
NR	Not reported	ug/l	Micrograms per liter
U	Compound was analyzed for but not detected	BGS	Below Ground Surface
J	Estimated detection limit or value	MSL	Mean Sea Level
UB	Qualified as non detect (U) due to blank results	MSW	Municipal Solid Waste
		GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	GM-2I	GM-2I	GM-2I	GM-2I
			Sample_date	08/28/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	298'	298'	298'	298'
			Depth to bottom screen, relative to MSL	-136'	-136'	-136'	-136'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		NR	U	U	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		NR	***7***	U	2.3
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		***8***	***9***	***8***	4
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		***6***	***6***	***6***	1.5
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		14	22	14	7.8

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	GM-2S	GM-2S	GM-2S	GM-2S
		Sample_date	09/03/14	09/01/15	08/08/16	08/14/17
		Depth of Well BGS	149'	149'	149'	149'
		Depth to bottom screen, relative to MSL	12'	12'	12'	12'
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	UB
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	4 J	U	4 J	2.5
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	2 J	U	1 J	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	6	0	5	2.5

\+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	GM-3I
		Sample_date	09/06/18
		Depth of Well BGS	177'
		Depth to bottom screen, relative to MSL	-116
		Gradient relative to MSW	UP
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U
1,1,1-Trichloroethane	71-55-6	5 ST	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U
1,1,2-Trichloroethane	79-00-5	1 ST	U
1,1-Dichloroethane	75-34-3	5 ST	U
1,1-Dichloroethene	75-35-4	5 ST	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U
1,2-Dichloroethane	107-06-2	0.6 ST	U
1,2-Dichloropropane	78-87-5	1 ST	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U
2-Hexanone	591-78-6	50 GV	U
Acetone	67-64-1	50 GV	UB
Acrylonitrile	107-13-1	5 ST	U
Benzene	71-43-2	1 ST	U
Bromochloromethane	74-97-5	5 ST	U
Bromodichloromethane	75-27-4	50 GV	U
Bromoform	75-25-2	50 GV	U
Bromomethane	74-83-9	5 ST	U
Carbon Disulfide	75-15-0	60 GV	U
Carbon Tetrachloride	56-23-5	5 ST	U
Chlorobenzene	108-90-7	5 ST	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U
Chloroethane	75-00-3	5 ST	U
Chloroform	67-66-3	7 ST	U
Chloromethane	74-87-3	5 ST	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U
Dibromochloromethane	124-48-1	50 GV	U
Dibromomethane	74-95-3	5 ST	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U
Ethylbenzene	100-41-4	5 ST	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U
Methylene Chloride	75-09-2	5 ST	U
Styrene	100-42-5	5 ST	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U
Toluene	108-88-3	5 ST	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U
Trichloroethylene (TCE)	79-01-6	5 ST	U
Trichlorofluoromethane	75-69-4	5 ST	U
Vinyl Acetate	108-05-4	---	U
Vinyl Chloride	75-01-4	2 ST	U
Xylenes, Total	XYLENES	5 ST+	U
Total Volatile Organic Compounds		---	0

+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	4G-1	4G-1	4G-1	4G-1
			Sample_date	8/3/16	08/11/17	05/25/18	9/4/18
			Depth of Well BGS	164'	164'	164'	164'
			Depth to bottom screen, relative to MSL	2'	2'	2'	2'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	UJ	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		1 J	1.1	2.6	2.1
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	UB	UB
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	1.3	1.2
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	NR	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	NR	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		1	1.1	3.9	3.3

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 4G-2	4G-2	4G-2	4G-2
			Sample_date: 02/24/17	08/11/17	05/26/18	02/16/18
			Depth of Well BGS: 211'	211'	211'	211'
			Depth to bottom screen, relative to MSL: -45'	-45'	-45'	-45'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	UB	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	NR	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	NR	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 4M-1	4M-1	4M-1	4M-1
			Sample_date: 02/24/17	08/11/17	02/16/18	09/04/18
			Depth of Well BGS: 325'	325'	325'	325'
			Depth to bottom screen, relative to MSL: -159'	-159'	-159'	-159'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	1.6	U	1.5	1.2
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	***2.7***	U	***2.4***	***1.4***
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	***13.1***	***3.5***	***11.4***	***4.6***
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	3.5 J	UB
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	***3.4***	U	***3.2***	***2.9***
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	4.4	1.3	3.6	3
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	1.1	6.6	5.3
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST.	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	2	U	1.5	1.2
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	27.2	5.9	33.7	19.6

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 4M-2	4M-2	4M-2	4M-2
			Sample_date: 08/03/16	02/24/17	08/11/17	02/26/18
			Depth of Well BGS: 486'	486'	486'	486'
			Depth to bottom screen, relative to MSL: -320'	-320'	-320'	-320'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	1.2	U	1.1
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	UB	UB	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	4 J	U	1.5	4.1
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	5	5.4	1.6	4.6
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	1.4	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	9	8	3.1	9.8

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 6G-1	6G-1	6G-1	6G-1
			Sample_date: 08/11/16	03/02/17	08/09/17	02/22/18
			Depth of Well BGS: 147'	147'	147'	147'
			Depth to bottom screen, relative to MSL: 32'	32'	32'	32'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	UB	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 6G-2	6G-2	6G-2	6G-2
			Sample_date: 08/11/16	03/02/17	08/09/17	02/23/18
			Depth of Well BGS: 230'	230'	230'	230'
			Depth to bottom screen, relative to MSL: -53'	-53'	-53'	-53'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	UB	UB	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	6G-3	6G-3	6G-3	6G-3
			Sample_date	08/11/16	03/02/17	08/09/17	02/23/18
			Depth of Well BGS	315'	315'	315'	315'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		***1 J***	***1.2 J***	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		***5***	***4.5 J***	3	***3.9***
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	UB	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		2 J	2.3 J	1.4	2
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	U	U
Chloroethane	75-00-3	5 ST		U	UJ	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	UJ	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	UJ	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		8	8	4.4	5.9

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	6M-1	6M-1	6M-1	6M-1
Sample ID			6M-1	6M-1	6M-1	6M-1
Sample_date			08/27/14	09/02/15	08/11/16	08/09/17
Depth of Well BGS			545'	545'	545'	545'
Depth to bottom screen, relative to MSL			-368'	-368'	-368'	-368'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	UB
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	UJ
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 7M-1	7M-1	7M-1	7M-1
			Sample_date: 08/10/16	02/28/17	08/10/17	02/23/18
			Depth of Well BGS: 214'	214'	214'	214'
			Depth to bottom screen, relative to MSL: -152'	-152'	-152'	-152'
			Gradient relative to MSW: CROSS	CROSS	CROSS	CROSS
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	3 J	2.1 J	2.9	1.3
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	0.43 J
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	UB	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U
Chloroethane	75-00-3	5 ST	U	UJ	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	UJ	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	1 J	1 J	1.4	U
Trichlorofluoromethane	75-69-4	5 ST	U	UJ	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	4	3.1	4.3	1.73

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 8G-1	8G-1	8G-1	8G-1
			Sample_date: 08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS: 114'	114'	114'	114'
			Depth to bottom screen, relative to MSL: 20'	20'	20'	20'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	UB	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 8M-1	8M-1	8M-1	8M-1
			Sample_date: 08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS: 270'	270'	270'	270'
			Depth to bottom screen, relative to MSL: -134'	-134'	-134'	-134'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	2 J	1.6	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	UB	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	2 J	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	1 J	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	5	1.6	0	0

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 8M-2	8M-2	8M-2	8M-2
			Sample_date: 08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS: 383'	383'	383'	383'
			Depth to bottom screen, relative to MSL: -248'	-248'	-248'	-248'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	UB	UB	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	9G-1	9G-1	9G-1	9G-1
			Sample_date	08/27/15	08/09/16	08/08/17	09/07/18
			Depth of Well BGS	68'	68'	68'	68'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	UP	UP	UP	UP
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	U	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	0

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 10G-1	10G-1	10G-1	10G-1
			Sample_date: 08/21/14	08/14/15	08/10/16	08/10/17
			Depth of Well BGS: 69'	69'	69'	69'
			Depth to bottom screen, relative to MSL: 20'	20'	20'	20'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	UJ
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	10M-1	10M-1	10M-1	10M-1
		Sample_date	08/10/16	02/24/17	08/10/17	02/15/18
		Depth of Well BGS	256	256	256	256
		Depth to bottom screen, relative to MSL	-167	-167	-167	-167
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	2 J	2	U	1.4
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	UB	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	2 J	U	U	1.5
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	3 J	2.9	U	1.3
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	3 J	2.9	U	1.5
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	4 J	3.6	1.6	1.9
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	UJ	U
Trichloroethylene (TCE)	79-01-6	5 ST	1 J	1.1	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	15	12.5	1.6	7.6

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	11G-1	11G-1	11G-1	11G-1
			Sample_date	08/03/17	02/26/18	05/24/18	08/31/18
			Depth of Well BGS	145'	145'	145'	145'
			Depth to bottom screen, relative to MSL	22'	22'	22'	22'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	1.1	***1.1***	***1.1***
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		***2.9***	4.5	***4.3***	***4.9***
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		UB	1.5 J	UB	3.8 J
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	1.2	1.2	1.3
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	NR	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	NR	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		2.9	8.3	6.6	11.1

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l		Sample ID	11G-2	11G-2	11G-2	11G-2
		Sample_date	08/03/17	02/26/18	5/24/2018	08/31/18
		Depth of Well BGS	220'	220'	220'	220'
		Depth to bottom screen, relative to MSL	-51	-51	-51	-51
		Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV				
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	1.5	2.2	2.3	2.2
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	***2.6***	***5.4***	***5.3***	***3.5***
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	***12.1***	***29***	***27.7***	***15.1***
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	3.1 J	UB	4.8 J
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	***2.4***	***2.4***	***2.3***
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	1.8	***6***	***6.5***	***5.1***
Chlorodifluoromethane (Freon 22)	75-45-6	---	3.1	7.5	NR	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	1	1.3	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	2.9	***5.1***	NR	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	1.3	***2.1***
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	24	61.7	46.8	35.1

+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 11M-1	11M-1	11M-1	11M-1
			Sample_date: 08/22/14	08/19/15	08/09/16	08/03/17
			Depth of Well BGS: 320'	320'	320'	320'
			Depth to bottom screen, relative to MSL: -154'	-154'	-154'	-154'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	2 J	1 J	2 J	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	2 J	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	2 J	3 J	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	4 J	3 J	4 J	1.9
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	4 J	5	1.7
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	3 J	2 J	3 J	1.3
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	.5 ST	2 J	1 J	2 J	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	1 J	1 J	1 J	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	12	14	22	4.9

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 12M-1	12M-1	12M-1	12M-1
			Sample_date: 08/11/16	03/02/17	08/09/17	02/22/18
			Depth of Well BGS: 338'	338'	338'	338'
			Depth to bottom screen, relative to MSL: -163'	-163'	-163'	-163'
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	***2 J***	***2.6***	1.4	***2.4***
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	***10***	***10.3***	1.2	***9.9***
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	UB	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	5	***5.9***	U	***5.3***
Chlorodifluoromethane (Freon 22)	75-45-6	---	2 J	1.4	U	1.8
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	2 J	1.2	U	2
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	1 J	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	1	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	1 J	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	23	22.4	2.6	21.4

Exceeds Class GA Standard/Guidance value

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	13G-1	13G-1	13G-1	13G-1
			Sample_date	08/09/16	02/22/17	08/11/17	02/15/18
			Depth of Well BGS	93'	93'	93'	93'
			Depth to bottom screen, relative to MSL	17'	17'	17'	17'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	UB	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	U	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	0

\+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	13M-1	13M-1	13M-1	13M-1
			Sample_date	08/09/16	02/22/17	08/11/17	02/15/18
			Depth of Well BGS	265'	265'	265'	265'
			Depth to bottom screen, relative to MSL	-155	-155	-155	-155
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		4 J	3.7	U	3.3
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		***6***	***6.9***	U	***5.8***
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		2 J	1.7	U	1.4
Chlorodifluoromethane (Freon 22)	75-45-6	---		4 J	U	U	3.5
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		***7***	***7.1***	U	***5.7***
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		***8***	***7.1***	U	***5.9***
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		***9***	***9.4***	U	***7.8***
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		3 J	2.9	U	2.6
Trichlorofluoromethane	75-69-4	5 ST		U	1.3	U	1
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		43	40.1	0	37

\+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results
ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID: 14G-1A	14G-1A	14G-1A	14G-1A
			Sample_date: 02/23/17	08/02/17	5/21/2018	02/14/18
			Depth of Well BGS: 220'	220'	220'	220'
			Depth to bottom screen, relative to MSL: -58	-58	-58	-58
			Gradient relative to MSW: DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	UB	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	NR	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	NR	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	UJ	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

\+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	14G-2	14G-2	14G-2	14G-2
			Sample_date	02/23/17	5/21/2018	08/02/17	02/14/18
			Depth of Well BGS	264'	264'	264'	264'
			Depth to bottom screen, relative to MSL	-103	-103	-103	-103
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	UJ	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		UB	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	NR	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	NR	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	0

+	Applies to each isomer individually	***Exceeds Class GA Standard/Guidance value***	
NR	Not reported	ug/l	Micrograms per liter
U	Compound was analyzed for but not detected	BGS	Below Ground Surface
J	Estimated detection limit or value	MSL	Mean Sea Level
UB	Qualified as non detect (U) due to blank results	MSW	Municipal Solid Waste
		GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	14M-1	14M-1	14M-1	14M-1
			Sample_date	08/02/17	02/14/18	05/21/18	09/05/18
			Depth of Well BGS	355'	355'	355'	355'
			Depth to bottom screen, relative to MSL	-194'	-194'	-194'	-194'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		*4*	6.3	*6.7*	*5*
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	UJ	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		*1.6*	*2.6*	*2.7*	*1.6*
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		*6.3*	*12.7*	*13.2*	*6.2*
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		UB	U	UB	5.6
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	0.99 J	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		1.4	2.9	3.2	2.3
Chlorodifluoromethane (Freon 22)	75-45-6	---		4.5	8.9	NR	8.4
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		2.1	3.1	3.2	2.7
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		*4.1*	6.5	NR	*5.9*
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		24	43	29.99	37.7

\+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value

NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	15G-1	15G-1	15G-1	15G-1
			Sample_date	08/25/14	08/19/15	08/09/16	08/14/17
			Depth of Well BGS	160'	160'	160'	160'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	UB
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		NR	U	U	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		NR	U	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	0

\+ Applies to each isomer individually
Exceeds Class GA Standard/Guidance value
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results
ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	16G-1	16G-1	16G-1	16G-1
Sample ID			16G-1	16G-1	16G-1	16G-1
Sample_date			08/21/14	08/14/15	08/10/16	08/10/17
Depth of Well BGS			57'	57'	57'	57'
Depth to bottom screen, relative to MSL			20'	20'	20'	20'
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	U	U	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	NR	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	NR	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	U	U	U	U
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	U	UJ
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	0	0	0	0

+	Applies to each isomer individually	***Exceeds Class GA Standard/Guidance value***	
NR	Not reported	ug/l	Micrograms per liter
U	Compound was analyzed for but not detected	BGS	Below Ground Surface
J	Estimated detection limit or value	MSL	Mean Sea Level
UB	Qualified as non detect (U) due to blank results	MSW	Municipal Solid Waste
		GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	16M-1 08/10/16	16M-1 02/24/17	16M-1 08/10/17	16M-1 02/15/18
Sample ID			16M-1	16M-1	16M-1	16M-1
Sample_date			08/10/16	02/24/17	08/10/17	02/15/18
Depth of Well BGS			240'	240'	240'	240'
Depth to bottom screen, relative to MSL			-163	-163	-163	-163
Gradient relative to MSW			DOWN	DOWN	DOWN	DOWN
COMPOUNDS						
1,1,1,2-Tetrachloroethane	630-20-6	5 ST	U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST	U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST	U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST	U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST	U	U	0.68 J	U
1,1-Dichloroethene	75-35-4	5 ST	U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST	U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST	U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST	U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++	U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST	U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST	U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++	U	U	U	U
2-Hexanone	591-78-6	50 GV	U	U	U	U
Acetone	67-64-1	50 GV	U	UB	UB	U
Acrylonitrile	107-13-1	5 ST	U	U	U	U
Benzene	71-43-2	1 ST	U	U	U	U
Bromochloromethane	74-97-5	5 ST	U	U	U	U
Bromodichloromethane	75-27-4	50 GV	U	U	U	U
Bromoform	75-25-2	50 GV	U	U	U	U
Bromomethane	74-83-9	5 ST	U	U	U	U
Carbon Disulfide	75-15-0	60 GV	U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST	U	U	U	U
Chlorobenzene	108-90-7	5 ST	U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---	U	U	U	U
Chloroethane	75-00-3	5 ST	U	U	U	U
Chloroform	67-66-3	7 ST	U	U	U	U
Chloromethane	74-87-3	5 ST	U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST	U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST	U	U	U	U
Dibromochloromethane	124-48-1	50 GV	U	U	U	U
Dibromomethane	74-95-3	5 ST	U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST	U	U	U	U
Ethylbenzene	100-41-4	5 ST	U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST	U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV	U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---	U	U	U	U
Methylene Chloride	75-09-2	5 ST	U	U	U	U
Styrene	100-42-5	5 ST	U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST	5	4.4	3.1	3.4
Toluene	108-88-3	5 ST	U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST	U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST	U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST	U	U	UJ	U
Trichloroethylene (TCE)	79-01-6	5 ST	U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST	U	U	U	U
Vinyl Acetate	108-05-4	---	U	U	U	U
Vinyl Chloride	75-01-4	2 ST	U	U	U	U
Xylenes, Total	XYLENES	5 ST+	U	U	U	U
Total Volatile Organic Compounds		---	5	4.4	3.78	3.4

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	18G-1	18G-1	18G-1	18G-1
			Sample_date	02/22/17	08/02/17	5/21/2018	02/16/18
			Depth of Well BGS	157'	157'	157'	157'
			Depth to bottom screen, relative to MSL	11'	11'	11'	11'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		2.3	1.5	2.1	2
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		UB	UB	UB	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		UJ	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	NR	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	NR	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	UJ	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		2.3	1.5	2.1	2

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV	Sample ID	18G-2	18G-2	18G-2	18G-2
			Sample_date	08/02/17	02/16/18	5/21/2018	09/06/18
			Depth of Well BGS	197'	197'	197'	197'
			Depth to bottom screen, relative to MSL	-29	-29	-29	-29
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS							
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		2	1.1	1.4	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	U	U	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	NR	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	NR	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	UJ	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		2	1.1	1.4	0

Exceeds Class GA Standard/Guidance value

+	Applies to each isomer individually	ug/l	Micrograms per liter
NR	Not reported	BGS	Below Ground Surface
U	Compound was analyzed for but not detected	MSL	Mean Sea Level
J	Estimated detection limit or value	MSW	Municipal Solid Waste
UB	Qualified as non detect (U) due to blank results	GV	Guidance Value
		ST	Standard
		++	Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	22M-1	22M-1	22M-1	22M-1
			Sample_date	02/23/17	08/11/17	02/26/18	09/05/18
			Depth of Well BGS	222'	222'	222'	222'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	UP	UP	UP	UP
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		UB	U	U	1.4 J
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	U	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	U	U
Chloroethane	75-00-3	5 ST		U	U	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	U	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	U	U
Trichloroethylene (TCE)	79-01-6	5 ST		U	U	U	U
Trichlorofluoromethane	75-69-4	5 ST		U	U	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		0	0	0	1.4

Exceeds Class GA Standard/Guidance value

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

Appendix A-1
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Volatile Organic Compounds

Units in ug/l			Sample ID	23M-1	23M-1	23M-1	23M-1
			Sample_date	08/09/16	03/01/17	08/10/17	02/15/18
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
COMPOUNDS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
1,1,1,2-Tetrachloroethane	630-20-6	5 ST		U	U	U	U
1,1,1-Trichloroethane	71-55-6	5 ST		U	U	U	U
1,1,2,2-Tetrachloroethane	79-34-5	5 ST		U	U	U	U
1,1,2-Trichloroethane	79-00-5	1 ST		U	U	U	U
1,1-Dichloroethane	75-34-3	5 ST		U	U	U	U
1,1-Dichloroethene	75-35-4	5 ST		U	U	U	U
1,2,3-Trichloropropane	96-18-4	0.04 ST		U	U	U	U
1,2-Dibromo-3-Chloropropane	96-12-8	0.04 ST		U	U	U	U
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.0006 ST		U	U	U	U
1,2-Dichlorobenzene	95-50-1	3 ST++		U	U	U	U
1,2-Dichloroethane	107-06-2	0.6 ST		U	U	U	U
1,2-Dichloropropane	78-87-5	1 ST		U	U	U	U
1,4-Dichlorobenzene	106-46-7	3 ST++		U	U	U	U
2-Hexanone	591-78-6	50 GV		U	U	U	U
Acetone	67-64-1	50 GV		U	UB	UB	U
Acrylonitrile	107-13-1	5 ST		U	U	U	U
Benzene	71-43-2	1 ST		U	U	U	U
Bromochloromethane	74-97-5	5 ST		U	U	U	U
Bromodichloromethane	75-27-4	50 GV		U	U	U	U
Bromoform	75-25-2	50 GV		U	U	U	U
Bromomethane	74-83-9	5 ST		U	UJ	U	U
Carbon Disulfide	75-15-0	60 GV		U	U	U	U
Carbon Tetrachloride	56-23-5	5 ST		U	U	U	U
Chlorobenzene	108-90-7	5 ST		U	U	U	U
Chlorodifluoromethane (Freon 22)	75-45-6	---		U	U	U	U
Chloroethane	75-00-3	5 ST		U	UJ	U	U
Chloroform	67-66-3	7 ST		U	U	U	U
Chloromethane	74-87-3	5 ST		U	U	U	U
Cis-1,2-Dichloroethylene	156-59-2	5 ST		U	U	U	U
Cis-1,3-Dichloropropene	10061-01-5	0.4 ST		U	U	U	U
Dibromochloromethane	124-48-1	50 GV		U	U	U	U
Dibromomethane	74-95-3	5 ST		U	U	U	U
Dichlorofluoromethane (Freon 21)	75-43-4	5 ST		U	UJ	U	U
Ethylbenzene	100-41-4	5 ST		U	U	U	U
Iodomethane (Methyl Iodide)	74-88-4	5 ST		U	U	U	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	50 GV		U	U	U	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	---		U	U	U	U
Methylene Chloride	75-09-2	5 ST		U	U	U	U
Styrene	100-42-5	5 ST		U	U	U	U
Tetrachloroethylene(PCE)	127-18-4	5 ST		U	U	U	U
Toluene	108-88-3	5 ST		U	U	U	U
Trans-1,2-Dichloroethene	156-60-5	5 ST		U	U	U	U
Trans-1,3-Dichloropropene	10061-02-6	0.4 ST		U	U	U	U
Trans-1,4-Dichloro-2-Butene	110-57-6	5 ST		U	U	UJ	U
Trichloroethylene (TCE)	79-01-6	5 ST		1 J	1.3 J	U	1
Trichlorofluoromethane	75-69-4	5 ST		U	UJ	U	U
Vinyl Acetate	108-05-4	---		U	U	U	U
Vinyl Chloride	75-01-4	2 ST		U	U	U	U
Xylenes, Total	XYLENES	5 ST+		U	U	U	U
Total Volatile Organic Compounds		---		1	1.3	0	.1

+ Applies to each isomer individually
NR Not reported
U Compound was analyzed for but not detected
J Estimated detection limit or value
UB Qualified as non detect (U) due to blank results

Exceeds Class GA Standard/Guidance value

ug/l Micrograms per liter
BGS Below Ground Surface
MSL Mean Sea Level
MSW Municipal Solid Waste
GV Guidance Value
ST Standard
++ Applies to sum of isomer

APPENDIX A-2

MONITORING WELL SAMPLE RESULTS
INORGANIC PARAMETERS

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	04/22/16	06/29/16	08/03/16	10/24/16
			Depth of Well BGS	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	U	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	U	U	U
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		277	290	274	168
Cadmium	7440-43-9	5 ST		U	U	U	U
Calcium	7440-70-2	--		90500	88500	90600	46200
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		U	U	0.4 J	U
Copper	7440-50-8	200 ST		1.3 J	1.3 J	13.1 J	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***314***	***420***	***527***	U
Lead	7439-92-1	25 ST		8.3	1.1 J	8.3	U
Magnesium	7439-95-4	35000 GV		***56700***	***54700***	***57800***	***28100***
Manganese	7439-96-5	300 ST#		6.5 J	8.4 J	7.4 J	***416***
Mercury	7439-97-6	0.7 ST		U	U	U	U
Nickel	7440-02-0	100 ST		6.9 J	7.2 J	8 J	U
Potassium	7440-09-7	--		4710 J	4290 J	3860 J	6800
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***149000***	***149000***	***153000 J***	***60300***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	U	UB	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	04/05/17	06/09/17	08/04/17	10/27/17
			Depth of Well BGS	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		36.2 J	U	UB	UB
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		38 J	11.9 J	6.3 J	3.8 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		205	315	331	318
Cadmium	7440-43-9	5 ST		0.34 J	0.074 J	U	U
Calcium	7440-70-2	--		48400	88400	95500	92900
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		4.6 J	1.6 J	0.96 J	U
Copper	7440-50-8	200 ST		U	145	U	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		*125*	*65.2 J*	*UB*	*145*
Lead	7439-92-1	25 ST		3.4 J	U	5.2	U
Magnesium	7439-95-4	35000 GV		***33400***	***56200***	***60400***	***60100***
Manganese	7439-96-5	300 ST#		***327***	*98*	*39.4*	*20.5*
Mercury	7439-97-6	0.7 ST		U	U	UB	U
Nickel	7440-02-0	100 ST		11.2 J	11.4 J	9.6 J	9.2 J
Potassium	7440-09-7	--		6960	6460	6100	5360
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***71600***	***142000***	***154000***	***147000***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	0.82 J	U	U
Zinc	7440-66-6	2000 GV		9.6 J	255	UB	6.2 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	12/18/17	02/21/18	07/03/18	09/07/18
			Depth of Well BGS	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	U	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		3.1 J	2.5 J	2.5 J	2.5 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		341	330	335	318
Cadmium	7440-43-9	5 ST		U	U	U	U
Calcium	7440-70-2	--		95800	93700	95400	98500
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		U	2 J	U	U
Copper	7440-50-8	200 ST		2.9 J	1.5 J	U	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		*232*	178	533	***368***
Lead	7439-92-1	25 ST		U	U	U	U
Magnesium	7439-95-4	35000 GV		***63200***	***62200***	***62500***	***63800***
Manganese	7439-96-5	300 ST#		*18*	16.2	17.1	18.8
Mercury	7439-97-6	0.7 ST		U	UB	U	UB
Nickel	7440-02-0	100 ST		9.7 J	34.5 J	9.5 J	8.9 J
Potassium	7440-09-7	--		6340	5350	5380	5030
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***157000***	***151000***	***159000***	***168000***
Thallium	7440-28-0	0.5 GV		U	UB	U	U
Vanadium	7440-62-2	--		U	U	U	UB
Zinc	7440-66-6	2000 GV		4.2 J	4.4 J	9.6 J	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-1I	GM-1I	GM-1I	GM-1I
			Sample_date	08/03/16	03/01/17	08/14/17	02/21/18
			Depth of Well BGS	285'	285'	285'	285'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	88.4 J	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		21.2 J	23.6 J	28.5 J	24.7 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		118	128	130	136
Cadmium	7440-43-9	5 ST		U	U	0.22 J	U
Calcium	7440-70-2	--		41100	47500	46700	45300
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UJ	U
Chromium, Total	7440-47-3	50 ST		U	U	5.2 J	U
Cobalt	7440-48-4	--		4 J	4.2 J	4.5 J	5.3 J
Copper	7440-50-8	200 ST		2.3 J	U	5.1 J	0.75 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	13.5 J	195 J	43.7
Lead	7439-92-1	25 ST		6.9	5.1 J	3.2 J	U
Magnesium	7439-95-4	35000 GV		25100	28600	29400	27900
Manganese	7439-96-5	300 ST#		U	UB	8.9 J	U
Mercury	7439-97-6	0.7 ST		U	UB	0.031 J	U
Nickel	7440-02-0	100 ST		6.8 J	9.8 J	13.2 J	29.8 J
Potassium	7440-09-7	--		2130 J	2780 J	3640 J	2980 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***47800 J***	***51600***	***50500***	***52600***
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	UB	1.9 J	U
Zinc	7440-66-6	2000 GV		UB	U	19.4 J	3.9 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-1S	GM-1S	GM-1S	GM-1S
			Sample_date	08/28/14	09/03/15	08/03/16	08/14/17
			Depth of Well BGS	135'	135'	135'	135'
			Depth to bottom screen, relative to MSL	19'	19'	19'	19'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	816
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		19.9 B	19.3 B	17.9 J	22.7 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		131	138	126	134
Cadmium	7440-43-9	5 ST		U	UB	U	2.8
Calcium	7440-70-2	--		39700	43100	39600	38200
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	UJ
Chromium, Total	7440-47-3	50 ST		UB	U	U	21.9
Cobalt	7440-48-4	--		5 B	4.5 B	4.1 J	8.5 J
Copper	7440-50-8	200 ST		UB	UB	0.8 J	6.9 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	U	U	***1090 J***
Lead	7439-92-1	25 ST		U	6.1	8.3	7.7
Magnesium	7439-95-4	35000 GV		21700	25400	23000	22200
Manganese	7439-96-5	300 ST#		U	0.7 B	U	***58.8***
Mercury	7439-97-6	0.7 ST		U	UB	U	0.032 J
Nickel	7440-02-0	100 ST		10.4 B	10.9 B	15.4 J	47.8
Potassium	7440-09-7	--		4180 B	4970 B	3130 J	4810 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	UBJ	U	U
Sodium	7440-23-5	20000 ST		***48400***	***51300***	***57400 J***	***48400***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		1 B	U	U	2.3 J
Zinc	7440-66-6	2000 GV		U	7.7 B	UB	30.7

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-2D	GM-2D	GM-2D	GM-2D
			Sample_date	08/28/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	398'	398'	398'	398'
			Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	151 J
Antimony	7440-36-0	3 ST		1.8 B	UB	UB	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		UB	1.8 B	U	4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		UB	UB	7.6 J	UB
Cadmium	7440-43-9	5 ST		U	U	U	0.32 J
Calcium	7440-70-2	--		4790 B	5180 J	4960	4980
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	UB	U	18.4
Cobalt	7440-48-4	--		0.4 B	0.3 B	0.5 J	0.79 J
Copper	7440-50-8	200 ST		U	3.9 B	U	4.8 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	135	112	***461 J***
Lead	7439-92-1	25 ST		U	2.6 BJ	1.7 J	1.6 J
Magnesium	7439-95-4	35000 GV		1720 B	1950 BJ	1900	1830
Manganese	7439-96-5	300 ST#		UB	9.8 BJ	8.8 J	36.4
Mercury	7439-97-6	0.7 ST		U	UJ	UB	0.025 J
Nickel	7440-02-0	100 ST		U	U	U	15.5 J
Potassium	7440-09-7	--		416 B	UBJ	U	1240 J
Selenium	7782-49-2	10 ST		U	UJ	UJ	U
Silver	7440-22-4	50 ST		U	UJ	U	U
Sodium	7440-23-5	20000 ST		UB	3450 BJ	849 J	2890 J
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		0.5 B	U	U	U
Zinc	7440-66-6	2000 GV		U	UB	U	18.2 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-2I	GM-2I	GM-2I	GM-2I
			Sample_date	08/28/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	298'	298'	298'	298'
			Depth to bottom screen, relative to MSL	-136'	-136'	-136'	-136'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	152 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		UB	3.4 B	U	6.5 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		UB	UB	9 J	UB
Cadmium	7440-43-9	5 ST		U	U	U	0.15 J
Calcium	7440-70-2	--		29800	32500 J	30100	31900
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	UJ
Chromium, Total	7440-47-3	50 ST		UB	UB	U	4.3 J
Cobalt	7440-48-4	--		U	U	U	U
Copper	7440-50-8	200 ST		U	U	U	14.1 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	U	U	***352 J***
Lead	7439-92-1	25 ST		U	2.5 BJ	2.6 J	2.9 J
Magnesium	7439-95-4	35000 GV		14500	16700 J	15900	16700
Manganese	7439-96-5	300 ST#		UB	UBJ	U	22.9
Mercury	7439-97-6	0.7 ST		U	UJ	UB	0.031 J
Nickel	7440-02-0	100 ST		U	U	U	3.8 J
Potassium	7440-09-7	--		1230 B	1940 BJ	668 J	2190 J
Selenium	7782-49-2	10 ST		U	UJ	UJ	U
Silver	7440-22-4	50 ST		U	UJ	U	U
Sodium	7440-23-5	20000 ST		11500	10100 J	11800 J	10800
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		5 B	6.3 B	4.3 J	5.7 J
Zinc	7440-66-6	2000 GV		U	UB	U	18.3 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	GM-2S	GM-2S	GM-2S	GM-2S
			Sample_date	09/03/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	149'	149'	149'	149'
			Depth to bottom screen, relative to MSL	12'	12'	12'	12'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	242	U	314
Antimony	7440-36-0	3 ST		U	UB	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		15.4 B	13.4 B	16 J	18.8 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		15.7 B	UB	16.1 J	UB
Cadmium	7440-43-9	5 ST		U	0.4 B	U	UB
Calcium	7440-70-2	--		14800	12900 J	14000	13800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		0.5 B	U	U	6.4 J
Cobalt	7440-48-4	--		U	0.5 B	U	U
Copper	7440-50-8	200 ST		U	UB	U	4.6 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	130	U	***861***
Lead	7439-92-1	25 ST		U	3.5 J	3.2 J	4.8 J
Magnesium	7439-95-4	35000 GV		6100	5480 J	5960	5840
Manganese	7439-96-5	300 ST#		1.6 B	11.3 BJ	U	***48.5***
Mercury	7439-97-6	0.7 ST		U	UJ	UB	U
Nickel	7440-02-0	100 ST		1.3 B	UB	3.2 J	8.5 J
Potassium	7440-09-7	--		1250 B	1790 BJ	860 J	1920 J
Selenium	7782-49-2	10 ST		U	UJ	UJ	U
Silver	7440-22-4	50 ST		U	1.1 BJ-	U	U
Sodium	7440-23-5	20000 ST		8150	6740 J	7700 J	7320
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	U	U	1.2 J
Zinc	7440-66-6	2000 GV		UB	UB	U	21.6

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	GM-3I 09/06/18 177' -116 UP
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV		
Aluminum	7429-90-5	--	19.5	J
Antimony	7440-36-0	3 ST		U
Arsenic	7440-38-2	25 ST		U
Barium	7440-39-3	1000 ST	23.1	J
Beryllium	7440-41-7	3 GV		U
Boron	7440-42-8	1000 ST		UB
Cadmium	7440-43-9	5 ST		UB
Calcium	7440-70-2	--	5580	
Chromium, Hexavalent	18540-29-9	50 ST		UJ
Chromium, Total	7440-47-3	50 ST	36.8	
Cobalt	7440-48-4	--		U
Copper	7440-50-8	200 ST		U
Cyanide	57-12-5	200 ST		U
Iron	7439-89-6	300 ST#	***417***	
Lead	7439-92-1	25 ST		U
Magnesium	7439-95-4	35000 GV	1780	
Manganese	7439-96-5	300 ST#	***22.9***	
Mercury	7439-97-6	0.7 ST		UB
Nickel	7440-02-0	100 ST		U
Potassium	7440-09-7	--	923	J
Selenium	7782-49-2	10 ST		U
Silver	7440-22-4	50 ST		U
Sodium	7440-23-5	20000 ST	13400	
Thallium	7440-28-0	0.5 GV		U
Vanadium	7440-62-2	--		U
Zinc	7440-66-6	2000 GV		UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	4G-1	4G-1	4G-1	4G-1
			Sample_date	02/24/17	08/11/17	02/21/18	09/04/18
			Depth of Well BGS	164'	164'	164'	164'
			Depth to bottom screen, relative to MSL	2'	2'	2'	2'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		NR	78.4 J	NR	26.3 J
Antimony	7440-36-0	3 ST		NR	U	NR	U
Arsenic	7440-38-2	25 ST		NR	U	NR	U
Barium	7440-39-3	1000 ST		NR	128 J	NR	184 J
Beryllium	7440-41-7	3 GV		NR	U	NR	U
Boron	7440-42-8	1000 ST		NR	179	NR	386
Cadmium	7440-43-9	5 ST		U	UB	U	U
Calcium	7440-70-2	--		9390	11500	20800	19700
Chromium, Hexavalent	18540-29-9	50 ST		NR	U	NR	UJ
Chromium, Total	7440-47-3	50 ST		NR	U	NR	2.6 J
Cobalt	7440-48-4	--		NR	11.2 J	NR	10.8 J
Copper	7440-50-8	200 ST		NR	5 J	NR	U
Cyanide	57-12-5	200 ST		NR	U	NR	U
Iron	7439-89-6	300 ST#		***7280***	***5780***	***11400***	***9450***
Lead	7439-92-1	25 ST		UB	3.1 J	UB	U
Magnesium	7439-95-4	35000 GV		4590	5400	9280	9550
Manganese	7439-96-5	300 ST#		***4870***	***6430***	***8020***	***5940***
Mercury	7439-97-6	0.7 ST		NR	UJ	NR	U
Nickel	7440-02-0	100 ST		NR	21 J	NR	35.7 J
Potassium	7440-09-7	--		12800	13700	16200	25800
Selenium	7782-49-2	10 ST		NR	U	NR	U
Silver	7440-22-4	50 ST		NR	U	NR	U
Sodium	7440-23-5	20000 ST		***91500***	***84500***	***123000***	***142000***
Thallium	7440-28-0	0.5 GV		NR	***8.4 J***	NR	U
Vanadium	7440-62-2	--		NR	U	NR	1.5 J
Zinc	7440-66-6	2000 GV		NR	20.7	NR	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	4G-2	4G-2	4G-2	4G-2
			Sample_date	08/03/16	02/24/17	08/11/17	02/16/18
			Depth of Well BGS	211'	211'	211'	211'
			Depth to bottom screen, relative to MSL	-45'	-45'	-45'	-45'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	266	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	6.5 J
Barium	7440-39-3	1000 ST		77.5 J	99.2 J	132 J	85.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		110	130	142	128
Cadmium	7440-43-9	5 ST		U	U	UB	U
Calcium	7440-70-2	--		26900	34700	37200	32500
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	3.6 J	U
Cobalt	7440-48-4	--		3.1 J	5.3 J	5.5 J	3.1 J
Copper	7440-50-8	200 ST		3.6 J	4.1 J	10.3 J	4.2 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***761***	***343***	***2490***	***182***
Lead	7439-92-1	25 ST		6.5	2.9 J	3.9 J	U
Magnesium	7439-95-4	35000 GV		6400	8390	9240	8050
Manganese	7439-96-5	300 ST#		***4330***	***5020***	***7040***	***4870***
Mercury	7439-97-6	0.7 ST		U	U	UBJ	UB
Nickel	7440-02-0	100 ST		10.3 J	15.3 J	18.8 J	28.8 J
Potassium	7440-09-7	--		7480	9620	11500	9850
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***87600 J***	***92900***	***85200***	***81900***
Thallium	7440-28-0	0.5 GV		***7 J***	U	***6 J***	U
Vanadium	7440-62-2	--		U	0.88 J	U	U
Zinc	7440-66-6	2000 GV		UB	5.3 J	40.3	5.4 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	4M-1	4M-1	4M-1	4M-1
			Sample_date	02/24/17	08/11/17	02/16/18	09/04/18
			Depth of Well BGS	325'	325'	325'	325'
			Depth to bottom screen, relative to MSL	-159'	-159'	-159'	-159'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	354	U	46.5 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		19.9	19	20.3	16.8
Barium	7440-39-3	1000 ST		19.5 J	22.4 J	18.4 J	8.5 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		***1750***	***1510***	***1620***	***1580***
Cadmium	7440-43-9	5 ST		U	UB	U	U
Calcium	7440-70-2	--		56300	52400	50900	37600
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	UJ
Chromium, Total	7440-47-3	50 ST		3.5 J	6.3 J	2.8 J	5.7 J
Cobalt	7440-48-4	--		25 J	19.2 J	21 J	19.4 J
Copper	7440-50-8	200 ST		4.2 J	13.7 J	6 J	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***1400***	***1590***	***1100***	***1760***
Lead	7439-92-1	25 ST		1.3 J	4 J	U	U
Magnesium	7439-95-4	35000 GV		***55600***	***46800***	***49000***	***37100***
Manganese	7439-96-5	300 ST#		***2000***	***1690***	***1750***	***1300***
Mercury	7439-97-6	0.7 ST		U	UBJ	UB	U
Nickel	7440-02-0	100 ST		***172***	***139***	***185***	***128***
Potassium	7440-09-7	--		94100	83400	96800	96400
Selenium	7782-49-2	10 ST		U	U	5.2 J	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***427000***	***352000***	***373000***	***391000***
Thallium	7440-28-0	0.5 GV		U	U	UB	U
Vanadium	7440-62-2	--		4 J	3.7 J	3.8 J	5.2 J
Zinc	7440-66-6	2000 GV		2.5 J	41.8	U	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	4M-2	4M-2	4M-2	4M-2
			Sample_date	08/03/16	02/24/17	08/11/17	02/26/18
			Depth of Well BGS	486'	486'	486'	486'
			Depth to bottom screen, relative to MSL	-320'	-320'	-320'	-320'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	101 J	UB
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	3.6 J	6.9 J	3.6 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		46.4 J	50	62.4	UB
Cadmium	7440-43-9	5 ST		U	U	UB	U
Calcium	7440-70-2	--		60400	61800	62800	59500
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	1.6 J	U
Cobalt	7440-48-4	--		2.5 J	3.2 J	3.4 J	2.9 J
Copper	7440-50-8	200 ST		U	U	5.1 J	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***1390***	***1530***	***1490***	***1530 J***
Lead	7439-92-1	25 ST		6.1	U	2.2 J	U
Magnesium	7439-95-4	35000 GV		34100	35000	***35600***	33400
Manganese	7439-96-5	300 ST#		***18.7***	***20.6***	***56.6***	***18.2***
Mercury	7439-97-6	0.7 ST		U	U	UBJ	UB
Nickel	7440-02-0	100 ST		10 J	11.3 J	13.6 J	25.1 J
Potassium	7440-09-7	--		3120 J	4130 J	4540 J	3870 J
Selenium	7782-49-2	10 ST		U	U	U	7.2 J
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***168000 J***	***170000***	***169000***	***166000***
Thallium	7440-28-0	0.5 GV		***2 J***	U	U	UB
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	4.4 J	26.1	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	6G-1	6G-1	6G-1	6G-1
			Sample_date	08/11/16	03/02/17	08/09/17	02/22/18
			Depth of Well BGS	147'	147'	147'	147'
			Depth to bottom screen, relative to MSL	32'	32'	32'	32'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	3910	6160	UB
Antimony	7440-36-0	3 ST		U	UB	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	58.6 J	61.3 J	15.7 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		63.7 J	73.8	63.5	81.4
Cadmium	7440-43-9	5 ST		U	1.4 J	0.25 J	U
Calcium	7440-70-2	--		17300	19800	17300	14700
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UJ	4.1 J
Chromium, Total	7440-47-3	50 ST		2.6 J	***2130***	***1930***	UB
Cobalt	7440-48-4	--		1 J	18.8 J	24.9 J	0.84 J
Copper	7440-50-8	200 ST		UB	48.2	47.5	UB
Cyanide	57-12-5	200 ST		UJ	UB	U	UJ
Iron	7439-89-6	300 ST#		U	***16800***	***17400***	47.6
Lead	7439-92-1	25 ST		4.2 J	15.5 J	13.8	U
Magnesium	7439-95-4	35000 GV		6970	7940	6930	4820
Manganese	7439-96-5	300 ST#		U	***894***	***1130***	UB
Mercury	7439-97-6	0.7 ST		UJ	UB	UB	UB
Nickel	7440-02-0	100 ST		2.8 J	***146***	***114***	16.9 J
Potassium	7440-09-7	--		2370 J	3190 J	4950 J	4330 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		UJ	U	U	U
Sodium	7440-23-5	20000 ST		***51200***	***53400***	***46400***	***54200***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	17.2 J	23.6 J	U
Zinc	7440-66-6	2000 GV		6.7 J	29.8	33.2	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	6G-2	6G-2	6G-2	6G-2
			Sample_date	08/11/16	03/02/17	08/09/17	02/23/18
			Depth of Well BGS	230'	230'	230'	230'
			Depth to bottom screen, relative to MSL	-53'	-53'	-53'	-53'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	UB	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		37 J	40.7 J	48.2 J	39.8 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		110	118	111	120
Cadmium	7440-43-9	5 ST		U	U	0.16 J	U
Calcium	7440-70-2	--		21400	23400	22400	22100
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UB	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		8.1 J	8.2 J	9.5 J	6.8 J
Copper	7440-50-8	200 ST		UB	U	3.4 J	1.1 J
Cyanide	57-12-5	200 ST		UJ	UB	4.7 J	U
Iron	7439-89-6	300 ST#		U	U	132	U
Lead	7439-92-1	25 ST		3.1 J	2.8 J	3.3 J	U
Magnesium	7439-95-4	35000 GV		8170	8830	8580	8510
Manganese	7439-96-5	300 ST#		109	114	***347***	96.5
Mercury	7439-97-6	0.7 ST		UJ	UB	U	UB
Nickel	7440-02-0	100 ST		5.5 J	5.7 J	6.8 J	5 J
Potassium	7440-09-7	--		1130 J	1290 J	2580 J	1840 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		UJ	U	U	U
Sodium	7440-23-5	20000 ST		***89400***	***85400***	***85100***	***84800***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	U	UB	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	6G-3	6G-3	6G-3	6G-3
			Sample_date	08/11/16	03/02/17	08/09/17	02/23/18
			Depth of Well BGS	315'	315'	315'	315'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	UB	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		47.1 J	52.1 J	101 J	49.9 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		219	254	227	246
Cadmium	7440-43-9	5 ST		U	U	U	U
Calcium	7440-70-2	--		38800	41400	40000	38800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UB	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		5.3 J	6.2 J	36.8 J	6 J
Copper	7440-50-8	200 ST		UB	U	2.9 J	5 J
Cyanide	57-12-5	200 ST		UJ	UB	U	U
Iron	7439-89-6	300 ST#		***153***	***191***	***1910***	***170***
Lead	7439-92-1	25 ST		5 J	7.4 J	5.3	2.6 J
Magnesium	7439-95-4	35000 GV		22200	23200	22700	22300
Manganese	7439-96-5	300 ST#		***3410***	***4060***	***5730***	***4710***
Mercury	7439-97-6	0.7 ST		UJ	UB	UB	UB
Nickel	7440-02-0	100 ST		13.9 J	15.5 J	18.4 J	15.7 J
Potassium	7440-09-7	--		8100	8460	9600	8760
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		UJ	U	U	U
Sodium	7440-23-5	20000 ST		***43300***	***42400***	***41000***	***43800***
Thallium	7440-28-0	0.5 GV		***6.6 J***	U	UB	UB
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	U	42.3	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	6M-1	6M-1	6M-1	6M-1
			Sample_date	08/27/14	09/02/15	08/11/16	08/09/17
			Depth of Well BGS	545'	545'	545'	545'
			Depth to bottom screen, relative to MSL	-368'	-368'	-368'	-368'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	26.7 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	2.5 B	U	U
Barium	7440-39-3	1000 ST		8.9 B	9 B	U	12.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		40.3 B	44 B	41.5 J	46 J
Cadmium	7440-43-9	5 ST		U	U	U	UB
Calcium	7440-70-2	--		13000	13000	13200	13000
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	14 J
Chromium, Total	7440-47-3	50 ST		15.6	U	U	U
Cobalt	7440-48-4	--		1.6 B	1.6 B	1.1 J	1.8 J
Copper	7440-50-8	200 ST		UB	UB	U	U
Cyanide	57-12-5	200 ST		U	U	UJ	U
Iron	7439-89-6	300 ST#		195	94.4 B	155	183
Lead	7439-92-1	25 ST		U	5.8	3.1 J	U
Magnesium	7439-95-4	35000 GV		8760	9190	9240	9100
Manganese	7439-96-5	300 ST#		94.4	84.6	75.4	248
Mercury	7439-97-6	0.7 ST		U	U	UJ	UJ
Nickel	7440-02-0	100 ST		17.7 B	3 B	2.9 J	4.2 J
Potassium	7440-09-7	--		1460 B	1880 B	1030 J	2110 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	UBJ	UJ	U
Sodium	7440-23-5	20000 ST		19000	18100	19500	18600
Thallium	7440-28-0	0.5 GV		U	***2.8 B***	U	U
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	U	U	9.8 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	7M-1	7M-1	7M-1	7M-1
			Sample_date	08/10/16	02/28/17	08/10/17	02/23/18
			Depth of Well BGS	214'	214'	214'	214'
			Depth to bottom screen, relative to MSL	-152'	-152'	-152'	-152'
			Gradient relative to MSW	CROSS	CROSS	CROSS	CROSS
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	44.3 J	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	10.6 J	14.2 J	12.2 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		30.3 J	31.8 J	UB	UB
Cadmium	7440-43-9	5 ST		U	U	UB	U
Calcium	7440-70-2	--		18000	19200	17700	17200
Chromium, Hexavalent	18540-29-9	50 ST		U	UJ	U	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		U	U	U	U
Copper	7440-50-8	200 ST		U	U	U	UB
Cyanide	57-12-5	200 ST		U	UJ	U	U
Iron	7439-89-6	300 ST#		U	U	60.1	U
Lead	7439-92-1	25 ST		2.7 J	1.8 J	1.6 J	U
Magnesium	7439-95-4	35000 GV		8040	8720	7470	6980
Manganese	7439-96-5	300 ST#		6.3 J	UB	21.5	UB
Mercury	7439-97-6	0.7 ST		UB	UB	UBJ	UB
Nickel	7440-02-0	100 ST		U	U	U	U
Potassium	7440-09-7	--		782 J	1780 J	1870 J	2140 J
Selenium	7782-49-2	10 ST		UJ	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		14100 J	13700	13800	16800
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	U	12.6 J	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	8G-1	8G-1	8G-1	8G-1
			Sample_date	08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS	114'	114'	114'	114'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	13.8 J	641	UB
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		78.6 J	246	125 J	163 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		24.9 J	UB	UB	UB
Cadmium	7440-43-9	5 ST		0.2 J	U	***8.6***	0.38 J
Calcium	7440-70-2	--		56400	76100	78100	56600
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		5.3 J	7.5 J	***70.2***	UB
Cobalt	7440-48-4	--		U	U	0.79 J	1.5 J
Copper	7440-50-8	200 ST		0.9 J	U	9.2 J	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	52.1 J	***1100***	26.4 J
Lead	7439-92-1	25 ST		5.3	1.4 J	8.1	U
Magnesium	7439-95-4	35000 GV		18300	26400	20000	22400
Manganese	7439-96-5	300 ST#		10.6 J	12.3	***51.4***	22.8
Mercury	7439-97-6	0.7 ST		U	U	UB	UB
Nickel	7440-02-0	100 ST		5.7 J	8.2 J	16.9 J	23.6 J
Potassium	7440-09-7	--		2370 J	5700	5780	4480 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***47200*** J	***268000***	***118000***	***194000***
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	U	1.6 J	U
Zinc	7440-66-6	2000 GV		UB	8.6 J	140	17.8 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	8M-1	8M-1	8M-1	8M-1
			Sample_date	08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS	270'	270'	270'	270'
			Depth to bottom screen, relative to MSL	-134'	-134'	-134'	-134'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	36.8 J	6520	UB
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		45.3 J	45.2 J	150 J	31.9 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		297	261	178	244
Cadmium	7440-43-9	5 ST		U	0.22 J	2 J	0.18 J
Calcium	7440-70-2	--		54700	50500	46000	39400
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	15.5	U
Cobalt	7440-48-4	--		10.2 J	8.7 J	7.8 J	7.1 J
Copper	7440-50-8	200 ST		2.3 J	2.6 J	41.6	UB
Cyanide	57-12-5	200 ST		U	U	14.2	U
Iron	7439-89-6	300 ST#		U	UB	***5880***	15.2 J
Lead	7439-92-1	25 ST		8.4	U	20.6	U
Magnesium	7439-95-4	35000 GV		34800	29300	15000	25500
Manganese	7439-96-5	300 ST#		42.9	32.4	***122***	37.5
Mercury	7439-97-6	0.7 ST		U	U	***3.4***	UB
Nickel	7440-02-0	100 ST		23.1 J	19.6 J	29 J	35.2 J
Potassium	7440-09-7	--		8070	8280	6380	8350
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***89600 J***	***144000***	***94100***	***69900***
Thallium	7440-28-0	0.5 GV		***2.3 J***	U	U	UB
Vanadium	7440-62-2	--		U	U	11.3 J	U
Zinc	7440-66-6	2000 GV		UB	44.9	745	14.8 J

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	8M-2	8M-2	8M-2	8M-2
			Sample_date	08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS	383'	383'	383'	383'
			Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	766	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	4.8 J	15.1 J	4.2 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		19.3 J	UB	UB	UB
Cadmium	7440-43-9	5 ST		U	U	***10.2***	U
Calcium	7440-70-2	--		11400	10700	12500	10500
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UJ	U
Chromium, Total	7440-47-3	50 ST		U	U	5.1 J	U
Cobalt	7440-48-4	--		U	U	1.8 J	1.2 J
Copper	7440-50-8	200 ST		0.3 J	U	20.6 J	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	U	***2040 J***	UJ
Lead	7439-92-1	25 ST		6.1	U	***65.5***	U
Magnesium	7439-95-4	35000 GV		6360	6020	6460	5840
Manganese	7439-96-5	300 ST#		10.7 J	10.3	***144***	UB
Mercury	7439-97-6	0.7 ST		U	U	0.029 J	UB
Nickel	7440-02-0	100 ST		U	1.4 J	10.1 J	15.3 J
Potassium	7440-09-7	--		U	1310 J	1810 J	1130 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		11800 J	9960	***22100***	9950
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	U	2.9 J	U
Zinc	7440-66-6	2000 GV		U	1.6 J	248	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	9G-1	9G-1	9G-1	9G-1
			Sample_date	08/27/15	08/09/16	08/08/17	09/07/18
			Depth of Well BGS	68'	68'	68'	68'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	UP	UP	UP	UP
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	U	2880	1030
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		5.1 B	U	14.5 J	8.3 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		UB	6.4 J	UB	UB
Cadmium	7440-43-9	5 ST		U	U	0.36 J	UB
Calcium	7440-70-2	--		3330 BJ	4530	1720	1350
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	23
Chromium, Total	7440-47-3	50 ST		UB	2.4 J	21.4	53
Cobalt	7440-48-4	--		U	U	1.1 J	0.74 J
Copper	7440-50-8	200 ST		U	U	5.1 J	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	U	***2680***	***1480***
Lead	7439-92-1	25 ST		1.4 BJ	U	8	3.7 J
Magnesium	7439-95-4	35000 GV		1240 BJ	1400	611	519
Manganese	7439-96-5	300 ST#		UBJ	4.1 J	***83***	***74.4***
Mercury	7439-97-6	0.7 ST		UJ	UB	UB	UB
Nickel	7440-02-0	100 ST		UB	7.4 J	7 J	16 J
Potassium	7440-09-7	--		UBJ	U	3530 J	1480 J
Selenium	7782-49-2	10 ST		UJ	UJ	U	U
Silver	7440-22-4	50 ST		UJ	U	U	U
Sodium	7440-23-5	20000 ST		3900 BJ	7040 J	5970	7480
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	U	5.4 J	3.5 J
Zinc	7440-66-6	2000 GV		UB	U	70.7	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	10G-1	10G-1	10G-1	10G-1
			Sample_date	08/21/14	08/14/15	08/10/16	08/10/17
			Depth of Well BGS	69'	69'	69'	69'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	323
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		49.5 B	101 B	104 J	43.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		UB	UJ	14.4 J	UB
Cadmium	7440-43-9	5 ST		U	0.4 B	0.3 J	***14.7***
Calcium	7440-70-2	--		11000	14700 J	12700	6580
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	15 J
Chromium, Total	7440-47-3	50 ST		UB	30	7.4 J	***348***
Cobalt	7440-48-4	--		U	0.8 B	U	U
Copper	7440-50-8	200 ST		UB	UB	UB	8.9 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	170	59.1 J	***5160***
Lead	7439-92-1	25 ST		U	8.8	2.3 J	1.9 J
Magnesium	7439-95-4	35000 GV		3070 B	4670 BJ	5130	2210
Manganese	7439-96-5	300 ST#		209	258 J	224	***248***
Mercury	7439-97-6	0.7 ST		U	UJ	UB	UBJ
Nickel	7440-02-0	100 ST		1.8 B	7 B	4 J	9.3 J
Potassium	7440-09-7	--		1480 B	2330 B	1180 J	11300
Selenium	7782-49-2	10 ST		U	U	UJ	U
Silver	7440-22-4	50 ST		U	UB	U	U
Sodium	7440-23-5	20000 ST		***30800***	***64100***	***73500*** J	***38600***
Thallium	7440-28-0	0.5 GV		U	U	UB	U
Vanadium	7440-62-2	--		U	U	U	1.2 J
Zinc	7440-66-6	2000 GV		U	UB	U	68.3

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	10M-1	10M-1	10M-1	10M-1
			Sample_date	08/10/16	02/24/17	08/10/17	02/15/18
			Depth of Well BGS	256	256	256	256
			Depth to bottom screen, relative to MSL	-167	-167	-167	-167
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	582	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	5 J
Barium	7440-39-3	1000 ST		U	3.1 J	6.6 J	3 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		70.5 J	71.5	38.5 J	68.9
Cadmium	7440-43-9	5 ST		U	U	***5.5***	U
Calcium	7440-70-2	--		73100	70800	19700	68700
Chromium, Hexavalent	18540-29-9	50 ST		U	U	15 J	UJ
Chromium, Total	7440-47-3	50 ST		U	U	2.5 J	U
Cobalt	7440-48-4	--		0.7 J	UB	1.1 J	1.3 J
Copper	7440-50-8	200 ST		UB	U	7.7 J	U
Cyanide	57-12-5	200 ST		U	UJ	U	U
Iron	7439-89-6	300 ST#		U	19.8 J	***2600***	U
Lead	7439-92-1	25 ST		3.3 J	U	U	U
Magnesium	7439-95-4	35000 GV		***46100***	***45200***	9860	***43200***
Manganese	7439-96-5	300 ST#		3.6 J	UB	***135***	3.4 J
Mercury	7439-97-6	0.7 ST		UB	U	UBJ	UB
Nickel	7440-02-0	100 ST		6 J	5.7 J	9 J	27.4 J
Potassium	7440-09-7	--		2100 J	3400 J	12400	3470 J
Selenium	7782-49-2	10 ST		UJ	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***33900*** J	***41400***	11100	***46100***
Thallium	7440-28-0	0.5 GV		UB	U	U	UB
Vanadium	7440-62-2	--		U	UB	U	U
Zinc	7440-66-6	2000 GV		U	UB	110	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	11G-1	11G-1	11G-1	11G-1
			Sample_date	02/23/17	08/03/17	02/26/18	08/31/18
			Depth of Well BGS	145'	145'	145'	145'
			Depth to bottom screen, relative to MSL	22'	22'	22'	22'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		72.4 J	UB	UB	115 J
Antimony	7440-36-0	3 ST		U	U	UB	U
Arsenic	7440-38-2	25 ST		U	U	4.3 J	U
Barium	7440-39-3	1000 ST		50.9 J	59.2 J	53.6 J	58.8 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		901	879	892	955
Cadmium	7440-43-9	5 ST		0.11 J	0.34 J	U	U
Calcium	7440-70-2	--		3460	3280	2120	1600
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UJ	11 J
Chromium, Total	7440-47-3	50 ST		6.1 J	7.1 J	UB	7.8 J
Cobalt	7440-48-4	--		26.9 J	24.1 J	23 J	23.5 J
Copper	7440-50-8	200 ST		26.9	26	22.5 J	39.2
Cyanide	57-12-5	200 ST		U	U	UJ	U
Iron	7439-89-6	300 ST#		***613***	***885***	***479 J***	***636***
Lead	7439-92-1	25 ST		U	5.6	U	1.3 J
Magnesium	7439-95-4	35000 GV		4240	4670	5450	6440
Manganese	7439-96-5	300 ST#		***2620***	***1770***	***1780***	***964***
Mercury	7439-97-6	0.7 ST		0.025 J	UB	UB	UB
Nickel	7440-02-0	100 ST		***110***	***105***	***113***	***104***
Potassium	7440-09-7	--		61000	65200	70700	71500
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***236000***	***222000***	***227000***	***255000***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		1.3 J	1.8 J	U	1.8 J
Zinc	7440-66-6	2000 GV		6 J	25.3	UB	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	11G-2	11G-2	11G-2	11G-2
			Sample_date	02/23/17	08/03/17	02/26/18	08/31/18
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-51	-51	-51	-51
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	UB	UB	182 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		216	227	234	221
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		***1760***	***1650***	***1670***	***1600***
Cadmium	7440-43-9	5 ST		U	0.17 J	U	UB
Calcium	7440-70-2	--		22400	24300	22300	17100
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UJ	20 J
Chromium, Total	7440-47-3	50 ST		4.9 J	5.6 J	U	7.9 J
Cobalt	7440-48-4	--		43.2 J	33.1 J	37.9 J	33.7 J
Copper	7440-50-8	200 ST		26.2	17 J	25.3	85
Cyanide	57-12-5	200 ST		U	U	UJ	U
Iron	7439-89-6	300 ST#		***699***	***842***	***687 J***	***951***
Lead	7439-92-1	25 ST		1.5 J	3.9 J	U	4.1 J
Magnesium	7439-95-4	35000 GV		19400	18800	19700	16200
Manganese	7439-96-5	300 ST#		***3200***	***1510***	***2630***	***2940***
Mercury	7439-97-6	0.7 ST		0.053 J	UB	UB	UB
Nickel	7440-02-0	100 ST		***205***	***190***	***210***	***194***
Potassium	7440-09-7	--		94300	93700	105000	95500
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***418000***	***381000***	***384000***	***394000***
Thallium	7440-28-0	0.5 GV		U	UB	U	U
Vanadium	7440-62-2	--		1.9 J	U	U	1.8 J
Zinc	7440-66-6	2000 GV		5.2 J	21	U	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	11M-1	11M-1	11M-1	11M-1
			Sample_date	08/22/14	08/19/15	08/09/16	08/03/17
			Depth of Well BGS	320'	320'	320'	320'
			Depth to bottom screen, relative to MSL	-154'	-154'	-154'	-154'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	UB
Antimony	7440-36-0	3 ST		U	UB	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		5.2 B	5 B	U	7.2 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		35.7 B	UB	26.2 J	UB
Cadmium	7440-43-9	5 ST		U	U	U	0.093 J
Calcium	7440-70-2	--		38100	41400 J	40000	36800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		UB	U	U	4.7 J
Cobalt	7440-48-4	--		0.6 B	0.9 B	1.1 J	0.93 J
Copper	7440-50-8	200 ST		UB	UB	UB	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	U	129	248
Lead	7439-92-1	25 ST		U	1.6 BJ	3.5 J	3.8 J
Magnesium	7439-95-4	35000 GV		21000	22900 J	22500	18900
Manganese	7439-96-5	300 ST#		129	144 J	158	121
Mercury	7439-97-6	0.7 ST		U	UJ	UB	UB
Nickel	7440-02-0	100 ST		7.7 B	7.2 B	6.9 J	9.2 J
Potassium	7440-09-7	--		2190 B	2660 BJ	1970 J	2770 J
Selenium	7782-49-2	10 ST		U	UJ	UJ	U
Silver	7440-22-4	50 ST		U	UJ	U	U
Sodium	7440-23-5	20000 ST		***35500***	***39600 J***	***39300*** J	***32600***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		0.9 B	U	U	U
Zinc	7440-66-6	2000 GV		U	UB	U	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	12M-1 08/11/16 338' -163' DOWN	12M-1 03/02/17 338' -163' DOWN	12M-1 08/09/17 338' -163' DOWN	12M-1 02/22/18 338' -163' DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	UB	UB
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		***31.8***	***30.1***	***57.7***	***25.2***
Barium	7440-39-3	1000 ST		19.2 J	21.5 J	53.8 J	20.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		224	292	251	281
Cadmium	7440-43-9	5 ST		U	U	0.35 J	U
Calcium	7440-70-2	--		81200	77600	74700	72000
Chromium, Hexavalent	18540-29-9	50 ST		U	U		U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		2.9 J	3.1 J	13.9 J	2.4 J
Copper	7440-50-8	200 ST		UB	U	6.8 J	UB
Cyanide	57-12-5	200 ST		UJ	UB	U	U
Iron	7439-89-6	300 ST#		***2320***	***2270***	***6300***	***1860***
Lead	7439-92-1	25 ST		6.4	7.9 J	9.1	UB
Magnesium	7439-95-4	35000 GV		***44400***	***42200***	***40700***	***39000***
Manganese	7439-96-5	300 ST#		***1630***	***1630***	***6680***	***1590***
Mercury	7439-97-6	0.7 ST		UJ	UB	UB	UB
Nickel	7440-02-0	100 ST		9.9 J	13 J	13.7 J	13 J
Potassium	7440-09-7	--		3780 J	4130 J	5630	4840 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		UJ	U	U	U
Sodium	7440-23-5	20000 ST		***61100***	***69700***	***67400***	***70400***
Thallium	7440-28-0	0.5 GV		U	U	UB	UB
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		4.5 J	UB	UB	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	13G-1	13G-1	13G-1	13G-1
			Sample_date	08/09/16	02/22/17	08/11/17	02/15/18
			Depth of Well BGS	93'	93'	93'	93'
			Depth to bottom screen, relative to MSL	17'	17'	17'	17'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	215	U
Antimony	7440-36-0	3 ST		U	U	U	UB
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		22 J	22.4 J	21.4 J	22.6 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		18.1 J	UB	UB	20.1 J
Cadmium	7440-43-9	5 ST		U	U	0.88 J	U
Calcium	7440-70-2	--		18000	18200	13500	18800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		2.7 J	3.2 J	19.9	3.5 J
Cobalt	7440-48-4	--		U	U	U	U
Copper	7440-50-8	200 ST		UB	3.1 J	4.8 J	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	UB	***360***	13.8 J
Lead	7439-92-1	25 ST		2.1 J	U	U	U
Magnesium	7439-95-4	35000 GV		6910	6870	5240	7030
Manganese	7439-96-5	300 ST#		4.1 J	4.5 J	10	5.3 J
Mercury	7439-97-6	0.7 ST		UB	U	UBJ	UB
Nickel	7440-02-0	100 ST		7.1 J	7.8 J	2.1 J	21.2 J
Potassium	7440-09-7	--		826 J	1790 J	2160 J	1530 J
Selenium	7782-49-2	10 ST		UJ	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		14000 J	14800	11300	14600
Thallium	7440-28-0	0.5 GV		UB	U	U	U
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		19.1 J	18.3 J	33.4	20.2

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	13M-1	13M-1	13M-1	13M-1
			Sample_date	08/09/16	02/22/17	08/11/17	02/15/18
			Depth of Well BGS	265'	265'	265'	265'
			Depth to bottom screen, relative to MSL	-155	-155	-155	-155
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	402	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		20.4 J	21 J	20.4 J	20.6 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		129	134	58.8	138
Cadmium	7440-43-9	5 ST		U	U	1.5 J	U
Calcium	7440-70-2	--		103000	97300	45000	94900
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	1.8 J	2.4 J	U
Cobalt	7440-48-4	--		1 J	1.3 J	0.64 J	1.8 J
Copper	7440-50-8	200 ST		UB	U	21.5 J	2.7 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		158	258	***469***	200
Lead	7439-92-1	25 ST		4.1 J	1.4 J	4.3 J	U
Magnesium	7439-95-4	35000 GV		***75700***	***72300***	9110	***70400***
Manganese	7439-96-5	300 ST#		21.5	24.7	15.4	27.2
Mercury	7439-97-6	0.7 ST		UB	U	U	UB
Nickel	7440-02-0	100 ST		9.5 J	11.3 J	4 J	43.8
Potassium	7440-09-7	--		3930 J	4410 J	11300	4580 J
Selenium	7782-49-2	10 ST		UJ	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***50700 J***	***53000***	16000	***63000***
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	U	9.1 J	U
Zinc	7440-66-6	2000 GV		U	7.5 J	41.2	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

			Sample ID	14G-1A	14G-1A	14G-1A	14G-1A
			Sample_date	08/02/16	02/23/17	08/02/17	02/14/18
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-58	-58	-58	-58
Units in ug/l			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	UB	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		31 J	29.6 J	54.4 J	28.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		125	132	122	122
Cadmium	7440-43-9	5 ST		U	U	3.5	U
Calcium	7440-70-2	--		42400	38300	47800	38800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UB	UJ
Chromium, Total	7440-47-3	50 ST		U	U	21.4	U
Cobalt	7440-48-4	--		3.8 J	3.8 J	3.6 J	3.6 J
Copper	7440-50-8	200 ST		0.8 J	U	3.8 J	0.52 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	U	***1640***	U
Lead	7439-92-1	25 ST		7	U	10.4	U
Magnesium	7439-95-4	35000 GV		24800	22000	21300	20100
Manganese	7439-96-5	300 ST#		U	U	***44.9***	U
Mercury	7439-97-6	0.7 ST		U	U	U	UB
Nickel	7440-02-0	100 ST		5.7 J	5.6 J	23.4 J	23.3 J
Potassium	7440-09-7	--		2940 J	3620 J	15600	4540 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***56500*** J	***54900***	***56300***	***50300***
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	0.91 J	2.2 J	U
Zinc	7440-66-6	2000 GV		U	U	76.6	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	14G-2	14G-2	14G-2	14G-2
			Sample_date	08/02/16	02/23/17	08/02/17	02/14/18
			Depth of Well BGS	264'	264'	264'	264'
			Depth to bottom screen, relative to MSL	-103	-103	-103	-103
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	UB	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		49.2 J	50 J	52.2 J	48.6 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		130	142	129	116
Cadmium	7440-43-9	5 ST		U	U	0.85 J	U
Calcium	7440-70-2	--		42300	41000	39300	40000
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UB	UJ
Chromium, Total	7440-47-3	50 ST		2.6 J	6.8 J	9.9 J	3.4 J
Cobalt	7440-48-4	--		4.3 J	4.9 J	4.6 J	3.5 J
Copper	7440-50-8	200 ST		U	U	3.9 J	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	55.4 J	***676***	16.2 J
Lead	7439-92-1	25 ST		7	U	7.5	U
Magnesium	7439-95-4	35000 GV		24500	24400	23600	24200
Manganese	7439-96-5	300 ST#		U	2.5 J	***20.8***	U
Mercury	7439-97-6	0.7 ST		U	U	UB	UB
Nickel	7440-02-0	100 ST		18.2 J	22.1 J	21.1 J	37 J
Potassium	7440-09-7	--		1680 J	2580 J	2750 J	2430 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***46700*** J	***43700***	***45200***	***45500***
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	U	29.2	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	14M-1	14M-1	14M-1	14M-1
			Sample_date	02/23/17	08/02/17	02/14/18	09/05/18
			Depth of Well BGS	355'	355'	355'	355'
			Depth to bottom screen, relative to MSL	-194'	-194'	-194'	-194'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	UB	U	157 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		35.6 J	40.8 J	35.6 J	50.6 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		***1170***	997	***1090***	***1120***
Cadmium	7440-43-9	5 ST		U	0.17 J	U	UB
Calcium	7440-70-2	--		100000	91000	93400	91800
Chromium, Hexavalent	18540-29-9	50 ST		U	UB	UJ	UJ
Chromium, Total	7440-47-3	50 ST		U	2.4 J	U	2.5 J
Cobalt	7440-48-4	--		13.8 J	11.1 J	14.3 J	12.4 J
Copper	7440-50-8	200 ST		5.4 J	5.3 J	3.8 J	65.9
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***664***	***591***	***607***	***518***
Lead	7439-92-1	25 ST		1.8 J	6.9	U	2.6 J
Magnesium	7439-95-4	35000 GV		***62000***	***56400***	***58200***	***56200***
Manganese	7439-96-5	300 ST#		***5520***	***4440***	***4900***	***3920***
Mercury	7439-97-6	0.7 ST		U	U	U	U
Nickel	7440-02-0	100 ST		***105***	*93.4*	***133***	100
Potassium	7440-09-7	--		38000	35000	38900	40300
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***291000***	***272000***	***277000***	***286000***
Thallium	7440-28-0	0.5 GV		U	UB	UB	U
Vanadium	7440-62-2	--		1.6 J	U	U	UB
Zinc	7440-66-6	2000 GV		1.6 J	19.5 J	U	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	15G-1	15G-1	15G-1	15G-1
			Sample_date	08/25/14	08/19/15	08/09/16	08/14/17
			Depth of Well BGS	160'	160'	160'	160'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	33.4 J	289
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		14.2 B	16.7 B	17.6 J	57.6 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		UB	UJ	12.9 J	UB
Cadmium	7440-43-9	5 ST		U	U	U	1.7 J
Calcium	7440-70-2	--		16900	18900 J	19900	23600
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		17.4	UB	2.4 J	7.6 J
Cobalt	7440-48-4	--		0.5 B	U	0.4 J	U
Copper	7440-50-8	200 ST		UB	U	UB	6.6 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	U	98.9 J	***415***
Lead	7439-92-1	25 ST		U	9	2 J	6.1
Magnesium	7439-95-4	35000 GV		6880	7300 J	7850	7520
Manganese	7439-96-5	300 ST#		UB	UJ	12.2 J	50
Mercury	7439-97-6	0.7 ST		U	UJ	UB	U
Nickel	7440-02-0	100 ST		10.1 B	UB	3 J	9.2 J
Potassium	7440-09-7	--		1320 B	1760 B	1260 J	2800 J
Selenium	7782-49-2	10 ST		U	U	UJ	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		5760	5830	7630 J	7630
Thallium	7440-28-0	0.5 GV		U	U	UB	U
Vanadium	7440-62-2	--		0.5 B	U	U	1.4 J
Zinc	7440-66-6	2000 GV		U	UB	U	132

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	16G-1	16G-1	16G-1	16G-1
			Sample_date	08/21/14	08/14/15	08/10/16	08/10/17
			Depth of Well BGS	57'	57'	57'	57'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		UB	UB	U	99.2 J
Antimony	7440-36-0	3 ST		1.9 B	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		14.8 B	13.7 B	18.9 J	23.1 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		UB	UJ	7.7 J	UB
Cadmium	7440-43-9	5 ST		U	U	U	***5.7***
Calcium	7440-70-2	--		7190	7160 J	9110	8620
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	UB	U	3.5 J
Cobalt	7440-48-4	--		U	U	U	U
Copper	7440-50-8	200 ST		U	U	U	14.3 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	33.8 B	U	***1420***
Lead	7439-92-1	25 ST		U	3.1	U	U
Magnesium	7439-95-4	35000 GV		1540 B	1540 BJ	2110	1950
Manganese	7439-96-5	300 ST#		UB	UJ	U	***132***
Mercury	7439-97-6	0.7 ST		U	UJ	UB	UJ
Nickel	7440-02-0	100 ST		U	U	U	4.2 J
Potassium	7440-09-7	--		1200 B	1240 B	U	1940 J
Selenium	7782-49-2	10 ST		U	U	UJ	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		UB	3150 B	1490 J	UB
Thallium	7440-28-0	0.5 GV		U	***2.4 B***	UB	U
Vanadium	7440-62-2	--		0.5 B	U	U	U
Zinc	7440-66-6	2000 GV		U	UB	U	27.2

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	16M-1	16M-1	16M-1	16M-1
			Sample_date	08/10/16	02/24/17	08/10/17	02/15/18
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-163	-163	-163	-163
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	96.2 J	U
Antimony	7440-36-0	3 ST		U	UB	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	5.5 J	7.5 J	5.4 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		56 J	59.4	67.2	66.5
Cadmium	7440-43-9	5 ST		U	U	UB	U
Calcium	7440-70-2	--		56200	52000	50800	52500
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	U
Chromium, Total	7440-47-3	50 ST		U	U	1.6 J	U
Cobalt	7440-48-4	--		1.5 J	2 J	1.7 J	2.9 J
Copper	7440-50-8	200 ST		UB	U	3 J	U
Cyanide	57-12-5	200 ST		U	UJ	U	U
Iron	7439-89-6	300 ST#		U	U	97.9	U
Lead	7439-92-1	25 ST		4.4 J	U	U	U
Magnesium	7439-95-4	35000 GV		***35100***	*32700*	32300	32500
Manganese	7439-96-5	300 ST#		7.4 J	UB	27.2	8.2 J
Mercury	7439-97-6	0.7 ST		UB	U	UBJ	UB
Nickel	7440-02-0	100 ST		8.1 J	8.4 J	8 J	28.2 J
Potassium	7440-09-7	--		1360 J	2360 J	3180 J	2610 J
Selenium	7782-49-2	10 ST		UJ	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***38200*** J	***38100***	***41100***	***41000***
Thallium	7440-28-0	0.5 GV		U	U	U	UB
Vanadium	7440-62-2	--		U	UB	2.5 J	U
Zinc	7440-66-6	2000 GV		U	U	14.5 J	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	18G-1	18G-1	18G-1	18G-1
			Sample_date	08/03/16	02/22/17	08/02/17	02/16/18
			Depth of Well BGS	157'	157'	157'	157'
			Depth to bottom screen, relative to MSL	11'	11'	11'	11'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	14.7 J	UB	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		42.9 J	47.1 J	50.2 J	42.5 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		238	340	352	329
Cadmium	7440-43-9	5 ST		0.3 J	0.21 J	0.36 J	U
Calcium	7440-70-2	--		7400	6570	6210	5770
Chromium, Hexavalent	18540-29-9	50 ST		U	U	UB	U
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		11.6 J	13.5 J	16.1 J	11 J
Copper	7440-50-8	200 ST		11.3 J	14.9 J	15.4 J	12.8 J
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		***52.4 J***	UB	***360***	***67.8***
Lead	7439-92-1	25 ST		5.4	2.6 J	5.2	U
Magnesium	7439-95-4	35000 GV		5130	4820	4930	4550
Manganese	7439-96-5	300 ST#		***12000***	U	***11300***	***12700***
Mercury	7439-97-6	0.7 ST		U	U	UB	UB
Nickel	7440-02-0	100 ST		31 J	37.3 J	38.8 J	49
Potassium	7440-09-7	--		23200	28600	30800	26600
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		2.8 J	U	U	U
Sodium	7440-23-5	20000 ST		***97600*** J	***108000***	***109000***	***106000***
Thallium	7440-28-0	0.5 GV		***17.8***	***14.8***	UB	U
Vanadium	7440-62-2	--		U	U	U	U
Zinc	7440-66-6	2000 GV		U	UB	UB	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	18G-2	18G-2	18G-2	18G-2
			Sample_date	02/22/17	08/02/17	02/16/18	09/06/18
			Depth of Well BGS	197'	197'	197'	197'
			Depth to bottom screen, relative to MSL	-29	-29	-29	-29
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	UB	U	45.2 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		53.9 J	69.6 J	48.8 J	57.7 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		183	206	182	177
Cadmium	7440-43-9	5 ST		U	0.22 J	U	UB
Calcium	7440-70-2	--		22200	23700	22200	22000
Chromium, Hexavalent	18540-29-9	50 ST		U	UB	U	UJ
Chromium, Total	7440-47-3	50 ST		1.7 J	1.7 J	U	56.6
Cobalt	7440-48-4	--		18 J	23.7 J	13.3 J	16 J
Copper	7440-50-8	200 ST		3.9 J	6 J	1 J	UB
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		UB	***209***	U	***356***
Lead	7439-92-1	25 ST		U	5 J	U	U
Magnesium	7439-95-4	35000 GV		8130	8990	8160	8860
Manganese	7439-96-5	300 ST#		***6610***	***6590***	***4630***	***7000***
Mercury	7439-97-6	0.7 ST		U	UB	U	UB
Nickel	7440-02-0	100 ST		14.2 J	15.6 J	25.5 J	11.6 J
Potassium	7440-09-7	--		10600	13500	10100	12300
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***88500***	***88900***	***77200***	***87400***
Thallium	7440-28-0	0.5 GV		***6.2 J***	UB	U	U
Vanadium	7440-62-2	--		U	U	U	UB
Zinc	7440-66-6	2000 GV		7.5 J	UB	U	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	22M-1	22M-1	22M-1	22M-1
			Sample_date	02/23/17	08/11/17	02/26/18	09/05/18
			Depth of Well BGS	222'	222'	222'	222'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	UP	UP	UP	UP
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	198 J	U	307 J
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		30.2 J	28.8 J	30.3 J	33 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		39.1 J	39.5 J	UB	40.4 J
Cadmium	7440-43-9	5 ST		U	***11.7***	U	UB
Calcium	7440-70-2	--		15900	14400	16200	18100
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	UJ
Chromium, Total	7440-47-3	50 ST		U	3.1 J	U	U
Cobalt	7440-48-4	--		0.68 J	0.64 J	0.49 J	U
Copper	7440-50-8	200 ST		U	U	UB	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	256	38.2 J	***469***
Lead	7439-92-1	25 ST		U	1.7 J	U	U
Magnesium	7439-95-4	35000 GV		4850	4370	4910	5340
Manganese	7439-96-5	300 ST#		1.9 J	15.7	UB	UB
Mercury	7439-97-6	0.7 ST		U	UBJ	UB	UB
Nickel	7440-02-0	100 ST		U	19 J	11.6 J	U
Potassium	7440-09-7	--		1480 J	2730 J	2210 J	2130 J
Selenium	7782-49-2	10 ST		U	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		16400	13000	16200	17800
Thallium	7440-28-0	0.5 GV		U	U	UB	U
Vanadium	7440-62-2	--		U	1.2 J	U	UB
Zinc	7440-66-6	2000 GV		1.8 J	26.9	U	UB

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

Appendix A-2
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Inorganic Parameters

Units in ug/l			Sample ID	23M-1	23M-1	23M-1	23M-1
			Sample_date	08/09/16	03/01/17	08/10/17	02/15/18
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
METALS	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Aluminum	7429-90-5	--		U	U	41.2 J	U
Antimony	7440-36-0	3 ST		U	U	U	U
Arsenic	7440-38-2	25 ST		U	U	U	U
Barium	7440-39-3	1000 ST		U	5.2 J	7.6 J	5 J
Beryllium	7440-41-7	3 GV		U	U	U	U
Boron	7440-42-8	1000 ST		73.7 J	79	78.5	75.3
Cadmium	7440-43-9	5 ST		U	U	1.1 J	U
Calcium	7440-70-2	--		36800	38600	34800	37800
Chromium, Hexavalent	18540-29-9	50 ST		U	U	U	UJ
Chromium, Total	7440-47-3	50 ST		U	U	U	U
Cobalt	7440-48-4	--		1.3 J	UB	1.3 J	0.97 J
Copper	7440-50-8	200 ST		UB	U	U	U
Cyanide	57-12-5	200 ST		U	U	U	U
Iron	7439-89-6	300 ST#		U	21.1 J	76	U
Lead	7439-92-1	25 ST		2.6 J	5.9 J	1.4 J	U
Magnesium	7439-95-4	35000 GV		18200	18800	17000	18300
Manganese	7439-96-5	300 ST#		47.8	51.8	54	49.2
Mercury	7439-97-6	0.7 ST		UB	UB	UJ	UB
Nickel	7440-02-0	100 ST		U	2.1 J	1 J	20.9 J
Potassium	7440-09-7	--		822 J	1360 J	8560	2030 J
Selenium	7782-49-2	10 ST		UJ	U	U	U
Silver	7440-22-4	50 ST		U	U	U	U
Sodium	7440-23-5	20000 ST		***27700*** J	***27100***	***27900***	***27400***
Thallium	7440-28-0	0.5 GV		U	U	U	U
Vanadium	7440-62-2	--		U	UB	0.94 J	U
Zinc	7440-66-6	2000 GV		U	UB	8.4 J	U

ug/l	Micrograms per liter
U	Compound was analyzed for but not detected
J	Estimated detection limit or value
J+	Estimated bias low
J-	Estimated bias high
B	Detected between the IDL and CRDL
IDL	Instrument Detection Limit
CRDL	Contract Required Detection Limit
D	Dectected at secondary dilution
UB	Qualified as non detect (U) based on blank results
--	No ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
#	Standard for total iron and manganese is 500 ug/l
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions
NR	Not reported

APPENDIX A-3

MONITORING WELL SAMPLE RESULTS
LEACHATE INDICATORS

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	06/29/16	08/03/16	10/24/16	04/05/17	06/09/17
			Depth of Well BGS	399'	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV						
Alkalinity, Total (as CaCO3)	ALK	---		451 D	470 D	241	272	560
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	4	1 J	1 J
Bromide	24959-67-9	2 GV		1.63	1.35	U	0.16 J	1.2
Chloride (as Cl)	16887-00-6	250 ST		***437 D***	198 D	80.6	85.6	171
Cod - Chemical Oxygen Demand	COD	---		75.9	39.6	17.2	23.4	29.6
Color	COLOR	---		5	20	5	U	U
Hardness (as CaCO3)	HARD	---		400 D	460 D	270	260	470
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***6.21 D***	***6.29 D***	***6.5***	0.96	***4.3***
Nitrogen, Kjeldahl, Total	KN	---		3.97	5.33 D	5.6	0.68	26.6
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.44	U	3.1	3.6	0.68
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	0.16	1.7	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	***0.0109***	***0.0325***	***0.0025 J***
Sulfate (as SO4)	14808-79-8	250 ST		60.3 D	38	25.9	33.5	31.5
Total Dissolved Solids	E-10173	---		808	399	443	440	748
Total Organic Carbon	TOC	---		9.7	9.7	4.5	4.4	9.2

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*	GM-1D*
			Sample_date	08/04/17	10/27/17	12/18/17	02/21/18	07/03/18	09/07/18
			Depth of Well BGS	399'	399'	399'	399'	399'	399'
			Depth to bottom screen, relative to MSL	-247'	-247'	-247'	-247'	-247'	-247'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV							
Alkalinity, Total (as CaCO3)	ALK	---		579	446	401	415	476	530 J
Biochemical Oxygen Demand (BOD)	BOD5	---		UB	1.0 J	1 J	U	2.0	U
Bromide	24959-67-9	2 GV		1.5	1.4	1.5	1.7	1.8	1.7
Chloride (as Cl)	16887-00-6	250 ST		227	225	240	218	251	195
Cod - Chemical Oxygen Demand	COD	---		42.1	45.7	36.8	43.1	56.3	64.5
Color	COLOR	---		U	10.0	5	5	5.0	5
Hardness (as CaCO3)	HARD	---		450	480	400	280	700	360
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***4.9 J***	***5.0***	***4.9***	***5.5 J***	***4.0***	***5.2***
Nitrogen, Kjeldahl, Total	KN	---		7.8 J	6.0	6.2	6.2 J	24.6	6.2 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	0.015 J	UJ	U	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		UB	***0.0029 J***	***0.0043 J***	UB	0.0043 J	UB
Sulfate (as SO4)	14808-79-8	250 ST		36.1	34.7	24.9	37.6	43.3	35
Total Dissolved Solids	E-10173	---		842	912	780	846	876	810
Total Organic Carbon	TOC	---		9.6	10.4	10.4	8.6	10.8	8.8

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
–	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	GM-1I	GM-1I	GM-1I	GM-1I
			Sample_date	08/03/16	03/01/17	08/14/17	02/21/18
			Depth of Well BGS	285'	285'	285'	285'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		190 D	222 J	261	153
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	1 J	U
Bromide	24959-67-9	2 GV		U	0.21 J	0.25 J	0.22 J
Chloride (as Cl)	16887-00-6	250 ST		49.5 D	54	72.7	64.2
Cod - Chemical Oxygen Demand	COD	---		11.8	UB	19.2	13.5
Color	COLOR	---		10	5		U
Hardness (as CaCO3)	HARD	---		200 D	204	193	180
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	UB	0.088 J	0.021 J
Nitrogen, Kjeldahl, Total	KN	---		U	U	UB	UJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		6.22 D	6.9	5.9	6.3 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UB	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	***0.0016 J***	UB
Sulfate (as SO4)	14808-79-8	250 ST		23.9	31.2	31.1	26.9
Total Dissolved Solids	E-10173	---		702	361	365	383
Total Organic Carbon	TOC	---		1.8	U	1.6	UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level.
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	GM-1S	GM-1S	GM-1S	GM-1S
			Sample_date	08/28/14	09/03/15	08/03/16	08/14/17
			Depth of Well BGS	135'	135'	135'	135'
			Depth to bottom screen, relative to MSL	19'	19'	19'	19'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		177 D	187 D	192 D	226
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	1 J
Bromide	24959-67-9	2 GV		U	U	U	0.19 J
Chloride (as Cl)	16887-00-6	250 ST		54.9 D	84.9 D	58.6 D	62.5
Cod - Chemical Oxygen Demand	COD	---		12.7	U	13.9	25.5
Color	COLOR	---		U	U	10	5
Hardness (as CaCO3)	HARD	---		240	60 D	190 D	153
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	UB	0.055 J
Nitrogen, Kjeldahl, Total	KN	---		U	1.7 DJ	U	0.69 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		6.43 D	6.54 D	5.55 D	5.5 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	***0.0034 J***
Sulfate (as SO4)	14808-79-8	250 ST		23.6	30.5	23.1	29.5
Total Dissolved Solids	E-10173	---		337	356	367	324
Total Organic Carbon	TOC	---		1.9	2.6	2.1	1.7

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	GM-2D	GM-2D	GM-2D	GM-2D
			Sample_date	08/28/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	398'	398'	398'	398'
			Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		18.5	18.4	20.4	23.2
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	1 J
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		3.29	5.11	3.96 J	4.9
Cod - Chemical Oxygen Demand	COD	---		U	U	35.9 J	13
Color	COLOR	---		U	U	5	15
Hardness (as CaCO3)	HARD	---		30	22	19	20
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	0.1	0.3 J	0.092 J
Nitrogen, Kjeldahl, Total	KN	---		U	1.72 D	U	0.64 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	UJ	U	0.11
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	***0.0077***	***0.0025 J***
Sulfate (as SO4)	14808-79-8	250 ST		U	U	U	3.6 J
Total Dissolved Solids	E-10173	---		39	21	43	31
Total Organic Carbon	TOC	---		U	U	U	1.5

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	GM-2I	GM-2I	GM-2I	GM-2I
			Sample_date	08/28/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	298'	298'	298'	298'
			Depth to bottom screen, relative to MSL	-136'	-136'	-136'	-136'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		114 D	111	112	122
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	1 J
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		13.3	20.3	15	17.1
Cod - Chemical Oxygen Demand	COD	---		U	U	U	21.3
Color	COLOR	---		U	U	5	20
Hardness (as CaCO3)	HARD	---		210	180 D	150 D	124
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.11	0.099 J
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	0.77 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.79 D	4.75 DJ	5.65 D	4.8
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	***0.0051***
Sulfate (as SO4)	14808-79-8	250 ST		10.2	11.4	10.2	11.4
Total Dissolved Solids	E-10173	---		193	169	198	175
Total Organic Carbon	TOC	---		U	U	U	1.7

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	GM-2S	GM-2S	GM-2S	GM-2S
			Sample_date	09/03/14	09/01/15	08/08/16	08/14/17
			Depth of Well BGS	149'	149'	149'	149'
			Depth to bottom screen, relative to MSL	12'	12'	12'	12'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		53.8	28.4	27.8	26.2 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	UB
Bromide	24959-67-9	2 GV		U	U	U	0.15 J
Chloride (as Cl)	16887-00-6	250 ST		12.8	15.4	19.3	25.5
Cod - Chemical Oxygen Demand	COD	---		U	U	U	17.2
Color	COLOR	---		U	U	5	5
Hardness (as CaCO3)	HARD	---		68 D	48 D	54 D	56
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	0.17	0.12	UB
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	UB
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		3.11 D	3.29 DJ	3.9 D	3.7
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	UB
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	***0.0077***	UB
Sulfate (as SO4)	14808-79-8	250 ST		12.4	10.7	12.3	14.9
Total Dissolved Solids	E-10173	---		113	107	158	123
Total Organic Carbon	TOC	---		9.2	1.6	U	UBJ

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID Sample_date Depth of Well BGS Depth to bottom screen, relative to MSL Gradient relative to MSW	GM-3I 09/06/18 177' -116 UP
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV		
Alkalinity, Total (as CaCO3)	ALK	---		7.4 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U
Bromide	24959-67-9	2 GV		0.023 J
Chloride (as Cl)	16887-00-6	250 ST		15.8
Cod - Chemical Oxygen Demand	COD	---		15.5
Color	COLOR	---		5
Hardness (as CaCO3)	HARD	---		16
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.067 J
Nitrogen, Kjeldahl, Total	KN	---		U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.3
Nitrogen, Nitrite	14797-65-0	1 ST		U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		UB
Sulfate (as SO4)	14808-79-8	250 ST		16.3
Total Dissolved Solids	E-10173	---		71
Total Organic Carbon	TOC	---		UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
–	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	4G-1	4G-1	4G-1	4G-1	4G-1
			Sample_date	08/03/16	02/24/17	08/11/17	02/21/18	09/04/18
			Depth of Well BGS	164'	164'	164'	164'	164'
			Depth to bottom screen, relative to MSL	2'	2'	2'	2'	2'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV						
Alkalinity, Total (as CaCO3)	ALK	---		161 D	160	154 J	216	300
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U	U
Bromide	24959-67-9	2 GV		U	0.25 J	0.34 J	0.72	0.61
Chloride (as Cl)	16887-00-6	250 ST		63.8 D	70.4	86.6	132	149
Cod - Chemical Oxygen Demand	COD	---		18.2	33.8	31.7	53.7	70.6 J
Color	COLOR	---		20	25	20	NA	150
Hardness (as CaCO3)	HARD	---		44 D	56	60 J	92.0	104
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***10.6 D***	***5.5***	***3.5***	***3.8***	***22.1***
Nitrogen, Kjeldahl, Total	KN	---		7.45 D	6.3 J	5	4.7 J	22.8 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	UB	0.98 J	U	UJ
Nitrogen, Nitrite	14797-65-0	1 ST		U	0.0076 J	U	U	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0026 J***	UB	UB	***0.0243 J***
Sulfate (as SO4)	14808-79-8	250 ST		15.2	15	18.7	14.7	14.6
Total Dissolved Solids	E-10173	---		277	315	374	460	504
Total Organic Carbon	TOC	---		4.1	3.2	4.4 J	6.9	11.6 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	4G-2	4G-2	4G-2	4G-2
			Sample_date	08/03/16	02/24/17	08/11/17	02/16/18
			Depth of Well BGS	211'	211'	211'	211'
			Depth to bottom screen, relative to MSL	-45'	-45'	-45'	-45'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		181 D	193	172 J	158
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.15 J	0.11 J	U
Chloride (as Cl)	16887-00-6	250 ST		65.3 D	80.2	88.9	73.6
Cod - Chemical Oxygen Demand	COD	---		13.9	UB	40	30.4 J
Color	COLOR	---		20	10	5	U
Hardness (as CaCO3)	HARD	---		96 D	128	136 J	120
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	0.5	UB	0.33
Nitrogen, Kjeldahl, Total	KN	---		UB	U	0.88	1.8 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.32 D	6.2	UJ	UJB
Nitrogen, Nitrite	14797-65-0	1 ST		0.11	0.18 J	U	0.14 J
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		15.1	24.8	48.5	27.6
Total Dissolved Solids	E-10173	---		321	389	413	354
Total Organic Carbon	TOC	---		2.2	U	2.1 J	UJB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	4M-1	4M-1	4M-1	4M-1
			Sample_date	02/24/17	08/11/17	02/16/18	09/04/18
			Depth of Well BGS	325'	325'	325'	325'
			Depth to bottom screen, relative to MSL	-159'	-159'	-159'	-159'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		1420	1260 J	1110	1200
Biochemical Oxygen Demand (BOD)	BOD5	---		U	17.4	U	2.6
Bromide	24959-67-9	2 GV		***4.1***	***4.7***	***4.4***	***4.4***
Chloride (as Cl)	16887-00-6	250 ST		***434***	***451***	***412***	***492***
Cod - Chemical Oxygen Demand	COD	---		275	254	292 J	283 J
Color	COLOR	---		150	200	200	150
Hardness (as CaCO3)	HARD	---		350	280 J	320	267
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***122***	***122***	***172***	***171***
Nitrogen, Kjeldahl, Total	KN	---		172 J	162	206 J	192 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	3 J	UJ	UJ
Nitrogen, Nitrite	14797-65-0	1 ST		0.0078 J	0.02 J	U	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.035***	***0.0267***	***0.0235***	***0.0466***
Sulfate (as SO4)	14808-79-8	250 ST		7.4	12.6	7.7	UB
Total Dissolved Solids	E-10173	---		1580	1510	1580	1350
Total Organic Carbon	TOC	---		49	65.2 J	79.6 J	72.5 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	4M-2	4M-2	4M-2	4M-2
			Sample_date	08/03/16	02/24/17	08/11/17	02/26/18
			Depth of Well BGS	486'	486'	486'	486'
			Depth to bottom screen, relative to MSL	-320'	-320'	-320'	-320'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		280 D	278	24.8 J	232
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	UB	2.3
Bromide	24959-67-9	2 GV		1.73	1.9	***2.3***	***2.1***
Chloride (as Cl)	16887-00-6	250 ST		237 D	239	***286***	***261***
Cod - Chemical Oxygen Demand	COD	---		26.8	46.3	48.4	43.1
Color	COLOR	---		5	20	5	U
Hardness (as CaCO3)	HARD	---		268 D	430	280 J	240
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***4.88 D***	***4***	***5.6***	***3.6***
Nitrogen, Kjeldahl, Total	KN	---		5.94 D	4.3 J	6.5	4.1 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	3.3 J	0.13 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	0.2	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0015 J***	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		48.4	48.9	59.1	53.6
Total Dissolved Solids	E-10173	---		696	688	736	736
Total Organic Carbon	TOC	---		8.9	7.8	9.1 J	7.3

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Units in mg/l			Sample ID	6G-1	6G-1	6G-1	6G-1
			Sample_date	08/11/16	03/02/17	08/09/17	02/22/18
			Depth of Well BGS	147'	147'	147'	147'
			Depth to bottom screen, relative to MSL	32'	32'	32'	32'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		103 D	123 J	92.8 J	314
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.043 J	0.039 J	0.038 J
Chloride (as Cl)	16887-00-6	250 ST		35.5	41.5	39	34.9
Cod - Chemical Oxygen Demand	COD	---		U	UB	17.2	15.7
Color	COLOR	---		U	5	U	5
Hardness (as CaCO3)	HARD	---		68 D	72	56	50
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.16	UB	UBJ	UB
Nitrogen, Kjeldahl, Total	KN	---		0.14	0.54 J	UBJ	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.38 D	1.5	1.2	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	UB	UB	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	UB
Sulfate (as SO4)	14808-79-8	250 ST		18.9	16.4	14	15.3
Total Dissolved Solids	E-10173	---		209	229	190	553
Total Organic Carbon	TOC	---		1.2 J	U	0.64 J	0.38 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non-detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	6G-2	6G-2	6G-2	6G-2
			Sample_date	08/11/16	03/02/17	08/09/17	02/23/18
			Depth of Well BGS	230'	230'	230'	230'
			Depth to bottom screen, relative to MSL	-53'	-53'	-53'	-53'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		158 D	186 J	177 J	133
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.06 J	0.057 J	0.057 J
Chloride (as Cl)	16887-00-6	250 ST		58 D	53.7	55.9	57.9
Cod - Chemical Oxygen Demand	COD	---		U	UB	17.2	U
Color	COLOR	---		U	5	U	U
Hardness (as CaCO3)	HARD	---		78 D	76	104	84
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.14	UB	UBJ	0.098 J
Nitrogen, Kjeldahl, Total	KN	---		U	U	UBJ	UJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.53 D	1.4	1	UB
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		25.9	20.2	20	21.6
Total Dissolved Solids	E-10173	---		282	306	286	297
Total Organic Carbon	TOC	---		2.1 J	U	1.4	0.72 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	6G-3	6G-3	6G-3	6G-3
			Sample_date	08/11/16	03/02/17	08/09/17	02/23/18
			Depth of Well BGS	315'	315'	315'	315'
			Depth to bottom screen, relative to MSL	-138'	-138'	-138'	-138'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		222 D	255 J	207 J	204
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB		U
Bromide	24959-67-9	2 GV		U	0.32 J	0.29 J	0.32 J
Chloride (as Cl)	16887-00-6	250 ST		46.1 D	48.4	48.8	42.1
Cod - Chemical Oxygen Demand	COD	---		12.7	UB	33.8	24.1
Color	COLOR	---		10	10	10	5
Hardness (as CaCO3)	HARD	---		220 D	170	196	172
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***9.33 D***	***7.7***	***6.4 J***	***7.5***
Nitrogen, Kjeldahl, Total	KN	---		7.55 D	8.9 J	9.4 J	7.3 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	0.21	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UB	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0026 J***	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		20.5	21.1	21.3	22.6
Total Dissolved Solids	E-10173	---		325	308	330	311
Total Organic Carbon	TOC	---		5.5 J	4.9	5.5	4.9

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	6M-1	6M-1	6M-1	6M-1
			Sample_date	08/27/14	09/02/15	08/11/16	08/09/17
			Depth of Well BGS	545'	545'	545'	545'
			Depth to bottom screen, relative to MSL	-368'	-368'	-368'	-368'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		73.8	76.1	72.7	89.2 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	UB
Bromide	24959-67-9	2 GV		U	U	U	0.11 J
Chloride (as Cl)	16887-00-6	250 ST		21.4	32.7	22.7	28.1
Cod - Chemical Oxygen Demand	COD	---		11.4	U	U	6.8 J
Color	COLOR	---		U	U	U	10
Hardness (as CaCO3)	HARD	---		112	64 D	64 D	66 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		1.42	1.46	1.44	0.96
Nitrogen, Kjeldahl, Total	KN	---		1.3	1.43 J	1.21	1.2 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	U	0.29 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	U
Sulfate (as SO4)	14808-79-8	250 ST		5.09	6.27	5.86	9.7
Total Dissolved Solids	E-10173	---		116	109	124	130
Total Organic Carbon	TOC	---		1.2	1.7	1.4 J	1.4

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	7M-1	7M-1	7M-1	7M-1
			Sample_date	08/10/16	02/28/17	08/10/17	02/23/18
			Depth of Well BGS	214'	214'	214'	214'
			Depth to bottom screen, relative to MSL	-152'	-152'	-152'	-152'
			Gradient relative to MSW	CROSS	CROSS	CROSS	CROSS
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		42.2 D	49.6 J	39.4 J	29
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.043 J	0.037 J	0.035 J
Chloride (as Cl)	16887-00-6	250 ST		28.8	23.8	29.2	30.1
Cod - Chemical Oxygen Demand	COD	---		U	UB	U	U
Color	COLOR	---		U	5	10	U
Hardness (as CaCO3)	HARD	---		80 D	78	68 J	60
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.37	0.31	UB	0.36
Nitrogen, Kjeldahl, Total	KN	---		U	U	UJ	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.33 D	2.4	2.4 J	2.3
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	U
Sulfate (as SO4)	14808-79-8	250 ST		25.3	24.9	28.6	28.9
Total Dissolved Solids	E-10173	---		137	169	148	157
Total Organic Carbon	TOC	---		1.2 J	U	0.89 J	0.77 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	8G-1	8G-1	8G-1	8G-1
			Sample_date	08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS	114'	114'	114'	114'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		15.5	24.6	91 J	23.2
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.13 J	0.11 J	0.17 J
Chloride (as Cl)	16887-00-6	250 ST		207 D	***581***	***360***	***425***
Cod - Chemical Oxygen Demand	COD	---		U	UB	38	28.3
Color	COLOR	---		5	5	20	U
Hardness (as CaCO3)	HARD	---		200 D	310	213 J	180
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	UB	UB	UB
Nitrogen, Kjeldahl, Total	KN	---		U	U	UB	U
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.58 D	2.1	2.2	2.7 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UB	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		11.5	28.3	18.9	24.6
Total Dissolved Solids	E-10173	---		612	1210	825	882
Total Organic Carbon	TOC	---		UJ	U	2.9 J	0.59 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	8M-1	8M-1	8M-1	8M-1
			Sample_date	08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS	270'	270'	270'	270'
			Depth to bottom screen, relative to MSL	-134'	-134'	-134'	-134'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		330 D	271	248 J	210
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	U	U
Bromide	24959-67-9	2 GV		0.58	0.41 J	0.27 J	0.31 J
Chloride (as Cl)	16887-00-6	250 ST		101 D	208	76.9	81.7
Cod - Chemical Oxygen Demand	COD	---		18.2	UB	44.2	15.7
Color	COLOR	---		15	10	80	U
Hardness (as CaCO3)	HARD	---		264 D	290	207 J	173
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***11.2 D***	***7.3***	***5.3***	***8.8***
Nitrogen, Kjeldahl, Total	KN	---		7.99 D	6.7 J	6.4 J	9 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.73 D	5.4	0.39	5.2 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	0.014 J	0.022 J	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.0075***	***0.0021 J***	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		23.8	23.4	40.6	25.8
Total Dissolved Solids	E-10173	---		500	643	453	378
Total Organic Carbon	TOC	---		6.4 J	4.8	8.8 J	2.9

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	8M-2	8M-2	8M-2	8M-2
			Sample_date	08/02/16	02/22/17	08/14/17	02/27/18
			Depth of Well BGS	383'	383'	383'	383'
			Depth to bottom screen, relative to MSL	-248'	-248'	-248'	-248'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		43.2	46.8	50.2	36
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	1 J	U
Bromide	24959-67-9	2 GV		U	0.089 J	0.074 J	0.066 J
Chloride (as Cl)	16887-00-6	250 ST		18.7	25.5	48.6	19.6
Cod - Chemical Oxygen Demand	COD	---		U	UB	27.6	U
Color	COLOR	---		5	5	5	U
Hardness (as CaCO3)	HARD	---		50	52	56	44
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	0.34	0.18	0.35
Nitrogen, Kjeldahl, Total	KN	---		UB	0.14 J	0.86 J	0.21 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.88 D	0.78	1.1	0.52 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UB	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0021 J***	***0.0087***	UB
Sulfate (as SO4)	14808-79-8	250 ST		U	4.7 J	6.6	4.2 J
Total Dissolved Solids	E-10173	---		125 J	92	126	100
Total Organic Carbon	TOC	---		UJ	U	0.96 J	0.4 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Blydenburgh Road Landfill Complex
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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	9G-1	9G-1	9G-1	9G-1
			Sample_date	08/27/15	08/09/16	08/08/17	09/07/18
			Depth of Well BGS	68'	68'	68'	68'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	UP	UP	UP	UP
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		3.5 J	3.4	21.8 J	6.8 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	UB	U
Bromide	24959-67-9	2 GV		U	U	U	U
Chloride (as Cl)	16887-00-6	250 ST		13.9	26.1	5.6	6.1
Cod - Chemical Oxygen Demand	COD	---		U	U	40	21.6
Color	COLOR	---		U	5	U	30
Hardness (as CaCO3)	HARD	---		20 D	16	22.7	4 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	UBJ	UB
Nitrogen, Kjeldahl, Total	KN	---		U	0.11	UBJ	0.71 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.14 J	0.11	0.19	0.24
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		U	U	3.8 J	UB
Total Dissolved Solids	E-10173	---		U	63	45	34
Total Organic Carbon	TOC	---		U	U	1.1	UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
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Leachate Indicators

Units in mg/l			Sample ID	10G-1	10G-1	10G-1	10G-1
			Sample_date	08/21/14	08/14/15	08/10/16	08/10/17
			Depth of Well BGS	69'	69'	69'	69'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		53.7	9.15	11 D	28.8 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	UB
Bromide	24959-67-9	2 GV		U	U	U	0.037 J
Chloride (as Cl)	16887-00-6	250 ST		56.1 D	148 D	136 D	77
Cod - Chemical Oxygen Demand	COD	---		U	U	U	10.9
Color	COLOR	---		U	U	5	5
Hardness (as CaCO3)	HARD	---		52 D	48 D	54 D	32 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	0.15	UB
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	UBJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.87	2.11 D	2.53 D	1.1 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	UB
Sulfate (as SO4)	14808-79-8	250 ST		12.2	13.1	14.8	6.8
Total Dissolved Solids	E-10173	---		165	288	273	166
Total Organic Carbon	TOC	---		1.1	1.8 J	1.1 J	1.6

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Leachate Indicators

Units in mg/l			Sample ID	10M-1	10M-1	10M-1	10M-1
			Sample_date	08/10/16	02/24/17	08/10/17	02/15/18
			Depth of Well BGS	256	256	256	256
			Depth to bottom screen, relative to MSL	-167	-167	-167	-167
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		313 D	304	92.4 J	270
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	U
Bromide	24959-67-9	2 GV		U	0.33 J	0.064 J	0.13 J
Chloride (as Cl)	16887-00-6	250 ST		56.2 D	68.4	26	75.1
Cod - Chemical Oxygen Demand	COD	---		U	UB	10.9	17.8 J
Color	COLOR	---		5	5	40	U
Hardness (as CaCO3)	HARD	---		400 D	400	72 J	350
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.46	0.43	UB	0.51
Nitrogen, Kjeldahl, Total	KN	---		U	U	1 J	0.76 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		3.26 D	0.75	1.3 J	UJB
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0021 J***	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		25.8	24.5	6.1	25
Total Dissolved Solids	E-10173	---		505	460	149	480
Total Organic Carbon	TOC	---		2.5 J	1.8	3.4	2

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Blydenburgh Road Landfill Complex
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Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	11G-1	11G-1	11G-1	11G-1
			Sample_date	02/23/17	08/03/17	02/26/18	08/31/18
			Depth of Well BGS	145'	145'	145'	145'
			Depth to bottom screen, relative to MSL	22'	22'	22'	22'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		672	700	731	1170
Biochemical Oxygen Demand (BOD)	BOD5	---		UB	6	4.3	3.8
Bromide	24959-67-9	2 GV		1.6	0.055 J	1.7	U
Chloride (as Cl)	16887-00-6	250 ST		219	16.4	113	***498***
Cod - Chemical Oxygen Demand	COD	---		157	150	163	156
Color	COLOR	---		125	100	100	100
Hardness (as CaCO3)	HARD	---		40	44	28	34
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***105***	***119 J***	***120***	***119***
Nitrogen, Kjeldahl, Total	KN	---		118 J	146 J	123 J	104 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.13	0.61	UJ	U
Nitrogen, Nitrite	14797-65-0	1 ST		0.021 J	UB	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.0386***	***0.0172***	***0.0423***	***0.05***
Sulfate (as SO4)	14808-79-8	250 ST		2 J	13.1	0.73 J	UB
Total Dissolved Solids	E-10173	---		764	812	756	1150
Total Organic Carbon	TOC	---		34.4	44.1	43.3	45 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	11G-2	11G-2	11G-2	11G-2
			Sample_date	02/23/17	08/03/17	02/26/18	08/31/18
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom screen, relative to MSL	-51	-51	-51	-51
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		1200	1350	961	1120
Biochemical Oxygen Demand (BOD)	BOD5	---		UB		U	3.4
Bromide	24959-67-9	2 GV		***3.8***	***3.9***	***4.2***	U
Chloride (as Cl)	16887-00-6	250 ST		***386***	***437***	***406***	***479***
Cod - Chemical Oxygen Demand	COD	---		248	217	240	244
Color	COLOR	---		150	100	100	100
Hardness (as CaCO3)	HARD	---		144	120	133	100
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***132***	***157 J***	***169***	***176***
Nitrogen, Kjeldahl, Total	KN	---		169 J	227 J	195 J	204 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	0.42	UJ	U
Nitrogen, Nitrite	14797-65-0	1 ST		0.0058 J	UB	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	UB	UJB	***0.0254 J***
Sulfate (as SO4)	14808-79-8	250 ST		3.3 J	4.1 J	2.9 J	UB
Total Dissolved Solids	E-10173	---		1220	1360	1420	762
Total Organic Carbon	TOC	---		44.6	59	62.4	61.8 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	11M-1	11M-1	11M-1	11M-1
			Sample_date	08/22/14	08/19/15	08/09/16	08/03/17
			Depth of Well BGS	320'	320'	320'	320'
			Depth to bottom screen, relative to MSL	-154'	-154'	-154'	-154'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		144 D	135 D	160 D	120
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	UB
Bromide	24959-67-9	2 GV		U	U	0.59 J	0.51
Chloride (as Cl)	16887-00-6	250 ST		77.6 D	99.7 D	85.4 D	71.7
Cod - Chemical Oxygen Demand	COD	---		14	U	U	13
Color	COLOR	---		U	U	5	15
Hardness (as CaCO3)	HARD	---		200 D	160 D	184 D	156
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		1	0.68	0.66	UBJ
Nitrogen, Kjeldahl, Total	KN	---		1.16	0.5	2.74	UBJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.18	0.19 J	0.11	0.13
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	UB
Sulfate (as SO4)	14808-79-8	250 ST		20.7	26.1	24.7	21.7
Total Dissolved Solids	E-10173	---		290	286	333	275
Total Organic Carbon	TOC	---		4.8	4.7	3.7	2.5

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	12M-1	12M-1	12M-1	12M-1
			Sample_date	08/11/16	03/02/17	08/09/17	02/22/18
			Depth of Well BGS	338'	338'	338'	338'
			Depth to bottom screen, relative to MSL	-163'	-163'	-163'	-163'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		387 D	420 J	320 J	105
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.62	0.58	0.037 J
Chloride (as Cl)	16887-00-6	250 ST		77.4 D	78.8	81.6	34.8
Cod - Chemical Oxygen Demand	COD	---		14.8	UB	31.7	24.1
Color	COLOR	---		U	10	U	U
Hardness (as CaCO3)	HARD	---		350 D	320	340	280
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		1.02	1.6	UBJ	2.1
Nitrogen, Kjeldahl, Total	KN	---		1	2.6 J	1.6 J	2 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.21	0.15	1.1	2.1
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UB	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.0076***	***0.0041 J***	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		32.6	37	36.6	15.3
Total Dissolved Solids	E-10173	---		474	548	521	205
Total Organic Carbon	TOC	---		6 J	4.7	4.6	35.2

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	13G-1	13G-1	13G-1	13G-1
			Sample_date	08/09/16	02/22/17	08/11/17	02/15/18
			Depth of Well BGS	93'	93'	93'	93'
			Depth to bottom screen, relative to MSL	17'	17'	17'	17'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		17.7	20.8	15.4 J	20
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.12 J	0.077 J	U
Chloride (as Cl)	16887-00-6	250 ST		45.7	44.4	35.5	43.3
Cod - Chemical Oxygen Demand	COD	---		63.5	UB	13	11.4 J
Color	COLOR	---		5	5	10	U
Hardness (as CaCO3)	HARD	---		64 D	68	54 J	76
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.14	UB	UB	0.78
Nitrogen, Kjeldahl, Total	KN	---		U	U	UB	UJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.9 D	2	0.2	UJB
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		30.7	26.4	24.3	29
Total Dissolved Solids	E-10173	---		167	159	150	168
Total Organic Carbon	TOC	---		U	U	UBJ	UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	13M-1	13M-1	13M-1	13M-1
			Sample_date	08/09/16	02/22/17	08/11/17	02/15/18
			Depth of Well BGS	265'	265'	265'	265'
			Depth to bottom screen, relative to MSL	-155	-155	-155	-155
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		518 D	507	131 J	473
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		0.79 J	0.74	U	0.29 J
Chloride (as Cl)	16887-00-6	250 ST		110 D	104	21	97
Cod - Chemical Oxygen Demand	COD	---		14.8	UB	132	30.4 J
Color	COLOR	---		10	10	500	U
Hardness (as CaCO3)	HARD	---		570 D	560	140 J	500
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		2	1.5	UB	1.7
Nitrogen, Kjeldahl, Total	KN	---		1.89	2 J	4.4	1.7 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		U	U	0.3	UJ
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	0.37	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.005***	U	***0.0184***	UB
Sulfate (as SO4)	14808-79-8	250 ST		17.4	15.5	11	11.3
Total Dissolved Solids	E-10173	---		690	698	305	651
Total Organic Carbon	TOC	---		6.6	7.4	40.7 J	5.5

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	14G-1A	14G-1A	14G-1A	14G-1A
			Sample_date	08/02/16	02/23/17	08/02/17	02/14/18
			Depth of Well BGS	220'	220'	220'	220'
			Depth to bottom.screen, relative to MSL	-58	-58	-58	-58
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		204 D	184	498	169
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.32 J	0.19 J	U
Chloride (as Cl)	16887-00-6	250 ST		62.3 D	67.3	58.2	55.1
Cod - Chemical Oxygen Demand	COD	---		U	UB	38	13.5 J
Color	COLOR	---		5	5		U
Hardness (as CaCO3)	HARD	---		192 D	200	150	190
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	UB	UB	0.028 J
Nitrogen, Kjeldahl, Total	KN	---		U	U	UBJ	0.13 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		6.04 D	6	5.7	5.5 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UJ	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0454***	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		24.7	25.2	24.9	31.5
Total Dissolved Solids	E-10173	---		392	337	364	357
Total Organic Carbon	TOC	---		2 J	1	2.5	1.7

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	14G-2	14G-2	14G-2	14G-2
			Sample_date	08/02/16	02/23/17	08/02/17	02/14/18
			Depth of Well BGS	264'	264'	264'	264'
			Depth to bottom screen, relative to MSL	-103	-103	-103	-103
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		188 D	182	263	172
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	7.4 J
Bromide	24959-67-9	2 GV		U	0.17 J	0.14 J	U
Chloride (as Cl)	16887-00-6	250 ST		47.9 D	48	48.3	50.6
Cod - Chemical Oxygen Demand	COD	---		U	UB	23.4	UJ
Color	COLOR	---		5	5		U
Hardness (as CaCO3)	HARD	---		208 D	210	190	200
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		UB	0.32	UB	0.072 J
Nitrogen, Kjeldahl, Total	KN	---		U	U	UBJ	UJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		6.47 D	6.1	5.9	6.9 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UJ	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		22.5	24.5	24.2	24
Total Dissolved Solids	E-10173	---		332	330	316	353
Total Organic Carbon	TOC	---		1.7 J	U	1.6	UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	14M-1	14M-1	14M-1	14M-1
			Sample_date	02/23/17	08/02/17	02/14/18	09/05/18
			Depth of Well BGS	355'	355'	355'	355'
			Depth to bottom screen, relative to MSL	-194'	-194'	-194'	-194'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		836	703	735	810 J
Biochemical Oxygen Demand (BOD)	BOD5	---		UB	UB	UJ	U
Bromide	24959-67-9	2 GV		***3.3***	***2.8***	***3.7***	***3.5***
Chloride (as Cl)	16887-00-6	250 ST		***363***	***329***	***320***	***432***
Cod - Chemical.Oxygen Demand	COD	---		136	117	134 J	134 J
Color	COLOR	---		40		30	40
Hardness (as CaCO3)	HARD	---		500	360	480	320
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***39.8***	***45***	***60.1***	***62.7***
Nitrogen, Kjeldahl, Total	KN	---		57.3 J	56 J	60 J	65.4 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.0071 J	2.4	UJ	U
Nitrogen, Nitrite	14797-65-0	1 ST		U	UBJ	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.0172***	***0.0119***	***0.0275***	***0.0346***
Sulfate (as SO4)	14808-79-8	250 ST		16.8	16.9	15.3	17.2
Total Dissolved Solids	E-10173	---		1330	1130	1330	1120
Total Organic Carbon	TOC	---		25.3	28.2	32.1	32.2 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	15G-1	15G-1	15G-1	15G-1
			Sample_date	08/25/14	08/19/15	08/09/16	08/14/17
			Depth of Well BGS	160'	160'	160'	160'
			Depth to bottom screen, relative to MSL	23'	23'	23'	23'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		40.5	42.9	48.8	76.2 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	UB
Bromide	24959-67-9	2 GV		U	U	U	0.067 J
Chloride (as Cl)	16887-00-6	250 ST		9.02	11.2	11.8	10.4
Cod - Chemical Oxygen Demand	COD	---		11.4	U	U	38
Color	COLOR	---		U	U	5	10
Hardness (as CaCO3)	HARD	---		100	68 D	76 D	80 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	U	UB
Nitrogen, Kjeldahl, Total	KN	---		0.19	0.28	0.16	0.91
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.35	1.6 D	1.05	1.3
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	UB
Sulfate (as SO4)	14808-79-8	250 ST		22.4	24.3	29.1	29.3
Total Dissolved Solids	E-10173	---		112	113 J	160	129
Total Organic Carbon	TOC	---		2.4	5.3	1.9	1.7 J

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

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Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	16G-1	16G-1	16G-1	16G-1
			Sample_date	08/21/14	08/14/15	08/10/16	08/10/17
			Depth of Well BGS	57'	57'	57'	57'
			Depth to bottom screen, relative to MSL	20'	20'	20'	20'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		13.1	11.2	14.4 D	13.4 J
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	U	UB
Bromide	24959-67-9	2 GV		U	U	U	0.033 J
Chloride (as Cl)	16887-00-6	250 ST		4.06	6.91	9.57	10.3
Cod - Chemical Oxygen Demand	COD	---		12.1	U	U	U
Color	COLOR	---		U	U	U	10 J
Hardness (as CaCO3)	HARD	---		28 D	21	30 D	30 J
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	0.22	U	UB
Nitrogen, Kjeldahl, Total	KN	---		U	U	U	UBJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.58	1.73 D	1.96 D	1.3 J
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	U	UB
Sulfate (as SO4)	14808-79-8	250 ST		6.7	5.79	5.8	7.5
Total Dissolved Solids	E-10173	---		59	54	60	53
Total Organic Carbon	TOC	---		U	UJ	UJ	1.2

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard

Exceeds Class GA Standard/Guidance value

* Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	16M-1	16M-1	16M-1	16M-1
			Sample_date	08/10/16	02/24/17	08/10/17	02/15/18
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-163	-163	-163	-163
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		225 D	228	256 J	240
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	UB	U
Bromide	24959-67-9	2 GV		U	0.26 J	0.29 J	0.27 J
Chloride (as Cl)	16887-00-6	250 ST		58.5 D	58.9	71	57.4
Cod - Chemical Oxygen Demand	COD	---		65.6	UB	6.8 J	13.5 J
Color	COLOR	---		5	U	5	U
Hardness (as CaCO3)	HARD	---		280 D	280	187 J	260
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.16	UB	UB	0.029 J
Nitrogen, Kjeldahl, Total	KN	---		U	U	UBJ	UJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.22 D	4.9	4.2 J	UJB
Nitrogen, Nitrite	14797-65-0	1 ST		U	UB	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		U	26.7	30.2	25.2
Total Dissolved Solids	E-10173	---		403	365	399	378
Total Organic Carbon	TOC	---		1.9 J	U	2.1	UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	18G-1	18G-1	18G-1	18G-1
			Sample_date	08/03/16	02/22/17	08/02/17	02/16/18
			Depth of Well BGS	157'	157'	157'	157'
			Depth to bottom screen, relative to MSL	11'	11'	11'	11'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		244 D	269	473	277
Biochemical Oxygen Demand (BOD)	BOD5	---		U	UB	UB	U
Bromide	24959-67-9	2 GV		U	0.36 J	0.37 J	U
Chloride (as Cl)	16887-00-6	250 ST		87.8 D	103	104	99.1
Cod - Chemical Oxygen Demand	COD	---		39.6	54.6	65	57.9 J
Color	COLOR	---		15	20		15
Hardness (as CaCO3)	HARD	---		84 D	60	76	64
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***34.8 D***	***27.8***	***42.2 J***	***41.9***
Nitrogen, Kjeldahl, Total	KN	---		29.2 D	38.3 J	51.5 J	40.2 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		0.44	1.6	0.48	UJB
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	UJ	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	***0.0036 J***	0.0092	UB
Sulfate (as SO4)	14808-79-8	250 ST		18.8	17.7	15.2	17
Total Dissolved Solids	E-10173	---		348	382	394	421
Total Organic Carbon	TOC	---		5.5	7	8.5	7.2

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	18G-2	18G-2	18G-2	18G-2
			Sample_date	02/22/17	08/02/17	02/16/18	09/06/18
			Depth of Well BGS	197'	197'	197'	197'
			Depth to bottom screen, relative to MSL	-29	-29	-29	-29
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		163	258	127	188 J
Biochemical Oxygen Demand (BOD)	BOD5	---		UB	UB	U	U
Bromide	24959-67-9	2 GV		0.25 J	0.2 J	0.15 J	0.11 J
Chloride (as Cl)	16887-00-6	250 ST		84.8	82.4	64.6	80.7
Cod - Chemical Oxygen Demand	COD	---		27.6	25.5	22 J	25.7
Color	COLOR	---		5	5	U	5
Hardness (as CaCO3)	HARD	---		96	104	90	92
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		***4.5***	***3.9***	2	1.8
Nitrogen, Kjeldahl, Total	KN	---		3 J	2.9 J	2.2 J	2 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		4.7	6.6	UJB	3.2
Nitrogen, Nitrite	14797-65-0	1 ST		0.014 J	UBJ	U	UJ
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	UB	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		22.4	22.5	21.2	26
Total Dissolved Solids	E-10173	---		354	357	334	341
Total Organic Carbon	TOC	---		3	3.1	1.6	1.7

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	22M-1	22M-1	22M-1	22M-1
			Sample_date	02/23/17	08/11/17	02/26/18	09/05/18
			Depth of Well BGS	222'	222'	222'	222'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	UP	UP	UP	UP
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		33.4	97 J	30.6	31.4 J
Biochemical Oxygen Demand (BOD)	BOD5	---		UB	UB	U	U
Bromide	24959-67-9	2 GV		0.058 J	0.046 J	0.04 J	0.038 J
Chloride (as Cl)	16887-00-6	250 ST		28.8	30.1	31.3	44.4
Cod - Chemical Oxygen Demand	COD	---		UB	17.2	17.8	15.5 J
Color	COLOR	---		U	5	U	U
Hardness (as CaCO3)	HARD	---		54	56 J	54	62
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		0.79	UB	0.75	1.2
Nitrogen, Kjeldahl, Total	KN	---		0.32 J	0.7	0.22 J	2.1 J
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		1.9	0.062	1.3 J	2
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		***0.0052***	UB	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		20.7	21.5	20.7	21.5
Total Dissolved Solids	E-10173	---		124	117	142	134
Total Organic Carbon	TOC	---		U	UBJ	0.67 J	UB

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

Appendix A-3
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Leachate Indicators

Units in mg/l			Sample ID	23M-1	23M-1	23M-1	23M-1
			Sample_date	08/09/16	03/01/17	08/10/17	02/15/18
			Depth of Well BGS	240'	240'	240'	240'
			Depth to bottom screen, relative to MSL	-164'	-164'	-164'	-164'
			Gradient relative to MSW	DOWN	DOWN	DOWN	DOWN
Chemical Name	CAS Number	NYSDEC CLASS GA GROUNDWATER ST/GV					
Alkalinity, Total (as CaCO3)	ALK	---		127 D	125 D	146 J	112
Biochemical Oxygen Demand (BOD)	BOD5	---		U	U	UB	U
Bromide	24959-67-9	2 GV		U	U	0.12 J	U
Chloride (as Cl)	16887-00-6	250 ST		44.7 D	42.4 D	42.5	39.3
Cod - Chemical Oxygen Demand	COD	---		U	U	17.2	32.5 J
Color	COLOR	---		5	U	5	U
Hardness (as CaCO3)	HARD	---		160 D	220 D	133 J	180
Nitrogen, Ammonia (as N)	7664-41-7	2 ST		U	U	UB	0.083 J
Nitrogen, Kjeldahl, Total	KN	---		0.15	0.18	UBJ	UJ
Nitrogen, Nitrate (as N)	14797-55-8	10 ST		2.69 D	2.17 D	2.6 J	UJB
Nitrogen, Nitrite	14797-65-0	1 ST		U	U	U	U
Phenolics, Total Recoverable	TOTPHEN	0.001 ST		U	U	UB	UB
Sulfate (as SO4)	14808-79-8	250 ST		39.9 D	43.0 J	39.8	41
Total Dissolved Solids	E-10173	---		296	128	238	282
Total Organic Carbon	TOC	---		3.4	33.2	3.3	2.9

mg/l	Milligrams per liter
U	Compound was analyzed for but not detected
UB	Qualified as non detect (U) based on blank results
J	Estimated detection limit or value
D	Result was reported from a secondary dilution
NR	Not reported
--	Not analyzed or no ST or GV
BGS	Below Ground Surface
MSL	Mean Sea Level
MSW	Municipal Solid Waste
GV	Guidance Value
ST	Standard
Exceeds Class GA Standard/Guidance value	
*	Collected under pumping conditions

APPENDIX A-4

MONITORING WELL SAMPLE RESULTS
EMERGING CONTAMINANTS

Appendix A-4
Blydenburgh Road Landfill Complex
Post Closure Groundwater Monitoring Program
Monitoring Well Sample Results
Per-and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane

Sample ID		GM-1D*	GM-3I	4G-1	4M-1	9G-1	11G-1	11G-2	14M-1	18G-2	22M-1
Sample_date		9/7/2018	9/6/2018	9/4/2018	9/4/2018	9/7/2018	8/31/2018	8/31/2018	9/5/2018	9/6/2018	9/5/2018
Depth of Well BGS		399'	177'	164'	325'	68'	145'	220'	355'	197'	222'
Depth to bottom screen, relative to MSL		-247'	-116	2'	-159'	23'	22'	-51	-194'	-29	-164'
Gradient relative to MSW		DOWN	UP	DOWN	DOWN	UP	DOWN	DOWN	DOWN	DOWN	UP
PFAS in ng/l	CAS Number										
1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	**39108-34-4**	U	U	U	UJ	U	U	UJ	UJ	U	U
1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	**27619-97-2**	U	U	U	UJ	U	4.9 J	6.2 J	UJ	U	U
2-(N-methyl perfluorooctanesulfonamido) acetic acid	**2355-31-9**	U	U	5 J	28 J	U	U	UJ	UJ	U	U
N-Ethyl-N-((heptadecafluorooctyl)sulphonyl) glycine	**2991-50-6**	1.8 J	U	24	150 J	U	89 J	45 J	59 J	2 J	2.3 J
Perfluorobutanesulfonic Acid	**375-73-5**	18	1.1 J	12	25 J	0.28 J	32 J	69 J	23 J	7.2	0.55 J
Perfluorobutyric Acid (PFBA)	**375-22-4**	160	2	110	570 J	1.2 J	370 J	570 J	310 J	36	3.2
Perfluorodecane Sulfonic Acid	**335-77-3**	U	U	U	UJ	U	U	UJ	UJ	U	U
Perfluorodecanoic Acid (PFDA)	**335-76-2**	U	1 J	2.9 J	3.6 J	U	3.3 J	UJ	UJ	2.7	0.58 J
Perfluorododecanoic Acid (PFDoA)	**307-55-1**	U	U	U	UJ	U	U	UJ	UJ	U	U
Perfluoroheptane Sulfonate (PFHpS)	**375-92-8**	1.2 J	0.25 J	0.89 J	3.3 J	U	3.6 J	3.5 J	2.4 J	0.48 J	0.34 J
Perfluoroheptanoic Acid (PFHpA)	**375-85-9**	37	1.9	31	130 J	0.51 J	73 J	110 J	68	23	2.8
Perfluorohexanesulfonic Acid	**355-46-4**	32 B	UB	20	89 J	UB	74 J	110 J	62 J	9.8	3
Perfluorohexanoic Acid (PFHxA)	**307-24-4**	150	1.7	130	540 J	0.67 J	330 J	560 J	320 J	79	3.9
Perfluorononanoic Acid	**375-95-1**	1.7 J	1.1 J	12	13 J	0.46 J	14 J	21 J	5.6 J	9.5	1.5 J
Perfluorooctane Sulfonamide (FOSA)	**754-91-6**	U	U	0.49 J	3.7 J	U	U	UJ	UJ	0.34 J	U
Perfluorooctane Sulfonic Acid (PFOS)	**1763-23-1**	18	14	45	110 J	3.4	100 J	84 J	59 J	33	9.9
Perfluorooctanoic Acid (PFOA)	**335-67-1**	94	4.9	110	690 J	2.7	260 J	440 J	380 J	77	10
Perfluoropentanoic Acid (PFPeA)	**2706-90-3**	32	2.1	83	130 J	0.86 J	140 J	140 J	55 J	96	2.5
Perfluorotetradecanoic Acid (PFTeA)	**376-06-7**	U	U	U	UJ	U	U	UJ	UJ	U	U
Perfluorotridecanoic Acid (PFTriA)	**72629-94-8**	U	U	U	UJ	U	U	UJ	UJ	U	U
Perfluoroundecanoic Acid (PFUnA)	**2058-94-8**	U	U	U	UJ	U	U	UJ	UJ	U	U
1,4-Dioxane (P-Dioxane) In ug/L	**123-91-1**	35.8 J	UJ	9.4 J	81.4 EJ	UJ	25.5 J	110 EJ	37.4 DJ	4.1 J	0.16 J

Footnotes/Qualifiers:

ng/l: Nanogram per liter
ug/l: Micrograms per liter
U: Analyzed for but not detected
UB: Qualified as non detect due to blank result
J: Estimated value or limit
JH: Estimated value bias high
EJ: Exceeded calibration range, estimted value.
DJ: Reported from dilution, estimated value
* : GM-1D converted into a temporary extraction well in October 2013. Groundwater sample collected under pumping conditions.

APPENDIX B

FIELD OBSERVATION LOGS

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 9/7/18

SAMPLE ID: GM-1D-9/7/18
WELL ID: GM-1D
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) 400'
Initial static water level (from top of casing) NA

Time:
Time:

Purging Method

Airlift	___	Centrifugal	___
Bailer	___	Pos. Displ.	___
Submersible	√	Ded. Pump	√

Well Volume Calculation:

2 in. casing: _____ ft. of water x 0.16 = _____ gallons
3 in. casing: _____ ft. of water x 0.36 = _____ gallons
4 in. casing: _____ ft. of water x 0.65 = _____ gallons

volume of water removed: ___ gal. >3 volumes: yes X no ___ purged dry? yes ___ no X

Field Tests

Volume of Purge Water (in gallons)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Sample	7.24	14.56	1.06	0.0	8.62	-31

Sampling

Time of Sample Collection: 1:45 pm

Method:

___	Stainless steel bailer
___	Teflon bailer
___	Pos. Disp. Pump
___	Disposable bailer
X	Dedicated pump
X	Other: sample spigot

Analyses:

___	VOCs	602 ___	503 ___	Other ___	
___	SVOCs				
___	Metals				
___	PCB/Pest.				
___	Physical				
X	Other	NYCRR PcA360 Baseline Parameters, plus Freon 21/22, and 1,4-Dioxane, PFAs.			

Observations

Weather/Temperature: Partly cloudy 70-75°/mild
Sample description: clear, no odors

Free Product? yes ___	no X	describe	
Sheen? yes ___	no X	describe	
Odor? yes ___	no X	describe	

Comments: GM-1D converted into Temporary Extraction well in October of 2013.

(Collected MS/MSD)

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 9/6/18

SAMPLE ID: GM-3I 9/6/18
WELL ID: GM-3I
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) ..... 177.00'
Initial static water level (from top of casing) ..... 20.02'

Time:
Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:

2 in. casing: ____ ft. of water x 0.16 = ____ gallons
3 in. casing: ____ ft. of water x 0.36 = ____ gallons
4 in. casing: 157 ft. of water x 0.65 = ____ gallons

volume of water removed: 17,500 ~~gal.~~ mL >3 volumes: yes ____ no X purged dry? yes ____ no X

Field Tests

Volume of Purge Water (in gallons)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Initial	5.72	17.02	0.070	21	4.76	216
2,500	5.70	17.23	0.071	19	3.57	213
5,000 mL	5.69	17.12	0.072	19	3.22	211
7,500 mL	5.74	16.87	0.072	18	3.21	212
10,000 mL	5.72	16.61	0.073	20	2.96	215
12,500 mL	5.74	16.40	0.073	19	2.87	214
15,000 mL	5.72	16.66	0.073	14	3.11	213
17,500 mL	5.72	16.75	0.073	15	2.93	214

Sampling

Time of Sample Collection: 1:45 pm

Method:		Analyses:				
____	Stainless steel bailer	____	VOCs	602 ____	503 ____	Other ____
____	Teflon bailer	____	SVOCs			
____	Pos. Disp. Pump	____	Metals			
____	Disposable bailer	____	PCB/Pest.			
____	Dedicated pump	____	Physical			
X	Other: Bladder pump	X	Other	NYCRR PART 360 Baseline Parameters, Frem 21/Frem 22, plus 1,4-Dioxane and PFAS.		

Observations

Weather/Temperature: Partly cloudy, warm 80-85°F
Sample description: Clear, no odor
Free Product? yes ____ no X describe ____
Sheen? yes ____ no ✓ describe ____
Odor? yes ____ no X describe ____

Comments: Low flow purging with bladder pump
Flow rate at 500 mL/m

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydesburgh Road Landfill DATE 9/4/18

SAMPLE ID: MG-1 -9/4/18
WELL ID: MG-1
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) ..... 164.00' Time:
Initial static water level (from top of casing) ..... 128.58' Time:

Purging Method

Airlift	___	Centrifugal	___
Bailer	___	Pos. Displ.	___
Submersible	✓	Ded. Pump	___

Well Volume Calculation:

2 in. casing: ___ ft. of water x 0.16 = ___ gallons
3 in. casing: ___ ft. of water x 0.36 = ___ gallons
4 in. casing: 33.42 ft. of water x 0.65 = ___ gallons

volume of water removed: 15,000 ~~gal~~ mL >3 volumes: yes ___ no X purged dry? yes ___ no X

Field Tests

Volume of Purge Water (in ~~gallons~~ mL)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Initial	7.07	23.44	0.637	2.1	5.13	-42
2,500 mL	7.03	23.61	0.649	1.0	2.81	-44
5,000 mL	7.05	23.52	0.657	0.0	2.57	-51
7,500 mL	7.05	23.71	0.667	0.0	3.85	-53
10,000 mL	7.07	23.73	0.672	0.0	3.02	-55
12,500 mL	7.05	23.64	0.674	0.0	2.05	-51
15,000 mL	7.04	23.77	0.673	0.0	1.94	-54

Sampling

Time of Sample Collection: 245 pm

Method:		Analyses:						
___	Stainless steel bailer	___	VOCs	602 ___	503 ___	Other ___		
___	Teflon bailer	___	SVOCs					
___	Pos. Disp. Pump	___	Metals					
X	Disposable bailer	___	PCB/Pest.					
___	Dedicated pump	___	Physical					
___	Other: Bladder pump	✓	Other	MCAR PtA 360 Baseline, Freon 21/22 plus 1,4-Dioxane and PFAS				

Observations

Weather/Temperature: Sunny Hot 80-85°F
Sample description: clear, no odor
Free Product? yes ___ no X describe
Sheen? yes ___ no X describe
Odor? yes ___ no X describe

Comments:
flow rate: 500 mL/minute
Low flow purging with bladder pump

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 9/14/18

SAMPLE ID: 4M-1 -9/14/18
WELL ID: 4M-1
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) 325.00
Initial static water level (from top of casing) 129.44

Time:
Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:

2 in. casing: ____ ft. of water x 0.16 = ____ gallons
3 in. casing: ____ ft. of water x 0.36 = ____ gallons
4 in. casing: 195 ft. of water x 0.65 = [redacted] gallons

volume of water removed: 21,000 mL ~~gal.~~ >3 volumes: yes ____ no ✓ purged dry? yes ____ no ✓

Field Tests

Volume of Purge Water (in ~~gallons~~ mL)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Initial	7.78	24.59	3.72	0.0	2.15	-119
3500 mL	7.80	24.54	3.45	0.0	1.31	-108
7,000 mL	7.79	24.58	3.41	0.0	1.15	-97
10,500 mL	7.80	24.71	3.45	0.0	0.99	-111
14,000 mL	7.77	24.76	3.43	0.0	0.42	-105
17,500 mL	7.77	24.76	3.42	0.0	0.86	-105
21,000 mL	7.75	24.80	3.44	0.0	0.98	-109

Sampling

Time of Sample Collection: 1100 am

Method:		Analyses:				
____	Stainless steel bailer	____	VOCs	602 ____	503 ____	Other ____
____	Teflon bailer	____	SVOCs			
____	Pos. Disp. Pump	____	Metals			
____	Disposable bailer	____	PCB/Pest.			
____	Dedicated pump	____	Physical			
X	Other: Bladder pump	X	Other	[redacted]		

Baseline Parameters plus Emerging Contaminants (PFAS/1,4-Dioxane) for Post Closure gw Program

Observations

Weather/Temperature: Sunny - Hot 85-90°F
Sample description: clear - yellowish tint
Free Product? yes ____ no X describe ____
Sheen? yes ____ no X describe ____
Odor? yes X no ____ describe slight landfill gas odor

Comments: Low flow with bladder pump
flowrate = 350 mL/minute

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 9/7/18

SAMPLE ID: 96-1-9/7/18
WELL ID: 96-1
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) ..... 69.00 Time:
Initial static water level (from top of casing) ..... 50.52 Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:

2 in. casing: _____ ft. of water x 0.16 = _____ gallons
3 in. casing: _____ ft. of water x 0.36 = _____ gallons
4 in. casing: 18.48 ft. of water x 0.65 = _____ gallons

volume of water removed: 35,000 ~~gal.~~ mL >3 volumes: yes ____ no X purged dry? yes ____ no X

Field Tests

Volume of Purge Water (in ~~gallons~~) (mL)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)*	Eh (mv) ORP
Initial	7.48	14.66	0.032	84	—	137
5,000 mL	6.97	14.31	0.032	44	—	153
10,000 mL	8.32	14.47	0.029	20	—	95
15,000 mL	7.55	14.82	0.031	15	—	255
20,000 mL	6.93	15.02	0.031	45	—	257
25,000 mL	6.77	14.79	0.030	61	—	264
30,000 mL	6.74	14.76	0.030	53	—	271
35,000 mL	6.73	14.63	0.029	48	—	272

Sampling

Time of Sample Collection: 1200 PM

Method:		Analyses:				
____	Stainless steel bailer	____	VOCs	602 ____	503 ____	Other ____
____	Teflon bailer	____	SVOCs			
____	Pos. Disp. Pump	____	Metals			
____	Disposable bailer	____	PCB/Pest.			
____	Dedicated pump	____	Physical			
X	Other: Bladder pump	X	Other	NYCRR Part 360 Baseline Parameters, plus Freon 21/22 and 1,4-Dioxane / PFAs		

Observations

Weather/Temperature: Partly Cloudy, mild 70-75°F
Sample description: Clear, no odor
Free Product? yes ____ no X describe ____
Sheen? yes ____ no X describe ____
Odor? yes ____ no X describe ____

Comments: flow rate = 500 mL/minute * Dissolved oxygen meter malfunction
Low flow purging with bladder pump

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 8/31/18

SAMPLE ID: 11G-1 - 8/31/18
WELL ID: 11G-1
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) ..... 146.60' Time:
Initial static water level (from top of casing) ..... 129.22' Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:
2 in. casing: _____ ft. of water x 0.16 = _____ gallons
3 in. casing: _____ ft. of water x 0.36 = _____ gallons
4 in. casing: 17.38 ft. of water x 0.65 = _____ gallons

volume of water removed: 12,000 mL ~~gal.~~ >3 volumes: yes ____ no ✓ purged dry? yes ____ no ✓

Field Tests

Volume of Purge Water (in ~~gallons~~) (mL)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) ORP
Initial	7.89	22.97	0.581	154	5.44	-48
1500 mL	8.20	23.34	1.98	84	3.02	-67
3000 mL	8.28	23.57	1.99	67	2.14	-69
4,500 mL	7.94	23.04	2.00	40	2.05	-71
6,000 mL	8.00	23.41	1.99	26.8	1.80	-75
7,500 mL	8.06	22.61	1.98	15.1	2.20	-69
9,000 mL	8.02	22.95	2.01	15.3	2.22	-62
10,500 mL	8.05	22.13	1.98	9.9	1.80	-65
Sampling 12,000 mL	8.04	22.08	2.00	8.4	1.82	-68

Time of Sample Collection: 2:30 pm

Method:
____ Stainless steel bailer
____ Teflon bailer
____ Pos. Disp. Pump
____ Disposable bailer
____ Dedicated pump
X Other: Bladder pump

Analyses:
____ VOCs
____ SVOCs
____ Metals
____ PCB/Pest.
____ Physical
X Other: Routine Parameters (Cleanfill Program)
Baseline Parameters plus emerging contaminants (PFAS) + 1,4-Dioxane for Post Closure Groundwater monitoring Program

602 _____ 503 _____ Other _____

Observations
Weather/Temperature: Partly cloudy 70-75°F
Sample description: yellowish tint
Free Product? yes ____ no X describe
Sheen? yes ____ no X describe
Odor? yes X no ____ describe Slight landfill gas odor

Comments:
Low flow purging with bladder pump
Flow rate ≈300 mL/minute

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 8/31/18

SAMPLE ID: LG-2-8/31/18
WELL ID: LG-2
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) 220.50
Initial static water level (from top of casing) 129.63

Time:
Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:

2 in. casing: _____ ft. of water x 0.16 = _____ gallons
3 in. casing: _____ ft. of water x 0.36 = _____ gallons
4 in. casing: 90.87 ft. of water x 0.65 = _____ gallons

volume of water removed: 45,000 mL ~~gal~~ >3 volumes: yes ____ no ✓ purged dry? yes ____ no ✓

Field Tests

Volume of Purge Water (~~in gallons~~) (mL)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Initial	7.61	21.80	3.25	30	5.43	-99
5,000 mL	7.52	22.18	3.23	18	2.49	-85
10,000 mL	7.50	22.30	3.23	15	2.49	-90
15,000 mL	7.48	22.29	3.24	12	1.63	-86
20,000 mL	7.51	22.30	3.24	11	1.62	-86
25,000 mL	7.50	22.40	3.25	9	1.74	-86
30,000	7.48	22.47	3.23	9	1.70	-84
35,000 mL	7.50	22.45	3.21	8	1.42	-82
40,000 mL	7.50	22.30	3.20	10	1.42	-82
45,000 mL	7.49	22.22	3.20	7	1.35	-87

Sampling Time of Sample Collection: 1200 pm

Method:

____	Stainless steel bailer
____	Teflon bailer
____	Pos. Disp. Pump
____	Disposable bailer
____	Dedicated pump
X	Other: Bladder pump

Analyses:

____	VOCs
____	SVOCs
____	Metals
____	PCB/Pest.
____	Physical
X	Other Routine Parameters (Cleanfill Program) Baseline Parameters (Plus Emerging Contaminants) PFAS/1,4 Dioxane for Post Closure GW Program

602 _____ 503 _____ Other _____

Observations

Weather/Temperature: Partly cloudy 70-75°F
Sample description: Yellowish Tint
Free Product? yes ____ no X describe _____
Sheen? yes ____ no X describe _____
Odor? yes X no ____ describe Landfill gas odor present

Comments:

Flow rate = 500 mL/minute
Low flow purging at 500 mL/minute

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 9/5/18

SAMPLE ID: 14M-1-9/5/18
WELL ID: 14M-1
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) ..... 325.00'
Initial static water level (from top of casing) 122.65

Time:
Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:

2 in. casing: ____ ft. of water x 0.16 = ____ gallons
3 in. casing: ____ ft. of water x 0.36 = ____ gallons
4 in. casing: 205 ft. of water x 0.65 = ____ gallons

volume of water removed: 12,000 mL ~~gal.~~

>3 volumes: yes ____ no X

purged dry? yes ____ no X

Field Tests

Volume of Purge Water (in ~~gallons~~) mL	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Initial	7.44	19.00	2.28	20	3.10	-28
2000 mL	7.49	19.08	2.27	22	2.11	-38
4,000 mL	7.50	18.85	2.28	19	2.09	-38
6,000 mL	7.48	18.83	2.28	18	1.94	-39
8,000 mL	7.49	19.02	2.28	12	2.05	-40
10,000 mL	7.51	18.44	2.28	12	2.02	-40
12,000 mL	7.48	19.13	2.29	10	1.86	-38

Sampling

Time of Sample Collection: 1030am

Method:

		Analyses:				
____	Stainless steel bailer	____	VOCs	602 ____	503 ____	Other ____
____	Teflon bailer	____	SVOCs			
____	Pos. Disp. Pump	____	Metals			
____	Disposable bailer	____	PCB/Pest.			
____	Dedicated pump	____	Physical			
X	Other: Bladder pump	X	Other	Routine Parameters (Landfill Program) Baseline Parameters, plus emerging contaminants (PFAs + 1,4 Dioxane) for Post Closure GW Program		

Observations

Weather/Temperature: Partly cloudy / warm 80-85°F
Sample description: Clear
Free Product? yes ____ no X describe
Sheen? yes ____ no X describe
Odor? yes X no ____ describe slight landfill gas odor present

Comments: [Collected Blind Duplicate - B - 9/5/18 time 0000]
Low flow purging with bladder pump
Flow rate: 200 mL/minute

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill Complex DATE 9/6/18

SAMPLE ID: 186-2 - 9/6/18
WELL ID: 186-2
SAMPLERS: K. Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) 197.50
Initial static water level (from top of casing) 128.90

Time:
Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	____	Ded. Pump	____

Well Volume Calculation:

2 in. casing: _____ ft. of water x 0.16 = _____ gallons
3 in. casing: _____ ft. of water x 0.36 = _____ gallons
4 in. casing: 68.60 ft. of water x 0.65 = _____ gallons

volume of water removed: 7,500 mL ~~gal~~ >3 volumes: yes ____ no X purged dry? yes ____ no X

Field Tests

Volume of Purge Water ~~(in gallons)~~	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) ORP
Initial	6.66	21.90	0.421	0.0	3.70	72
1,250 (mL)	6.78	20.98	0.418	0.0	3.03	65
2,500 (mL)	6.85	20.91	0.418	0.0	2.78	66
3,750 (mL)	6.87	20.98	0.416	0.0	2.75	64
5,000 mL	6.80	21.15	0.416	0.0	2.71	65
6,250 mL	6.79	20.87	0.417	0.0	2.67	65
7,500 mL	6.87	20.87	0.415	0.0	2.53	64

Sampling

Time of Sample Collection: 1030 am

Method:

____	Stainless steel bailer
____	Teflon bailer
____	Pos. Disp. Pump
____	Disposable bailer
____	Dedicated pump
X	Other: Bladder pump

Analyses:

____	VOCs
____	SVOCs
____	Metals
____	PCB/Pest.
____	Physical
X	Other Routine Parameters (Cleanfill Program) Baseline Parameters (plus emerging contaminants: PFAS + 1,4-Dioxane) for Post closure GW program

602 _____ 503 _____ Other _____

Observations

Weather/Temperature: P.Cly Cloudy, warm 80-85°F
Sample description: clear

Free Product? yes	____	no X	describe
Sheen? yes	____	no X	describe
Odor? yes	____	no X	describe

Comments: Low flow purging with bladder pump
flow rate ~ 250 mL/minute

FIELD OBSERVATION LOG
GROUNDWATER SAMPLING RECORD

SITE Blydenburgh Road Landfill DATE 9/5/18

SAMPLE ID: 22M-1 - 9/5/18
WELL ID: 22M-1
SAMPLERS: Keith Robins

Time On-site: Time Off-site:

Depth of well (from top of casing) 222.5
Initial static water level (from top of casing) 21.9

Time:
Time:

Purging Method

Airlift	____	Centrifugal	____
Bailer	____	Pos. Displ.	____
Submersible	✓	Ded. Pump	____

Well Volume Calculation:

2 in. casing: ____ ft. of water x 0.16 = ____ gallons
3 in. casing: ____ ft. of water x 0.36 = ____ gallons
4 in. casing: ≈ 200' ft. of water x 0.65 = ____ gallons

volume of water removed: 18,000 ~~9000~~ mL) >3 volumes: yes ✓ no ____ purged dry? yes ____ no ✓

Field Tests

Volume of Purge Water (in ~~gallons~~ mL)	pH	Temp (c°)	Spec. Cond. (ms/cm)	Turbidity (NTUs)	Dissolved Oxygen (mg/l)	Eh (mv) (ORP)
Initial	6.29	14.97	0.147	0.0	2.07	163
3,000 mL	6.18	15.44	0.151	0.0	—	160
6,000 mL	6.14	15.26	0.154	0.0	—	156
9,000 mL	6.18	15.22	0.154	0.0	2.77	158
12,000 mL	6.18	15.13	0.157	0.7	1.70	158
15,000 mL	6.18	15.29	0.154	0.4	1.58	157
18,000 mL	6.14	15.35	0.158	1.5	1.52	156

Sampling

Time of Sample Collection: 330 PM

Method:		Analyses:				
____	Stainless steel bailer	____	VOCs	602 ____	503 ____	Other ____
____	Teflon bailer	____	SVOCs			
____	Pos. Disp. Pump	____	Metals			
____	Disposable bailer	____	PCB/Pest.			
X	Dedicated pump	____	Physical			
____	Other: ____	X	Other	NYCRR PART 360 Baseline Parameters, Plus From 4/22 and 1,4-Dioxane / PFAS		

Observations

Weather/Temperature: Partly Cloudy Warm 80-85°F
Sample description: Clear, no odors

Free Product? yes ____	no X	describe	____
Sheen? yes ____	no X	describe	____
Odor? yes ____	no X	describe	____

Comments: Low flow purging with bladder pump
Flow rate est: 300 mL/minute

APPENDIX C

CHAIN OF CUSTODY FORMS

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical

Section A
Required Client Information:

Company:	Islip Resource Recovery
Address:	401 Main Street
	Islip, NY 11751
Email:	avarrichio@islipny.gov
Phone:	(631)595-3742
Fax:	–
Requested Due Date:	21 days

Section B
Required Project Information:

Report To:	Anthony Varrichio
Copy To:	Keith Robins/D+B Engineers P.C.
Purchase Order #:	
Project Name:	Blydenburgh - Post Closure Groundwater Moni
Project #:	3363-13A (3rd Qtr 2018)

Section C
Invoice Information:

Attention:	Anthony Varrichio, P.E.
Company Name:	IRRA
Address:	401 Main Street Islip NY 11751
Pace Quote:	
Pace Project Manager:	jennifer.aracri@pacelabs.com
Pace Profile #:	5516

Regulatory Agency

State / Location
NY

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N): N N N N N N N [illegible] N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test	BOD5,Br,Cl,SO4,ALK,TDS	NO2,Color,Cr+6	COD,NH3,NO3,Phenols TKN	TOC	TAL Metals +Hardness	Volatiles +Freons	Cyanide	1,4 - Dioxane via SIM	PFAS via 537 (Modified) Full list (Freons)	Volatiles +Freons	Residual Chlorine (Y/N)
1	Trip Blank-8/31/18	DW	–	8/31/18	–	8/31/18	–		2	–	–	–	2	–	–	–	–		X	X	X	X	X	✓	X	X	X	✓	N
2	11G-2-8/31/18	WT	G	8/31/18	–	8/31/18	1200 pm		13	6	3	1	2	1	–	–	–		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N
3	11G-1-8/31/18	WT	G	8/31/18	–	8/31/18	230 pm		13	6	3	1	2	1	–	–	–		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

NYCRR Part 360 Baseline, plus Freon 21, Freon 22 plus 1,4-Dioxane plus PFAS Full List

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Analyte List via modified 537	Keith Robins (D+B)	8/31/18	1625	[illegible signature] / Pace	8/31/18	16:25	0.3	Y	N	Y
[Provide category B and EQuIS] Provide Full List (21 compounds) of PFAS										

	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Keith Robins

SIGNATURE of SAMPLER: Keith Robins

DATE Signed: 08/31/18

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 **Of** 1

Section A — Required Client Information:

Company:	Islip Resource Recovery
Address:	401 Main Street
	Islip, NY 11751
Email:	avarrichio@islipny.gov
Phone:	(631)595-3742 Fax: —
Requested Due Date:	21 day

Section B — Required Project Information:

Report To:	Anthony Varrichio
Copy To:	D&B Engineers + Architects P.C. (Keith Robins)
Purchase Order #:	
Project Name:	Blydenburgh - Post Closure Groundwater Moni
Project #:	3765-13A

Section C — Invoice Information:

Attention:	Anthony Varrichio, P.E.
Company Name:	IRRA
Address:	401 Main Street, Islip NY
Pace Quote:	
Pace Project Manager:	jennifer.aracri@pacelabs.com
Pace Profile #:	5516

Regulatory Agency	
State / Location	NY

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	BOD5,Br,Cl,SO4,ALK,TDS	NO2,Color,Cr+6	COD,NH3,NO3,Phenols TKN	TOC	TAL Metals +Hardness	Volatiles +Freons	Cyanide	1,4 - Dioxane via SIM	PFAS via 537 (Modified)	Volatiles +Freons			Residual Chlorine (Y/N)	
Requested Analysis Filtered (Y/N)																			N	N	N	N	N	N	N	N	N	N				NYCRR Part 360 Baseline plus Freon 21, Freon 22, 1,4-Dioxane and Full list PFAS
1	Trip Blank - 9/4/18	DW	-	9/4/18	-	9/4/18	-		2	-	-	-	2	-	-	-	-		-	-	-	-	-	✓	-	-	-	✓			N	
2	4M-1 9/4/18	WT	G	9/4/18	-	9/4/18	1100 am		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			N	
3	4G-1 9/4/18	WT	G	9/4/18	-	9/4/18	245 pm		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			N	
4																																
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6																																
7																																
8																																
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10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Analyte List via modified 537	Keith Robins / D&B	9/5/18	2700				
Third Qtr 2018 Sampling							
Post Closure GW Event							
provide EDDs and Category "B"							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Keith Robins

SIGNATURE of SAMPLER: Keith Robins DATE Signed: 9/5/18

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Islip Resource Recovery	Report To:	Anthony Varrichio	Attention:	Anthony Varrichio
Address:	401 Main Street	Copy To:	Keith Robins/D&B	Company Name:	IRRA
Islip, NY 11751				Address:	401 Main Street, Islip NY
Email:	avarrichio@islipny.gov	Purchase Order #:		Pace Quote:	
Phone:	(631)595-3742 Fax:	Project Name:	Blydenburgh - Post Closure Groundwater Moni	Pace Project Manager:	jennifer.aracri@pacelabs.com,
Requested Due Date:	21 days	Project #:	3703-13A Final (2018)	Pace Profile #:	5516

Regulatory Agency
State / Location
NY

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N): N N N N N N N N N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	BOD5,Br,Cl,SO4,ALK,TDS	NO2,Color,Cr+6	COD,NH3,NO3,Phenols TKN	TOC	TAL Metals +Hardness	Volatiles +Freons	Cyanide	1,4 - Dioxane via SIM	PFAS via 537 (Modified)	Volatiles +Freons			Residual Chlorine (Y/N)	
1	Trip Blank - 9/5/18	Tw	-	9/5/18	-	9/5/18	—		2	-	-	-	2	-	-	-	-		-	-	-	-	-	✓	-	-	-	✓			N	NYSDEC RASD Baseline, plus Freon w/22, plus 1,4-Dioxane plus Full PFAS List
2	14M-1 9/5/18	WT	G	9/5/18	—	9/5/18	1030		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			N	
3	Blind Dup-B - 9/5/18	WT	G	9/5/18	—	9/5/18	0000		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			N	
4	22M-1 - 9/5/18	WT	G	9/5/18	—	9/5/18	330p		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			N	
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Analyte List via modified 537 — 3rd QRT 2018	Keith Robins/D&B	09/6/18	0702				
Post Closure GW Program							
Provide Category B and EQuIS							

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Keith Robins

SIGNATURE of SAMPLER: Keith Robins

DATE Signed: 9/6/18

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical

Page : 1 Of 1

Section A — Required Client Information:

Company:	Islip Resource Recovery
Address:	401 Main Street
	Islip, NY 11751
Email:	avarrichio@islipny.gov
Phone:	(631)595-3742 Fax: —
Requested Due Date:	21 days

Section B — Required Project Information:

Report To:	Anthony Varrichio
Copy To:	Keith Robins (D+B Engineers + Architects, P.C.)
Purchase Order #:	
Project Name:	Blydenburgh - Post Closure Groundwater Moni
Project #:	3765-13A (3rd QAT 2018)

Section C — Invoice Information:

Attention:	Anthony Varrichio
Company Name:	IRRAI
Address:	401 Main Street, Islip NY
Pace Quote:	
Pace Project Manager:	jennifer.aracri@pacelabs.com,
Pace Profile #:	5516

Regulatory Agency	State / Location
	NY

SAMPLE ID: One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

Requested Analysis Filtered (Y/N): N N N N N N N N N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	BOD5,Br,Cl,SO4,ALK,TDS	NO2,Color,Cr+6	COD,NH3,NO3,Phenols TKN	TOC	TAL Metals +Hardness	Volatiles +Freons	Cyanide	1,4 - Dioxane via SIM	PFAS via 537 (Modified)	Volatiles +Freons	Residual Chlorine (Y/N)	
1	TripBlank - 9/6/18	[illegible]	[illegible]	9/6/18	-	9/6/18	-		2	-	-	-	2	-	-	-	-		-	-	-	-	-	✓	-	-	-	✓	N	
2	18G-2 - 9/6/18	WT	G	9/6/18	-	9/6/18	1030		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
3	GM-3I - 9/6/18	WT	G	9/6/18	-	9/6/18	1145		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
4	Field Blank - 9/6/18	WT	G	9/6/18	-	9/6/18	300		13	6	3	1	2	1	-	-	-		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

NYCRR Part 360 Baseline plus Freon 21 / Freon 22 and 1,4 Dioxane and Full List PFAS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Analyte List via modified 537 — 3rd QRT Post Closure GW sampling Event; Provide Category "B" and EQuIS	Keith Robins / D+B	09/[illegible]/18	0700				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Keith Robins

SIGNATURE of SAMPLER: Keith Robins — DATE Signed: 09/08/18

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:

Company: Islip Resource Recovery
Address: 401 Main Street
Islip, NY 11751
Email: avarrichio@islipny.gov
Phone: (631)595-3742 Fax: —
Requested Due Date: 21 days

Section B — Required Project Information:

Report To: Anthony Varrichio
Copy To: Kevin Robins at D+B Engineers & Architects, P.C.
Purchase Order #:
Project Name: Blydenburgh - Post Closure Groundwater Moni
Project #: 3763-13A (3rd QRT 2018)

Section C — Invoice Information:

Attention: Anthony Varrichio, P.E
Company Name: IRRA
Address: 401 Main Street, Islip NY
Pace Quote:
Pace Project Manager: jennifer.aracri@pacelabs.com,
Pace Profile #: 5516

Regulatory Agency:
State / Location: NY

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	BOD5,Br,Cl,SO4,ALK,TDS	NO2,Color,Cr+6	COD,NH3,NO3,Phenols TKN	TOC	TAL Metals +Hardness	Volatiles +Freons	Cyanide	1,4 - Dioxane via SIM	PFAS via 537 (Modified)	Volatiles +Freons	Residual Chlorine (Y/N)	
1	Trip Blank - 9/7/18	DW	—	9/7/18	—	9/7/18	—		2	—	1	—	2	—	—	—	—		—	—	—	—	✓	1	—	1	✓	N	
2	9G-1 - 9/7/18	WT	G	9/7/18	—	9/7/18	12:00 pm		13	6	3	1	2	1	—	—	—		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
3	GM-1D - 9/7/18	WT	G	9/7/18	—	9/7/18	1:45 pm		13	6	3	1	2	1	—	—	—		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
4	GM-1D - 9/7/18 (MS)	WT	G	9/7/18	—	9/7/18	1:45 pm		13	6	3	1	2	1	—	—	—		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
5	GM-1D - 9/7/18 (MSD)	WT	G	9/7/18	—	9/7/18	1:45 pm		13	6	3	1	2	1	—	—	—		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	
6																														
7																														
8																														
9																														
10																														
11																														
12																														

MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS

NYCRR Part 360 Baseline Parameters Plus Freon 21, 22 and 1,4-Dioxane and Full List (PFAS)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Analyte List via modified 537	Keith Robins / D+B Engineers					
Third QRT 2018 Post Closure GW Sampling Event.						
Provide Category "B" and EQUIS						

SAMPLE CONDITIONS			
TEMP in C	4.5	Y	N
Received on Ice (Y/N)	C		
Custody Sealed Cooler (Y/N)			
Samples Intact (Y/N)			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Keith Robins

SIGNATURE of SAMPLER: Keith Robins

DATE Signed: 9/07/18

APPENDIX D

DATA VALIDATION FORMS

D&B ENGINEERS AND ARCHITECTS, P.C.

DATA VALIDATION CHECKLIST

Project Name:	Blydenburgh Road Landfill
Project Number:	3763-13B
Sample Date(s):	August 31 to September 7, 2018
Sample Team:	Keith Robins
Matrix/Number of Samples:	Water/ 10 Soil/ 0 Field Duplicates/ 1 Trip Blanks / 5 Field Blanks/ 1
Analyzing Laboratory:	Pace Analytical., Melville, NY, Minneapolis, MN, or Test America, Sacramento, CA
Analyses:	Volatile Organic Compounds (VOCs): by SW846 8260C by Pace Melville, NY 14-Dioxane: by SW846 8270D Sim by Pace Minneapolis, MN Per-and Polyfluoroalkyl Substances (PFAS): by EPA 537 (modified) by Test Metals: TAL by SW846 Method 6010C, mercury by Method 7470A and Cyanide by USEPA 9014 by Pace Melville, NY General Chemistry: Alkalinity (SM2320B); Ammonia (SM 4500); Chloride, Sulfate and Bromide (USEPA 300.0); Nitrate and Nitrite (USEPA 353.2); Biochemical Oxygen Demand (BOD) (SM5210B); Chemical Oxygen Demand (COD) (410.4); Phenolics (USEPA 420.1); Color (SM2120B); Total Dissolved Solids (SM 2540C); Hexavalent Chromium (SM3500-CR D); Total Kjeldahl Nitrogen (USEPA 351.2), Hardness (SM 2340C) and Total Organic Carbon (USEPA 9060A) by Pace Melville, NY
Laboratory Report No:	7063554 Date:3/16/2018

ANALYTICAL DATA PACKAGE DOCUMENTATION
GENERAL INFORMATION

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Sample results		X		X	
2. Parameters analyzed		X		X	
3. Method of analysis		X		X	
4. Sample collection date		X		X	
5. Laboratory sample received date		X		X	
6. Sample analysis date		X		X	
7. Copy of chain-of-custody form signed by Lab sample custodian		X		X	
8. Narrative summary of QA or sample problems provided		X		X	

QA - quality assurance

Comments:

The data packages have been reviewed in accordance with the NYSDEC 6/05 ASP Quality Assurance/ Quality Control (QA/QC) requirements. The monitoring program requires a 20% validation specified in Part 360. A validation was conducted on the data package and any applicable qualification of the data was determined using the USEPA National Functional Guidelines of Organic Data Review, January 2017, or USEPA National Functional Guidelines of Inorganic Data Review, January 2017, method performance criteria, and performance criteria, and D&B Engineers and Architects, P.C. professional judgment. The qualification of data discussed within this data validation checklist did not impact the usability of the sample results.

SDG: 7063554
SAMPLE AND ANALYSIS LIST

Sample ID	Lab ID	Sample Collection Date	Blind Sample	Analysis				
				VOC	1,4-Dioxane	PFAS	MET	MISC
TRIP BLANK	7063554001	8/31/2018		X				
11G-1	7063554002	8/31/2018		X	X	X	X	X
11G-2	7063554003	8/31/2018		X	X	X	X	X
TRIP BLANK	7063554004	9/4/2018		X				
4M-1	7063554006	9/4/2018		X	X	X	X	X
4G-1	7063554007	9/4/2018		X	X	X	X	X
TRIP BLANK	7063554008	9/5/2018		X				
14M-1	7063554009	9/5/2018		X	X	X	X	X
BLIND DUPE-B	7063554010	9/5/2018	14M-1	X	X	X	X	X
22M-1	7063554011	9/5/2018		X	X	X	X	X
TRIP BLANK	7063554012	9/6/2018		X				
18G-2	7063554013	9/6/2018		X	X	X	X	X
GM-3I	7063554014	9/6/2018		X	X	X	X	X
FIELD BLANK	7063554015	9/6/2018		X	X	X	X	X
TRIP BLANK	7063554016	9/7/2018		X				
9G-1	7063554017	9/7/2018		X	X	X	X	X
GM-1D	7063554018	9/7/2018		X	X	X	X	X

ORGANIC ANALYSES
VOCS, PFAS & 1,4-Dioxane

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X		
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks		X	X		
C. Field blanks		X	X		
3. Matrix spike (MS) %R		X	X		
4. Matrix spike duplicate (MSD) %R		X	X		
5. MS/MSD precision (RPD)		X		X	
6. Laboratory Control Sample (LCS) spike %R		X	X		
7. Surrogate spike recoveries		X	X		
8. Instrument performance check		X		X	
9. Internal standard retention times and areas		X	X		
10. Initial calibration RRF's and %RSD's		X		X	
11. Continuing calibration RRF's and %D's		X		X	
12. Transcriptions – quant report vs. Form I		X		X	
13. Field duplicates RPD		X		X	
14. Tentatively Identified Compounds (TICs)		X		X	

VOCs - volatile organic compounds
%R - percent recovery
%D - percent difference
%RSD - percent relative standard deviation
RRF - relative response factor
RPD - relative percent difference

Comments:

Performance was acceptable, with the following exceptions:

1. The holding time was outside of holding time for 1,4-dioxane in samples 14M-1_DL, BLIND DUP-B_DL 11G-1, 4G-1, 9G-1, GM-3I, FILED BLANK and 18G-2 and were qualified as estimated (J/UJ).

1&2A. The PFAS 6:2 FTS was detected in the method blank. Samples 11G-1 and 11G-2 were reanalyzed outside the holding time for 6:2 FTS, the samples reanalyzes were reported and 6:2 FTS was qualified as estimated (J).

2. Acetone was detected in the two of the TRIP BLANKs and was qualified as non-detect (UB) in samples GM-3I, 4M-1and 4G-1

Perfluorohexanesulfonic acid (PFHxS) was detected in the method and FIELD BLANK associated with all samples. Perfluorohexanesulfonic acid (PFHxS) was qualified as non-detect (UB) in samples GM-3I and 9G-1.

3,4&6. The %Rs were above the QC limit in the MS, MSD and/or LCS for 1,4-dioxone, 4-methyl-2-pentanone, trans-1,3-dichloropropene and chlorodifluoromethane. Only 1,4-dioxane was qualified as estimated (J) in samples 22M-1, 11G-2, 11G-1, BLIND DUPE-B, GM-1D, 18G-2, 14M-1, 4M-1 and 4G-1. 1,4-Dioxonae was reanalyzed in samples GM-1D and 18G-2 due to %R and were outside of holding times, the original analyses were reported.

7. The 1,4-dioxone surrogate was above the QC limit in the reanalysis of sample BLIND DUP-B. 1,4-Dioxane was qualified as estimated (J) in the reanalysis for sample BLIND DUP-B.

7&9. The surrogate associated with the PFAS was above QC limits for the following: 13C8 FOSA, in samples 11G-2, 4M-1 and 4G-1; d3-NMeFOSAA in samples 11G-2 and 11G-1; M2-8:2 FTS, 13C2 PFDA, d5-NEtFOSAA and 13C2 PFUnA in sample 11G-2; M2-8:2 FTS and d5-NEtFOSAA in sample 11G-1; M2-6:2FTS in samples 11G-2, 11G-1, 4M-1, 4G-1, 14M-1, BLIND DUP-B and GM-1D.

The internal area was above the QC limit in the PFAS original analysis and reanalysis for sample 11G-1. The internal area was below the QC limit in the PFAS original analysis and above the QC limit in the reanalysis for sample 11G-2.

The internal area was below the QC limit in the PFAS for samples 4M-1, 14M-1 and BLIND DUP-B.

Based on surrogate and internal area results the reanalysis for samples 11G-1 and 11G-2 were reported. All PFAS were qualified as estimated (J/UJ) in samples 11G-2 (reanalysis), 4M-1, 14M-1 and BLIND DUP-B. The following PFAS were qualified as estimated (J): perfluorooctane sulfonamide, perfluorodecanoic acid and 2-(n-methyl perfluorooctanesulfonamido) acetic acid in sample 4G-1 and 1h,1h,2h,2h-perfluorooctane sulfonate (6:2), n-ethyl-n-((heptadecafluorooctyl)sulphonyl) glycine, perfluorobutanesulfonic acid, perfluorobutyric acid, perfluorodecanoic acid, perfluoroheptane sulfonate, perfluoroheptanoic acid, perfluorohexanesulfonic acid, perfluorohexanoic acid, perfluorononanoic acid, perfluorooctanoic acid, perfluorooctane sulfonic acid and perfluoropentanoic acid in sample 11G-1 (reanalysis),

12. 1,4-Dioxone exceeded the calibration range in the original analysis for samples 11G-2, 4M-1, 14M-1 and BLIND DUP-B. Samples 14M-1 and BLIND DUP-B were reanalyzed at a secondary dilution and reported as estimated (DJ). Samples 11G-2 and 4M-1 were not reanalyzed based on insufficient sample amount, therefore the associated 1,4-dioxane samples were qualified as estimated value exceeding calibration range (EJ).

INORGANIC ANALYSES
METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method and calibration blanks		X	X		
B. Field blanks		X	X		
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X	X		
9. Post digestive spike sample %R		X		X	
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD		X		X	

%R - percent recovery %D - percent difference RPD - relative percent difference

Comments:
Performance was acceptable, with the following exceptions:

2A&B. Antimony, boron, cadmium, calcium, copper, iron, manganese, mercury, sodium, vanadium and zinc were detected in the field blank, initial blank and/or preparation blank. The following metals were qualified as non-detect (UB): boron in samples GM-3I and 9G-1; cadmium, zinc and mercury in all samples; copper in samples 4M-1, 9G-1 and 18G-2; manganese in sample 22M-1; and vanadium in samples 14M-1, BLIND DUPE-B, 22M-1, 18G-2 and GM-1D.

8. The %R was above the QC limit in the spike for aluminum. Aluminum was detection above the reporting limit and qualified as estimated (J) in sample 22M-1.

INORGANIC ANALYSES
GENERAL CHEMISTRY

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X	X		
2. Blanks					
A. Laboratory blanks		X	X		
B. Field blanks		X	X		
3. Initial calibration verification %R		X			
4. Continuing calibration verification %R		X			
5. CRDL standard %R		X			
6. Laboratory control sample %R		X			
7. Spike sample %R		X	X		
8. Duplicate RPD		X			
9. Field duplicates RPD		X		X	

%R percent recovery
RPD - relative percent difference
%D – percent difference
RSD - relative standard deviation

Comments:
Performance was acceptable, with the following exception:

1. The following were analyzed outside of holding times: hexavalent chromium associated with samples 4M-1, 18G-2, 14M-1, BLIND DUP-B, FIELD BLANK, and GM-3I and was qualified as an estimated detection limit (UJ) in associated samples.

2A&B. Ammonia, sulfate, TOC and phenolics were detected in the FIELD BLANK and/or method blank. The following general chemistry parameters were qualified as non-detect (UB): ammonia in samples 9G-1; sulfate in samples 11G-1, 11G-2, 9G-1 and 4M-1; TOC in samples 22M-1, GM-3I and 9G-1; and phenolics in samples GM-3I, 22M-1, 9G-1, GM-1D and 18G-2.

7. The %Rs were below the QC limit in the MS for alkalinity associated with samples 14M-1, BLIND DUPE-B, 22M-1, 18G-2, GM-3I, FIELD BLANK, 9G-1 and GM-1D; hexavalent chromium associated with samples 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1; COD associated with samples 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1; TKN associated with all samples; nitrate associated with samples 4M-1 and 4G-1; nitrite associated with samples 4M-1, 4G-1 and 18G-2; phenolics associated with samples FIELD BLANK, GM-3I, 22M-1, 9G-1, GM-1D, 18G-2, 4G-1 and 11G-2 and TOC associated with samples 11G-2, 11G-1, 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1 and were qualified as estimated (J/UJ) in associated samples.

   The %R was above the QC limit in the MS for alkalinity associated with samples 4M-1 and 4G-1 and qualified as estimated (J).

8. The RPDs were above the QC limits in the duplicate for TKN associated with samples 11G-2 and 11G-1 and nitrate associated with samples 4M-1 and 4G-1 and were qualified as estimated (J/UJ) in associated samples.

DATA VALIDATION AND QUALIFICATION SUMMARY

Laboratory Numbers:7063554

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs, PFAS & 1,4-Dioxane			
14M-1_DL, BLIND DUP-B_DL 11G-1, 4G-1, 9G-1, GM-3I, FILED BLANK and 18G-2	1,4-Dioxane	J/UJ	The holding time was outside of holding time
11G-1 and 11G-2	6:2 FTS	J	Detected in the method blank was reanalyzed outside the holding time, the samples reanalyzes were reported
GM-3I, 4M-1and 4G-1	Acetone	UB	Detected in the two of the TRIP BLANKs
GM-3I and 9G-1	Perfluorohexanesulfonic acid (PFHxS)	UB	Detected in the method and FIELD BLANK
22M-1, 11G-2, 11G-1, BLIND DUPE-B, GM-1D, 18G-2, 14M-1, 4M-1 and 4G-1.	1,4-Dioxonae	J	The %R was above the QC limit in the MS, MSD and LCS and was reanalyzed in samples GM-1D and 18G-2 due to %R and were outside of holding times, the original analyses were reported.
BLIND DUP-B	1,4-Dioxane	J	Surrogate was above the QC limit in the reanalysis which was reported
11G-2 (reanalysis), 4M-1, 14M-1 and BLIND DUP-B.	All PFAS	J/UJ	Internal standards areas and surrogates were outside QC limits

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs, PFAS & 1,4-Dioxane continued			
4G-1 and the samples reanalysis were reported	perfluorooctane sulfonamide, perfluorodecanoic acid and 2-(n-methyl perfluorooctanesulfonamido) acetic acid	J	Internal standards areas and surrogates were outside QC limits
11G-1 (reanalysis)	1h,1h,2h,2h-perfluorooctane sulfonate (6:2), n-ethyl-n-((heptadecafluorooctyl)sulphonyl) glycine, perfluorobutanesulfonic acid, perfluorobutyric acid, perfluorodecanoic acid, perfluoroheptane sulfonate, perfluoroheptanoic acid, perfluorohexanesulfonic acid, perfluorohexanoic acid, perfluorononanoic acid, perfluorooctanoic acid, perfluorooctane sulfonic acid and perfluoropentanoic acid		
14M-1 and BLIND DUP-B	1,4-Dioxone	DJ	Exceeded the calibration range in the original analysis, reanalyzed at a secondary dilution and reported from dilution
11G-2 and 4M-1	1,4-Dioxane	EJ	Exceeded the calibration range in the original analysis, not reanalyzed based on insufficient sample amount
Metals			
GM-3I and 9G-1	Boron	UB	Detected in the initial blank, preparation blank and/or field blank
All samples	Cadmium, zinc and mercury		
4M-1, 9G-1 and 18G-2	Copper		
22M-1	Manganese		
14M-1, BLIND DUPE-B, 22M-1, 18G-2 and GM-1D	Vanadium		
22M-1	Aluminum	J	The %R was above the QC limit in the spike

Sample ID	Analyte(s)	Qualifier	Reason(s)
General Chemistry			
4M-1, 18G-2, 14M-1, BLIND DUP-B, FIELD BLANK, and GM-3I	Hexavalent chromium	UJ	Analyzed outside of holding times
9G-1	Ammonia	UB	Detected in the FIELD BLANK and/or method blank
11G-1, 11G-2, 9G-1 and 4M-1	Sulfate		
22M-1, GM-3I and 9G-1	TOC		
GM-3I, 22M-1, 9G-1, GM-1D and 18G-2	Phenolics		
14M-1, BLIND DUPE-B, 22M-1, 18G-2, GM-3I, FIELD BLANK, 9G-1 and GM-1D	Alkalinity	J/UJ	The %Rs were below the QC limit in the MS
4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1	Hexavalent chromium		
4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1	COD		
All samples	TKN		
4M-1 and 4G-1	Nitrate;		
4M-1, 4G-1 and 18G-2	Nitrite		
FIELD BLANK, GM-3I, 22M-1, 9G-1, GM-1D, 18G-2, 4G-1 and 11G-2	Phenolics		
11G-2, 11G-1, 4M-1, 4G-1, 14M-1, BLIND DUPE-B and 22M-1	TOC		
4M-1 and 4G-1	Alkalinity	J	The %R was above the QC limit in the MS
11G-2 and 11G-1	TKN	J/UJ	The RPDs were above the QC limits in the duplicate
4M-1 and 4G-1	Nitrate		

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 11/8/2018
VALIDATION PERFORMED BY SIGNATURE:	